

99

86298

U M I
MICROFILMED 2000

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI[®]

**Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600**

WITTGENSTEIN AND THE GRAMMAR OF PHYSICS

**A Study of Ludwig Wittgenstein's 1929-1930
Manuscripts and the Roots of His Later Philosophy**

by

Anton Alterman

A dissertation submitted to the Graduate Faculty in
Philosophy in partial fulfillment of the requirements for
the degree of Doctor of Philosophy, The City University of
New York

2000

UMI Number: 9986298

**Copyright 2000 by
Alterman, Anton**

All rights reserved.

UMI[®]

UMI Microform 9986298

Copyright 2000 by Bell & Howell Information and Learning Company.

**All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.**

**Bell & Howell Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346**

© 2000

ANTON ALTERMAN

All Rights Reserved

This manuscript has been read and accepted for the Graduate Faculty in Philosophy in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

May 23, 1900
Date

5/23/00
Date

Wm. F. Earle
Chair of Examining Committee

Michael Dutt
Executive Officer

Arthur L. C. A.

Charles Landis
Arthur L. C. A.
Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

ABSTRACT

WITTGENSTEIN AND THE GRAMMAR OF PHYSICS

A Study of Ludwig Wittgenstein's 1929-1930

Manuscripts and the Roots of His Later Philosophy

by

Anton Alterman

Advisor: Arthur Collins

In 1929 Wittgenstein began to work on the first philosophical manuscripts he had kept since completing the *Tractatus Logico-Philosophicus* (TLP) in 1918. The impetus for this was his conviction that the logic of the TLP was flawed: it was unable to account for the fact that a proposition that assigns a single value on a continuum to a simple object thereby excludes all assignments of different values to the object (the "color exclusion" problem). Consequently Wittgenstein's "atomic propositions" could not be logically independent of one another.

Initially he thought he could replace the "logically perfect language" of the TLP with a "phenomenological language" in which experiential propositions about various "spaces" (e.g., "visual space") would form systems. The system described by a phenomenological language would be independent of the one described by ordinary "physicalistic"

language; the physical "world" was known only by inference from the phenomenological. But he soon realized there was a fundamental error in this conception: phenomenology has to describe the same world as physics or it fails to provide a foundation for it. This suggests that there is only one world, and one language with two different modes of expression. Wittgenstein's now comes to his fundamental insight: *ordinary language is biased towards the description of physical objects and their relations, but it is our only method of expressing phenomenological or abstract concepts.* Failure to recognize this difficulty leads to the misapplication of physicalistic concepts, i.e., to grammatical errors.

This insight had the following impact: (a) the task of philosophy is not to invent logical or phenomenological languages, but to understand the grammar of ordinary language; (b) the notion of a language of pure experience was itself connected with a false, physicalistic idea of the soul as an observer of a private world; (c) the conception of analysis that had guided philosophy since Frege was based on a misused metaphor taken from the grammar of physics: the analysis of an object into its parts or chemical constituents. These ideas reach their ultimate expression in Wittgenstein's *Philosophical Investigations*. Thus his "later" work actually begins with these 1929-30 manuscripts.

PREFACE

In 1929 Wittgenstein began to work on the first philosophical manuscripts he had kept since completing the *Tractatus Logico-Philosophicus* (*TLP*) in 1918. The impetus for this was a growing conviction that something was amiss with the logic of the *TLP*. After discussions with Frank Ramsey and others he became convinced that not all necessary truths could be expressed as tautologies: for example, the proposition that two colors cannot occupy the same spot at the same time had to be a tautology if the *TLP* was correct, but it was clearly a proposition of experience, which are distinguished from logical truths in the *TLP*. This is now known as the "color exclusion problem". Considering the implications of this, Wittgenstein realized that in everyday experience we constantly meet with assignments of value on a continuum (e.g., the color spectrum or the real number series). Consequently, one could not assume that simple propositions were always, or perhaps even typically, "logically independent" of one another, as he had supposed. They must come in systems, with some propositions in a system entailing others.

When Wittgenstein began his new manuscripts he thought he could replace the "logically perfect language" of the *TLP* with something on the order of a "phenomenological language", which would be roughly a language that would show the necessary relations within systems of propositions about

various sensory or experiential "spaces", such as "visual space". The problem had always been that the grammar of ordinary language is misleading as to the logical form of the thoughts expressed. The systems described by a phenomenological language would provide a kind of epistemological foundation for ordinary language propositions about the physical world, which (he thought) were known or given sense only through their connection with phenomenological propositions.

The outcome of this project, and its implications for Wittgenstein's later philosophy, are the main subject of this essay. Wittgenstein says at the beginning of the *Philosophical Remarks*, which was drawn from his first four 1929-30 manuscripts, "I no longer have a phenomenological language, or 'primary language' as I called it, in mind". Some have concluded that his entire earlier work, including the *TLP*, was based on the phenomenological program; but from what has been said above it should be clear that that interpretation is rejected here. Others have concluded that from 1929 on Wittgenstein remained a phenomenalist throughout his career, counting only phenomenological truths as knowable. Some have suggested that towards the end of 1929 he replaced his phenomenological language with a physicalistic one. Jaakko and Merrill B. Hintikka, in particular, have defended all three of the above ideas, and others, such as John W. Cook, have held some version of more

than one of them. Yet none, on the view defended here, have fully understood the nature of the insights that led Wittgenstein away from the phenomenological language project and into his later philosophy.

On my view, Wittgenstein was struck within a year by a series of compelling insights that caused him to abandon his phenomenological language project and revolutionized his philosophy. First of all, phenomenology has to describe the same world as a ordinary "physicalistic" language (which Wittgenstein simply calls "physics") or it cannot provide any grounding for propositions about the physical world. Second, a language of immediate experience is a contradiction in terms: a *language* is a representation in ordinary space and time and cannot convey the immediacy of experience. Thus ordinary language is the only language that is available in philosophy, as anywhere else. From this critique of the phenomenological language project emerges the fundamental insight that leads Wittgenstein to his later philosophy: *ordinary language is biased towards the description of physical objects and their relations, but it is our only method of expressing phenomenological, abstract or mental concepts*. Failure to recognize this difficulty leads to the misapplication of physicalistic concepts, i.e., to grammatical errors. As he puts it himself, "all our forms of speech are derived from normal physical language and are not used in epistemology or phenomenology without casting a

distorting light on the object." This is found in his manuscripts in October 1929 and is the pivotal point of transition from a failed phenomenological program to the rich flow of ideas we find in his later work.

This insight had the following impact: (a) the task of philosophy is not to invent logical or phenomenological languages, but to understand the grammar of ordinary language; (b) the notion of a language of pure experience was itself connected with a false, physicalistic idea of the soul as an observer of a private world; (c) the conception of analysis that had guided philosophy since Frege was based on a misused metaphor taken from the grammar of physics: the analysis of an object into its parts or chemical constituents. These ideas reach their ultimate expression in Wittgenstein's *Philosophical Investigations*. Thus his "later" work actually begins with the critique of the phenomenological language program in these 1929-30 manuscripts.

The present work is the first in-depth study of Wittgenstein's manuscripts based on the transcription of them published as the *Wiener Ausgabe* (Vienna Edition). This, I believe, has worked in my favor in comparison with previous studies, permitting me to constantly compare passages from any part of the manuscript with any other, without having to resort to manipulating microfilm or

working from xeroxes of selected pages written in Wittgenstein's difficult script. In addition, some passages of a personal nature which reveal Wittgenstein's state of mind at critical junctures were blocked out in the microfilm; they are printed however, in the *Wiener Ausgabe*, with Wittgenstein's coded remarks decrypted. If I have made any advance on the work of previous authors who have dealt with this material some of it may be attributable to the advantage of having the *Wiener Ausgabe* available.

In connection with the manuscripts it is necessary to acknowledge the importance of the work of the Hintikkas in their book *Investigating Wittgenstein* in the formation of my own interpretation. The Hintikkas were the first to look at the manuscripts and identify the philosophical crisis that Wittgenstein went through in October 1929; to see that as a result his philosophy was fundamentally altered; to ascribe this result to his recognition that the notion of a "phenomenological language" was incoherent; and to suggest that he then came to realize the importance of physicalistic language. In all these respects I have followed their lead. If in other respects I direct a good deal of criticism at their interpretation this must be understood in light of the fact that their pathbreaking work helped sail my boat.

I must also acknowledge another intellectual debt, though it comes in a much more roundabout way. In his book *Wittgenstein's Metaphysics* John W. Cook offers what I

consider to be a badly mistaken interpretation of Wittgenstein, i.e., that he was a lifelong phenomenalist (or what Cook refers to as a "neutral monist"). Nevertheless, in trying to defend this interpretation (against all odds, I should say) Cook strongly emphasizes the error of thinking that Wittgenstein believed that the superficial form of ordinary "physicalistic" language is a good guide to meaning. Though Cook in effect turns this insight on its head by trying to demonstrate that Wittgenstein thought the language of physical objects really refers to phenomena, my conclusions about the direction of Wittgenstein's philosophy stem partly from attempting to set the basic insight back on its feet in a way that did not have Wittgenstein believing in a ghostly world of phantom objects.

ACKNOWLEDGEMENTS

In the five years it has taken me to complete this work I have not been otherwise idle; a position as a computer systems analyst and programmer at the New York City Human Resources Administration has kept me busy as well as more or less solvent throughout the course of my studies. In this connection I must acknowledge a generous debt of gratitude to my supervisor, Bob Pajvani, without whose constant patience and flexibility I could not have finished this project. A couple of years into my work my wife Mary Van Vliet gave birth to our first child, Harris Van Alterman. To Mary I owe thanks for of untold hours of entertaining a toddler while I labored away on Wittgenstein, as well as for innumerable less obvious expressions of support. To Harris, of course, I owe thanks for the joy that only a child can bring.

Before I had even begun to attend courses at the Graduate Center I met Prof. Marx W. Wartofsky, mainly through a mutual interest in aesthetics. Over the years he became not only a mentor but a friend. The original conception of my thesis as a work on Wittgenstein and William James was in part an attempt to weave together my interest in Wittgenstein and Wartofsky's interest in pragmatism. Sadly, Marx passed away suddenly before even a single chapter of my thesis was completed. It would be fair to say that his stamp is all over my thinking, and therefore

no doubt finds its reflection in this work too. But even if that were not the case, I owe him immeasurable gratitude for intellectual stimulation and encouragement.

If the ideas in this work have found adequate expression it is largely due to the careful guidance and patient criticism of my advisor, Arthur Collins. Through his courses I became interested in making a serious study of Wittgenstein. One could not have asked for a more perceptive reader or a more responsive partner in discussion. Charles Landesman and Richard Mendelsohn, members of my committee, have provided essential feedback which has at least helped eliminate some of my worst errors; any that remain must be attributed to me alone. I am happy to say that the list of other individuals at the Graduate Center and elsewhere who have encouraged me during my studies is too long to mention.

David Stern, eminent Wittgenstein scholar, has frequently been helpful in responding to my inquiries and has even shared with me unpublished research documents. His generosity is greatly appreciated. I have had the good fortune over the years to have had stimulating interchanges on Wittgenstein with other noted scholars, including Juliet Floyd, Jaakko Hintikka, C.G. Luckhardt, David F. Pears, and Eddy Zemach. I appreciate their indulgence and hope that my work demonstrates in some way that I have learned something from them. Arnulf Zweig, noted translator of Kant's letters, generously offered to assist me with some difficult

translation issues, resulting in numerous improvements; of course any remaining errors in the translations are my sole responsibility. Additional assistance in this area was provided by Arthur Collins and Marx Wartofsky.

It was solely through the persistent efforts of Ofelia Rabassa of the Mina Rees Library at the Graduate Center that the large and expensive volumes of the *Wiener Ausgabe* became available to me. Without her assistance it would certainly not have been possible to write the thesis in its present form. To Mark Padnos and other members of the Interlibrary Loan staff I offer thanks for tireless pursuit of obscure books and articles on Wittgenstein over the course of many years. I would also like to thank the rest of the library staff over the years for their assistance.

Finally, I wish to extend a general note of thanks to the administration of the Philosophy Department and the C.U.N.Y. Graduate Center for several tuition scholarships and a dissertation year fellowship, all of which made a significant difference in my ability to cope with the financial demands of pursuing my studies.

CONTENTS

A Note on Stylistic Matters	xvii
List of Abbreviations and Reference Styles for Wittgenstein's Works	xx
INTRODUCTION: THE GRAMMAR OF PHYSICS	1
1.1 General Remarks	1
1.2 The Hintikkas' Thesis	4
1.3 An Overview of Wittgenstein's New Perspective	8
1.4 Advantages of the Present Reading	20
1.5 Rule-Following, Intensionality, and the Infinite	24
1.6 Anticipations of the Present Perspective	30
1.7 Are Wittgenstein's Views Sound?	36
1.8 Caveats	38
SPACE AND THE GRAMMAR OF PHYSICS	46
2.1 From Color Exclusion to the Grammar of Physics	46
2.2 "Visual Space and Other Things"	48
2.3 Visual Space in the Early Work	51
2.4 The Logical Independence of Spaces	55
2.5 Space and Grammar	61
2.6 The Varieties of Space	67
2.7 Objects and Spaces	68
2.8 Visual Space and Grammatical Confusion	78
2.9 Space: Not the Final Frontier	84
THE RISE AND FALL OF THE	
PHENOMENOLOGICAL LANGUAGE PROJECT (I)	95
3.1 Genesis of the Phenomenological Project	95
3.2 Initial Ideas about Grammar, Physics and Phenomenology	103
3.3 Phenomenology Defined	107
3.4 Phenomenology, Sense-Data and the Two Worlds	109
3.5 A Few Remarks on Sense-Data	121
3.6 Wittgenstein's Original Conception of Hypotheses	123
3.7 The Chimera of a Phenomenological Language	125
3.8 First Intellectual Crisis and Critique of Dualism	127
3.9 The Physicalistic Mode of Expression	151
3.10 Conclusion	161
THE RISE AND FALL OF THE PHENOMENOLOGICAL LANGUAGE PROJECT (II): PATHS TO THE PHILOSOPHICAL INVESTIGATIONS	177

4.1	Wittgenstein Reconsiders	177
4.2	Crisis and Insight	186
4.3	Digression: A Path to the Private Language Argument	194
4.4	The Demise of Phenomenological Language (Continued)	202
4.5	Wittgenstein's Alleged Ambivalences	207
4.6	Ideal Languages and the Varieties of Representation	213
4.7	Other Transformations of Wittgenstein's Philosophy	223
4.8	Sense-Data Rejected	224
4.9	The Confirmation of Hypotheses	230
4.10	Conclusion	237
THE CRITIQUE OF LOGICAL ATOMISM:		
	ANALYSIS AND THE METHOD OF PHYSICS	247
5.1	Logic and Physics	247
5.2	The Sense of Wittgenstein's Critique of "Physics"	254
5.3	The Physics of Analysis	270
5.4	The <i>Mechanics</i> of the <i>Tractatus</i>	282
5.5	Theories and Things	292
5.6	Conclusion	299
CONCLUSION: WITTGENSTEIN AND PHILOSOPHY		310
6.1	Wittgenstein's Insight	310
6.2	Is Ordinary Language Defective?	313
6.3	Whither Phenomenology?	319
6.4	Wittgenstein and Philosophy	326
6.5	Was Wittgenstein Right?	336
APPENDIX I: WITGENSTEIN ON SUBJECT-PREDICATE FORM		355
APPENDIX II: ORGANIZATION OF THE PHILOSOPHICAL REMARKS		365
APPENDIX III: PHASES OF WITTGENSTEIN'S PHENOMENOLOGICAL LANGUAGE PROJECT		373
BIBLIOGRAPHY		375

A Note on Stylistic Matters

I. Translations

There are many citations from Wittgenstein's work in the following text. Most are from published works that have been translated into English; but many, especially in Chapters 3 and 4, are from manuscripts that have been published only in German editions, and a few are taken directly from microfilm copies of manuscripts and typescripts. I am primarily responsible for the translations of all passages that were not previously translated. In the case of previously translated works, I have in almost every case except the *TLP*, altered the published translation. There are several reasons for this: (1) the published translations are meant for wider audiences and are therefore less literal than scholarship often demands; (2) the published translations are sometimes plainly inaccurate; (3) the published translations are not consistent from one work to the next; and (4) sometimes an alternative translation is equally accurate with the published one but makes it easier to make a philosophical point, e.g., when the alternative retains a root syllable that is present elsewhere in the passage with different prefixes or suffixes.

In retranslating sometimes well-known passages from any work one leaves oneself open to the criticism that the translation has been tendentiously altered in a way that creates illegitimate support for one's position. I hope that

there are no such cases here; in any case, with the exception of the *Wiener Ausgabe* edition of the manuscripts, which is available only in a few libraries, the original German texts are in most cases fairly widely available, so those who have the ability to do so can decide for themselves whether there has been any foul play. I have tried as often as possible to provide the original German word in parentheses wherever I felt there might be a legitimate dispute over the English substitute.

I am not a German scholar, nor even especially fluent in German. I have usually referred to existing translations for the basic syntax of the most complex sentences, where such a translation was available. Most of all, though, I have depended heavily on the *Harper-Collins German Dictionary* (Standard Edition) (London and New York: Collins, Harper & Row, 1980). Without the extraordinary attention to contextual details provided with the translation of almost every word in this dictionary, I would not have been able to make the scholarly decisions that were often required by the text. It was an indispensable tool.

II. Notation

There are very few special notations in this text. If a quoted remark from Wittgenstein's text ends and the next remark I cite comes after one or more remarks that I have left out, after the first remark I insert a backslash followed by an ellipsis (/...) which should be read: "End of

this remark; one or more remarks following this one are left out." My editorial insertions into a quoted passage are enclosed in square brackets: [...text...]. Any other parentheses are in the original text. I never italicize words in citations which are not italicized or emphasized in the original. I believe that this popular editorial device forces the reader to read a passage in a way it was not intended to be read.

III. References

References to Wittgenstein's works are included in the text; all others are in footnotes. References to the *Wiener Ausgabe* edition of Wittgenstein's manuscripts are given as "WA" followed by the volume, page, and remark number. These must be distinguished from references to Wittgenstein's manuscript volumes themselves: when reference is made in the text to "*Band I*" or any other volume in Wittgenstein's manuscript series this is to be understood as a reference to the name of the manuscript, not to the *Wiener Ausgabe* volume in which it is transcribed. In general there are two manuscript volumes to each *Wiener Ausgabe* volume; thus *Band I* - *Band II* are in WA I, etc. Wittgenstein's works are usually referred to by abbreviations, a list of which follows.

List of Abbreviations and Reference Styles for Wittgenstein's Works

ABBREV.	TITLE	REFERENCE STYLE
BlB	Blue Book	Page # in BlB & BrB
BrB	Brown Book	Page # in BlB & BrB
CE	"Cause and Effect: Intuitive Awareness"	Page # in PO
LCA	Lectures and Conversations on Aesthetics, Psychology...	Page #
LRKM	Letters to Russell, Keynes and Moore	(Date), Page #
LSDPE	"The Language of Sense Data and Private Experience"	Page # in PO
NB	Notebooks 1914-1916	(Date), Page #
NL	"Notes on Logic" (1913)	Page # in NB
NLPESD	"Notes for Lectures On Priv. Experience and Sense Data"	Page # in PO
NPL	"Notes for the Philosophical Lecture"	Page # in PO
OC	On Certainty	Page # in PO
PG	Philosophical Grammar (Parts I and II)	Remark #
PI	Philosophical Investigations (Appendices)	Chapter, Section, Page
		Part, Apdx #, Page
	Philosophical Investigations (Part I)	Remark #
	(Part II)	"II", Section, Page
PO	Philosophical Occasions	Page #
PR	Philosophical Remarks	Chapter, Section, Page
RFM	Remarks on the Foundations of Mathematics (2nd Edition)	Part, Remark #, Page
RPP	Remarks on the Philosophy of Psychology (Vols. I & II)	Volume, Remark #
SRLF	"Some Remarks on Logical Form"	Page # in PO
TLP	Tractatus Logico-Philosophicus	Remark #
WA	Wiener Ausgabe edition of Wittgenstein's Nachlass	Volume, Page, Paragraph
WK	Wittgenstein und der Wiener Kreis	(Date), Page #
WL30	Wittgenstein's Lectures: Cambridge, 1930-32	Page #
WL32	Wittgenstein's Lectures: Cambridge, 1932-35	Page #

xx

Notes on the Abbreviations

In the above list, where "Date" is given in parentheses the date is stated in the text only when where it is relevant to the point that is being addressed; otherwise only the page number is given.

O.K. Bouwsma's *Wittgenstein: Conversations 1949-1951* and G.E. Moore's "Wittgenstein's Lectures in 1930-33" (which is referenced by page # in *PO*) are referred to as works by their respective authors, as they are only in part intended as transcriptions of Wittgenstein's own words.

I have used only the German (Suhrkamp) edition of *Wittgenstein und der Wiener Kreis (WK)*. All page reference to *WK* are from this edition and all translations from it are my own.

HYLAS: Explain to me now, Philonous, how it is possible there should be room for all those trees and houses to exist in your mind. Can extended things be contained in that which is unextended?...

PHILONOUS: Look you, Hylas, when I speak of objects as existing in the mind or imprinted on the senses, I would not be understood in the gross literal sense, as when bodies are said to exist in a place, or a seal to make an impression upon wax. My meaning is only that the mind comprehends or perceives them; and that it is affected from without, or by some being distinct from itself. This is my explication of your difficulty...

HYLAS: Well, if that be all, I confess I do not see what use can be made of it. But are you not guilty of some abuse of language in this?

PHILONOUS: None at all: it is no more than common custom, which you know is the rule of language, has authorized: nothing being more usual, than for philosophers to speak of the immediate objects of the understanding as things existing in the mind. Nor is there anything in this, but what is conformable to the general analogy of language; most of the mental operations being signified by words borrowed from sensible things; as is plain in the terms *comprehend*, *reflect*, *discourse*, etc. which being applied to the mind, must not be taken in their gross original sense.

- George Berkeley, *Three Dialogues between Hylas and Philonous in Opposition to Sceptics and Atheists*

We need new concepts and we continually resort to those of physicalistic language.

- Ludwig Wittgenstein, *Philosophical Remarks*

CHAPTER 1

INTRODUCTION: THE GRAMMAR OF PHYSICS

=====
"All our forms of speech are taken from normal physicalistic language and cannot be used in epistemology or phenomenology without casting a distorting light on their objects.

The very manner of speaking 'I perceive x' is already taken from the physicalistic mode of expression, and x should be a physical object - e.g., a body - here." (*Philosophical Remarks* VI,57,88)

"Perhaps the main reason why we are so strongly inclined to talk of the head as the locality of our thoughts is this: the existence of the words 'thinking' and 'thought' alongside of the words denoting (bodily) activities, such as writing, speaking, etc., makes us look for an activity, different from these but analogous to them, corresponding to the word 'thinking'". (*The Blue Book*, p.7)
=====

1.1 General Remarks

Ludwig Wittgenstein retired from his position as Professor of Philosophy at Cambridge University in 1947. Not too long afterwards his chair was given to John Wisdom, another Cambridge philosopher. Wisdom had as much opportunity as anyone to encounter Wittgenstein's philosophy first-hand: he heard Wittgenstein lecture in the mid-1930's, often spoke with him personally, and heard him deliver impassioned defenses of his views at the Cambridge Moral Science Club. He also developed his own brand of philosophy based largely on Wittgenstein's later teachings. It is fair to say he was an exceptionally well-informed and sympathetic exponent of Wittgenstein's views. Upon the death of his colleague and mentor in 1951 Wisdom wrote a brief note on Wittgenstein for the journal *Mind*. In it he discusses the

statement, which he attributes to Wittgenstein, that "we have the idea that the meaning of a word is an object." He also mentions other "models suggested in our language" that Wittgenstein derided: "the idea that the soul is a little man within, the model for our minds of the closed picture gallery, the model for causation of the wire connection."¹ What ties these models together is that concepts we would usually take to be metaphysical or conceptual - meanings, the mind or soul, and causation - are described in terms of the spatial or mechanical "pictures" we have of the world of physical objects. Apparently, one of the things that impressed Wisdom most about Wittgenstein was his insistence on discovering and challenging these physicalistic models we use to talk about mental or abstract things².

On the interpretation of Wittgenstein to be presented here, the simple examples Wisdom selected provide more than a little insight into the later thought of a philosopher whose work has often been considered to be difficult and obscure. Indeed, if this reading is correct, they constitute a kind of axis around which much of his later work revolves. Our use of physicalistic metaphors is not always confusing or philosophically interesting. But to offer up the mind as a kind of sealed box full of private objects, or the infinite as an unimaginably large collection of things, or meanings as persistent entities that simply lack the quality of substance, and to then generalize and make inferences from these models, is to indulge in a way of speaking that ends in philosophical paradoxes and metaphysical

difficulties. That, in my view, is the insight that drives much of what Wittgenstein tried to say in his later work. It is not hard to show that it is at least the point from which he took off, and to which he often returned. But I will endeavor to demonstrate that it is more than this: that his effort to expose the insertion of models and metaphors derived from our everyday interaction with the physical world into our abstract conceptions, be they mathematical, logical, phenomenological, theoretical, mental, or metaphysical, runs through his later work like a single unifying thread woven through an entire garment.

In the present work my aim is to document the road by which Wittgenstein arrived at this conception, and to show that it explains much that remains otherwise obscure, ambiguous, or disconnected in his later work. We will see that in his first writings after his return to philosophy in 1929, Wittgenstein was led along various paths of investigation which all converged around the idea that philosophical misconceptions are generated when we adhere to physicalistic models in contexts where these models are misleading. He begins by distinguishing what he calls "visual space", and other phenomenological spaces, from the "space" of physics and physicalistic concepts. The distinction is reinforced by a variety of criticisms and self-criticisms pursued in his work after 1929. He criticizes Frege's idea of bringing all grammatical substantives under the title "objects". He rejects extensional theories of infinity, which compare the latter

with classes of objects, and his own earlier extensional theory of generality. He rebukes himself and Russell for having taken up a conception of logical analysis that follows from the analysis of physical substances ("atomism"). Somewhat later on, he rejects "sense-data" as an error of talking about the look of objects as if looks were objects themselves, and he tirelessly attacks the idea that meanings or mental phenomena bear a physical, or causal, relationship to the world. All of these critiques figure in the development of the idea that philosophical problems arise from imposing physicalistic patterns of thought on abstract concepts. This is then developed into a general philosophical position which culminates in the *Philosophical Investigations (PI)*, the most important work of Wittgenstein's later period.

1.2 The Hintikkas' Thesis

Many years after Wisdom's articles, Jaakko and Merrill B. Hintikka wrote of Wittgenstein's new direction in 1929 that "he had changed his standpoint so as to make a physicalistic language and physical objects primary in relation to a phenomenological language and phenomenological objects."³ This, and the Hintikkas' defense of this idea throughout their book, shows that Wisdom's insight was not completely lost on future generations of Wittgenstein scholars. Wittgenstein did, in a sense, recognize the centrality of our concepts of the physical world and the language we use to talk about it. The Hintikkas must be credited with being the first to take a close look at

Wittgenstein's 1929 manuscripts and offer a credible account of the transition in his philosophy based on these. They say, for example:

From Wittgenstein's notes it is seen that it is his investigation of perceptual space and of its relation to physical space that gradually forced him to focus his attention to [sic] the contrast between phenomenological and physical languages. In the course of this investigation he finds more and more differences between the two kinds of space.⁴

This is an accurate, if partial, picture of the direction of Wittgenstein's philosophy, and much of what we have to say here could be construed as taking this observation and demonstrating that it was ramified into nearly every area of his later work.

But the Hintikkas' approach is also more problematic than Wisdom's simple observation, for several reasons. Much of what Wittgenstein wrote in 1929 was motivated by a desire to solve a problem, originally pointed out by Frank Ramsey in his "Critical Notice" of Wittgenstein's *Tractatus Logico-Philosophicus* (TLP), which has become known as the "color exclusion problem". The problem was that the logic of the TLP could not account for all the necessary truths about our experience of the world, such as the fact that two colors cannot be in the same place at once; i.e., it could not provide a phenomenology, or more generally, account for inference relations among "elementary" propositions. Wittgenstein's initial reaction in 1929 was to try to develop the grammatical basis for a "phenomenological language". The project was referred to, if somewhat obliquely, in the 1929 article "Some Remarks on Logical

Form" (*SRLF*); but for all practical purposes it was abandoned within a year. The second remark in his 1930 typescript, which has been published as the *Philosophical Remarks* (*PR*), reads: "A phenomenological language or 'primary language', as I called it, I do not now have in mind as a goal" (*PR* I,1,51; *WA* II,118,6).

The editors of Wittgenstein's posthumously published works have generally agreed that the phenomenological project originated in the 1929 manuscripts, and this has remained the standard interpretation⁵. But the Hintikkas refused to accept that the need for such a language was driven by, and therefore postdated, his recognition of the color exclusion problem, and tried to show instead that the phenomenology that was rejected was that of the *TLP* itself. This cannot be right for many reasons, the simplest of which is that what Wittgenstein says about color exclusion in the *TLP* rules out the possibility that simple color attributions are elementary propositions, and with it the possibility that the building blocks of Tractarian facts are phenomenological⁶. Just as seriously, they missed the tone and much of the content of Wittgenstein's references to physicalistic language. He was not "changing his basis language from a phenomenological language to a physicalistic one"⁷; he simply began to recognize the pull of physicalistic thinking on the rest of our concepts⁸. He did not try to establish a physicalistic mode of speech as "primary", as the Hintikkas believe. Wittgenstein's

transition from 1929 on is the result of an insight, not a program.

Nor did he take the physical character of language itself - a theme that plays a very minor role in his post-1929 work - as a ground for his new conception of the relationship between language and the objects of the world. The Hintikkas extrapolate from some remarks Wittgenstein made about verification and suggest that he thought we must directly compare propositions with the physical world. They think he was concerned that it was impossible to do this with phenomenological propositions, and on this basis they say that "the requirement of direct comparability leads Wittgenstein to the thesis that only a physicalistic language is possible"⁹. They then draw the conclusion, on Wittgenstein's behalf, that "if language itself belongs to the realm of physical objects, its sentences can be compared in the intended strong sense only with what is physical"¹⁰. This idea, which seems to be based on little more than a category mistake about "comparing", they extend to matters which goes to the heart of the *PI*, e.g., the relationship between names and objects: "his switch from a phenomenological language to a physicalistic one made it impossible for him to define all his irreducible objects ostensively"¹¹. He eventually got over this hump, they think, by appealing to definition by means of a rule¹².

On our account it seems that the deeper the Hintikkas get into the nature of Wittgenstein's transition the more they recede from their own initial insight. It was

fundamentally a recognition of the difference between the grammar of physics and phenomenology that drove much of Wittgenstein's development. It is unlikely that he would have overlooked the difference between the character of language as a physical medium of communication and as the symbolic form of propositions, as the Hintikkas' thesis would more or less require him to have done. Wittgenstein showed that we are often misled by superficial grammatical similarities, most often by the similarity between the terms in which we describe the physical world and those we use to describe other things which may be called abstract, logical, or conceptual, including language. He thought that our tendency to be misled had much to do with our conceptualizing things like mathematics, logic, the mind, language, or the appearances of things, in physicalistic terms. What we say about physical things often presupposes concepts which pertain only to physical objects: their positions and movements in space; their persistence and reidentification through time and qualitative change; their causal interaction with other physical things; and the possibility of empirically verifying propositions about them. According to Wittgenstein, the more we bring ideas like these into our analysis of more abstract conceptions, the more we are likely to end up with philosophical confusions rather than solutions.

1.3 An Overview of Wittgenstein's New Perspective

We can illustrate Wittgenstein's new view by taking as an example the way he applied it to one of the foundations

of analytic philosophy. For the purposes of exposition we will mainly be summarizing rather than quoting views that are found in many places in his 1929 manuscripts; in later chapters we will see much of this expressed in Wittgenstein's own words. Every high school student knows that any noun, including names for both concrete and abstract things, can appear in the subject position of a sentence. For practical purposes, there is nothing particularly confusing about this. How then might it lead to confusion in philosophy? Suppose we decide to call any term that falls in this position an "object", to which some predicate (or "concept") is applied in the rest of the sentence or clause. Now, there is already something a little puzzling about this; we know the use of the word "object" from ordinary applications to chairs and apples and other physical entities, and we don't typically use it for whatever is denoted by words like "red", "beauty", or "thinking", for example - all of which can be grammatical subjects. But let us avoid getting entangled in this problem right now, for what it leads to is really the whole of Wittgenstein's later philosophy. Let's say, for the time being, that designating a certain syntactical position as the position of an "object" is a mere convention; if we understand the convention we should be able to avoid being misled.

But suppose someone goes a step further, and proposes that all assertoric propositions are reducible to sentences of this "concept-object" form. Now we have a second,

potentially deeper, level of confusion: we receive the impression that this "reduction" gets at the real nature of such propositions, that the "concept-object" form, which has after all been derived from the superficial subject-predicate form, gives us the ultimate logical analysis of the sentence. According to Wittgenstein, "these forms are the norms of our particular language into which we project in *ever so many different ways ever so many different* logical forms" (SRLF 30-1). How then can this provide us with an analysis? Here we invite confusions born of failing to make fine enough distinctions between the real forms of sentences. "This stone is hard" and "Sue is thinking" look like they have a common form in that a predicate is "applied" to a subject, or an object "falls under" a concept. But if we look a little closer we can see that the senses of "applied" or "falling under" are not at all the same: "thinking" is not a property of Sue in the same sense that hardness is a property of the stone.

But this is still not the end of the story, or the muddle. For now, having purportedly discovered the logical form of all such sentences, one may go on to develop a theory of quantification which tells us what is actually being asserted in using such sentences. The logical form of a sentence like, "A red circle is in my visual field" will then be properly rendered as, "There is *something* that is a red circle and *it* is in my visual field". The former sentence can be used without ontological commitments, e.g., to *red circular objects* of one kind or another; and so long

as we understand the sentence to mean only that a certain symbol is present to consciousness we might be inclined to leave things just that way. But the "analyzed" form gives a much stronger impression that the visual image is a "something" in the sense that a circle made of a bit of red paint on a piece of paper is a "something", and we might therefore expect it to obey the grammatical rules that such objects usually do¹³. Aside from having properties described by Euclidean geometry it will have those of any other physical thing: we will say, for example, that the visual object can be created and destroyed, and in this case we might go further and propose an "act of mind" as a "cause" of its existence or nonexistence. It must be able to retain its identity while being moved about; here we will be inclined to suggest that we "point" to it with our mind. With these conceptions we have abandoned our ontological neutrality and brought the object of consciousness under the grammar of physics. As Wittgenstein might have put it in his later work, we are using the rules of a type of language game that pertains to physical objects to describe the subject matter of another game altogether. In this way one ends up asking meaningless questions and getting nonsensical answers. This is a third level of confusion, and one that grips us with the power of a fully developed philosophical theory.

The problem we have gotten into may be described by an analogy with board games; Wittgenstein often used such analogies in his later work. Imagine we were intent on

playing chess but had only a scrabble set. We might designate the Z as king, the Q as queen, the K's as knights, etc., and set them up in positions more or less like the ones they would be in on a chess board. This would be like trying to play a language game with mental objects but using the rules appropriate to the language game of physics. What if a dispute arose as to where the king should go when someone castles? We could there and then decide on any arbitrary rule, and create a brand new game; but suppose someone insisted that the debate had to be settled by the rules of chess? At that point we would have to say the dispute was nonsense, just as if someone said they had a mental image of a red circle and we insisted that they measure its diameter with a mental ruler.

One of the things we can see from our first example is that language itself is one of the main reasons for the kind of confusions we are talking about. The subject-predicate form is adequate in practice for the representation of many different types of thoughts; but it makes them look very much the same. This is true even if we ignore complications like the different uses of the verb "to be" (the "is" of predication, identity, etc.). According to Wittgenstein, if we use this form as a model for analysis we are courting danger, because we then have difficulty extracting ourselves from the quagmire of submerged differences in logical form. Although neither Russell, nor Frege, nor Wittgenstein in his early work were under the impression that every assertoric sentence is as it stands a subject-predicate sentence, they

did think that if you could express a sentence as a concatenation of simple sentences of this form, or the relational form, and you had a determinate meaning for each part of each sentence, you were through with your analysis. This is what Wittgenstein now questions. (See Appendix I for a discussion and translation of Wittgenstein's remarks on subject-predicate form.)

Let's consider another example. Take the two sentences, "A mind is a heap or collection of perceptions"¹⁴ and "The medulla oblongata is a wondrous and beautiful object"¹⁵. They appear to have similar grammatical forms; roughly, a subject with a split predicate. Yet it would make complete nonsense to substitute the subject of one for the other. This suggests that there are significant logical differences between these assertions. Now, no one, hopefully, would be so dull as to justify a philosophical theory - for instance, a materialist theory of consciousness - solely on the fact that "the mind" and "the medulla oblongata" can both be grammatical subjects. It would take many more premises and arguments before one was willing to say, e.g., "The belief that dogs bark is just a particular physical state of the brain", or some such thing. Nevertheless, in Wittgenstein's view, if materialism is indeed a mistake, the best method of discovering where it went wrong is to describe the actual grammatical forms of meaningful propositions about mental phenomena and contrast them with the superficial grammatical forms that we adopt when speaking from our experience of the physical world. This procedure, which he tirelessly pursues

in the *PI* and all of the works leading up to it, reveals both the actual grammar of our concepts, as in the first quote at the head of this chapter, and the grammatical errors that result from leaning on superficial forms, like the one described in the second quote.

A very clear example of this perspective is found in notes taken from a lecture Wittgenstein gave in 1930, only about a year after he began working out his new philosophy. The example is especially useful because the lectures were given in English. He is expounding the idea that "thought is a symbolic process" rather than a physiological one. In this context he says:

It may involve images and these we think of as being "in the mind". This simile of "inside" or "outside" the mind is pernicious. It is derived from "in the head" when we think of ourselves as looking out from our heads and of thinking as something going on "in our head". But we then forget the picture and go on using language derived from it. Similarly man's spirit was pictured as his breath, then the picture was forgotten, but the language derived from it retained. We can only safely use such language if we consciously remember the picture when we use it. (*WL30* 25)

The remarks about mental images are almost certainly directed at Russell, who based an entire theory of mind on mental images in *The Analysis of Mind* (*AM*) (1921). The picture of consciousness as breath may be ancient but had recently been used by William James in a famous essay¹⁶. Wittgenstein is therefore far from inventing straw men. What, then, is he saying about these alleged errors? That they are based on the use of a picture that is derived from extremely basic linguistic habits, habits so simple that we ignore them for being too obvious. We have a picture that

consists of a brain, physical processes in the brain, and a world of external objects that bear some causal relation to these internal processes. Now we say: mental "objects" are "in" the mind, applying the double metaphor of taking the representation of an external object as an "object" and assigning thoughts a position "in" the mind. Wittgenstein says that so long as we remember that "in the mind" is derived from "in the head" and the picture that goes with it, we will easily see where the true forms of the two phrases diverge, and avoid nonsensical extensions of the picture. But suppose we retain the picture and forget its origin? Now we are off in search of private mental objects, causal relations between mental terms, "mentalese" sentences, etc. At this point philosophy has made the leap into a morass of puzzles and paradoxes.

If the above example provides a straightforward outline of Wittgenstein's basic idea, the following is an instance of the kind of passage that can only be rightly understood by keeping in mind these more explicit expressions. This passage is from *The Blue Book (BlB)*, a series of dictations also given in English. Its complexity may be partly attributable to the fact that by the time it was composed, in 1933-4, Wittgenstein had already worked out his ideas in several thousand pages of manuscripts, at least twice compiled them into typescripts with a view toward dissemination, lectured on them at Cambridge for five years, and argued them in numerous philosophical colloquia and private conversations. Complex ideas are compressed into a

phrase or two, as if his audience already knew what he meant. Thus he writes to Russell, to whom he sent a copy of these dictations a couple of years later, "I think it's very difficult to understand them, as so many points are just hinted at. They are meant only for the people who heard the lectures" (BIB vii). The passage in question comes after he has just distinguished "propositions of which we may say that they describe facts in the material world (external world)" (BIB 46) and those "describing personal experiences" (BIB 47). Of the former he says,

Roughly speaking, they treat of physical objects: bodies, fluids, etc. I am not thinking in particular of the laws of the natural sciences, but of any such proposition as "the tulips in our garden are in full bloom", or "Smith will come in any moment". (BIB 46)

This is an important remark to keep in mind: by physicalistic language, or what he simply calls "physics" at some points, Wittgenstein does not mean anything technical or even any general proposition about physical objects or their behavior; he means the ordinary language we use to talk about the physical world (language which simply takes for granted that there is a physical world) as opposed to, say, our perceptions of it. By the second sort of proposition Wittgenstein understands descriptions of someone's "sense-experiences":

say his visual experience, independent of what bodies are actually before his eyes and, *n.b.*, independent also of any process which might be observed to take place in his retina, his nerves, his brain, or any other parts of his body. (That is, independent of both physical and physiological facts.) (BIB 47)

The dichotomy, then, is between propositions that are bound up with physical objects and those that are "independent" of physical objects and also of any assumptions about physical causes of phenomena.

This much is reasonably clear; but what he says after it is not so obvious. We will give the paragraph in full:

At first sight it may appear (but why it should can only become clear later) that here we have two kinds of worlds, worlds built of different materials; a mental world and a physical world. The mental world in fact is liable to be imagined as gaseous, or rather aethereal. But let me remind you here of the queer role which the gaseous and the aethereal play in philosophy, - when we perceive that a substantive is not used as what in general we should call the name of an object, and when therefore we can't help saying to ourselves that it is the name of an aethereal object. I mean, we already know the idea of 'aethereal objects' as a subterfuge, when we are embarrassed about the grammar of certain words, and when all we know is that they are not used as names for material objects. This is a hint as to how the problem of the two materials, *mind* and *matter*, is going to dissolve. (BLB 47)

How is the problem of dualism going to "dissolve"? Why does he call the shadowy existence of abstract objects or mental concepts a "subterfuge"? What is the "queer role which the gaseous and the aethereal play in philosophy"? How are we "embarrassed"? What I hope to accomplish with the present reading of Wittgenstein is to make the understanding of passages like these, and other yet more hermetic remarks, more easily available by reading them in the light of statements like the one above from the 1930 lectures. What Wittgenstein is saying in the *Blue Book* is at bottom the same as what he was saying in the earlier lectures. We have language games that involve physical objects; they are very much our ordinary form of speech. We also have a grammar for

phenomenological objects; yet the very word "object", except in philosophy, already suggests the grammar of physics. The "object of vision" is a tree or a cloud or a painting; but when we try to describe it as a phenomenon independent of a physical basis we come up with "visual objects" that are not trees or clouds but *images* of them, *sense-data*, or something like that¹⁷. Then the philosophical question arises: *what kind of objects* are these? What are *their* properties? We will begin with the little firm ground we have (or think we have), by following the intuitions that arise from the fact that their names, like those of any other noun, are grammatical "substantives". Even if we do not immediately make the leap to calling these objects "substances" we will conduct our investigation under the impression that they share much of the grammar of the names of ordinary physical objects. But we encounter obvious difficulties in pursuing this. So, like the image of God as an aethereal man who sits on a cloud and wields unusual powers, we resort to the idea that the world is partly comprised of mental or phenomenal objects that are like ghosts of physical ones and have ghostly properties. This is our "subterfuge", our "embarrassment": having gotten ourselves into a bind by taking names for physical objects as a model for all substantives, even those that refer to non-spatiotemporal concepts, and being in the uncomfortable position of having to describe the unusual new material of which part of the world is supposed to be made, we take refuge in ghostly

metaphors: phenomenal objects are to physical ones as gasses are to solids - aethereal, intangible, but somehow real¹⁸.

Here again, there is no straw man. From the Cartesian soul and Locke's "something I know not what", to the predictable anti-materialist responses of Berkeley and Hume, the history of modern philosophy is strewn with examples of the alternating swings of dualism and skepticism around this issue. In Wittgenstein's time the issue turned on the question of "sense-data", the putative cognizable emanations of material objects. Russell and Moore, Wittgenstein's two main pedagogues as a philosophy student, spared no effort in this regard, trying time and again to say exactly *what* sense-data were. Once Wittgenstein realized the implications of the grammatical philosophy he was developing he saw that he could reject the dichotomy of "the two materials" altogether. The problem of dualism will "dissolve" when we retrace our steps and recognize the picture (the model, or metaphor) that led us to talk this way in the first place. Then we can save what is useful in it and reject the fallacious inferences we made along the way.

An integral part of the view presented here is that Wittgenstein held these ideas right through his later work, and that they culminated in the *PI*. Thus I will hold that some of the most famous parts of the *PI* including the opening passages and the private language argument, are expositions of these same views. This will not be the first time such ideas have been noticed in the *PI*. John Hunter, speaking of Wittgenstein's discussion of pain and private

language, writes that the "unifying thread" in these sections is the idea that "nearly all the philosophical perplexity about pain derives from construing the grammar of the words like 'pain' on a typical model of object and name", or simply from construing pain as "a something"¹⁹. Here an important component of our interpretation of Wittgenstein is applied to one of the most famous and central passages in his work. Stanley Cavell has noticed the same thing with regard to Wittgenstein's ideas about ostensive definition²⁰. If the view presented here is correct, it can be taken as one of the "unifying threads" of the entire work.

1.4 Advantages of the Present Reading

I try to show in what follows that with these thoughts in mind, one may unlock a great many apparent difficulties of Wittgenstein's work. Aside from the applications mentioned above, there are also many more subtle ways in which the views about the grammar of physics make their way into his work, and they often render his texts obscure unless one knows what is going on. For example, throughout his work, analogies are constantly being made with mechanical devices, tools, boxes, chemical processes, and ordinary physical objects (chairs, apples, hats, etc.). The point of these analogies often rests partly or wholly on the fact that the pictures described involve *paradigmatic physical relations*. Wittgenstein doesn't say this; but he attempts to show us, with these analogies, the misleading formulations that result when this kind of relation is taken

as a model for other things, i.e., when the grammar of physics is misapplied.

Another example can be seen from the two quotes at the head of this chapter. The meaning of the first is fairly obvious, so long as one is reasonably familiar with the attempts of Russell, Moore, and others to describe what we can know of the world in terms of perceptible "sense-data". Wittgenstein says that when we speak in the ordinary, non-philosophical way we usually talk about objects in the world and not about inferences from them; if we say "I perceive a such-and-such" we usually mean a tree and not some sensory emanation from a tree. Now if we keep this mode of speech but start talking about "perceiving" the emanations (i.e., the sense-data) rather than the tree we are on the verge of falling into an abyss of confusion and nonsense. In the second passage, though, it almost looks as if Wittgenstein wants to deny that we do any such thing as "thinking"! But if we decline to attribute this absurd doctrine to him the passage threatens to turn into an essay in obscurantism. It is only by making a series of inferences about his meaning, along the lines suggested here, that it once again becomes comprehensible. We have names for physical processes that involve bodily motions which we can observe, and these names are comparable to names for observable physical objects. We can call these motions "activities". But "thinking" seems to be very much on a par with "writing" and "speaking", the only difference being that it has no comparable physical manifestation. So we will treat the word "thinking" as a

name for an "activity" that is just not observable. But if the activities of speaking and writing take place in the body, where is the analogous place for thinking? Of course, it is "in the head". Now the analogy is complete, and the grammar of physics has been neatly transferred to epistemology and phenomenology - with the result being a primitive Cartesian picture. In this and similar ways, the reading of Wittgenstein given here can help draw off the veil of obscurity from parts of his work that can seem quite perplexing.

Aside from this, many wild and fantastic ideas which have been attributed to Wittgenstein, as well as some quite sane and standard views, must be false if the present reading is correct. An example of the latter is the work of the Hintikkas already mentioned; of the former, we may take John W. Cook's *Wittgenstein's Metaphysics*, in which Wittgenstein is made out to have been a lifelong phenomenalist who denied the existence of physical objects and causes (a position Cook describes - inaccurately - as a version of "neutral monism"). Cook presents many examples of passages which support the interpretation of Wittgenstein offered here, such as those in which Wittgenstein points out that we can only talk about sense-impressions by talking about physical objects; but then he typically draws conclusions like, "he obviously [concludes] that, when one speaks of a tree or a hand, one is speaking (in the only way one can) of sense-impressions"²¹. What Cook says here may be literally true: Wittgenstein thinks that if we can talk

about sense-data at all it is by referring to physical objects in a peculiar way. But what Cook means is that according to Wittgenstein all that exists is sense-data, which is wrong. Except perhaps for a very short period immediately after his return to philosophy in 1929, Wittgenstein was no more a phenomenalist than a physicalist; nor yet was he a neutral monist or "New Realist" in the proper sense, i.e, someone who believes that a single type of element is the basic component of all reality, the distinction between physical and mental being a matter of the purpose or perspective of the observer on a given occasion. Indeed, the passage cited above from the *Blue Book* is immediately followed by a denial of this central thesis of neutral monism (BLB 48). Wittgenstein believed that dualism and neutral monism were both the result of grammatical misunderstandings, and it is no more likely that he subscribed to the one than the other²².

Another advantage of our reading is that many of Wittgenstein's more famous ideas and remarks, which are perhaps in some sense admirable for their variety, nevertheless gain a kind of unity that is not usually found in other views of this philosopher. Some of this will be obvious from what has been said above. From his critique of the *Tractatus* to his remarks on mathematical concepts to his ideas about private language, the notion of confusion over the grammatical relationship between the physical and non-physical provides a vantage point from which to survey his views. It is a simple matter to show that he brings in this

idea at some point in most of the important topics he considers from 1929 until the *PI*. It is more difficult to demonstrate that there is a higher level of unity here, that many of the ideas and insights actually flow from his ideas about the grammar of physics and how it interferes with philosophical discourse. By the end of this work I hope to have at least made plausible the claim that this is indeed the case.

1.5 Rule-Following, Intensionality, and the Infinite

One important question we have not yet addressed is how this perspective relates to Wittgenstein's conception of rule-following, which is usually taken to be central to his later philosophy. The most concise description of this relation is that over the course of his efforts from 1929 on Wittgenstein came to treat rule-following as standing in dialectical opposition to the grammar of physics. Two related ideas actually emerged in tandem, though Wittgenstein did not fully appreciate the connection until later. One was the notion that our ideas and expressions about abstract concepts are often distorted by physicalistic presuppositions. The other was the idea that many concepts which we tend to think of as *extensional*, i.e., as being instantiated in some class of objects, are really *intensional* concepts whose complete description is given by a rule. The connection is apparent if we allow that even when the individuals in the extension of some class term would not normally be thought of as physical, the very idea of an "extension" suggests a denumerable set of items, a

bounded area, a temporal sequence of events, or even, for instance, a mental state or image which is again conceived physicalistically²³. Wittgenstein saw that in many cases, where thinking of a term as denoting a class of objects could lead to physicalistic misconceptions, the same term can be better understood as a rule for the generation of other terms. The latter terms are only "constructions" as Wittgenstein puts it, not "objects". Thus in one broad motion he was able to sweep away one set of philosophical assumptions based on the relation of name and object and replace it with one based on the concept of a rule.

Wittgenstein's study of rules and numerical series begins only a few pages into his first 1929 notebook (*Band I*), in an account of an exchange with Ramsey. He says, "I once said there was no extensional infinity". Ramsey, by way of counterexample, had asked if one could not imagine a man who simply never dies. Wittgenstein says he can imagine a wheel that keeps on turning, but that a difficulty remains:

It seems to me nonsense to say that infinitely many bodies are in a space as, so to speak, something accidental. On the other hand I can imagine (*mir...denken*) an *intensional infinite law* (or infinite rule) through which they are always newly produced - *ad infinitum* - but naturally only what a rule can produce, namely constructions.

And now it seems that the infinite rotations of a wheel are constructions, whereas I cannot construct new objects.²⁴ (WA I,8,6)

The basic opposition - object vs. product of a rule - was thus understood right from the start, though there is no indication in this first notebook how important this distinction will be as it is unfolded in his later work.

The remarks on infinity are resumed beginning with the very last remark in *Band I*, again with reference to a remark of Ramsey's, and the study of infinity, generality, rules and series is pursued vigorously throughout the next manuscript, *Band II*. The possibility of an intensional solution is repeated again and again, in relation to the meaning of both infinity and generality. For instance, he says, "All paradoxes of infinity are solved when one observes (*einsieht*) that in the area of infinite number-series only intensional generality has sense" (WA I,115,2). The discussion rarely strays very far from the distinction between the extensional interpretation of a series and the intensional one, and the problem of grammatical confusion caused by viewing infinity or generality through the lens of physics is explicitly noted at many points along the way, e.g.:

To the objection: "but if there were nevertheless infinitely many things" one can only answer: "but there aren't!" And what makes us think that perhaps there are is that we confuse the things of physics with the elements of knowledge. (WA I,140,6; PR XII,147,168)

Here the phrase "elements of knowledge" refers to the phenomenological, which he also sometimes calls the "primary", or the world of "data" (PR XII,147,169; WA I,23,2), as in "sense-data". So what is suggested here is once again the physics-phenomenology distinction, but this time in the context of pointing out the wrong way of conceiving the nature of a rule or series.

Wittgenstein's interest in the concept of infinity begins early and continues through his work in the early

1930s. He is reported to have begun sounding like his later self after a lecture in March 1928 by L.E.J. Brouwer, entitled "Mathematics, Science, and Language"; it has even been said that this lecture is what prompted his return to philosophy²⁵. Brouwer deals with the concept of infinity at various points in this lecture, especially in the third section, where he defends the intuitionist rejection of the law of the excluded middle.²⁶ Russell commented that what Wittgenstein says on infinity "is always in danger of becoming what Brouwer has said" (WA I,x). What this suggests is that what Wittgenstein wrote on infinity was largely influenced by his exposure to Brouwer's ideas, even if in certain ways he disagreed with Brouwer²⁷. As his thoughts on this subject developed, they mutated into that aspect of his later philosophy that is usually referred to as the concept of "following a rule". This explains why the concept of infinity occupies a place in his early work out of all proportion to what one would expect in manuscripts putatively devoted to the study of visual space and phenomenology. Wittgenstein gave a lecture on infinity in place of delivering "Some Remarks on Logical Form"²⁸ at a meeting of the Aristotelian Society in 1929, rejecting a defense of his earlier views in favor of a hint of his later ones. He included lengthy sections on infinity in the *PR*; Chapter XII is entirely devoted to this subject, and Chapter XI, on generality, touches on it at many points²⁹. The so-called *Big Typescript* (BT) ends with a section of more than 40 pages on "The Infinite in Mathematics". In short, the

concept of infinity, as well as the idea of generality, which is closely related to this in Wittgenstein's work, was not only one of his main interests in returning to philosophy but one of the most important areas in which his ideas about rule-following were developed. If what we have said here shows that the distinction between extensional and intensional interpretations of the infinite was the main point of these explorations, then it also justifies us in saying that rule-following became the dialectical partner of the grammar of physics, showing us the correct grammar of many of our concepts where physicalistic language is misleading.

Another important pursuit of his middle period, which eventually overtook and surpassed the concept of infinity in the number of remarks devoted to it, is the concept of expectation, and related ideas about recognition and fulfillment. Work on this begins in earnest in his *Band III* manuscript, and comprises an important part of the discussion in the *PR*, the *BT*, the *Philosophical Grammar* (which is basically a part of the *BT* incorporating some of Wittgenstein's editorial revisions, plus some other material), and to a lesser extent, the *PI*. These ideas are originally developed as a defense of the picture theory against a causal theory of meaning put forward by Russell (in *AM*) and C.K. Ogden and I.A. Richards in *The Meaning of Meaning*³⁰. Wittgenstein's comments on this subject amount to an attempt to apply the picture theory to the concept of intentionality: the main idea is that an expectation or

intention is a picture of its fulfillment, so the notion of a "recognition" of the fulfillment is otiose. The theory that holds that a separate act of "recognition" is necessary brings in a third element to justify, so to speak, the reoccurrence of the picture as fulfillment. But then the question is, how do we match the recognition-picture against the expectation-picture? Do we need yet another picture? This leads to a psychological regress, of the sort that is alluded to in the first section of the *PI*.

This whole subject of expectation, or intentionality, in Wittgenstein's work is complex and, in general, beyond the scope of the present work. But it is worth pointing out that a rule is not only an *intension* but an *intention*, that is, it is like a picture that anticipates some future fulfillment (the values of a series, for example). The converse is also true: an intention is a kind of rule for the formation of pictures. The idea of intentionality as rule-following can relieve us of the notion that a thought, concept, or intention is a kind of object in the mind; it diverts us from such unhelpful inquiries as what it is, how it is stored, or how we manage to locate it in our mental warehouse (all ideas which presuppose that terms denoting mental phenomena are extensional), and turns our attention towards questions like how we learn it, what we might normally call using or following it, and what its role is in our practices. These matters will have some bearing on the *PI* and the private language argument.

But we need not explain every aspect of Wittgenstein's work as directly parasitic on his ideas about the grammar of physics; it is enough that the relationship, however indirect, is clear. The idea of rule-following became in the later work a way of describing much about the world that is not enlightened but rather obscured by being construed on a physical model. It is a testament to the variety and fecundity of Wittgenstein's thought that such diverse topics as the nature of infinity and the grammar of intentionality could be usefully explored within the framework of a dialectic between rule-following and the grammar of physics.

1.6 Anticipations of the Present Perspective

Although the views I am attributing to Wittgenstein have not gone unrecognized as they pertain to particular aspects of his thought, they have rarely been taken as a fundamental insight out of which much of his work flowed. The brief articles by Wisdom mentioned above are among the few exceptions. Many leading interpreters of Wittgenstein, including some of his students, have paid little attention to the developments we are focusing on. Other scholars have taken the evidence for them to be just one among many interesting (or peculiar) ideas that Wittgenstein had over the course of his career. Some, however, have hit upon aspects of the present view and expounded them in ways that support our interpretation. Here we will briefly survey some of the more significant examples, in addition to the above-mentioned work of Wisdom, the Hintikkas, and Hunter.

Ernst Konrad Specht, in *The Foundations of Wittgenstein's Later Philosophy* (1963), one of the earliest published interpretations of Wittgenstein's later work, stressed the continuity of Wittgenstein's concern with the ontology of objects from the *TLP* to the *PI*. In this context he points out in various ways how Wittgenstein sought, in his later work, to show us that the "objects" of every language game cannot be understood on the model of naming or ostensive definition¹¹. Though I do not entirely agree with Specht's ontological interpretation of both the early and the later work, he anticipated some of what I have to say about the transformation of Wittgenstein's philosophy in 1929. He stresses the new grammatical formation rules for objects in the *PI* as a replacement for the ontology of the *TLP*. I suggest below that there was a breakup of the uniform ontology of Tractarian logical objects into objects particularized to different "spaces", or different grammatical rules. Though I give more of a genealogy than he does, we end up at approximately the same place.

David Pears, in *The False Prison*, V.2 (1988) has focused on the role of Wittgenstein's rejection of the scientific model of philosophy in the transition to his later work. It is his later rejection of theorizing, according to Pears, that forms the backdrop to the change in his philosophy, and this rejection is aimed at the methodology of the *TLP*, among other things. This thesis compliments in certain ways what we will say about Wittgenstein's rejection of the Tractarian model of

analysis. It also places a little too much emphasis, in my view, both on the anti-theoretical stance of the later work and on the adoption of scientific method as a model for philosophy under the banner of "logical atomism" in the *TLP*. But constructing theories is paradigmatically something we do to understand the physical world, a method that "penetrates phenomena and reveals their underlying structure", as Pears puts it³². To this extent, Wittgenstein's rejection of philosophical theorizing and of any appeal to the "method of physics" in philosophy is part and parcel of his recognition that the grammar of physics tends to be misleading when it is made the implicit basis of philosophical explanation.

Stuart Shanker has written excellent essays on Wittgenstein's rejection of Russell's causal theory of meaning in *AM* and the role this played in the transition to Wittgenstein's later philosophy³³. The rejection of causal explanation in the philosophy of mind is a hallmark of Wittgenstein's later work, and like the objections to the scientific model and to universalizing the name-object relationship, it is an integral component of the picture I am trying to give of Wittgenstein's later philosophy. These stand on common ground with all the other ways in which Wittgenstein tried to distinguish the patterns of thought and language we apply in dealing with the physical world from the grammar of all other spheres of discourse. Causal explanation is so much a part of our understanding of the world around us that it hardly seems like a leap at all to

suggest, for instance, that the meaning of a word is an object which causes us to have an image or concept. We think of causal explanation as being at least categorically appropriate, if not automatically correct, wherever an explanation of any sort is called for. But if Wittgenstein is right it is as much a category mistake when dealing with psychological concepts as behaviorism or physicalism. It is a part, indeed a basis, of the grammar of physics, and it leads us away from a description of the grammar of mental concepts (which is all we can properly hope to give) down the garden path of scientific explanation.

Two authors, P.M.S. Hacker, in *Insight and Illusion* and (with G.P. Baker) *Understanding and Meaning*, and David Stern, in *Wittgenstein on Mind and Language*, have touched in so many ways on themes that are emphasized here that it would be difficult to summarize all the ways in which they anticipate this work. Hacker, for instance, like Hunter and Specht, has said a great deal about Wittgenstein's rejection of the idea "that every word is the name of an object"³⁴, but in a somewhat different vein than Specht's ontological approach. Stern has considered Wittgenstein's emphasis on the distinction between physical and nonphysical "space"³⁵, and the many ways in which we place our phenomenological concepts in physical time, as if in something that "flows" like a river³⁶. I could easily have cited numerous passages from both their works in support of claims made here.

Moreso that anyone else, Robert Alva Noë has anticipated the account given here of Wittgenstein's

phenomenological period and its place in his transition. In his article "Wittgenstein, Phenomenology and What it Makes Sense to Say" he put forth a view of the transition in Wittgenstein's philosophy that accords with the present one in numerous details. He emphasizes the importance of the physics-phenomenology distinction and the errors of construing things on the model of physicalistic language. He understands the importance of the shift that took place when Wittgenstein suggested, in *SRLF*, that we must look at the phenomena themselves ("in a certain sense *a posteriori*") rather than guessing at logical possibilities. His reaction to the Hintikkas' work is similar to mine. He understands the basic movement from the color exclusion problem, to the philosophy of "spaces", to philosophical grammar. He also understands that the advent of the grammatical philosophy was the demise of a concept of *analysis* to which Wittgenstein had subscribed in his early work. In these and many more specialized points we are in complete agreement, and there are few major points in his article to which I would not subscribe.³⁷ His article could serve as an introduction to most of the matters under discussion here.

But it would be unfair to all these authors to suggest that they would necessarily fall in line behind all my claims. The fundamental point to be defended here is that all these themes are facets or manifestations of a single basic insight regarding our misapplication of the grammar of physics. Herein lies a difficulty. The thesis that all these trends in Wittgenstein's thought are connected admits only

of being made plausible, not of demonstration on the order of proof. No amount of textual evidence (of which we can only offer selections from the abundant examples that could be brought in to support our view) nor the testimony of any number of experts can establish beyond any doubt that a single insight runs throughout much of Wittgenstein's later work. I therefore try to encircle rather than slay the beast, by demonstrating several less elusive points: that such a metanarrative can be reconciled with a number of different prominent themes in his work; that he frequently, and in many different contexts, stated explicitly the fundamental idea I am attributing to him - without, however, saying that it is the trunk to which many of the branches of his philosophy are attached; and that keeping this perspective in mind can help unravel many knotty passages in Wittgenstein's notoriously elusive prose. On these arguments rides the success or failure of my project.

The fact that we can show that Wittgenstein states his view forthrightly in several contexts protects us from at least one type of misadventure, i.e., that of picturing Wittgenstein as a crank with a hidden agenda. For instance, Cook's above-mentioned work has, on the surface, a similar form to ours: he gathers a plethora of textual evidence from Wittgenstein's work to demonstrate that Wittgenstein held a particular view, which Cook calls "neutral monism" but which is in fact a naive phenomenism, that he does not explicitly attest to owning. Because Wittgenstein does often discuss phenomenology without explicitly committing himself

to one view or another, Cook is able to prod Wittgenstein's texts, with the help of numerous interpolations and extrapolations, into saying what he wants them to say. I am confident that the present thesis has nothing in common with this methodology: the task is to argue that the insights which are explicitly stated by Wittgenstein have a larger scope than is obvious from individual contexts. Others, like Eric Stenius and Saul Kripke, have offered more credible and interesting interpretations which, nonetheless, faltered due to one or another serious misunderstanding³⁸. One can never be sure that anything worthy of the name *interpretation* will not so falter; but in this case it can at least be said that if someone wishes to deny the ground on which the interpretation rests they will have a rough time explaining away the evidence for it.

1.7 Are Wittgenstein's Views Sound?

The question of the merit of the views I am ascribing to Wittgenstein is a difficult one. I have tried to expound sympathetically what I believe to be his philosophical views, and I have not made any effort to avoid committing myself to the proposition that they are least useful and insightful. Since the object here is mainly exegetical introducing lengthy justifications or criticisms in the body of the text would interrupt the flow of the argument beyond any tolerable limit, given its already tortuous task of following the several routes by which (I argue) Wittgenstein arrived at this view. The main danger of this elision is that Wittgenstein's sympathizers will withdraw from, and his

critics celebrate, the apparent simplicity (or alternatively, naiveté) of what I am calling his basic insight. My reaction to this is that the greatest and most influential philosophers are those who have taken a simple insight and clung to it as to a rock in raging sea, applying the fundamental idea to diverse areas of thought; think of Plato, Descartes, Kant and Hegel, for example, in this connection. Since this may not convince everyone though, I conclude Chapter 6 with some evaluative thoughts Wittgenstein's ideas.

Whether they will ultimately be accepted and whether they are the best method for philosophy I do not pretend to know. One reason his views may have had a hard time gaining general acceptance is that they seem to come in a package, and many philosophers don't like what they find at the bottom of it. If one accepts his claims about the nature and cause of philosophical problems (at least if one does so on the basis of what he himself says) one is more or less committed to accepting the validity of his grammatical method. Granting that, one has more or less been drawn into his view of the nature of philosophy as sorting out grammatical errors. But this in turn leads directly to the idea that the only valid work to be done in philosophy, now or in the future, is to unearth misplaced metaphors and mislaid pictures; and very few philosophers want to believe that. As Wittgenstein himself suggests (in a somewhat different context) at the end of the *TLP*, the correct method in philosophy would turn out to be something that seems to

have nothing to do with philosophy. I do not share this worry. To the extent that Wittgenstein's philosophy would make some of the endless circular debates about ontology or epistemology obsolete, I am all for it. But nothing Wittgenstein says in his later work would keep us from doing ethics, aesthetics, or political philosophy, or from discussing what philosophers have said through the ages, or investigating the nature of scientific inquiry or mathematical truth, or learning new ways to apply and extend formal logic; or taking the course that Wittgenstein himself pursued and investigating the grammar of our psychological concepts. This seems like enough to keep philosophers in business indefinitely.

1.8 Caveats

As with any proposal that looks like an architectonic view of a philosopher's work, there is a danger of exaggerating the claims. It may be thought that I am suggesting a kind of magic key that with enough force or ingenuity can be used to unlock every word Wittgenstein wrote, every idea he had. I sincerely doubt that anyone will find such a key, and I hardly claim to have done so myself. Wittgenstein's own thought displays the very variety and complexity to which he constantly drew attention in our use of language. It would be astonishing if every one of his ideas were driven by exactly the same insights or considerations. He goes down too many streets, and his blind alleys and dead ends are often more interesting than the parkways and boulevards of other philosophers. There is no

hidden agenda, be it the grammar of the physical, some putative phenomenalism, latter day German idealism, or any other, whose discovery opens the door to his every utterance. I believe that my metanarrative of his work reveals a great deal about it, but it does not force everything he says into a mould and put future scholarship to rest.

Thus, if someone wishes to point to a particular passage and challenge the idea that it could be explained by his belief that we transfer conceptions from the physical sphere, I do not feel compelled to insist that it must be so. His ideas about culture (many of them published in *Culture and Value*) are one obvious category of writings which probably owe little to the present perspective. I am not sure that his ideas in *On Certainty* or the *Remarks on Color* owe much to it either, though one can certainly find connections. While I have tried to show that his ideas about rule-following and the nature of intentions are related to the present discussion, they do not flow directly from the points I am making but act as complementary ideas. Moreover, much of the richness of his discussion has to do with the *limits* of rule-following, and this is largely independent of the dialogue with extensionalism. There is a train of thought in the *PI* that Pears has referred to as "naturalism"³⁹ that has little to do, so far as I can see, with the grammar of physics. The concept of interpretation that he explores at length in the *Remarks on the Philosophy of Psychology* is more directly related to the rule-following

idea than to the grammar of physics. There is much in the *Remarks on the Foundations of Mathematics* that can be enlightened by the view presented here. For instance, in the discussion of possibility, compulsion, trying, etc. (Part I, roughly 117-132) the argument turns on the difference between the possibility or necessity of movement in a mechanical system (the grammar of physics) and the logical possibility or necessity of producing new instances of a series ("the hardness of the logical must" (121)). Still, it would be absurd to say that everything, or even most, of what Wittgenstein says about mathematics follows from his views on the grammar of physics. There may be other important areas of his thought that I have not mentioned that do not proceed directly from his ideas about the grammar of physics.

I claim only that one cannot hope to understand what continuity there is in his later philosophical writings on mind, language, logic and mathematics without realizing that he takes ordinary language to be largely based on the grammar, or conceptual structure, of the language games we use to describe physical objects and processes; and he believes we go wrong in philosophy when we uncritically pursue analogies based on this grammar in our theories of mental and abstract concepts. However much may not be explained by this perspective, there is little or nothing in his work that contradicts it and a great deal of very explicit evidence for it. If by the end of this work we have

shown this to be a plausible interpretation of Wittgenstein
the project may be deemed a success.

NOTES

1. Wisdom, "Ludwig Wittgenstein", in Fann (1978), pp.46-47. On the idea that "the soul is a little man within" see also Anthony Kenny, "The Homunculus Fallacy", pp.156-7.
2. Wisdom considered this so central to what Wittgenstein had to say that he returned to and elaborated this theme several years later in the article "A Feature of Wittgenstein's Technique".
3. Hintikka and Hintikka, *Investigating Wittgenstein*, p.144.
4. Hintikka, *Investigating Wittgenstein*, p.163.
5. See the note by B.F. McGuinness in *WK* 45n6; and Rush Rhees, "Editor's Note" in *PR* p.349. Michael Nedo suggests that the remarks about phenomenology refer to conversations with the Vienna Circle and he relates these to Mach's phenomenalism (*WA* I,vii). Whatever the merit of this view, it at least locates these references within the period we are talking about. See also Noë, "Wittgenstein, Phenomenology..."; Newen, "Die Entwicklung der Wittgensteinschen Sprachphilosophie"; and Stern, *Wittgenstein on Mind and Language*, p.15.
6. See *TLP* 6.3741; and *NB* 8 January 1917, p.91. Cf. G.E.M. Anscombe, *An Introduction...*, pp.27-29; P.M.S. Hacker, *Insight and Illusion*, p.87; and Irving Copi, "Objects, Properties, and Relations in the *Tractatus*", p.183.
7. Hintikka, *Investigating Wittgenstein*, p.144.
8. The Hintikkas occasionally show a dim awareness of this idea, without having a clue to its significance. For instance, they say: "In his early middle-period writings, Wittgenstein often argues that this or that concept has been illicitly extended from its normal uses in physicalistic contexts to a purely phenomenological application" (*Investigating Wittgenstein*, p.242). But they mention this only to demonstrate (allegedly) that Wittgenstein's arguments against phenomenological languages were not very strong at this time.
9. Hintikka, *Investigating Wittgenstein*, p.165.
10. Hintikka, *Investigating Wittgenstein*, pp.165-6.
11. Hintikka, *Investigating Wittgenstein*, p.184.
12. Hintikka, *Investigating Wittgenstein*, p.186.
13. See *WL32* pp.68-9 where Wittgenstein makes the same point in his own words.

14. Hume, more or less; see *A Treatise of Human Nature* (i,iv,2; p.207).
15. Freud, *A General Introduction to Psychoanalysis*, p.401.
16. James, "Does Consciousness Exist?", in James (1967) p.37.
17. This point is made frequently in Wittgenstein's later work. His 1936 lectures, published by Rush Rhees as "The Language of Sense Data and Private Experience" (*LSDPE*), are largely devoted to this topic. See especially pp.312,356-7; also *PR* V,49,82, and VI,57,88; *BLB* 64.
18. Cf. *RFM* Part I,119,83: "'But I can infer only what actually does follow.' - That is to say: what the logical machine really does produce. The logical machine - that would be an all-pervading ethereal mechanism. - We must give warning against this picture." Wittgenstein also uses the metaphor of the "gaseous" soul in *WL32* (p.32).
19. Hunter, *Understanding Wittgenstein*, pp.126-127
20. Cavell, "Notes and Afterthoughts...", p.274.
21. Cook, *Wittgenstein's Metaphysics*, p.92; see also the examples on p.91 and his statement that "one must not... take what he says here to show that he had abandoned phenomenalism". But of course this is just what they do show.
22. The most thorough effort to refute Cook's views is Philip Dwyer's "Cooking the Books: John W. Cook on Wittgenstein's Purported Metaphysics". Most reviews of *Wittgenstein's Metaphysics* were equally skeptical of his main contentions; see e.g., those by Lars Hertzberg and Oswald Hanfling.
23. Thus, for instance, the extension of "Minotaur" might be thought of as an object which is either a mental image or a type which generates mental images; and the mental images are thought of as each having a spatiotemporal location. The difficulty is most obvious in its Platonic variety, in which the relationship between concept and extension is explicitly that of participation in the Form by temporal objects and properties. But it is not eliminated just by substituting Peircian types for Forms. The type-token relationship is supposed to be a logical one; but so is the concept of a class in set theory. What is in question is not how the relationship between class and instance or type and token is explained in theory or applied in formal logic, but how it is applied in ordinary language and in epistemological or metaphysical theories. The charge is that in applying such relationships we have a natural tendency to fall back on our spatiotemporal predispositions.

24. In a later manuscript, which was published as an appendix to the PR ("Infinitely Long") Wittgenstein gives a somewhat different, more verificationist, response to Ramsey's counterexample. He cites Ramsey's remark and the first line of his own response and says: "What a peculiar argument: 'I can imagine...!' Let's consider what experience we would regard as confirmation or proof of the fact that the wheel will never stop spinning" (PR Apdx.I 304-5). There is also an intermediate version of this idea, without direct citation of Ramsey's remark, in PR XII,145,165-6.

25. See von Wright, *Wittgenstein*, p.25, citing Herbert Feigl; also Monk, *Ludwig Wittgenstein*, p.249. Hallett writes that according to C. van Peursen, Wittgenstein also attended a lecture by Brouwer "on technical problems of intuitionist mathematics" which was not published (*Companion*, p.762). See also Karl Menger, "Wittgenstein, Brouwer [sic], and the Circle", in *Reminiscences of the Vienna Circle and the Mathematical Colloquium*, pp.129-139. Menger says that Brouwer gave a second lecture, entitled "The Structure of the Continuum", and that Wittgenstein did not attend this lecture (p.138). It is not clear whether this is the lecture that Peursen claimed Wittgenstein did attend. Monk (*Ludwig Wittgenstein*) makes no mention of his attending a second lecture by Brouwer. In any case, the lecture he did attend was published as the article "*Mathematik, Wissenschaft und Sprache*".

26. See Brouwer, "*Mathematik, Wissenschaft und Sprache*", pp.161-4.

27. See Menger, *Reminiscences...*, p.135.

28. See e.g., Anscombe's note to the reprint of SRLF in Copi and Beard, *Essays*, p.31; also Rhees, "Editor's Note" in PR (p.349).

29. See Appendix II, *The Organization of the Philosophical Remarks*.

30. See Ogden and Richards, *The Meaning of Meaning*, p.51ff.

31. See Specht, *Foundations*, Chaps. IV-VI.

32. Pears, *The False Prison*, V.2, p.199.

33. See Shanker, "Wittgenstein Versus Russell on the Analysis of Mind", and "The Enduring Relevance of Wittgenstein's Remarks on Intentions".

34. Baker and Hacker, *Understanding and Meaning*, p.33.

35. Stern, *Wittgenstein on Mind and Language*, p.142.

36. Stern, *Wittgenstein on Mind and Language*; see, e.g., pp.150- 156.

37. Noë emphasizes the continuity between the phenomenological investigation and the goals of the TLP; this is perfectly reasonable but it is only one side of a definitely two-sided coin. He is rather more forgiving than I would be of the apparent contradiction in Wittgenstein's idea of looking for a priori relationships among objects of experience - without, all the while, recanting his earlier view that there is no synthetic a priori. But I do not attempt to pass judgement on this particular set of views here. On various non-essential points I have small differences with Noë. Some more significant differences are noted in Chapters 3 and 4. I came upon Noë's article in June 1999, after I had already formulated and written up my views on most of these topics. Nevertheless his clear and concise exposition of them has helped me further clarify my own thoughts on several issues.

38. Stenius' *Wittgenstein's Tractatus*, which is not without many interesting insights, is marred especially by the view that Wittgenstein believed relations to be among the objects of the *Tractatus*. More recent work on Wittgenstein's critique of Russell's 1913 theory of knowledge, and a better understanding of his theory of logical syntax, demonstrates beyond a reasonable doubt that this was not the case. See Copi, "Objects, Properties, and Relations in the *Tractatus*"; Pears, "Russell's 1913 *Theory of Knowledge* Manuscript"; and Thomas Ricketts, "Pictures, Logic, and the Limits of Sense". Kripke's famous work *Wittgenstein on Rules and Private Language* attributes to Wittgenstein the discovery of a "skeptical" paradox and a solution to it which are now widely (though not quite universally) thought to be far from what Wittgenstein had in mind. The literature on this subject is vast; see George Wilson's "Semantic Realism and Kripke's Wittgenstein" and Arthur Collins's "On the Paradox Kripke Finds in Wittgenstein" for relatively recent pro and con views (respectively) on Kripke's interpretation.

39. See Pears, "Wittgenstein's Naturalism".

CHAPTER 2

SPACE AND THE GRAMMAR OF PHYSICS

=====
"We need new concepts and we continually resort to
those of physicalistic language." (PR XX,213,266)

"The visual table is not composed of electrons." (PR
III,36,72)
=====

2.1 From Color Exclusion to the Grammar of Physics

Wittgenstein makes extensive use of the term "space" in his manuscripts beginning in 1929 and continuing until roughly 1931, after which it fades in importance in his work. The term is used to denote a system of related concepts or interlocking propositions. "Visual space", for instance, is what we describe when we say how color, position, and other properties are related in our visual field; the propositions we use to describe them are "in" visual space, and in a different sense so is a red circle that is in my visual field. "Physical space" is of course the material universe; but it is also the domain of the concepts with which we describe it, such as empirical propositions and causal laws. Each space has a certain set of rules which guide us in formulating propositions pertaining to that space; these rules constitute the *grammar* of the space. Thus the proposition:

(1) No two colors can be at place p at time t in the
visual field

which I will hereafter refer to as the "color exclusion principle", is a grammatical rule of visual space. It has that status because it is (allegedly) a necessary truth¹;

whereas, "The moon looks larger when it is closer to the horizon" is a contingent proposition about visual space, probably defeasible and certainly not logically necessary.

Though it was a fairly short-lived idea, all but gone from his vocabulary by the mid-1930's, the notion of "space" is vital to understanding the emergence of Wittgenstein's later philosophy. Moreover, it is essential to understanding the context in which his ideas about the grammar of physics arose. In distinguishing physical space from visual space and other spaces he began to notice the tendency to think of other spaces in terms more appropriate to physical space.

This distinction is related to the one he makes between "phenomenology" and "physics", which is the subject of some of the first few remarks in his first 1929 notebook and many later remarks as well. In phenomenology we describe the world of our actual experience, by means of the necessary truths that we learn after investigating the grammar of our phenomenological concepts. In physics we instead give empirical, perhaps causal, explanations to describe the world of contingent relationships among physical objects and forces. In the next chapter we will be examining this distinction and the development of a grammar of phenomena, or what Wittgenstein initially called a "phenomenological language". It is useful to keep this framework in mind here, because as Wittgenstein marks the differences between various conceptual spaces he is simultaneously thinking in terms of the distinction between the grammar of the phenomenological realms in general and the grammar of

physics. This is the initial step in his journey towards the idea that philosophical problems result from the intrusion of the grammar of physics into other (not just phenomenological) language games.

2.2 "Visual Space and Other Things"

On 18 February 1929 Wittgenstein wrote to Schlick that he had "decided to stay in Cambridge to work on visual space and other things" (*WK* 17). He was given a small grant by Cambridge and was asked to give a series of lectures. The manuscripts in which he began, almost immediately, to record his ideas on these subjects were, as far as we know, the first philosophical notebooks he had kept in more than a decade, since the completion of the *TLP*. They consisted, initially, of four large bound volumes, known as *Band I* through *Band IV*, and classified as MSS 105-108 in von Wright's numbering system.² The first more or less completed work to emerge from these volumes was the article "Some Remarks on Logical Form", which was drawn mainly from the earlier remarks in *Band II*. Although this article was quickly repudiated by Wittgenstein, it is of great historical interest, and not merely because it is the only work published in his lifetime after the *TLP*. In it he attempts to resolve the color exclusion problem and gives his first sustained defense of the phenomenological program, and his only defense of it in terms of formulating a phenomenological language.

At the end of the first academic year in which Wittgenstein had taught at Trinity College the college

council asked G.E. Moore, who chaired the Philosophy Department, for a justification for renewing the grant. Moore in turn asked Russell, who then met with Wittgenstein to discuss his work. At this time he apparently secured from Wittgenstein a promise to deliver a sample of his recent work in fairly short order. From *Band I-III* and part of *Band IV* Wittgenstein pulled a number of remarks to form a typescript known as *TS 208*. This typescript was a chronologically ordered selection from the manuscript remarks dating from February 1929 through April 1930. From this typescript Wittgenstein created *TS 209*, in which the original remarks were completely rearranged³. This typescript was given to Russell in May 1930. Russell was apparently ill at the time and read only about a third of the manuscript; but he did recommend the renewal of Wittgenstein's grant. A copy of the typescript that had been in G.E. Moore's possession was eventually obtained by Rush Rhees and published in 1964 as the *Philosophische Bemerkungen*, using a title Wittgenstein himself had put on *Band I*. The original typescript was then apparently lost⁴, but the text of the German edition was translated and published in 1975, again under Rhees' supervision, as the *Philosophical Remarks (PR)*. The published edition includes a "Foreword" by Wittgenstein dated November 1930. The tone of the "Foreword" suggests that he was considering the manuscript for publication; but there is no record of his ever having tried to get it published, and he soon took

another copy of *TS 208* and began to work it into a new book which is now known as the *Big Typescript* (*TS 213*).

Wittgenstein's reference to "visual space" in his letter to Schlick, his references to phenomenological analysis in the article "Some Remarks on Logical Form" (*SRLF*), and his remarks on phenomenology at the beginning of *Band I*, show that phenomenology had emerged as a central concern of his at this time. He thought at first that the color exclusion problem and other threats to the atomistic logic of the *Tractatus* could be dealt with by showing that each elementary proposition describing some part of a phenomenal space brings in all the other propositions in this space as a kind of system. This led him to turn to the analysis of the logic of phenomena. "Visual space" was the first such analysis he would attempt; this is why he conceived of his new project as working on "visual space and other things".

In the context of his new philosophical tasks it may appear that Wittgenstein's interest in phenomenology in general, and visual space in particular, was also entirely new. But while the emphasis on it was new, phenomenological problems had appeared before and had led him to consider certain aspects of the nature of visual space. There were several comments on "visual space" in the *NB* and the *TLP*. Moreover, the notion of "logical space" that played such a central role in the *TLP* provides additional background for the later studies. Logical space could be described as "the space of all logically possible propositions"; it was in

this context that the idea of visual space was introduced in the *TLP* as, more or less, the space of all logically possible propositions about the visual field. An examination of the early work on visual space will not only give us grounds for saying what was and was not new in his 1929 approach but will establish some significant continuities in his perspective.

2.3 Visual Space in the Early Work

In the *NB* Wittgenstein refers to "visual space" (*Gesichtraum*) (*NB* 64,85-6), as well as to the visual field (*Gesichtfeld*). Though later on he distinguishes the visual field from visual space (*NLPESD* 221), the distinction does not seem to exist at this point. The remarks about visual space which illustrate that "the knowing subject is not in the world, that there is no knowing subject" (*NB* 86; *TLP* 5.631) are originally made as remarks about the visual field (*NB* 80). When these remarks and others in the *NB* are all taken together it appears that Wittgenstein had a significant interest in the topic even at this time. Much of this material is also found in some form in the *TLP*, among comments on solipsism (5.633, 5.6331), infinitude (6.4311), and logical necessity (6.3751).

Wittgenstein's early remarks about visual space amount to a recognition that there is a particular logic to what we can say about visual phenomena. His first series of remarks on the subject are the most detailed. They occur in the context of an effort to understand the implications of the

idea that there must be simple objects. Thus he ruminates on the following problem:

But what if a simple name signifies an infinitely complex object? We say, for example, something about a patch in our visual picture (*Gesichtsbilds*), e.g., that it lies to the right of a line, and we assume that each patch in our visual picture is infinitely complex. If we say, then, of a point in that patch that it lies to the right or left of the line, then this proposition follows from the previous, and if infinitely many points lie in the patch *then infinitely many propositions of different content follow LOGICALLY from that first one.* (NB 18 June 1915, p.64)

Like the color exclusion problem which would haunt him later, the problem here is that a logical relationship among phenomena appears to threaten the atomistic logic he is trying to work out. Just as the logical exclusion of simultaneous color attributions threatens the logical independence of atomic propositions, the infinite multiplicity of the proposition about the patch threatens the idea that the sense of the proposition is determinate. In this remark he sets up the problem in a way that says something about the grammar, logic, or entailment relations, of propositions about visual space. If patches are infinitely complex (i.e., they are composed of infinitely many individual points) and I say "Patch **P** in my visual field is to the left of line **L**", I am committed to saying that an infinite number of points $P_1 \dots P_n$ are to the left of **L**.

This rudimentary conception of visual space is modified almost immediately:

But now it is naturally very possible that in reality infinitely many different propositions do not follow from one such proposition, because our visual field

perhaps - or probably - does not consist in infinitely many parts - rather, that continuous visual space is first constructed subsequently... (NB 18 June 1915, p.64)

This is already a refinement, and shows some degree of understanding that visual space is neither exactly like geometrical space, which is logically capable of infinite division, nor like physical space, which (at least on the Newtonian account) is not subsequently constructed⁵. Now he goes on to say, "It seems to me entirely possible that patches in our visual field are simple objects, in that we do not perceive any single point of the patch separately..." (NB 64). So here he has worked his way out of a problem (at least for the time being) through a meditation on the nature of the visual field. The apparent infinitude of propositions following from the first is the result of what he would later have called a *grammatical* error concerning the objects of visual space. As visual objects they are not infinitely divisible; that property follows only on some kind of construction of the visual field out of logically infinitesimal points, not on the nature of visual space itself.

It is of considerable interest that Wittgenstein returns to this idea near the beginning of his 1929 manuscripts. In fact, his first extended remarks on visual space discuss and confirm his view of 14 years earlier that patches, rather than infinitesimal points or *minima visibilia*, are the simplest components of the visual field. Thus he writes:

Somehow it seems to me as if each single-colored patch in the visual field were simple and as if their composition (*Zusammengesetztheit*) out of smaller parts were only an apparent one. (WA I,5,5)

It appears as if one cannot see a single-colored patch as complex (*Zusammengesetzt*) unless one does not have a single-colored impression (*sich nicht einfärbig vorstellt*) of it. (WA I,5,7)

That would mean: the simple components of visual fields are single-colored patches. (WA I,5,8)

Can one say that the smaller patch is simpler than the larger?

Let's assume one sees a single-colored circle, in what should the greater simplicity of smaller circles consist?/... (WA I,5,11)

Thus it seems to me: the smaller patch is not simpler than the larger. (WA I,6,2)

In the *PR* Wittgenstein begins Chapter XX, which is on the grammar of visual space, with some of these comments⁶. Thus the earlier observations about visual objects actually provide a context for the later work on the analysis of visual space: they form the background on which more detailed investigations, e.g., those on the grammar of division and composition in visual space, can proceed. His remarks on visual space were an important milestone in the early work in that he was able to avoid a contradiction between atomism and determinacy of sense. That these earlier discussions figure in his later work too marks an important line of continuity between the phenomenology of 1929 and the earlier logical discussions which led to the *TLP*.

The importance of the notion of *logical* space in the early work was that it gave a clear sense to the idea that a proposition pictures the same state of affairs as its negation. The proposition delimits a certain area in logical

space by affirming it, while the negation does the same by excluding that same area. This resolved a major issue in the development of the picture theory, the question of how a nonexistent state of affairs can be pictured. In the *TLP*, in the remarks at 2.013ff, the logic of color is very closely tied to the notion of logical space: color space and tone space are logical spaces, and objects in these spaces contain the combinatorial possibilities appropriate to the logic of such spaces. In order for an object to have a logical form that permits it to form propositions in these spaces it must have the right kinds of hooks, so to speak, to link up with other such objects. In this sense the logic of the *TLP* already contains a kind of phenomenological grammar: each phenomenal space gives the rules for the formation of propositions that have sense in that space, through defining the nature of the objects that can form propositions there.

2.4 The Logical Independence of Spaces

What, then, constitutes the difference between his earlier and later conception of space and phenomenology? In his early work he had thought that "color space" and other perceptual spaces, whatever their particular characteristics might be, could be comprehended as part of one architectonic logical structure, i.e., as sectors of logical space. Phenomenological spaces were facets of the logical properties of objects (2.0131, 2.0251); they did not make an independent contribution to those logical properties. He says in the *TLP*, "Every picture is also a logical picture.

(On the other hand, e.g., not every picture is spatial.)"
(*TLP* 2.182) Propositions acquire sense by picturing the world, and what allows them to do so is that their logical structures are isomorphic with the facts they represent. Whether they also have the structure of spatial propositions depends on whether they are composed of objects which can comprise spatial facts; but there is no specifically *spatial logic* that is not accounted for by isomorphism, i.e., by Tractarian logic in general. Thus in 6.3ff he even maintains that the propositions of Newtonian physics and other general laws are *a priori*, i.e., logical, forms of physical propositions. The same applies to phenomenal spaces: in 6.3741 he famously claims that the principle of color exclusion is due to "the logical structure of color", which is to say that at bottom the color exclusion principle is based on an ordinary tautology. The particular properties of color space may appear to be the final cut, but if the logic of the *TLP* is right, they are not.

This conception of logical space has at least been radically modified, if not yet dropped completely, by the early 1930's. In Waismann's 1930 *Thesen*, which were supposed to be the basis of a popular introduction to the *TLP* incorporating some of Wittgenstein's later views, the following statement is found in the section entitled "Logical Space": "In a logical space lie all facts of the same form" (*WK* 161). If this is an accurate expression of Wittgenstein's view at this time (including the emphasis on the indefinite article), it suggests that he thought there

were any number of logical spaces correlated with the various forms of facts. Such a thesis directly contradicts the earlier assignment of all facts to an undifferentiated logical space. This is consistent with the idea that each proposition brings in a whole system of propositions which together form a space. In a 1931 lecture Wittgenstein says, "The place of a word in logical space fixed by grammar is its meaning" (*WL30* 61). Though it sounds a little like the older conception of logical space, given what he now means by "fixed by grammar" it cannot be the same thing; for there is no doubt that grammar is here conceived of as particular to a specific conceptual realm. By the time of the *PI* he has surely given up the idea of logical space altogether, in favor of local relationships within language games.

In the *PR*, due to the rapid development of his ideas in the period leading up to it, the relationship between the atomistic logic of the *TLP* and the phenomenology of spaces is somewhat ambiguous. Parts of Tractarian logic often show up in the discussions, for many of these remarks had been written while he still hoped to salvage much of the *TLP*. Chapter III is largely given to a kind of defense of the picture theory (or to the defense of a kind of picture theory). In Chapter VIII he appears to be defending the idea of an elementary proposition: he affirms that "two elementary propositions cannot contradict one another" (*PR* VIII,81,109), and attempts to show that "the grammatical rules for 'and', 'not', 'or', etc. are not exhausted by what I said in the *Tractatus*; rather, there are rules for the

truth functions which also deal with the elementary part of the proposition" (PR VIII,82,109). Though they are still truth-functional, some of the truth-possibilities of elementary propositions will be excluded by their internal relationship with others in the same space. Thus he says that "I do not place a proposition as a yardstick against reality, rather the system of propositions" (PR VIII,82,110). He goes on at some length with the idea that even the denial of a proposition brings the entire space with it, ending with an observation about recognizing the fulfillment of an expectation: "'The sense lies in the recognizability', but this is a logical possibility. I must be located (*mich... Befinden*) in the space in which what is expected lies" (PR VIII,82,111). In light of this, it must be recognized that he had not completely given up Tractarian logic by 1930. The logic of various spaces was not yet entirely divorced from the architectonic logic of the world advanced in the *TLP*.

Nevertheless, the impulse to give it up was already there, even apart from his realization that the logical independence thesis could not be maintained. For example, the above remark is immediately followed (in the PR, not the manuscript) by the remark, "The concept of an 'elementary proposition' now in general loses its earlier significance" (PR VIII,83,111)⁷. He realizes that this also means that his basic conception of analysis was flawed (see e.g. *BT* 28,100, "*Elementarsätze*"; also in *PG* I,Apdx 4A,210-1). In a manuscript remark dated 2 December 1929 he asks ominously:

"How far will logic become insecure (*unsicher*) through the uncertainty over the analysis of elementary propositions? - What stands fast?" (WA II,146,3) Moore mentions another form of rejection of Tractarian logic, Wittgenstein's criticism of his earlier notion of inference⁸. He also frequently laces into the extensional conception of generality offered in the *TLP*; and of course the concept-object idea, which was never far from his own conception even if he did not overtly embrace it, was rejected as early as *SRLF*. Many other remarks in this period undercut one or another assumption of Tractarian logic.

In place of this general logic he began to emphasize the grammar of each particular space. This is evident in the idea that "we have to do with yardsticks, and not so to speak (*quasi*) with isolated graduation marks" (*PR* VIII,84,112), meaning that propositions which form logical groups must be taken together. A very revealing remark in this regard is his statement that "each assertion then would be like setting together (*Einstellen*) a number of yardsticks". This remark is followed by a diagram of several parallel yardsticks with a perpendicular line drawn through them, and the explanation: "That would be, e.g., the claim that a colored circle of color... and radius... lies in the position..." (*PR* VIII,84,112; ellipses in the original text). The proposition thus consists of elementary propositions which mark out positions in color space, Euclidean space, and physical space (these spaces are what the yardsticks represent), and each such proposition brings

in the entire logic of the space to which it belongs. This is confirmed by the comment:

In my old conception of elementary propositions there was no determination of the value of a coordinate; although my remark that a colored body is in a color-space could have directed me to this. (PR VIII,83,111)

The "value of a coordinate" is a position on a yardstick. He is saying that at TLP 2.0131 he more or less recognized that there was a space for each kind of proposition but failed to draw out the implications of this. Following through on that idea would have meant realizing that a position in color space determines a coordinate as *opposed to all other possible coordinates* in that space.

Thus, even if he still believed that there is some overarching logical space (surely he believed that no thought can contradict *modus ponens*, for example) and held on to some hope for an ultimate reductive analysis, he realized already that no general logic would suffice to explain, for example, why the color exclusion principle is a tautology. The color exclusion problem had led him to conclude that spaces are at least semi-autonomous. Since that problem had forced him to acknowledge the logical dependence of elementary propositions on others in the same space, a proposition now has sense only within the limit of the space of its subject matter. Even if propositions still have to picture the world in order to have meaning, and even if the world still has some kind of a *priori* structure, it is the grammatical rules of the space in which the

proposition resides, i.e., the *phenomenological* rather than logical structure of the world, that gives it meaning.

2.5 Space and Grammar

This conception goes directly over into that of philosophical grammar, the single most consistent feature of all of Wittgenstein's work from 1929 on. It is within the limits of a space that a "grammar" applies. We can begin to approach this subject via a remark by Russell. After speaking to Wittgenstein and reading parts of the *PR*, he wrote in his response to Moore:

He uses the words 'space' and 'grammar' in peculiar senses, which are more or less connected with each other. He holds that if it is significant to say 'This is red', it cannot be significant to say 'This is loud'. There is one 'space' of colors and another 'space' of sounds. These 'spaces' are apparently given a priori in the Kantian sense, or... something not so very different. Mistakes of grammar result from confusing 'spaces'.⁹

There are several themes in this comment, all related in some way to grammar and space. Russell apparently grasped some of the central theses of Wittgenstein's thought at this point, but as in his introduction to the *TLP*, he puts things in a way that Wittgenstein might have objected to. Sorting the accurate observations from the sometimes misleading expression will provide a means of getting clearer on the relationship between grammar and space, as well as allow us to assess one of Russell's few attempts to comment on Wittgenstein's later philosophy.

a. In What Sense are Spaces A Priori or A Posteriori?

First, Russell says the spaces are "given a priori". What he means by this is not entirely clear. It is possible

that Wittgenstein had suggested to him that the various realms in which propositions have sense are to be found in the nature of language; that the number and nature of them are independent of anyone's personal experience but are what we might call transcendental conditions of the sense of propositions. But more likely what Wittgenstein meant to convey is that the grammar of a space is given *a priori* with the space.

In a conversation around the same time Schlick challenged the idea that the concept of a color system is a logical, rather than empirical, hypothesis. Schlick used the example of someone who spends his entire life in a red room: "could he then say to himself: I see only red, but there must be other colors?" (WK 66). Wittgenstein first responds by arguing that the logical possibility of the person's coming out of the room "is located in the syntax of space, *a priori*". That is, if we say they are "in" the room, it is taken for granted that they are in a part of physical space and therefore that it is logically possible to be in another part. This supports the point that if we assume physical space at all we presuppose all of its necessary relations. Then he points out that it is senseless to demand that someone must have learned a certain number of color terms before we can say they are acquainted with the color system: "either his syntax is the same as ours: red, redder, bright red, etc.... Or his syntax is not the same as ours. Then he is not in general acquainted with a color in our sense" (WK pp.65-66). That is, either the person in Schlick's example

understood, before coming out of the room, what it means for there to be a color spectrum, or else we could not sensibly say they knew what "red", or "color", means. If we help ourselves to a single color concept we bring in the entire system of colors. So the response amounts to saying: sure, someone could live in a red room and have no concept of color at all, but they cannot have the concept of one color and not the rest of the color system. This argument is more aligned with the idea that the grammar of the space is a *priori*, than that the existence of the space itself is a *priori*¹⁰.

In PR 1 the idea of color space being "a priori" is related to its being "a grammatical representation" (PR I,1,51-52), in this case represented by a "color octahedron" with the "pure" colors at the corners. Again it is essentially the phenomenological relationships expressed by the grammar of each space that are a *priori*. This is even more explicit where he says, speaking of the relationship between visual and Euclidean space, "That which is arranged in visual space stands in this *kind of order a priori*, i.e., in virtue of its logical nature, and geometry here is simply grammar" (XVI,178, 217). Thus, at this point, whether or not he believes that the spaces themselves are given a *priori*, Wittgenstein is of the opinion that the relationships that define each space and generate its particular grammar are in some sense necessary truths.

This seems to be all that could reasonably be maintained. A person born blind would have no concept of

color space, but if they were to gain their eyesight they would presumably only be able to perceive colors with the relationships they have for any sighted person. Some people don't know that $7 + 5 = 12$, because not everyone knows mathematics or even how to count. But it cannot be that some people know mathematics yet $7 + 5$ does not equal 12 for them. Nor is it a necessary truth that any perceiving beings at all exist; there might be no perceptual space to talk about. The most that could be held is that once the space is presupposed all the necessary truths in that space are presupposed.

However, all this is only one side of the matter. There is also a clear sense in which the content of each space is *a posteriori*. In *SRLF* Wittgenstein says that "we can only arrive at a correct analysis by what might be called the logical investigation of the phenomena themselves, *i.e.*, in a certain sense *a posteriori*..." (*SRFL* p.30). Though the grammatical rules which define each space are transcendental, *i.e.*, they are preconditions of sense in that conceptual realm, they are not *known a priori* in the sense that some more comprehensive logic or rule of thought predetermines what can be said in each space. Logical space in the *TLP* was like this, and so, by necessity, was the logic of each phenomenal space. In the post-1929 conception, though certain laws of inference may hold in all spaces, there is no *a priori* rule about what other entailments or exclusions may exist between propositions in the same space. This must be investigated based on the logic of the space

itself. This investigation is a *posteriori* because our epistemic access to grammar is not based on a set of fundamental rules or principles which predetermine the possible relations among phenomena; we can only find them out through experience, even though what we find out is not something contingent but the necessary relationships among phenomena as they are captured in grammar.

b. The Logical Structures of Spaces

The second thing we may gather from Russell's remark is that each proposition in a particular space is interdependent with the others in that space, but propositions from different spaces are excluded by grammatical rules. This is probably the point of his comment about the exclusion of "this is loud" if "this is red" is appropriate. The point loses quite a bit in this retelling, though; Wittgenstein almost certainly did not put it quite like this. In the *PR* he says: "Can anyone believe it makes sense to say, 'That is not a noise, but rather a color'?" (*PR* I,8,55). The point is not that you cannot say of an object that it is red and loud, which is obviously false in the case of a fire engine on the way to a fire. But the sense in which one says "this is red" is bound up with a system of other propositions related to color perception, and few of these will apply to "this is loud". Loudness is not, for instance, on a continuum with redness as blue and green are. The fact that one can say "this object is completely red and also loud" shows that "loud" here is in a different conceptual "space" from red; for one cannot say

"this is completely red and also blue". Or consider the following pairs of propositions:

1a. It is only red when the lights are on.

1b. It is only loud when the siren is on.

2a. It's red but it doesn't look it.

2b. It's loud but it doesn't sound it.

In the first pair both propositions make sense, but for completely different reasons. In the second pair 2a makes sense in perfectly ordinary applications, but 2b would only make sense in some special circumstance, e.g., coming from a hearing impaired person, or in a psychoacoustic experiment. These are examples of how color space and sound space have different conceptual structures in spite of superficial grammatical similarities. That is no doubt the main idea of the remark Wittgenstein made to Russell.

c. Spatial Intrusions

The third and last theme we will address from Russell's remark is the most important for our purposes. This is the idea that importing the grammar of one conceptual space into another is a potential source of confusion: "mistakes of grammar result from confusing 'spaces'", says Russell. This follows from the previous idea more or less directly: if each space has its own unique logic, or grammar, specific to the kinds of statements made in that space, it must lead to puzzles and paradoxes if we attempt to describe the subject matter of one space in terms of the grammar of another. In particular, the space of physics - of physical objects, causal laws, ostensive reference, and verifiable hypotheses

- tends to have a powerful pull on our phenomenological conceptions, undermining our ability to describe these spaces accurately (this is the meaning of the first citation at the head of this chapter. In the discourse of phenomenology, or mathematics, for example, the truths and relationships of physical space are foreign and misleading. On our reading, this was the key insight for Wittgenstein. In this respect Russell's comment was entirely accurate, if properly understood.

2.6 The Varieties of Space

As we have seen, in the *TLP* Wittgenstein had briefly mentioned the modes of sensation (vision, sound, touch) as spaces, as well as physical space. In one later passage he seems to be distinguishing spaces along similar lines:

We... divide the evidence for the occurrence of a physical event according to the various kinds of such evidence, into the heard, seen, measured, etc., and see that in each of these taken singly there is a formal element of order, which we can call space. (*PR XI, 119, 140*)

The "heard" and "seen" are perceptual spaces and the "measured" is presumably physical space. But the generality of this definition goes beyond these particular spaces and suggests that any discourse in which there is a "formal element of order" constitutes a space. The definition provides for an unlimited number of spaces with their own particular logic. In the period 1929-30 he mentions several conceptual spaces which do not directly correspond to perceptual modalities or physical space, e.g., spaces for mathematical sets (*WK 67*), pains (*PR VIII, 82, 110; WL32 23*),

motions (WA II,224,1) and feelings (PR XX,206,257). The contexts suggest that the "space" metaphor could be applied whenever one needed to differentiate the rules that apply to one set of concepts from those that apply to any other. This confirms that he had broadened the notion of space beyond what is mentioned in the *TLP*; space is now more or less equivalent to the recognition that there are locally necessary grammatical relationships which are part of the underlying structure of the world.

Even the perceptual spaces that were originally recognized in the *TLP* have become more complex. For example, his reference to a "color octahedron" which gives "a rough representation of color-space" (PR I,1,51) suggests that colors have their own internal logic (grammar) that is not accounted for by the general properties of visual space. Chapter XX of the *PR* is given to the discussion of relationships in visual space, including composition, position, orientation, object permanence, distance, vagueness, and color; while Chapter XXI examines the grammar of color space¹¹. So visual space itself might be conceived in terms of any number of spaces organized around the various relationships in the visual field.

2.7 Objects and Spaces

An important aspect of the theoretical move from logical space to a variety of grammatical spaces is that it entails a corresponding move from logical objects to a variety of objects. There was already some suggestion of this variety in the *TLP*. He had said that objects have

different logical forms depending on the facts in which they can participate (2.0141); he says that there are "spatial" and "temporal" objects and suggests that are others as well (2.0121); and in the context of explicating the concept of logical form he mentions "a spatial object", "a speck in a visual field", "a tone" and "the object of touch", suggesting that each is an object of a particular logical form (2.0131). Thus he had at least entertained the possibility that there are spatiotemporal objects and those phenomenal ones that correspond to the modes of sensation, each type being defined by its logical form or combinatorial potential in atomic facts.

But while he saw that the form of the objects might vary from one object type to another, there was still a uniform conception of what an object might be, just as there was a uniform logical space encompassing the others. The thought he had expressed in an early letter to Russell, that "there cannot be different Types of things" (NB 122; Wittgenstein to Russell, Jan.1913), was not only retained but was an important basis of his whole early philosophy. Although this remark does not necessarily rule out different *kinds* of objects (say, spacetime points and color patches) what it does rule out is that fundamentally different logical rules can apply to different classes of objects. If logical units are defined in terms of the intrinsic properties that allow them to be ordered by the laws of logical space, there could be only one type, as well as only one Russellian Type, of object. *Objects* were whatever

complied with the basic tenets of logical atomism: they had to be simple, they had to be capable of being linked to form atomic facts, the atomic facts had to be logically independent and map onto thoughts and propositions in a one-to-one correlation of objects to names and logical form to logical syntax (i.e., the picture theory); and complex facts had to be entirely reducible to concatenations of objects in simple relations. These and a few other overarching theses of logic say all that can be said about the fundamental nature of objects. (Actually, Wittgenstein held that the rules of logic are not assertable, so even this cannot literally be said, but to the extent that the theory is comprehensible they alone must determine the internal properties of objects.)

It is clear that this position is incompatible with allowing any *logical* properties of objects to be determined by the particular relations within the logical space for which their logical form makes them appropriate. This, however, is just what made Wittgenstein reconsider and eventually abandon logical atomism. Suppose, for example, that color patches are objects. Could the color exclusion principle describe a new logical property of all and only those objects in color space, one that is not accounted for by the logical principles of the TLP? That is, could the grammar of visual perception alone *logically* determine the properties of visual objects? Or, similarly, would Newton's laws independently determine logical properties of material space-time points? Clearly Wittgenstein had hoped to have it

the other way around, for in the *TLP* he tried to suggest that a proposition that contradicts the color exclusion principle is "impossible, indeed logically impossible" (6.3751), just as he tried to suggest that the law of causation was really based on *a priori* logical laws (6.35).

But here problems arose. His scheme required that all logical propositions, that is, all necessary truths or tautologies, be obtainable through inferences from elementary propositions. But the latter were supposed to be logically independent. If a proposition that flouts the color exclusion principle (e.g., "Red and blue are at place *p* at time *t*") is a logical contradiction it cannot, therefore, be a conjunction of elementary propositions (nor could a similar contradiction involving material rather than phenomenal points). So in order to preserve it as a logical contradiction propositions like "red at point *p* at time *t*" and "blue at point *p* at time *t*" must be complex and reducible, as he says explicitly in the *NB* (8 January 1917, p.91). But Wittgenstein provided only vague hints of how the reduction might take place. Of course, if they cannot be so reduced, the laws excluding them - the laws of visual space - cannot be obtained from general laws of logical space. Then while the internal properties of objects would be given solely by logic, the rules which describe the ordering of objects in any specialized space would end up being contingent propositions. But this was obviously not what Wittgenstein wanted, for all such rules were supposed to be tautologies at their deepest level. Thus, one might look at

the color exclusion problem as a symptom of the fact that within the logic of the *TLP* there is no way to bring the grammar of each space into play in the description of the essential nature of the objects in that space.

This situation is radically altered beginning in 1929. In the first place, the old idea of objects is essentially dropped. Nowhere in the 1929 remarks on the simplicity of color patches does he mention the word "object". In Wittgenstein's work from 1929-30, including the manuscripts, typescripts, lectures and conversations, there are few references to "objects" that do not occur in critical contexts, usually with reference to the Fregean concept-object form of analysis or the *TLP*. In *SRLF*, whose subject is analysis and elementary propositions, the only reference to objects is to "spatial and temporal objects" (*SRLF* 31). In the 1930 lectures he refers to "physical objects" (*WL30* 69) but not to anything like the objects of the *TLP*. The short typescript "Concept and Object, Property and Substrate" which was appended to the *PG* is mostly a critique of Fregean ideas. The one called simply "Object" begins by suggesting that "object" means "reference of a not further definable word" (*PG* I,3,208); this is followed by a number of inconclusive comments on the relationship between color terms and objects. The only significant reference to objects in the Tractarian mode is found in a single remark in *WK*, in which he says that he still holds firmly to the belief that "through the analysis of propositions we must eventually come to propositions which are an immediate connection of

objects, without the help of logical constants..." (WK 74). But there is no reason to assume that what he means by "objects" here are the logically undifferentiated units he conceived of in the *TLP*. In the *PR* he refers to "what I at one time (*seinerzeit*) called 'objects', the simple" (*PR* III,36,72), as if this terminology were a thing of the past. Finally, Moore quotes him as saying (sometime in 1930-31): "The meaning of a word is no longer for us an object corresponding to it"¹². Clearly, the simple patches we are talking about are not the fabled objects of the *TLP*.

Wittgenstein never says explicitly why he has stopped referring to the objects of the *TLP*, but it follows naturally upon the demise of the logical independence thesis. If propositions are to be organized into logical systems which are individuated on the basis of the categories of experience, the objects to which they refer will also have to be whatever experience shows to be the basic unit(s) of reference in each sphere of discourse. Recalling that the differentiation of spaces of discourse is fundamentally driven by grammatical distinctions, this point may be expressed by citing what he says in the *PI* some years later: "Grammar says what kind of object something is" (373).

Moreover, there is some evidence that Wittgenstein himself suggested that giving up the logical independence thesis meant doing without Tractarian objects. Moore, recalling Wittgenstein's criticisms of Tractarian logic in the 1930 lectures, writes: "He said... that it was with

regard to 'elementary' propositions and their connection with truth-functions or 'molecular' propositions that he had to change his opinion most; and that this subject was connected with the use of the words 'thing' and 'name'"¹³. It is plausible to assume that the first part of the sentence refers to Wittgenstein's giving up the logical independence thesis, since this meant abandoning the idea that the truth-functions alone could give the logical rules for the combination of elementary propositions into "molecular" ones. Thus to represent color space truth-functionally he had to eliminate the top line of the truth table for a complex proposition placing two colors at the same spot (see *SRLF* 34; *WA* I,57,6 - I,59,4), because the propositions of which it was composed excluded one another. In the second part of the sentence, Moore is surely referring to the Tractarian idea that names go proxy for objects, and that these are the sole components of elementary propositions or atomic facts. The connection is then fairly obvious: giving up logical independence meant giving up the idea that one could fully account for the meaning of the proposition in terms of the names of objects that comprise it. For on the logical independence thesis, no object in the fact denoted by "blue here now" can possibly have logical properties that rule out the formation of a molecular proposition with "red here now"; yet the proposition as a whole does rule this out. So the demise of logical independence also leads in a fairly straightforward way to the admission that the objects in which he hoped to

encapsulate all the logical properties that could give sense to propositions were not to be found.

But this does not mean that the notion of the simple object evaporated without a trace; at least, not this quickly, as the remark to the Vienna Circle makes clear. As he reconceived logic as grammar, he also initially reconceived objects as the referents of the terms which represent the simplest possible concepts in each particular space. In color space, for example, the primary colors would be the "elements of representation", and "these elements of representation are the 'objects'" (WK 43). Similarly patches in visual space would be the objects. This may not sound very different from what he said in the *TLP*, but the important thing is that the need to recognize the particularity of each space has begun to undermine the notion that the simplest elements of each space must be thought of as *logical* objects, in the sense of "pure" logic, rather than just the objects that are the necessary constituents of the space¹⁴. The elements of representation are in a sense the "logical" objects of each space, since they are the *grammatical* basis on which meaningful propositions can be constructed; but this basis will now be decided by phenomenological investigation, not by general rules of logic as in the *TLP*.

In physical space, the situation is somewhat different. The corresponding units of representation here should be space-time coordinates; and to an extent he may have retained this Hertzian conception of them. But Wittgenstein

is moving in the direction of recognizing that in physical space the "objects" are just what we call "objects" in ordinary language. This process cannot be completed while he still hangs on to any conception of objects as the telos of analysis, because it is tantamount to rejecting that entire conception of analysis. By 1932 or so, after several rounds of criticism of the Fregean concept-object theory (see Appendix I), among other things, the process is more or less complete; but in the period we are now discussing, 1929-30, one finds expressions of both the earlier and later views. In either case, his conception of physical space goes along with the general fission of logical space into its component parts, each of which grammatically determines what objects are the subject-matter of that space.

In short, having abandoned the logical independence thesis, Wittgenstein had to break up logical space into a variety of overlapping but logically more or less autonomous spaces - autonomous, that is, except for the obvious fact that certain inference rules of formal logic would probably have to be applicable to any space. Each space is characterized by (1) a set of grammatical rules and (2) certain basic data, or "elements of representation", which are irreducible and conceptually necessary for that space and could therefore be thought of as its "objects". Thus he says, "The geometry of visual space is the syntax of propositions which deal with the objects in visual space" (PR XVI, 178, 216). Similarly for perception, which operates in physical space: "The very expression 'I can perceive x'

is taken from the physicalistic means of expression, and here *x* ought to be a physical object - e.g., a body" (PR VI,57,88). Analogously, he says regarding numbers:

"Arithmetic is the grammar of numbers. Kinds of number can only be distinguished by the arithmetical rules relating to them" (PR X,108,130). He does not, of course, think numbers are "objects" of any sort; but the point is that grammar is what distinguishes one kind of number from another, just as it distinguishes one kind of object from another. Numbers are also the basic element of representation in mathematics.

This relationship between objects and grammar is retained even after Wittgenstein drops the "space" terminology. Thus in 1936 he writes:

One might say that [physical] space and colour have different properties: what is true of colour is not true of space. But the nature of the objects in this case is not determined by properties which we can attribute to them truly as opposed to those which we can't. It is determined by the grammar of the word which denotes it. "The colour green has a different nature from a cubic foot": this is an expression of the fact that a different grammar applies. (LSDPE 307)

The whole difference is summed up in the statement that "grammar is a 'theory of logical types'" (PR I,7,54; WL30 13), or once again as in the *PI*, "grammar says what kind of object something is". Objects are now relative to spaces: ontology has been replaced by grammar, and the catalogue of object types in the universe can only be derived from the list of conceptual spaces in language and the rules that apply in each one.

2.8 Visual Space and Grammatical Confusion

Some of Wittgenstein's remarks on the grammar of visual space and related spaces demonstrate his concern with avoiding the confusion of one space with another. We can begin by looking at some things he says about the grammar of color space, which clearly overlaps that of visual and physical space in many ways:

One must remember... that each part of visual space *must* have a color and that each color *must* occupy a part of visual space. The forms color and visual space interpenetrate (*durchdringen*) one another. (PR XX, 206, 257; WA I, 12, 3)

This remark is from very early in *Band I* and does not yet say anything explicit about the possible confusions arising from this overlap. But the point is not, as it might appear at first sight, that color space and visual space are identical. Rather, it says that according to the logic of color, however we divide up visual space, every point in it must be thought to have some color. In the PR this remark is placed before others that seem to say more or less the same thing about the relationship between color and physical space, but which seems to be motivated by the need to avoid a kind of confusion:

It is clear that there is no relation of "being located" which would hold between a color and place in which it "is located". There is no intermediary (*Zwischenglied*) between color and space.¹⁵

Color and space saturate one another.

And the way in which they interpenetrate one another makes up the visual field. (PR XX, 206, 257)

The point here is that when we talk about colors in physical space we do not think of two things, a color and a spatial position, connected together by some force or medium. What

kind of confusion could be avoided by pointing this out? Perhaps the idea, suggested by nearly all the major trends in modern epistemology, that a physical object performs this role of linking a property to a position. One can easily read Locke, Leibniz, Hume, Berkeley, Kant, Moore and Russell, to name just a few, as saying that a physical object is a spatial medium for the coinstantiation of perceptible properties. Whether it is at most, at least, or *nothing but* a medium depends on one's interpretation of each philosopher. But what Wittgenstein says here about color space implies a rejection of all of these pictures, as well as a recognition of the temptation to think of color and physical space as "linked" in this way. The temptation is avoided by thinking of color space, visual space and physical space as distinct but related conceptual realms whose grammar comingles at many points.

A stronger sense of how the intermingling of different spaces generates potential confusions comes when Wittgenstein considers visual space in light of geometrical relationships, using the following diagram¹⁶:



It is obviously possible for the lines a and b to appear to me to be the same length and for the segments c and d also to appear to me to be the same length while a count shows that I have 25 c's and 24 d's. Here we have the question: how can that be possible? Is it correct to say here: it is just so, and we see only that visual space does not follow the rules - for instance - of Euclidean space? This would mean that the question "how can that be possible?" was nonsense and thus unjustified. (PR XX,208,258; WA II,18,1)

Wittgenstein does not answer his own question, and he apparently means that the question is indeed nonsense, indicating a tendency to confuse the rules of visual and Euclidean space. A bit later on in the manuscript, but not in the *PR*, he says in reference to the equality of intervals in visual space, "The question of equal or unequal is thus nonsense, or else there must be yet a third thing here" (WA II,21,2). Here too the grammatical confusion comes in the form of asking a meaningless question. In the *PR* he continues with a remark that comes just below these in the manuscript: "It comes, in that case, to certain contradictions to [be] explain[ed] if we apply our ways of reaching conclusions (*Schlußweisen*) in Euclidean space to visual space" (WA II,21,5; *PR* XX,210,261).

Wittgenstein refers to "visual space" when he means to discuss the grammar of the appearances of things as appearances, rather than as objects perceived in physical space. In the following passage, somewhat earlier in the manuscript but later in the *PR* than the last one, he discusses potential grammatical confusions between Euclidean space and the space of perception:

If I cannot see an exact circle then in this sense neither can I see approximations to one. - Rather, then the Euclidean circle - as also the Euclidean approximated circle, is in this sense not an object of my perception at all, but rather, for example, only another logical construction which could be obtained from the objects of quite another space, such as immediate vision-space (*Sehraums*).

But even this way of expressing [it] is misleading, and we must perhaps say that we see the Euclidean circle in a different sense. (WA II,94,1-2; *PR* XX,212,265)

This passage shows that one must approach Wittgenstein's new philosophy with the same subtlety that he himself applies to the analysis of ordinary language. Recalling his later remark that the space of perception is that of physical objects, one must understand these remarks to be about a rather particular space, that of perception of the physical representation of a geometrical shape, in this case a circle. This space he calls "*Sehraum*" rather than "*Gesichtraum*", or visual space proper. To "see" the Euclidean circle is then to construct an object in geometrical space out of what we see in physical space; that is, two different senses of the verb "to see". Given this understanding of it, the passage is a warning about our tendency to assimilate geometrical concepts to physical ones, the space of Euclidean geometry, where a circle is "not an object of my perception at all", to that of the perception of physical circles. We use geometry to understand visual relationships in physical space, but the space of geometry is not that of physical space¹⁷.

One of the clearest expressions of Wittgenstein's point about the potential grammatical confusion between visual and physical space comes in a 1931 lecture described in *WL30*. Judging from the published notes, Wittgenstein made fewer assumptions of his audience than he did when his ideas were more developed¹⁸. In a section marked by the editor "Visual and Physical Space" Wittgenstein apparently produced one example after another of the differences between these two spaces, beginning with the comment, "Visual and physical

space are different in the sense that what you can say about the one you cannot say about the other" (WL30 68). This thought is repeated in a variety of ways throughout the lecture, and the point is backed up with examples of the differences between what we would say of a physical object and its visual sense-data: distance varies in physical but not visual space (WL30 68); an equilateral visual triangle is necessarily equiangular, but not so a physical one (WL30 69); an object can "have movement in visual space without anything changing place in physical space" (WL30 70); and so on. In the next section of the notes Wittgenstein carries out a somewhat briefer investigation of the differences between auditory and physical space. Here he uses the example of a continuous tone and asks if there is a point "at which you can say that you both hear and remember" the tone (WL30 71). This, he says, is impossible: "The confusion lies in thinking that physical sound and the sense-datum are both continuous. The physical sound is continuous but the sense-datum is not" (WL30 71). Again, "the confusion arises from regarding the continuity of physical object and auditory sense-datum as the same" (WL30 72).

Another example of confusion about continuity is given in the PR. Picture a ruler pressed at one point against a curved surface and then rolled (tangentially) part way around the surface. Here the question is whether we can say that we saw the ruler at any arbitrary position t along the way. Wittgenstein says:

If I want to say that the ruler must have appeared to me to be at place *t* - if I am thus talking about the place in visual space - then it doesn't in the least follow from the premise. But if I'm talking about the physical ruler, then naturally it is possible that the ruler skipped over position *t* and nevertheless the phenomenon in visual space was continuous. (PR XII,134,154-5)

This theme of confusion between phenomenal spaces and physical space is one of the central aspects of his investigation of visual space. Recognizing that this is what he is up to helps explain some of his less obvious contrasts. For example, the above remarks about visual and physical circles come in the manuscript just after a remark, which was for some reason excluded from the PR, in which he refers to "the dangerous alterations of sense" in the propositions "I hear the music", "I hear the piano", and "I hear him play the piano" (WA II,93,8). Here we have at least a perception in auditory space (hearing "the music"), and a cognition in physical space (hearing "the piano").

Of course, there are also examples of distinctions not involving physical space per se, such as:

The question arises what distinctions there are in visual space. Can we learn anything about this from the coordination, e.g., of touch space with visual space? Say, by specifying which changes in one space do not correspond to a change in the other? (PR XX,214,268)

One could make a very lengthy catalogue of the ways in which Wittgenstein distinguishes spaces in this period. He is actually at first undertaking the project of constructing a phenomenological language, by giving an account of the grammar of each space (see Chapters 4-5). Even when he abandons this project he remains interested in investigating

the grammar of different spaces. But it is apparent that the space of physics - of physical objects and their physical properties - is already recognized as a potential source of confusion for all other spaces. In fact, the whole series of the remarks cited from the manuscript begins with one in which he explicitly warns against using "ordinary - physical language" to talk about the "immediately given" (WA II,93,2). This theme will be reinforced in various other investigations and will become an organizing principle of his work - not the only one, but an important one that is as much a basis of the *PI* as the rule-following investigations.

In general, then, at least by some time before he compiled the *PR*, Wittgenstein had embarked on the philosophical path that would lead him to the idea that philosophical problems arise from using the grammar of one language game where that of another belongs¹⁹. Moreover, in various ways he had already recognized that the main problem was to distinguish everything else from the language games we play with physical objects, in particular from practices like measuring, dividing into parts, setting side by side, etc., which reflect our basic spatiotemporal orientation, as described by Euclidean geometry and reflected in our everyday discourse about the world around us.

2.9 Space: Not the Final Frontier

The idea of a conceptual domain as a "space", like some of the other main conceptions in Wittgenstein's work immediately after his return to philosophy in 1929, lasted only a couple of years as an important feature of his

thought. It was never explicitly dropped; for the most part it just became superfluous. Though the term occasionally reappears in passing until the mid-1930s, philosophical grammar, which had never been very far from the "space" conception, and the idea of a rule-based calculus of language, absorbed whatever advances were made with the notion of a "space" of propositions.

One can also think of reasons that were not just terminological which might have encouraged Wittgenstein to give up the use of the term "space". First, the very considerations which led to the expansion of the "space" conception from its Tractarian to its post-1929 usage must have also led to its decline once the broad outlines of the idea became clear. At some point he must have realized that conceptual spaces are essentially constituted by the grammatical formation rules for sentences dealing with the concepts in a space; so not only was the notion of "space" otiose, it was a reflection of his initial lack of clarity about the far-reaching implications of the idea of a philosophical grammar. Second, the same criticism that was applied to logical atomism (see Chapter 5), the picture theory, and other aspects of the *TLP* applies to conceptual "space" too: it gives a misleading picture of the nature of language because it is too entangled with a conception of the physical universe. Propositions are not enclosed in a conceptual space the way stars are in physical space, and it is not the obvious difference between "conceptual" and "physical" that makes the comparison problematic. More

subtle things that are hidden in the physicalistic conception, like the implication of clear boundaries and law-governed relationships, are misleading when we are talking about language or ideas. Wittgenstein increasingly questioned the philosophical implications of nonstandard uses of terms derived from the physical sphere; this also led him, for example, to criticize the use of the term "object" in logic, especially in its Fregean form (see Appendix I). Even though the notion of "space" was one of the ideas that brought him to this point, it became, dialectically, a victim of these same insights. A third point which should have bothered Wittgenstein is that though the idea of space was originally supposed to replace the idea of the logical independence of propositions with the idea that they are grouped in systems, nothing resembling the logical independence postulate of the *TLP* can even be applied to entire spaces. It is obviously not the case that the grammar of numbers is conceptually isolated from the space of physics, or the grammar of color or geometry from visual space, even though one cannot determine properties of number by experiment or say that the angles of a visual triangle add up to 180 degrees²⁰.

Thus, as the idea of grammar is deepened and ramified, it replaces "space" altogether. The progression from conceptual space to grammar, and finally to language games, is comprehensible as a development of the basic idea that groups of propositions function together in such a way that the truth of one proposition may entail the truth or

falsehood of another, and that propositions only have sense when taken in relation to one area of discourse or another. This perspective emerges directly from the color exclusion problem; for that is what forced Wittgenstein to acknowledge that the logical independence of elementary propositions, one of the central principles of logical atomism, could not be maintained.

The notion of "space" plays a large role in the *PR*, which was drawn from his first four notebooks; but by the time of the *Big Typescript (BT)*, which is drawn in part from those same notebooks as well as from several later ones, it is hardly in evidence except in the discussion of "visual space". By this time the concept of a "grammatical rule" has been expanded to the point of obviating the need for a distinction between spaces. Here, however, another intermediate conception, that of a "calculus" (*Kalkül*) of rules also to some extent takes over the role of "space". A "calculus" may be thought of as a language game in which the rules, and the way we follow or apply them, are quite determinate, so that the grammar of the game is completely contained in the rules²¹. This suggests that the term "grammar" itself was tied, in the earlier post-1929 notebooks and typescripts, to a more mechanical conception of linguistic usage than one finds in the *PI*. Thus the sense of "grammar" undergoes a slow and subtle modification throughout the 1930s, from being enclosed in a space and compared to the fixed points on a scale, to a more or less rigid and *a priori* "calculus", to a much less determinate

body of learned uses and "techniques". The term "language game", too, undergoes modification: it is present prior to the *Brown Book (BrB)*, but arguably not until then does it have the sense than it will have in the *PI*.

Though it is complex to document, the basic shape of Wittgenstein's transition is fairly clear. The color exclusion problem led him to recognize the logical peculiarity of each conceptual realm. This led him to talk about spaces, and shortly thereafter to identify each space with a grammar. Then "space" was dropped, and grammar became the central concept, originally conceived as a fairly determinate calculus. But considerations about rule-following and indeterminacy led him to tie in the notion of grammar with that of more or less indeterminate language games²².

At the same time, there was a growing recognition that in ordinary language we tend to merge distinct grammars, and in philosophical theories we even take these naive and more or less innocent metaphorical transfers between conceptual spaces and squeeze them until they generate problems and paradoxes. This train of thought is largely an outgrowth of the separation of Tractarian spaces into phenomenological and physical ones. Wittgenstein's initial effort to understand the relationship between "physics" and "phenomenology" is thus the first expression of a distinction that will grow into an effort to ferret out philosophical misconceptions by comparing the way we think about the physical world to what we are trying to say about

the rest of our conceptions. But the path to this methodology is not absolutely straight. At first, the physical and phenomenological descriptions of the world stood on a par. Then the recognition set in that physical space exerts a gravitational pull on the phenomenological, trying to draw us into its modes of expression. Over the next few years, Wittgenstein began to realize that not only phenomenology but all abstract conceptions were affected by physicalistic modes of thought. Mathematics, language, logic, and consciousness all have a tendency to be conceived in terms of physical models; and when we lose sight of the fact that there is a model in play, and we follow out our natural physicalistic prejudices, we end up with grammatical confusion and nonsense. At this point it is no longer a question of two views of the world, physical and phenomenological, but of *all* our language games and their relationship to the grammar of physics.

Both the idea of spaces and the phenomenology follow directly upon the color exclusion problem: the former was part of an effort to replace the logical independence thesis with a constellation of propositional systems called "spaces", and the latter was an effort to give some substance to the notion of an elementary proposition in these phenomenologically individuated spaces. Wittgenstein thought this could be done by developing a "phenomenological language", that is, a kind of grammar book that would detail the rules for the formation and use of elementary propositions in each space. In this chapter we have followed

the progress of the first of these paths, and have seen some of the ways in which it led to the later ideas about the grammar of physics. In the next two chapters we follow the second, tracking the rise and eventual abandonment of the "phenomenological language" approach, and assessing its impact on his ideas about philosophy, physics and grammar.

NOTES

1. Given the importance of this principle in the discussion of Wittgenstein's transition a few comments are necessary. Wittgenstein took this proposition to be a tautology, its denial to be a contradiction, and what it expresses to be a necessary truth. This was accepted by other philosophers of his time, and is probably still widely accepted today. In my opinion it is a fallacy: the color exclusion principle is actually a contingent proposition which depends on the construction of our visual apparatus. See Arthur Danto's "Foreword" to Hardin, *Color For Philosophers*, pp.x-xi, for a defense of this point, and Noë, "Wittgenstein, Phenomenology, and What It Makes Sense to Say" for an attempt to refute it. Nevertheless, by extending Kantian considerations about the conditions for knowledge to relations in the visual field one can reach Wittgenstein's point of view. If not only the forms of time and space but all the conditions of human experience of the world are taken as necessities, and their expressions as necessary truths (where necessity is indexed to human cognitive limitations) then we arrive at something like Wittgenstein's view. It would be reassuring if Wittgenstein had acknowledged that on his view the color exclusion principle is a synthetic a priori proposition; but he did not even agree that there are such propositions (see *WL30* 78-80). Thus it is a bit difficult to understand how Wittgenstein understood the necessity of the color exclusion principle. But it is certain that he did think it both necessary and a posteriori, and since my object here is primarily to say how I think Wittgenstein saw the world I will not dwell any further on doubts about the wisdom of this view.

2. Strictly speaking parts of what I call "Band I" here were physically written in Band I. Wittgenstein wrote first on the recto pages of Band I, then on the recto pages of Band II, then, starting from the beginning of the volume, on the verso pages of Band II, and finally, again from the beginning, on the verso pages of Band I (see *WA I*, xii-xiii). Even within this scheme there are quite a few inconsistencies, and there are similar interpolations in later volumes. To simplify matters, when I refer to "Band II" I am always referring to writings that are chronologically later than those I refer to as "Band I", regardless of where they physically first appeared; and similarly for later manuscripts. Moreover, references to the manuscripts will usually be given via the *Wiener Ausgabe* (*WA*) transcription of them. *WA* is referred to by volume, page number, and remark number on the page. The first five volumes of the *WA* edition consist of *MSS*. Band I-X, with two of Wittgenstein's original volumes in each *WA* volume and with the pages placed in chronological order of composition. Thus we will be mainly interested in *WA* Band I and Band II, containing *MSS* Band I-IV or *MSS* 105-108 in the von Wright numbering system.

3. See Rhees, "Editor's Note", PR p.348.

4. This has not been officially acknowledged, but is widely rumored to be true. The translators of the *Philosophical Remarks* (Raymond Hargreaves and Roger White) makes it clear that they worked from the published version and not from the original typescript (PR p.354). They make no reference to their having had access to the typescript, though they acknowledge Rhees' assistance and publish a list of corrections to the German edition that was provided by Rhees (apparently before the typescript was lost). TS 209 was not included in the Cornell University microfilm series of Wittgenstein's *Nachlass*. On its web site Trinity Library lists a copy of TS 209 among its holdings but this list is more or less a repetition of the von Wright catalogue, of which most but not all the items are actually in the Trinity collection.

5. Wittgenstein usually takes the Newtonian - or Hertzian - account to be the standard logic of physical space. However, since the influence of Kant and Schopenhauer, if not Leibniz, is quite strong at this point, it could perhaps be argued that he might have conceived of space as either a construction or a transcendental condition of thought. In saying, as he does in the *TLP*, that space is one form of the objects, he could be taking the transcendental line, since the forms of objects are in some sense conditions of thought. But in neither Kant's case nor Wittgenstein's are these transcendental conditions *subsequently* constructed; they are *preconditions* of the possibility of knowledge.

6. See Appendix II, The Organization of the *Philosophical Remarks*.

7. The published translation renders "überhaupt" as "all" (i.e., "loses all its earlier significance") rather than "in general" but I think this suggests a slightly stronger rejection of elementary propositions than Wittgenstein is making.

8. Moore, "Wittgenstein's Lectures", pp.88-9.

9. Monk, *Ludwig Wittgenstein*, p.293.

10. See also Waismann's *Theses*, where a similar response is given to this example but in somewhat simpler terms (*WK* 261).

11. See Appendix II, The Organization of the *Philosophical Remarks*. Even if the chapter divisions were not indicated by Wittgenstein, it is obvious from the text itself that there is an end to the remarks on visual space and a beginning to those on color. Chapter XX begins with the discussion of simple patches, and XXI with the remark, "There appear to be simple colors" (PR XXI,218,273).

12. Moore, "Wittgenstein's Lectures", p.54.

13. Moore, "Wittgenstein's Lectures", p.88.

14. In a sense, therefore, objects still exist necessarily, as he seems to have thought of them in the TLP, so long as the space exists. That is, in his present conception, color space is not somehow accidentally constituted by the four primary colors. They exist in color space necessarily in the sense that the space would simply not be color space without them.

15. The passage is awkward to translate. The first sentence in the original German is: "*Es ist klar, daß es keine Relation des 'Sich Befindens' gibt, die zwischen einer Farbe und einem Ort bestünde, in dem sie 'sich befindet'.*" The sense of the passage requires translating "Sich Befindet" as "being located" (in the PR it is given as "being situated", which I find too vague) but it might be best understood as "Being [somewhere]".

A "zwischenlied" is usually a link, not an intermediary, but it seems pretty clear that the point is that nothing is required to link space and color because they are already interpenetrating, not that "there is no link" between the two spaces.

16. The diagram is given as in WA, not the PR.

17. Although Wittgenstein takes Euclidean space to be the standard grammar of logical relationships in physical space, the two are not the same. For example, the lengths of *a*, *b*, *c* and *d* in the previous passage will be defined by a rule in geometry, and by a more or less imperfect ruler in space. But Euclidean geometry provides the principles by which we gauge the accuracy of our spatial measurements: *a* and *b* might measure the same in physical as well as visual space, but geometry tells us that if they do the ruler with which we determined the widths of *c* and *d* had a fairly high tolerance for error (perhaps adequate for spacing fence pickets, but not for gear sprockets).

18. One sign of this is that he uses the term "sense data" more or less uncritically here whereas he generally rejects this term in his manuscripts. No doubt he wanted to express what he was trying to say in a language that his Cambridge students would be familiar with.

19. Regarding the progression from spaces to grammar and language games see Noë, "Wittgenstein, Phenomenology, and What It Makes Sense to Say".

20. It is not strictly true that one cannot determine any properties of numbers by experiment. For example, a sampling operation on the expansion of π could determine the probability of finding repeating sequences. Still, it seems

that only certain special properties of numbers could be determined this way.

21. Regarding the "calculus" model see Baker and Hacker, *Understanding and Meaning*, pp.89-92; and Albert Newen, "Die Entiwicklung der Wittgensteinschen Sprachphilosophie...", pp.438-445.

22. Up to this point the basic shape of the transition as I have described it follows pretty much the same outline as that described by Noë ("Wittgenstein, Phenomenology...").

CHAPTER 3

THE RISE AND FALL OF THE PHENOMENOLOGICAL LANGUAGE PROJECT (I)¹

=====

In all philosophical theories we find words whose sense is well known to us from the phenomena of daily life, used in an ultraphysical, thus false, sense. (WA II, 103,3)

=====

3.1 Genesis of the Phenomenological Project

Wittgenstein's aim in the TLP had been to outline a theory of logic that would, among other things, avoid self-reference paradoxes, including the one that bears Russell's name, without any appeal to a hierarchy of logical types. The only thing that could justify specifying different rules for the same kinds of logical symbols (names) would be empirical differences among the objects in their extensions. Wittgenstein thought Russell had implicitly brought in such differences, and it was one of the key principles of Wittgenstein's early work that such reference was forbidden. Hence there could be only one type of name as far as logic was concerned, and only one logical type of object. By the correct specification of syntactical rules that hold for all objects, one could not only avoid the paradoxes, but also all the other confusions inherent in natural language, like the different uses of the word "is", and the superficial formal differences among sentences with the same meaning and thus the same logical form. The TLP was, in an important sense, Wittgenstein's specification of the rules for a "logically perfect language". Of course, it is wrong to suggest, as Russell does (TLP pp.7-8), that the conditions

for symbolism that Wittgenstein describes (i.e., the various components of the picture theory) only apply to such a language. The problem with natural language is not that it is not meaningful, as it would not be if the picture theory failed to contain the conditions of representation in natural language. Rather, the problem is that it does not wear its meaning on its sleeve. The point of the *TLP* was to specify the outlines of a language in which the logical relation between syntactical elements - the logical form - is perspicuous, as it usually is not in natural language.

As we have already seen, though, the color exclusion problem dashed the hope that one could supply a general set of syntactical rules that would permit all and only those combinations of logically simple terms that result in meaningful natural language sentences. One thing such rules could not do was account for relations of metaphysical necessity in the same way they accounted for logical inference. Necessary truths like the color exclusion principle (see Chapter 2) can only be expressed as relations between elementary propositions, or in any case between propositions that are as elementary as one could hope to get. This meant that the principle of logical independence that seems to hold for logical truths, and was essential to the atomist conception as a whole, was unacceptable as a general semantic principle. Wittgenstein's confidence in the possibility of avoiding this problem by further reducing attributions of color, assignments of quantitative value, or principles of logical relations among elements of

experience, was eventually undermined by his inability to come up with a feasible program for such a reduction, or even a single convincing example. Thus he was required to abandon the idea that elementary propositions were logically independent of one another, and replace it with a conception of interdependencies among the rules of semiautonomous logical spaces. At this point, much of Tractarian logic stood at the brink of destruction; and the only question that remained was whether the Tractarian program for developing a language of logically perspicuous form could be salvaged at all.

In his 1929-30 manuscripts Wittgenstein did entertain the notion that this project could be pursued in another way. A purely syntactic, generalized propositional form was not to be had; but perhaps a more specialized logic could be developed, one that would detail the actual grammatical relations, or rules, that stand behind the use of propositions. Of these, phenomenological propositions would be of the highest order of concern. The reason for this becomes obvious as soon as we consider the fact that the problem was originally discovered in the failure of Tractarian logic to enlighten us about propositions concerning "the whole manifold of spatial and temporal objects, as color, sounds, etc., etc., with their gradations, continuous transitions, and combinations" (*SRLF* 31). That is, Wittgenstein had recognized that beyond a limited circle of language in which all logical relations could be expressed by the traditional connectives, there

were realms (spaces) of relations among phenomenological propositions whose logic could only be captured by more specialized sets of grammatical rules. Perhaps, though, the study could offer other insights too; for example, the rules of logical possibility and generality, mathematical infinity, geometrical continuity, and other important linguistic domains would have to be investigated in conjunction with the study of visual space.

The trail would be arduous. Russell, commenting on the PR in the light of the conversations he had had with Wittgenstein, said:

The theories contained in this new work of Wittgenstein are novel, very original, and indubitably important. Whether they are true, I do not know. As a logician, who likes simplicity, I should wish to think that they are not...²

In another version of this remark, this last sentence reads, "I devoutly hope not, as they make mathematics and logic almost incredibly difficult" (WA I,x). Indeed, Wittgenstein's new perspective means that logic is not, as he had hoped, simpler than it was in Russell and Whitehead's *Principia*, with its hierarchy of types and its allegedly contingent axioms. Rather, it becomes far more complex, with semi-autonomous but overlapping conceptual spaces, each having their own sets of logical exclusions and implications but also interpenetrating others in more or less determinate ways. All of this follows from the recognition that the logical independence thesis could not be maintained, and that there were relations between elementary propositions

that had to be accounted for in a theory of the fundamental principles of language and thought.

Russell may have been daunted by this complexity, but Wittgenstein was not. Instead, he set out to breathe life into a revised version of the Tractarian project. Whereas the method of laying out the logic of language had formerly been to develop a purely syntactic *logical* language, now it would be to develop a *phenomenology*. How he conceived of this phenomenology at various points in the manuscripts from which the *PR* was compiled will unfold in this chapter and the next. But at some points, at least, he thought of it in terms of a *phenomenological language*, whose structure and logical multiplicity would be just that of the phenomena under investigation. In *SRLF*, written in or around April 1929, he spoke of "the logical investigation of the phenomena themselves" (p.30) and "the ultimate analysis of the phenomena in question" (p.35). When this is understood as a modification of the Tractarian project of finding a logically perfect language, it requires only a little reflection to see in it the idea of a *phenomenologically perfect language*, or simply a "phenomenological language". So we can say that insofar as this project represents the underlying idea of his efforts, when he rejects the phenomenological language approach at the opening of the *PR* what he is rejecting is both his original conception of phenomenology and the philosophical program which had guided the composition of the *TLP*.

This version of his phenomenology maintains the closest continuity with the Tractarian project, in substituting one language of perspicuous form for another. But later on Wittgenstein thought of phenomenology as a *grammar* of our ordinary discourse within various phenomenological spaces. In this guise his phenomenology looks in the direction of language games and the *PI*. The two conceptions are not completely distinct until some time in the middle of his *Band III* manuscript, where his rejection of the phenomenological language program is unequivocal and final.

Wittgenstein chose to begin his phenomenology where the Tractarian project had gone awry: with the investigation of visual space and color. Over the next couple of years he explored these subjects repeatedly. But he also ranged over a much wider sphere of phenomenological topics, including sound, pain, time, and the self; and he went on to investigate the grammatical rules of mathematical and logical spaces as well, in the same spirit of trying to ferret out the necessary propositions in each of these spaces. Though in hindsight this may all be a prelude to his later ideas about language games and rule-following, it was at the time an enterprise in its own right, resulting in a rough and incomplete phenomenology.

We will now proceed, in the remainder of this chapter and in the next, to unravel the development of the central feature of Wittgenstein's 1929-30 philosophy, the phenomenological language project. Our interpretation will coincide at one point or another with those of the

Hintikkas, Stern, and Noë³, but we will show that many of the critical developments are either missed or not sufficiently emphasized in previous efforts. In contrast to the usual procedure of patching together a version of Wittgenstein's phenomenology from quotes taken from different parts of his manuscripts and lectures, we will proceed more or less chronologically, noting the changing content of his conceptions at various stages of his work between February 1929 and March 1930. By this method we will reveal that virtually all of Wittgenstein's basic conceptions underwent fundamental changes between the beginning of his work and the creation of the *PR*. We will also demonstrate, contrary to received wisdom, that Wittgenstein had mixed feelings about the concept of a "phenomenological language" from the very first time he used this term, and that he never adopted it without reservation.

In broad outline, our view of his project consists of four phases. (Please see Appendix III for a schematic diagram of the phases, including dates and manuscript materials involved.) In the first, from February 1929 through some time in the summer of that year, Wittgenstein developed a number of ideas in which the concept of a phenomenological language is implicit. This phase is represented by Wittgenstein's *Band I* notebook (the first of the four volumes from which the *PR* was drawn) and most of *Band II*. The second phase, which lasts only a few weeks, begins when he first uses the term "phenomenological language"; at this time he apparently rejects the whole idea

in short order. This phase, in which he emerges from a brief philosophical crisis in or around July 1929, takes place at the end of *Band II*. In the third phase, which comprises the first half of his *Band III* notebook, he suddenly takes up the project again, encounters problems, and tries to work them out. This ends, and the fourth phases begins, in October 1929, with a second philosophical crisis from which he recovers only by finally rejecting most of his earlier ideas, including the phenomenological language conception. The spark for his recovery, and the key move in the transition to his later philosophy, is the realization that a physicalistic grammar cannot be used to express phenomenological truths. This phase begins midway through *Band III* and continues until the middle of *Band IV*, when he compiles the *PR*; though most of the transformation has taken place by January 1930, well before the end of *Band III*. The *PR*, which dates from April-May 1930, really belongs to a fifth, constructive phase, where Wittgenstein tries to put together a phenomenology, in the sense of a grammatical investigation of phenomena rather than an analytical phenomenological language, out of the remarks he had written over the past 16 months⁴. It is intended to reflect his views as they had emerged by March 1930, after many changes had taken place; but the attempt to recontextualize his earlier remarks in light of his later ideas is not altogether successful, and this accounts for much of the difficulty of the work, and its apparent inconsistencies. We will not be able to give this interpretation of the *PR* a

full exposition here, but will limit ourselves to a few examples as the occasion arises.

PHASE I: WITTGENSTEIN'S EARLY 1929 PHILOSOPHY

3.2 Initial Ideas about Grammar, Physics and Phenomenology

Within a few days of beginning his 1929 manuscripts Wittgenstein reveals the most important feature of his new project, the distinction between phenomenology and physics (WA I,4,6ff). Such a distinction may be inferred from the later parts of the *TLP*, e.g., from the distinction between empirical propositions and all others; but it is not an organizing principle of that work as it is in these later manuscripts. Here it is clear from the outset that it is a central feature of what he is thinking about - as one might expect from the fact that the impetus for starting the notebooks was at least in part a misgiving about the treatment of the phenomenology of color in the *TLP*.

He also introduces the term "grammar" almost immediately, in a way that sounds much like his use of it throughout his later work. But he treats it here as identical with "phenomenology" (WA I,4,7), and this should signal to us that he is thinking about it quite differently than he will in his later work. He says phenomenology is

[3.1] the grammar of the description of those facts out of which physics constructs its theories.⁵ (WA I,5,1)

Thus he actually started out with the belief that a grammar of phenomenological spaces would provide an adequate account of the necessary relations between propositions that the formal logic of the *TLP* had failed to capture. Nevertheless,

one should not jump to any hasty conclusion from these brief remarks about the grammar of phenomenological spaces, i.e., by reading into them the meanings that these terms developed over the next few years. From the little he says here the notions of "grammar", "phenomenology" and "physics" could go in any number of directions.

In fact, there is good reason to suppose that what he means by "grammar" in [3.1] does not have much to do with ordinary language, for he does not seem to be claiming that it is ordinary language or its grammatical principles out of which physics builds its "theories". Nor is "physics" used here in the sense in which he later holds that ordinary language is based on the grammar of "physics", but rather in the usual sense of a scientific discipline. This is apparent not only from his use of the word "theories", but from the fact that he says, "physics strives for truth, that is, correct predictions of events" (WA I,4,6), and "physics differentiates itself from phenomenology in that it wants to establish laws" (WA I,4,10). From this we can also see that "theories" does not have the sense of his later term "hypotheses", which he used to describe ordinary propositions which presuppose the existence of a physical world beyond the senses; it has rather the technical sense of a body of descriptive and predictive scientific laws.

Most likely, these first few remarks in the manuscript constitute a development of what he had said in *TLP* 6.3ff, where he deals with scientific propositions. References here and in that section of the *TLP* to the advantages of the

"simplicity" of physics (TLP 6.342; WA I,4,6), and discussions of physics as a mode of representation (TLP 6.341; WA I,4,4-6) tend to confirm this interpretation. So does the fact that it is in that section of the *TLP* that the color exclusion problem appears (6.3751), and this problem was apparently the impetus for beginning this notebook. Thus the terminology here is more backward-looking than it seems from the introduction of "grammar" and "physics".

As we know, the term "physics" eventually develops a much wider sense than it has here. The long-term resting place of this term in Wittgenstein's usage is as a description for the grammar of ordinary language per se. But even before it reaches this stage it comes to signify statements which presuppose the existence of a physical world, i.e., statements in which physical objects and temporal relations are mentioned without being couched in terms of appearances. Since even this usage is not really apparent until the early phenomenological system begins to break down we will say no more about it here. The term "grammar" takes even longer to acquire its later sense. The *PR* opens with a remark which gives a fairly clear indication of his later ideas: "That proposition is completely logically analyzed whose grammar is completely clearly laid out" (*PR* I,1,51; *WA* II,220,2). This remark is from *Band IV*, written 23 February 1930, just about a month before the last remarks which went into the *PR*.

As for "phenomenology", in these initial remarks there is no explicit talk of a "phenomenological language", though

in hindsight one could infer something like this from the idea of phenomenology as a set of grammatical rules for physics. This would appear to align Wittgenstein with Mach's conception of science at this point. But even if this is how we should read this remark - and there is not enough here to be sure that it is - it is still quite far from his own conception even a short time later, because he increasingly takes phenomenology and physics to be two *different* languages which describe *different* "worlds" or "systems". This view, however, turned out to be quite problematic, and a year or so later he arrives at a very similar view to that of [3.1], which guides the construction of the *PR*: i.e., that phenomenology is just the grammar of our descriptions of phenomena. By this time, though, the view incorporates the prior recognition that the grammar of phenomena must be derived from ordinary language, and that the latter has an inherent physicalistic bias.

So in spite of appearances, none of the terms he introduces in these first few remarks - grammar, physics, or phenomenology - are used in the way he will eventually use them. By the time any of these terms has acquired its mature sense Wittgenstein's philosophy had been largely overhauled. Nevertheless, it is instructive to observe how small an effort it would require to make any of these remarks appear to reflect his later ideas: if one simply established, with a few well-chosen passages, the later meanings of these terms, it would be hard to tell that these remarks reflect, at most, very primitive versions of those ideas, if not an

altogether earlier line of thought. This is exactly what he does with some of these remarks in the first few passages of the *PR* (I,1,51): much later expressions of his ideas about phenomenology establish a context, and the earlier remarks are then added. Wittgenstein uses this technique often in the *PR*, in the hope of avoiding inconsistency while excavating as much as he can from the earlier manuscripts in the service of constructing a grammar of phenomena.

3.3 Phenomenology Defined

Wittgenstein's first comment about phenomenology and physics in his manuscripts is the statement:

[3.2] It seems that much speaks for the representation (*Abbildung*) of visual space through physics actually being the simplest. (*WA* I,4,6)

Roughly three months later, in *Band II*, he adds that

[3.3] the description of phenomena by means of the hypothesis of a physical world (*Körperwelt*) is unavoidable due to its simplicity compared with the incomprehensibly complicated phenomenological description. (*WA* I,126,1)

In these comments Wittgenstein suggests that physicalistic language is a kind of shorthand for what would be a language of experience. This should give us a sense of what the task of a phenomenology would be: to recover those modes of expression that avoid the simplifying assumptions of physics. Several months after [3.3], at the end of *Band II*, Wittgenstein makes the famous remark which appears in the first section of the *PR*, in which he speaks as if he had all along had in mind some sort of "phenomenological language". To the extent that he did, these remarks on the simplifying hypotheses of physicalistic description provide a hint of

what such a language was supposed to be. It would be one that could capture the complex necessary truths of phenomenology in logically perspicuous form, more or less as Wittgenstein's formula for the "general form of the proposition" in the *TLP* was supposed to perspicuously mirror the logic of all language, without introducing reductive assumptions about the causes of phenomena. In this sense, at least, something like a "phenomenological language" was part of his original conception.

An early remark in *Band I*, which opens Chapter XXI of the *PR* (the chapter which contains remarks on the grammar of color) begins with the following:

There appear to be simple colors. Simple as psychological phenomena. What I need is a psychological or rather phenomenological color theory, not a physical and just as little a physiological one.

Furthermore, it must be a pure phenomenological color theory in which only the actually perceptible is spoken of and no hypothetical objects - waves, cells, etc. etc. - occur. (*PR* XXI,218,273; *WA* I,24,2)⁶

This gives a further indication of the nature of the project as Wittgenstein conceived it at the beginning. The pure phenomenological description of the world is to be contrasted with the description in terms of "hypothetical", i.e. physical, objects. Much of the material in *Band I* is an extension of this idea: in particular, he tries to develop a purely phenomenological description of the nature of visual space, with the expectation that this will lead to a way of avoiding the color exclusion problem. That is why having a "phenomenological color theory" was so important to him. If the quickly abandoned ideas of *SRLF* tell us anything it is

that he initially saw his immediate goal as an examination of "visual space and other things" towards the longer-term project of offering a phenomenological substitute for the Tractarian system. Phenomenology would then consist of natural language reports of conscious experience, expressed in a grammatically perspicuous form; while physics would express hypotheses, meaning more or less that its language would presuppose external, physical causes of that experience ("waves, cells, etc.").

3.4 Phenomenology, Sense-Data and the Two Worlds

One of the central ideas of Wittgenstein's early 1929 remarks is that there is, in a sense to be discussed, a "world of physics" and a "world of data", i.e., sense-data. Discussions of Wittgenstein's phenomenological period usually collapse this into his other phenomenological conceptions, but for reasons that will become clear as we proceed it is best viewed as a distinct thesis. The basic idea is that there are two distinct worlds, or "systems", as he often calls them, one of which is composed of sense-data and the other of physical objects. There is a further thesis, which is almost always merged with the former in the scholarly literature on this period, to the effect that these systems or worlds are so ordered that the "world of data" is the "primary world", or real world, or at least the *known* world in something like the sense that Russell sees "knowledge by acquaintance" as the only *direct* knowledge we can have of the world. The "secondary world" of physics is then an inference from sense-data.

The purpose of the distinction between two "worlds" seems to be primarily epistemological at first, coinciding with that between phenomenology and physics, and thus with many other philosophical systems in which sense-impressions are considered epistemologically distinct from physical objects. One might therefore assume that Wittgenstein meant to be neutral about its ontological commitments. This is also suggested by the fact that he frequently refers to a "system", which sounds less ontologically loaded than a "world". This is hardly decisive, though, since one could speak of a system of bodies as well, and Russell, for one, does not even hesitate to speak of systems of sense-data ("biographies") as belonging ontologically to the physical world. When Wittgenstein begins the *TLP* with the assertion that "the world is the totality of facts, not things" (1.1) this can be read as an effort to move "the world" out of the realm of metaphysics. "Things" suggests ontology while "facts" suggests either something epistemic or perhaps a purely logical construction, though it is certainly possible to construe a Tractarian "fact" as an entity composed of objects in a particular configuration. Wittgenstein's initial response to the color exclusion problem after the *TLP* was that propositions are not logically independent but hang together in "systems". This suggests that the term "system" is essentially a linguistic or epistemological term, not a metaphysical one, and this lends some support to the idea that "world" was also initially thought of as an epistemic term.

But in the *PI*, in a passage that is quite clearly directed at the *TLP*, he says that "if the words 'language', 'experience', 'world', have a use, it must be as humble a one as that of the words 'table', 'lamp', 'door'" (*PI* 97). This suggests that the "world" here is just what we ordinarily mean by it, which would not be an epistemological category, though it would not strictly speaking be an ontological one either. The decisive factor, in my view, is that the terms in which he later rejects the idea of "two worlds", and the fact that he nevertheless retains the physics vs. phenomenology distinction after this point, suggests that he himself thought he had slipped into thinking of the distinction metaphysically. Thus the following middle view emerges: although the notion of "two worlds" originally signified nothing more than two distinct modes of representation, Wittgenstein had begun to think of them as metaphysically separate, such that a phenomenological language would refer to facts in one world and a physical language to facts in another. He then caught himself in this fallacy and rejected the "two worlds" idea altogether. This reversal belongs to the opening foray in his attack on his original conception of phenomenology, and so to a later part of our discussion.

The "two worlds" idea is first expressed some forty pages into the *Band I* manuscript, where Wittgenstein begins to speak of a "first" and "second" system (*WA* I,23,2-6) of which the former is the "world of data" (*WA* I,25,4). The notion of two worlds or systems seems to be connected with

various references he makes to the "primary" beginning in his *Band II* notebook: primary "time" and "life" (WA I,45,1-3), primary "propositions" (WA I,83,7) and primary and secondary "number series" (WA I,96,1). What ties these references together is the distinction between physics and phenomenology, which is already taking on a much broader sense than we find in the opening remarks. Primary "time" will be that of phenomenological experience, primary "propositions" express this experience; both are distinguished from physical time or language. Wittgenstein compares the two systems to the images on a filmstrip (the physical) and what they project on the screen (phenomena, the "primary") (WA I,23,3-5; PR V,51,83). It is significant, though, that he does not refer to the physical as "secondary" until quite a bit later in the manuscript. Though characterizing phenomenological propositions as "primary" seems to imply this, we shall see that he began with a conception of the two realms as equal, and only later, and very briefly, began to think of physicalistic language as in some sense subordinate to the phenomenological.

Wittgenstein does not start dating his manuscripts until 6 October 1929, well into his *Band III* manuscript, so the dates of most developments between 2 February and 6 October have to be estimated⁷. The distinction between the two "worlds" informs his first remarks about verification and phenomenological language, which must have been written some time in the summer. Phenomenological language is

constituted by those propositions about the "primary world" that are verifiable (WA I,190,2). Wittgenstein had started out by speaking of phenomenology and physics as two modes of representation, rather than two distinct languages; but as we pointed out, a long journey separates this statement, which is placed right at the beginning of the PR (I,1,51), and the later recognition that the distinction between phenomenology and physics is found in the grammar of ordinary language. Shortly after he began he started thinking of the "grammar" of phenomenology and the "theories" of physics as two *different* languages. The "two languages" outlook is simultaneously reflected in a "two worlds" epistemology.

We may call the idea of that there are separate worlds of sense-data and physical objects the "two worlds" hypothesis and the idea that knowledge of the latter is based on the former the "epistemological priority thesis". It will be useful to formulate the two theses separately so as to keep them distinct in what follows. The "two worlds" conception may be described thus:

TW: There are two distinct worlds, or systems, the first of which is composed of sense-data, and the second of which is composed of physical objects.

The thesis of epistemic priority, then, is:

EP: The first world of **TW** is primary in relation to the second, in the sense that they are so ordered that knowledge of the second is obtained only through

inferences from knowledge of the first, while knowledge of the first is direct, infallible, and unmediated. Both of these ideas may be further distinguished from the following conception in which what are distinguished are *modes of representation* of the world:

MR: There are two different modes of representation used to depict reality, one of which is used for the representation of immediate experience and the other for representing the physical world.

It should be readily apparent that **MR** must be attributed to Wittgenstein throughout the period we are discussing, even when he seems to hold **TW** and **EP** as well. A later version of this thesis, though, equates ordinary language with the physicalistic mode of representation:

MR': Ordinary language is the mode of representation primarily used to depict reality as consisting mainly of physical objects, whereas the representation of immediate experience is done by other means, including uncharacteristic uses of ordinary language itself.

The "other means" here might include various metaphors derived from ordinary language, pictorial or geometrical representations, or a phenomenological language. **MR'** belongs to Wittgenstein's mature conception of his project; it is anticipated in the summer of 1929, but its full importance is not appreciated until at least October.

MR is more or less implied right from the beginning of *Band I*. But it is initially stated in terms of the

continuity of space, and hence cloaked in mathematical language:

If I can represent (*abbilden*) space with rational numbers then I can also represent it with irrational numbers. And if the one representation is given, therewith so is the other mode of representation (*Art der Abbildung*) thereby also already given.

Now the question is: is there a privileged, for instance particularly immediate, mode of representation? I believe not!

Each mode of representation is equally justified (*gleichberechtigt*). (WA I,4,2-4)

Since Wittgenstein's first mention of physics and phenomenology immediately follows this passage, and does not seem to suggest a change in point of view, it appears that far from endorsing **EP** here, he was quite opposed to it. Indeed, if any priority is suggested at the beginning of his notebooks it is quite the reverse of that in **EP**. We have already cited his statement that "much speaks for the representation of visual space through physics actually being the simplest", to which he adds: "That is, that physics were the true phenomenology" (WA I,4,6). He immediately moves to restrict this idea, but not in a way that suggests that phenomenology is "primary":

But there is something to object against that: namely, physics strives for truth, that is, correct predictions of events, while phenomenology does not do that, it strives for sense not truth. (WA I,4,6)

But one can say: physics has a language and it states propositions in this language. These propositions can be true or false. These propositions constitute (*bilden*) physics and grammar constitutes phenomenology (or however one wants to call it). (WA I,4,7)

Physics distinguishes itself from phenomenology in that it wants to establish laws. Phenomenology only establishes possibilities. (WA I,4,10; PR I,1,51)

The next remark is [3.1] (above, p.100). This opening foray into phenomenology begins with the idea of a certain primacy of the physical, at least in terms of simplicity. It then strikes a kind of functional balance between the two, as different modes of representation. Wittgenstein gives no indication that he is thinking of a contrast between this and the above remark that all modes of representation are "equally justified". The reasonable conclusion is that physics and phenomenology also stand on a par at this point.

In other early remarks Wittgenstein refers to the "first" and "second" systems. Since he refers to the first system as "primary" it is hard to understand why he avoids calling the second one "secondary". The analogy in the following passage, near the end of *Band I*, can be taken in two ways, one of which suggests the primacy of the physical world, the other the reverse:

Then is there time at all in the first system? Can one say of an event or rather of a fact in the system of data, 'it was'?

If I compare the facts of the first system with the pictures on the screen and the facts in the second system with the pictures on the filmstrip then there is a present picture on the filmstrip, past and future pictures; but on the screen there is only the present.
(WA I,23,2-3; #3 is PR V,51,83)

On the one hand, this film analogy suggests something quite the reverse of his later expressions, since the phenomena are derived from the physical facts. For it is clear that the images on the screen are in fact "mere" images, and the physical film is the source of them. However, Wittgenstein probably means to describe our epistemic position as being

similar to that of the audience; in this case he would be saying that the images are all we can observe and the film can only be inferred by hypothesizing some physical and geometrical method of projection⁸. Thus, he had begun to move toward a position, which seems more natural the more one takes phenomenology as a basis for an epistemological foundationalism, in which the "first" world is also "primary" and the physical world is "secondary".

Nevertheless, no explicit expression of **EP** can be found until the middle of *Band II*. The few passing references to the "primary" before the middle of *Band II* do not show that he had altered his position before this point. The following is the earliest overt contrast between "primary" and "physical":

What we conceive in physical space is not the primary that we can only know more or less; rather, what we can know of physical space shows us how far the primary goes and how we have to interpret physical space. (WA I,141,1; PR XII,147,168)

This is found a little more than halfway through *Band II*. This means that **EP**, as a consciously held position, dates from roughly midyear 1929. This gives it a life of only about six months, quite a bit less than what one might suppose from reading the *PR*. For several months after the above remark, written perhaps in the late spring or early summer of 1929, there appear a number of more explicit expressions of **EP**. There is little question Wittgenstein held **EP** for at least a few months. Beginning in October 1929, with his reconsideration of other philosophical positions, it becomes increasingly problematic to continue

holding **EP**, and by the end January 1930 it had been finally and decisively rejected.

MR' is first stated explicitly towards the end of *Band II* (WA I,190,2), and thus belongs to the second phase of Wittgenstein's 1929-30 philosophy, to be examined below. **TW** develops gradually during the first phase. We have seen that he refers to a "world of data" early in *Band I* and to "the hypothesis of a physical world" near the middle of *Band II*. His other references to the primary or secondary world, or system, prior to the beginning of a general re-examination of his position in mid-1929, occur mainly in the context of considerations about the infinite divisibility of space, where he wishes to distinguish the logically infinite possibility of spatial division in the "primary" world from physically possible divisibility in the "secondary" world (WA I,144,3; I,146,2). Once again "world" and "system" are used interchangeably, and shortly after he leaves off this topic we find a revealing series of remarks on worlds and systems:

[3.4a] A system is, so to speak, a world.

[3.4b] Or: each higher system is a world of more dimensions than the lower.

[3.4c] Thus one can't search for a system. But indeed for the expression for a system that is given to me in unwritten symbols. (WA I,173,7-9)

All but [3.4b] were included in the *PR* (XIII,152,178). This remark seems to suggest **EP**, a stronger thesis than **TW**, and since both of these were rejected along with the rest of his early ideas well before the *PR* was put together it is not

surprising that it was omitted. Moreover, [3.4b] looks very much like a phenomenological theory of types; yet only a few remarks later Wittgenstein is concerned to deny that such a proposal is necessary (WA I,174,4; PR XIII,152,179). On the other hand, to the extent that it catapults the physics-phenomenology distinction into proposal for a plurality of worlds, one can see in it a kind of predecessor to the notion of language games. Indeed the three remarks taken together form a kind of nexus of the ideas that led from the *TLP*, to the phenomenological system, and finally to the later philosophy. The notion of a "world" as a system of propositions clearly has its place in the *TLP*. But the color exclusion problem led to an emphasis on the multiplicity and semi-autonomy of such systems, in particular systems of phenomenologically related propositions, in order to account for metaphysically necessary relations like those that characterize the color spectrum. Rule-following is represented in [3.4c] by "searching", which one can do only within a system, or game. What this passage shows, then, is that **TW**, though it was rejected in fairly short order, was an integral part of the conjuncture of intellectual threads that led from the *TLP* to the *PI*.

Over the course of his first two notebooks, the reification and epistemological ordering of the two worlds or systems began to replace the initial proposal ~~MR~~ that simply distinguishes two ways of talking about the world. Wittgenstein began to think of the two systems as discrete worlds that were so ordered that the physical one was known

only by inference from the phenomenal. Though he is never moved to explicitly characterize them as ontologically distinct, once he has taken the position that the existence of one (the "primary") is known with certainty, while the other is a "hypothesis" or inference from sense-data, it is difficult to avoid talking about them as if they were indeed different worlds⁹. At any rate, Wittgenstein seems to have been concerned about this implication after a certain point, for as he starts to reconsider his initial positions he forcefully reminds himself that both ways of talking refer to the same world.

The progression to the dualist position coincided with his deepening commitment to phenomenological investigation. One has the sense that during this period Wittgenstein was slowly tying himself in phenomenological knots, more or less forcing on himself the thesis that there was a phenomenological "basis language" (to use the Hintikkas' term) with which one could speak of "a world of pure experience" (to use James's term) and avoid committing oneself to the "simplifying hypothesis" of a world of pure matter. This is the kind of phenomenology Wittgenstein had started to pursue, but it led him in directions he did not care to follow. The phenomenology that is represented in the *PR*, though, is not this, but the grammatical conception. Despite the inclusion of some of his earlier remarks there, the *PR* was not supposed to defend either **TW** or **EP** but only the two versions of **MR**. As we shall see, the two-worlds

conception will be rejected along with the phenomenological language conception, for the two went hand in hand.

3.5 A Few Remarks on Sense-Data

Before we move on we must say a word about "sense-data". I have attributed to Wittgenstein an acceptance of this term, and even suggested that it forms a basis of his phenomenology. But in fact, up to the end of the period we are now considering (Phase I) he uses only the terms "*Datum*" and "*Data*", and that mainly in a few remarks towards the beginning of *Band I*, where he refers several times to a "system of data" or "world of data" (WA I,23,2; I,23,5; I,25,4). Here the "world of data" is contrasted with the "world of physics" (WA I,23,5), so it is pretty much beyond doubt that he is referring to sense-data, not "data" in any other sense of the term, i.e., to phenomena as opposed to physics. Moreover this gives us a reasonable basis to assume that when he speaks of the "primary" world or system he means a world composed of sense-data.

However, when he actually starts using the word "*Sinnesdaten*" in *Band III* he is usually critical of it. This in itself suggests that he had consciously adopted it, since this is largely a period of criticism of his own earlier ideas. Given its association with the early work of Russell and Moore it is somewhat surprising that Wittgenstein ever did adopt it, even in his abbreviated form. It is true that before 1929 Russell had published *The Analysis of Mind*, the neutral monist work in which he gives up the idea that sensations are data¹⁰. But though Wittgenstein read this

work at some point (most likely in 1930, which is when his remarks first turn towards some issues raised in Russell's book) there is no reason to think he adopts the "sense-data" terminology merely because Russell dropped the idea. More likely the explanation is that Wittgenstein picked it up as a convenient expression with which to talk about phenomenological experience, and simply left aside any psychological or ontological baggage that Russell, Moore or others might have wished to attach to the term. As we have seen, he was not much concerned with questions of experimental psychology, and ostensibly even less with metaphysics, so he would have had little interest in the matter of what sense-data were, where and how they were cognized, etc. In the *NB* he had struggled to understand the ontological nature of "objects", but by the time he wrote the *TLP* he gave up trying to say what they were and focused instead on their logical properties (how they combine to form facts, etc.). In undertaking his phenomenological investigations he avoids the ontological issue of what sense-data are altogether. A "world of data" was at first thought of as a construction or representation of sense-experience; the rest was a conceptual investigation of the necessary properties of visual space and other spaces. Later on, when he began to doubt that such a construction from pure experience could exist or that such a representation was, strictly speaking, possible, he also began to question the usefulness of the notion of "sense-data".

3.6 Wittgenstein's Original Conception of Hypotheses

We have already seen a number of instances of Wittgenstein's use of the terms "hypothesis" and "hypothetical". At the very beginning of the manuscripts Wittgenstein spoke of the language of physics as "hypotheses" and said he wanted a color theory without "hypothetical objects", i.e., the physical apparatus of the eye or the physical medium of light. He speaks of the "description of phenomena by means of the hypothesis of a physical world". These references suggest that by "hypothesis" he initially meant any statement that presupposes a physical cause behind an appearance. The "world of physics" is thus described by means of hypotheses. Another indication of this occurs well into Band II. Wittgenstein asks, "how can we construe an infinite hypothesis, for example the infinitely many fixed stars?" He says of such a hypothesis, "it is clear to us that no experience corresponds to it. It exists only in the 'second system', thus in language..." (WA I,146,2). Again, the hypothetical seems to be equated with the physical in general, which is distinct from experience and is expressed in the language of physics.

As we can see from Wittgenstein's statement about the kind of color theory he was after, hypotheses are at this point in his philosophy regarded with a certain amount of suspicion. Hypothetical propositions are not now thought of as perspicuous representations of the world; on the contrary, they are precisely what a phenomenological

language, or something along those lines, would provide an analysis of. Thus, at least by the end of Phase I, they do not stand on a par with phenomenological propositions; the latter are immediately known, while hypotheses are known by inference from sense-data.

This is about as much as we can learn of "hypotheses" prior to the transformation of Wittgenstein's overall philosophical outlook. There is nothing at this point indicative of the later view on which "hypotheses" are contrasted with the verifiable nature of phenomenological claims (WA II,5,1); that development occurs only at the beginning of the series of changes that altered his original views, and it quickly gives way to another view in which hypotheses are not verified but "confirmed". Note, however, that it is already used in a wider way than the word "theories" was in his reference to the "theories of physics" at the beginning of *Band I*. There he seems to have meant by "theories" more or less what we would mean by that phrase in ordinary language, i.e., a technical model used in scientific explanation of the physical world. A "physicalistic hypothesis", however, was a way of talking about the world as a world of physical objects. A hypothesis of physics is the same thing as what he has in mind in the *BlB* when he says of propositions about the material world, "I am not thinking in particular of the laws of the natural sciences, but of any such proposition as 'the tulips in our garden are in full bloom', or 'Smith will come in any moment'" (*BlB* 46; see Chapter 1). The term "hypothesis" does

not, however, lead directly into this conception, but is rather refined out of existence in the subsequent manuscripts. By the *BT* (p.440) he is already using the word in its ordinary sense.

PHASE II: CRITIQUE OF THE EARLY SYSTEM

3.7 The Chimera of a Phenomenological Language

We have so far given a general overview of the nature of Wittgenstein's philosophy through roughly mid-summer 1929. In that period he began using the terms *grammar*, *physics*, *phenomenology*, *hypothesis*, *datum*, and *primary world* (or "*the primary*"), and if only in virtue of his vocabulary he sounded like he was already in possession of most of the ideas that went into the *PR*, and even some of his later philosophy. But this is not the case, for the use of these terms at this point is not what it will be only a short time later. The earlier conception will be largely jettisoned, and it is this self-criticism that will lead to the *PR* and eventually to his later philosophy.

One reason to suspect that the main story has not yet begun is that up to this point Wittgenstein has not even introduced the terms "phenomenological language" or "primary language"; nor has he used the terms "verification" or "mode of expression" in any way that suggests their later significance. But it is just when he begins using these terms that the original conception starts to break down. These expressions (except the last) were initially thought to capture the essence of the project; but no sooner does he formulate them than he begins to notice difficulties that

eventually prove fatal to the project as originally conceived. In a prolonged rectification which begins at the end of *Band II*, reaches a kind of climax in October 1929, and continues at least through January 1930, Wittgenstein burst out of the straightjacket he had made for himself and emerged with ideas that would evolve into what we now know as the "later Wittgenstein".

In a well-known remark on the first page of the *PR* Wittgenstein gives a negative characterization of his point of view in May 1930: it involves the rejection of the notion of a "phenomenological language, or 'primary language' as I called it" (*WA II*,118,6; *PR I*,1,51). This has led many readers to think that this notion was the foundation of some substantial previous body of work. We have rejected (Chapter 1) the suggestion that the *TLP* or its precursors were based on such a notion. When the *PR* was composed Wittgenstein's entire post-Tractarian opus consisted of *SRLF* and his four notebooks *Band I-IV*, of which *Band I* was rather brief and the fourth only about a quarter filled. It was not until just before the end of his second (*Band II*) notebook that he began to use the term "phenomenological language" (*WA I*,190,2). His first use of the term "primary language" occurs almost immediately after this (*WA I*,191,8), in spite of the above remark¹¹. The remark at the opening of the *PR* in which he rejects these ideas is found on p.205 of *Band III*, written 25 November 1929. This chronology yields two sobering facts:

1. His rejection of the "phenomenological language" project was a break with ideas he had developed for no more than 10 months, i.e., beginning at the earliest in February 1929.

2. The project he rejects nevertheless occupies some part of *Band I* - *Band III*, the very sources from which a great deal of the *PR* itself is drawn.

The second point largely explains why the *PR* is so difficult to follow and appears inconsistent at many points. We will discuss this as the need arises in what follows.

The first point, however, requires some immediate comment. In fact, it may be stated in even stronger terms; that is, *the expressions "phenomenological language" and "primary language" are associated with the first steps in the decay of Wittgenstein's first phenomenological system.* I have argued above that he had *something like* the notion of a "phenomenological language" in mind from the beginning. It is nevertheless quite interesting that this phrase itself does not occur as a self-conscious characterization of his project until he begins to question it. In this sense, the notion of a "phenomenological language" is the beginning of a process of decline of that project. That process lasted from roughly July 1929 until January 1930, with some of the most significant changes occurring in October 1929.¹²

3.8 First Intellectual Crisis and Critique of Dualism

Wittgenstein's use of the phrase "the hypothesis of a physical world" must have stuck in his mind like an intellectual prickle, perhaps made even more uncomfortable

by his references to a "world of data" in the early parts of his manuscript. For it should not be taken as a matter of course that a desire to find a perspicuous representation of the exclusion of one color by another should lead anyone to speak of the existence of an external world as a "hypothesis"! One might speak of two "worlds" pleonastically, in order to distinguish epistemological vantage points, but once the notion becomes reified it is unlikely to have a clarificatory effect overall. Recognition of this difficulty seems to be the basis of the first step in what would become, beginning some time in mid-1929, a revolution in Wittgenstein's perspective. Notably, as with later stages in this turnaround, it occurs after a period of intellectual stagnation. He writes:

For 14 days I have not worked. Now we will see whether it will still go on. I have not yet found the road. And my thoughts flutter around the object. (WA I,190,1)

His next remark is the one in which he first uses the term "phenomenological language":

[3.5] A phenomenological language describes exactly the same thing as an ordinary, physical [language]. Only it must limit itself to what is verifiable.

Is that even possible? (WA I,190,2-3)

This would have been written roughly in summer 1929, perhaps six months and more than 400 manuscript pages into his work. Two fundamental assumptions are questioned here. First, **TW** (the two-worlds hypothesis) is practically cast aside; if the two languages describe "exactly the same thing" there can be only one world. Second, the possibility of a language of immediate experience is put in doubt. There are other

important developments here too. This is the first time he mentions verificationism in a way that connects it with his phenomenology. It is also the first time he equates ordinary language with physicalistic language, setting the stage for the idea that philosophy must work with ordinary language but be cognizant of its physicalistic bias.

But what transpires in [3.5] is an extremely important step in Wittgenstein's transition even without these concurrent developments. For from what he says in the remark just before this we can infer that he wanted to put an end to whatever was blocking him from working, and that [3.5] goes right to the heart of the difficulty. Thus he first coins the phrase "phenomenological language" as a kind of summation of all of his assumptions up to now, and then immediately questions his direction by asking if the goal it aims at is even possible. It is a sign of the fact that a crisis is upon him that Wittgenstein does not begin with less formidable questions, such as whether a phenomenological language would actually solve problems like color exclusion or anything else, or whether it might not realistically be too complex to specify. Instead, he goes directly to the question of whether such a language is even possible.

These doubts about the possibility of a phenomenological language are no passing tremor; they continue in various forms for ten manuscript pages, to the end of *Band II*. In fact the whole idea of a phenomenological language appears to be decisively rejected in these pages.

Although he does not explicitly answer his own question of whether it is possible until the next manuscript (*Band III*), a negative answer is strongly suggested in these last 10 pages of *Band I*, as we will see. Historically, though, this is not the final word; for at the beginning of *Band III* he suddenly seems bent on reviving the project which he seems to abandon here. Nevertheless, it stands in stark contrast to much that has been written about Wittgenstein's phenomenology that no sooner had he given expression to the idea of a "phenomenological language" than he raised fundamental doubts about it. As we shall see, the revival of it in *Band III* similarly plunges into doubt in very short order, although (for reasons we will explore) it takes much longer this time before he decides that these doubts are fatal to the project. But he does finally reach that conclusion, and it is the end of a process of critical self-examination that begins with [3.5].

In his next remarks Wittgenstein continues questioning his previous assumptions:

[3.6] Let us not forget that physicalistic language also only describes the primary world again, and not e.g. a hypothetical world. A hypothesis is only an assumption about the practical/ correct/ mode of representation.

Now is this hypothetical essential [for] every representation of the world? (*WA I*,190,4-5)

This confirms the rejection of **TW**, and with it at least the original form of **EP**, i.e., the epistemological priority of the phenomenological world over the physical world. Having spoken of primary and secondary "worlds" to the point of

talking as if they were ontologically distinct, he now withdraws from this implication and returns to the idea with which he began his manuscripts, that physics and phenomenology are two modes of representation of one world. This is an about-face from the direction of his remarks up to this point; it is the critical step in his transition, on our reading, and hails the onset of a new system of ideas and the end of his pursuit of phenomenology as traditionally conceived. At this point the idea of a *grammatical* distinction between two ways of talking regains the ground it had partially ceded to the two-worlds view. The grammatical philosophy is now visible on the horizon, and the phenomenological language project will eventually be folded into it as an examination of the grammar of phenomena.

Wittgenstein also puts a new spin on the term "hypothesis" in [3.6], one which further undermines **TW**. To say that ordinary language contains hypotheses is not necessarily to doubt the existence of an external world. But this is what his use of the term had seemed to imply up to now, leading him to characterize the physical world as "secondary". Now he says that the use of a hypothesis only implies that our present purposes are best suited by the assumption that physical objects exist. This is why the adjectives "practical" and "correct" occur as alternatives in his manuscript: the "correct" mode of representation is the "practical" one in the sense that it is dictated by considerations about what the discourse is to achieve. Since

it is usually practical to represent the world through the consolidation of the data of experience into a few basic relations between ourselves and physical objects, the hypothetical mode is also in this case the "correct" one.

The idea that the practical superiority of a mode of representation makes it "correct" raises a question, since it seems to suggest that the previous motivations for a phenomenological language, i.e., its foundational relationship to ordinary language, are trumped by purely prudential considerations. This sounds unusual given the views Wittgenstein has been propounding until now; in fact, it seems that unless he has dropped a lot more of his perspective than he lets on, he is still committed to some form of **EP**, with the ontological implications removed. Wittgenstein clearly wants to hang on to the term "hypothesis"; thus he continues to recognize the contingent and uncertain nature of propositions which presuppose a physical world¹³. He also seems to still believe that phenomenological observation is our only means of direct access to reality, and that the grammatical rules for the expression of phenomenological experience are necessary truths. Together these suggest that the data of immediate experience is a better guide to knowledge of the world than physical hypotheses, and that practical purposes are no guide at all. Thus he may be *implicitly* committed to some form of **EP**, and this should make practical considerations a secondary if not altogether superficial matter.

Two answers to this question can be formulated based on what Wittgenstein says, though he does not spell out either of them. First, let us say, as he now seems to hold, that our interaction with the world requires more than one mode of representation (this does not beg the question, since these modes could still be hierarchically ordered). Second, one of the modes we require is the physicalistic one; this is argued in some form in remarks we will examine below. Third, we might maintain that the hypothetical nature of physicalistic expressions is itself part of what sometimes makes the mode of representation through physics necessary to our purposes. Wittgenstein does not say this even implicitly, so far as I can see, but it seems to be correct. For example, to describe the world we often need to represent errors of perception, possible outcomes of an action, theoretical or fictional entities. These require a mode of representation in which the objects we represent may not exist, which is not possible in phenomenology. Thus in practice our epistemic priorities can be the reverse of **EP**: it may be essential that some entities be "hypothetical", that they not be reducible to necessary truths of immediate awareness. This alleviates the pressure of supposing that a contingent mode of representation must be epistemically dependent on a noncontingent one, and hence of supposing that in using the term "hypothesis" Wittgenstein still must have been committed to **EP**. In this case practical purposes could make the difference in one's choice of a mode of

representation, and the putative advantages of a phenomenological language would disappear.

The second answer depends on recovering the perspective which Wittgenstein started with at the beginning of *Band I* (see above, 3.2 and 3.3). He had said that conventions of representation are "equally justified" (WA I,4,4), by which he seems to mean that one has no inherent advantage over another in representing the world. Wittgenstein's remarks about Newtonian mechanics and causality in the TLP (6.341, 6.35) display a similar equanimity about modes of representation. But he also offers in both places a justification for choosing one over another, i.e., that one convention may be simpler than the next (TLP 6.342), and in particular that physics may be simpler than phenomenology (WA I,4,6). This simplicity provides another sense in which one's choice of a mode of representation might be based on practical considerations; simplicity is a rationale for choosing physicalistic conventions in particular instances. But if conventions are otherwise equally capable of representing the world then considerations of purpose may be the strongest argument for a particular convention. This is the main rationale that Frege provides for his *Begriffsschrift*: "Its first purpose... is to provide us with the most reliable test of the validity of a chain of inferences and to point out every presupposition that tries to sneak in unnoticed, so that its origin can be investigated"¹⁴. In a 1933 lecture Wittgenstein says, "One symbolism is just as good as the next. The word 'I' is one

symbol among others having a *practical* use, and could be discarded when not necessary for practical speech" (WL32 p.63). Aside from a practical justification one might point to aesthetic preferences or other subjective criteria; but there is not going to be a deeper kind of justification, and from an epistemic point of view every practical purpose stands on the same level. Thus if the choice of a physicalistic convention is dictated by pragmatic constraints, this does not mean it is a second-rate description of the world, or that what we represent this way is a "secondary" world or system. Thus once again we can avoid the idea that a commitment to the term "hypothesis" entails a commitment to **EP**.

As mentioned above, the question of the possibility of a phenomenological language is answered only indirectly, though perhaps no less decisively, in the present series of remarks. In a variety of ways Wittgenstein calls into question the possibility that a language of pure experience could find an adequate means of expression. It is not hard to see in this a hint of doubt about private languages, for a phenomenological language would be a solipsistic one and the concern is that we cannot conceive of an actual language that would give adequate expression to experience, which is in constant flux. We will pursue this train of thought further in Chapter 4. But the question of whether a phenomenological language is possible is intimately related to the question raised in [3.6] as to whether physicalistic

hypotheses are essential to the description of the world. If the physical description is essential, then it follows that a phenomenological language will at best be an incomplete description, i.e., that no single mode of representation will be adequate to all our purposes.

Wittgenstein's critical examination of these two questions continues in the form of a critique of the idea that one can give a complete description of an object by means of sense impressions. He calls such a description a "biography" (WA I,190,6), after Russell's usage¹⁵, and he rejects it due to considerations about the temporality of language itself. These remarks about language are the ones that the Hintikkas take to be the fundamental point in Wittgenstein's alleged move from a phenomenological to a physicalistic "basis language". We will see later on just what is wrong with their view; but one thing is already apparent. Wittgenstein has already taken the most important step in rejecting the phenomenological language view: he has seen that **TW** and **EP** are false, and he has at least suggested an argument for this conclusion, centering on the idea that modes of representation are conventional and pragmatically selected. Wittgenstein could hardly have believed anymore that a phenomenological language could play the role of a "basis language" for any other mode of representation if they are two "equally justified" ways of representing the same world and the choice of one over the other depends mainly on one's purposes. It follows that nothing he says after [3.5] and [3.6] can be the *fundamental*

reason for rejecting the idea of a phenomenological basis language. He is already convinced that phenomenology cannot provide an analysis of physicalistic grammar; at most they could stand on a par, and he has begun to question even that, i.e., whether an immediate description of experience is even possible. So the Hintikkas can at most say that the remarks about the physicalistic nature of language itself, which follow these other remarks, lend support to a position he has already adopted. As we shall see, though, their interpretation is incorrect on other grounds as well.

Wittgenstein asks of his "biography" of sensations, "Why shouldn't I be able to leave everything hypothetical out of this description?" (WA I,190,6) The answer to this, he suggests, has to do with the fact that physical *time* necessarily enters into the use of a language. Let's assume, *per impossible*, that one could write as fast as one's memory records sense-impressions. Still there is a problem:

But let's assume I then read this description through - isn't it now still hypothetical? And why not? (WA I,190,8)

A phenomenological language was supposed to be a description of immediate experience; but to do this it would have to be an *immediate* (i.e., *unmediated*) description of experience, or else it is not even a private language, for it is not even solipsistically adequate to its subject. Thus we are supposing that our speedwriting subject can actually record sense-impressions *immediately* in such a language. But what is so *immediate* about this language when we read this description back - even for the subject who wrote it? For

now the experience, which we assume was captured with absolute precision, is mediated by a language which can only be used in ordinary physical time; there is no such thing as reading *immediately*, i.e., in the time of phenomena. This cannot be solved by matching our speedwriting subject with a speedreading subject; once it is written down the expression of the experience is already in physical time; it cannot be immediate again.

Indeed, we can make the example even sharper. Imagine now a speedtalking subject - someone who represents their experience orally, as it occurs, to an audience fluent in the language of phenomena. The audience can experience the immediacy of the subject's monologue at most once - it is gone as soon as it is past, for then it is in "the time of the filmstrip", as Wittgenstein puts it, not that of the screen, and thus in mediated time. In fact, to be precise, it could not be experienced even once - for it takes time for sound to travel, time to recognize words and form thoughts, time for words to combine into meaningful phrases. A phenomenological language, if it were actually a language, would be a lead balloon: the very material of which it is made (be it oral or visual) and the temporal medium of its use would undermine its intended purpose.

At this point Wittgenstein has all but demonstrated that a phenomenological language is not possible, and that the hypothetical cannot be eliminated from our description of the world. He does not stop here, though, but produces a thought experiment to demonstrate that the most immediate

description possible would not eliminate the physical mode of representation:

[3.7] Let's imagine a representation: The bodies that I appear to see are moved by a mechanism such that they must give the visual images to be represented to two eyes which are fixed at a determinate place in the model. Out of the position of the eyes in the model and out of the position of [sic; "and"] movement of bodies the described visual image is then determined.

One could imagine, e.g., the mechanism to be driven by turning a crank, and the description "read off" from this (*herunterzulesen*).

Isn't it clear that that would be the most immediate description one could think of? That is, that anything that would be more immediate yet would cease to be a description? (WA I,191,1-2)

This model is to be compared to a phenomenological language. We are to see the model as a representation of the positions of bodies we "appear to see", i.e., of our visual field, as described to someone whose point of view is that of the fixed eyes. Our visual field is given to the observer (reader) simultaneously with our experience of it. The objects in the model, like linguistic signs, are representations in physical space of the movements and positions of bodies we perceive in phenomenological space. The observer can then "read off" the description of visual space from the physical objects, as one would read a phenomenological language.

The force of this physical model is that it appears to eliminate the *mediation* of language to the greatest extent imaginable. Thus the representation is by hypothesis synchronized with our perceptions, eliminating even the minimal temporal intervention required by our speedwriter. Moreover, the observer seems to be able to "read off" what

the model signifies *directly*, without first recognizing and then interpreting signs. The question is, are there still hypothetical elements that cannot be eliminated from this model? We have to allow that the model is temporally synchronized with our perceptions, as we granted speedwriting capabilities to our previous subject. We may suppose that the observer "reads off" what is represented in the model by interpreting it in a "thin" sense, such that interpreting happens automatically and does not pose any new problems. But what of the idea that the observer "reads off" the description *directly*? This cannot be allowed: the whole point of the quest for an *immediate* means of representation is that we cannot observe the physical world without the intervention of "hypotheses", that it cannot be described *directly*. But the crank-driven mechanical model we are discussing is necessarily part of the physical world; that is the very reason it can represent anything at all of our experience to an observer. Then even this model, so much closer to immediate representation than a *language*, cannot represent immediate experience *immediately*.

The point is, we cannot get to the point of *immediately* perceiving a representation as a representation. The representation itself is part of the physical world, just as a phenomenological language would have to be a real language with practical application. If we could immediately perceive the physical signs there would be no need for a distinctly phenomenological language at all; the whole idea is that we perceive physical objects only *mediately*. There is another

difficulty, too, though it requires going deeper into Wittgenstein's thought experiment than he might have intended us to do. Even if we could somehow get around the physicality of the model and perceive it directly, we would not be perceiving the physical objects in the model as representations. To perceive them as representations we must understand them as such, and this requires that we take the perception of the objects in the model to be distinct from what they refer to. This brings the temporal element back into the picture; it brings temporal thought processes back in, as we attempt to distinguish our perception of the objects from our understanding of them as signs.

Wittgenstein's mechanical analogue of a language demystifies the idea of a phenomenological language, and in doing so shows its incoherence. Previously Wittgenstein had not thought of such a language as something that actually had any pragmatic constraints; it would simply represent experience, in a manner that was never specified, without permitting any "presupposition... to sneak in unnoticed" (in Frege's words). The problem is that too much is packed into "representing" in this conception of language. How will the language represent the experience of a subject to *someone else* or even to *oneself at a later time*? A language must first of all be recorded and second of all be read, i.e., used as a sign. Ordinarily this is just what we would expect to do with any representation or model, linguistic or not. But it becomes a problem when the intention is to represent what is immediate as immediate, for representation is

mediation: it requires that transactions take place in which something is made a sign for something else, and someone else interprets the sign. Even on our "thin" notion of interpretation, where interpreting is just reading (perhaps the language would be made of pictograms or something like that), the immediacy of the experience to be represented is lost because it is represented in a physical medium which is used in ordinary time and space.

In addition to answering in the negative the question of whether a phenomenological language is possible, the thought experiment gives a positive answer to Wittgenstein's question about whether the "hypothetical" (i.e., physical) is an ineliminable mode of representation. For the mechanical model provides the closest possible proximity between the signs and the sensations themselves, and yet it is very much a spatiotemporal model and has to be understood as such. The problems with the immediacy of representation in the model spring directly from the fact that it is a physical medium and as such cannot be construed, on the understanding of physics as an indirect mode of representation, as representing anything to an observer immediately. But language is also in this sense a physical medium, and we can no more eliminate this from language than we can from the physical model. But note that if the hypothetical cannot be eliminated, the whole phenomenological language project cannot be motivated by the uncertainty of ordinary language. A phenomenological language, no matter how perfect, would not be a

philosophically favored substitute for physics, for the same commitments would eventually show up: the need to mediate between the phenomena and the audience that is supposed to receive the description.

The example of the visual model reinforces the conclusion of the previous thought experiment which involves reading back a phenomenological language. Together they suggest that the notion of a phenomenological language is essentially incoherent, for it contains the false assumption that phenomena can be represented in it in such a way that the representation can somehow be used without ever entering the realm of the hypothetical. This is false because a language, whatever it represents, can only be applied in the ordinary way. "Language itself belongs to the second system", says Wittgenstein:

[3.8a] If I describe language, I essentially describe something physical. But how can a physical language describe a phenomenon?/... (WA I,191,4)

[3.8b] What we understand by the word "language" goes on in homogenous physical time. (As will be perfectly clear through the comparison with a mechanism). (WA I,191,7)

These two remarks sum up the lessons of the examples we have just studied. The comparison of language with a mechanical model that reproduces sensations shows that representation is by nature mediate, and thus takes place in the physical world.

There is another remark immediately after [3.8b] that requires some comment, because along with other remarks of a similar nature it has led to some misunderstandings:

[3.8c] Primary language could only be what this mechanism corresponds to in the primary world. (WA I,191,8)

The reference to a "mechanism" suggests that a phenomenological language would be a phenomenological version of the model we have just been discussing, clearly a ludicrous notion and one Wittgenstein means to write off as absurd. Nevertheless, this is the first of several remarks in which Wittgenstein refers to a "primary" or "phenomenological" language after expressing his initial doubts about the possibility of such a language. Remarks like this one have sometimes been taken to show that Wittgenstein still held on to this idea as a live possibility. But this is wrong: he uses these terms in the context of a critique of the concept they are meant to express, for he has no other term to refer to phenomenological language. The context of [3.8], as we have just seen, is an extended argument against a cluster of ideas: that an object can be completely described by describing sensations, that a language of immediate experience is possible, that the physical mode of representation is eliminable. Passage [3.8c] supplements the argument by introducing a false analogy in which the error can instantly be seen from what he has already said. The language of the physical world has been compared to a physical mechanism, so the language of the phenomenal world

must analogously be a phenomenal "mechanism". But the model in [3.7] shows that the latter is inconceivable: for such a "mechanism" could not be a description of anything unless it operated in physical time and space, which would be a contradiction in terms; and in any case the notion of a phenomenological counterpart to a "mechanism" looks *prima facie* nonsensical. For instance, would its parts move and cohere on some principle of psychological causation? So the point of the statement about "primary language" in [3.8c] is to emphasize that there can be no language which is *itself* phenomenological, even if what it is supposed to represent is phenomena.

It is hardly likely that Wittgenstein has just turned around and suggested that there *really is* a phenomenological analogue of physical language after all. Pursuing such a line of thought could lead only to deeper confusion about the notion of a phenomenological language and what it is or represents. Wittgenstein is well aware of this; consequently he says next¹⁶:

It is as if with phenomenological language I entered an enchanted swamp where everything ascertainable disappears. (WA I, 92, 1)

This is both a comment on the idea that phenomenological language would represent a world of ghostly phenomena, and an expression of frustration at the whole project. A few remarks past this one he refers to his "preoccupation" with the idea of a "description of the present phenomenon" as "frankly childish" and says, "I got involved in a dead end" (WA I, 192, 4)¹⁷. The only reasonable conclusion is that at

this point Wittgenstein thought the phenomenological language project and its concomitant assumptions about worlds and sense-data were a failed philosophical program.

Now that we have seen what transpires in this critical section of the manuscript, let us examine what the Hintikkas say about it, and how they think it leads to the change from a phenomenological to a physical "basis language". First of all, they cite some remarks from a later manuscript (*Band III*) to the effect that "you must be able to fit the proposition on to reality" (*WA II,89,7*; I retain the Hintikkas' translation). On this basis they argue that Wittgenstein holds "that an actual comparison of a sentence with reality must be performed by the language user"¹⁸. This is a rather tendentious reading; the remarks they cite seem to be no more than an expression of the Tractarian point that the logical form of language must duplicate that of facts. If this is the case then Wittgenstein was aware of the "direct comparison" requirement from the beginning and there is no reason to think it leads to dropping the phenomenological language project (indeed, on the Hintikkas' interpretation the TLP is the phenomenological language project). But the Hintikkas seem to have something else in mind with their idea of an "actual comparison". What such a comparison might be other than a matter of logical form they don't exactly say¹⁹; but if their interpretation is correct, then their use of these later remarks to ground their interpretation of [3.8a] is anachronistic. There is nothing

in the manuscript up to this point that suggests the idea of "an actual comparison of a sentence with reality" in any new sense. In any case, based on this reading, they argue as follows:

It is not hard to see how the requirement of direct comparability leads Wittgenstein to the thesis that only a physicalistic language is possible. Wittgenstein needed a supplementary assumption, however, in order to draw his conclusion. This extra premise was the idea that *language itself is part of the physical world*.²⁰

Thereupon they reproduce [3.8a] to show that the extra premise had now been added. Then they deduce, on Wittgenstein's behalf, the conclusion that "if language itself belongs to the realm of physical objects, its sentences can be compared in the intended strong sense only with what is also physical"²¹.

In spite of its considerable ingenuity, this argument cannot be right, even apart from the tendentious reading of the remarks about laying propositions up against reality. For one thing, Wittgenstein has already recognized that ordinary language is the physicalistic language in question here. If the Hintikkas are right, this is what he thought could only be laid up against physical reality. Then he must have thought at this point that ordinary language would be incapable of expressing anything non-physicalistic, since the latter is an almost trivial consequence of the position attributed to him²². This consequence is actually developed in some of the Hintikkas' readings of other passages in the manuscripts, though they offer no explicit general defense of this interpretation.²³ But there is no evidence that

Wittgenstein thought nonphysicalistic concepts were inexpressible. He sought to untangle our confused means of expressing such propositions in ordinary language, not to paint them as being beyond expression altogether. Moreover, given the very strong correlation he maintained between language and thought, had he held the thesis the Hintikkas ascribe to him he would have had to hold something like the absurd thesis that we have no cognitive access at all to phenomenological, mathematical, or abstract concepts. But the Hintikkas offer no reason to believe that Wittgenstein meant to deny that we have such concepts, and it would be highly uncharitable to attribute it to him without evidence.

Another reason to doubt the Hintikkas' interpretation is that they seem to lay the wrong emphasis on Wittgenstein's question in [3.8a], "how can a physical language describe a phenomenon?". The question is not entirely rhetorical. He is expressing in a different way the doubts he has just raised about a *phenomenological* language: what it cannot do is describe a phenomenon *immediately*, and that is because it must be, in the end, a language that is used in ordinary time and space. He is not saying that ordinary (physical) language can't describe phenomena at all. Of course, a language that is *by hypothesis* a language of physical objects, as he had conceived it at first, is by definition incapable of describing a phenomenon. But there would be no point in stating this *definitional* truth in this context, especially as a rhetorical question. As was mentioned above, he has just equated physicalistic language

with ordinary language, and he may have thought it a valid question how ordinary language represents phenomena. But he was certainly not saying it cannot represent them, only that because it is physical it cannot represent them as a phenomenological language was supposed to, i.e., immediately.

The Hintikkas' account misses this completely. Moreover, their inability to follow Wittgenstein's actual argument leads them to temporarily abandon the premise that the demise of the phenomenological language project led to Wittgenstein's later philosophy, which is their most valuable contribution to Wittgenstein studies. Instead, they say that "the crucial question in Wittgenstein's thinking... did not concern the contrast between the phenomenological and the physical as much as the problem of language-world relations"²⁴. By means of this trap door they are able to lead into their contention that Wittgenstein required a "direct comparison" between language and the world. But this only shows that in spite of grasping some of the essential aspects of his transition and correctly locating many of the crucial passages, they were unable to follow the argument Wittgenstein was making for rejecting the phenomenological language idea. They therefore had to patch together an explanation of his transition out of heterogeneous remarks from different parts of his manuscripts.

But Wittgenstein's procedure is quite coherent, even if it is not explicitly stated. He first grasped that physics and phenomenology are two modes of representation of the

same world. Then he saw that phenomenology could not be an immediate way of representing immediate experience, because there is no such way. He then concluded that the idea of a phenomenological language is incoherent, and furthermore that ordinary language, operating in the time and space of the physical universe with its physicalistic bias and all, is coherent, and is the only language we can work with in philosophy.

One last comment is in order before we move on. Virtually none of the self-critical remarks we have seen above appear in the *PR*. Other remarks in this section of the manuscript, dealing with time, visual space, and related topics, all of which constitute further exploration and deepening of his self-criticisms, are printed in Chapter VII, without being framed by the self-examination which constitutes their original context. Yet it is that context that makes these some of the most important remarks in his career. They herald the beginning of a crossover from a phenomenological project that could not have succeeded to the new system of ideas that emerged when he conceived of language in terms of different modes of expression. This crossover begins in earnest at this point in the manuscript. Given the already entrenched doubts about a logically perfect language on the Tractarian model, once the hope of a phenomenological language was removed the most sensible choice was to focus on the grammar of ordinary language.

3.9 The Physicalistic Mode of Expression

Perhaps the most remarkable thing about the above rejection of phenomenological language is the coda. After saying he got involved in a "dead end", Wittgenstein adds: "And yet it is a significant dead end, for all are tempted to go down it; as if to find the final solution to philosophical problems" (WA I,192,4). The notion of linguistic confusions as philosophical temptations is one of the roots of the later Wittgenstein, and it makes its first explicit appearance in this context. Thus his critique of the phenomenological language idea led directly to a conception of philosophy that is central to his later perspective. He immediately follows this by introducing a pair of new terms that will remain a part of his philosophical vocabulary throughout his career, often to be associated with this conception of how philosophical errors arise. The terms are "*Ausdrucksweise*", or "mode of expression", and "*Ausdrucksform*", or "form of expression", which he had not used in any significant context in the course of some 420 manuscript pages prior to this:

[3.9] On the other hand it is clear that we need a mode of expression (*Ausdrucksweise*) in which we can represent the phenomena of visual space - e.g. - isolated as such.

"I see a lamp standing on the table" says, as it must be understood in our ordinary language, more than the description of visual space. A correct description would surely be: "It seems to me as if I see a lamp standing on the table". But this form of expression (*Ausdrucksform*) is misleading because it makes it appear as if nothing real were being described, but rather something whose essence was not clear. (WA I,192,5)

Wittgenstein evinces a distinct discomfort here with the simplistic form of phenomenology he had formerly envisioned. The term "mode of expression" is a step towards replacing this conception, as it captures his new way of distinguishing the physical from the phenomenological. That is, each logically distinct kind of space will have its own *Ausdrucksweise*, its own way of speaking, to which a particular form of expression, or "*Ausdrucksform*", will belong²⁵.

The terms "*Ausdruckweise*" and "*Ausdrucksform*" may be seen as precursors of "*Sprachspiel*" ("language game"), although their usage at this point is limited to the distinction between the physical and phenomenological language games in general rather than the more specialized games he discusses in the *Brown Book* and the *PI*. But they also survive the introduction of "*Sprachspiel*" and reappear frequently throughout his later work, where their use is often closely connected with the notion of grammatical mistakes and linguistic temptations, as it is here in its original context²⁶.

The importance of his introduction of the term *Ausdrucksweise* here has not generally been appreciated. The Hintikkas, for example, reproduce the following passage, which is the next but one after [3.9], as an example of the idea of phenomenological language being "repeatedly mentioned as a realistic possibility"²⁷:

[3.10] From the above it is seen - as is otherwise obvious - that a phenomenological language represents the same as our ordinary physical mode of expression

(*Ausdrucksweise*) and has only the advantage that many things can be said [*ausdrücken*; "expressed"] in it more concisely (*kürzer*) and with less danger of misunderstanding. (WA I,193,2; I retain the Hintikkas' translation)

We have seen that a few manuscript pages before this Wittgenstein says "physicalistic language... describes the primary world again" (see [3.6]). Everything since that point has put the notion of a special language of immediate experience into question; and now he is repeating the previous point in slightly different terms. This suggests that the term "phenomenological language" is not used here as a live option, but only because he lacks a new term for the mode of expression particular to phenomenology. Wittgenstein is saying that the purpose of a phenomenological language would be to offer a more precise way of describing what we describe roughly with our ordinary mode of expression; his interest is in the function that it was supposed to serve, not in the project as originally conceived. Indeed, every expression of the idea that a phenomenological language must describe the same world as physicalistic language must be taken as a contribution to the refutation of the phenomenological program as originally conceived, because it was already clear to Wittgenstein that the kind of language he originally had in mind was logically incapable of representing anything but an independent phenomenological reality. The kind of "phenomenological language" he refers to here could only be a particular mode of expression of ordinary language, not a continuation of the Tractarian program.²⁸

Noë also makes use of [3.10], and though his ultimate conclusion is in agreement with the view of Wittgenstein's development presented here²⁹, his argument from this passage is incorrect. This points up a difference between his criticisms of the Hintikkas' position and mine. Noë says that the Hintikkas' thesis that Wittgenstein gave up phenomenological language because it cannot be compared with the physical world "would seem to imply that they regard a Wittgensteinian phenomenological language as designed to represent that which cannot be represented in ordinary physical language, specifically the phenomenological (as opposed to the physical)"³⁰. Noë points to the present remark [3.10], and to the even later remark that "our ordinary language is also phenomenological" (WA II,4,2), to show that Wittgenstein held no such belief, and concludes that a different explanation of Wittgenstein's transition must be sought. His point gains some force from the Hintikkas' own suggestion that in [3.10] the original phenomenological language project was still a live option. But from what we have said it is clear that [3.10] is part of Wittgenstein's argument for *giving up* the phenomenological language project altogether. The problem is that Noë does not seem to realize that Wittgenstein's *original* conception of phenomenological language *did* involve embracing the two-worlds, two-languages view, and that [3.10] is part of the effort to abandon this idea *and the phenomenological language project with it*. Thus [3.10] does not show that Wittgenstein did not *formerly* hold that a

phenomenological language could only represent a phenomenal world, nor therefore that giving up this idea was not the main reason for the change in his philosophy. The second remark Noë cites is taken completely out of context; in the manuscript it is preceded by the words, "Or is it thus:..." (WA II,4,2), and in fact Wittgenstein never actually adopts the position it expresses (see Chapter 4). Hence it does not demonstrate his point either.

The main problem with the Hintikkas' view is not their conception of what a *phenomenological* language was for Wittgenstein, but their conception of what a *physicalistic* language would be. Their belief that it was a new "basis language" is not just a poor choice of terms; it is an indication that they do not grasp the essence of the change taking place. Noë's thesis, on the other hand, is somewhat closer to our own. He says that Wittgenstein's transition consists in recognizing that "we only need to get clear about how [ordinary language] symbolizes"³¹, which suggests a need for "careful examination and comparison of *different* methods of representation"³², and in particular a recognition that "it is not essential to what is described that it be characterized in the language of physical objects"³³. This is a step closer to the truth; it actually captures the main points that come to the fore in the part of the manuscripts we are now discussing, the end of *Band II*. But we will see in the next chapter that it still does not quite hit the target. The pivot point of Wittgenstein's philosophy was the simultaneous recognition that we must do

philosophy without "basis languages", and that our ordinary language is riddled with physicalistic traps. A phenomenology that comes out of *this* language must therefore take as its starting point the recognition and avoidance of those traps³⁴.

There are still a couple of important lines of thought in [3.10] that we have not yet mentioned. One is that the function of a phenomenological language would be to serve as a method of clarification, or help avoid the "danger of misunderstanding", rather than to represent a distinct "world of data". At this point Wittgenstein is still tearing himself away from the two-worlds view, which had naturally entailed a two-languages view. The idea of a method of clarification was one way of moving in the direction of linguistic monism, and thus towards recognition that phenomenology, like everything else, must be done in ordinary language. At the same time it suggests that ordinary language contains pitfalls, which a phenomenology will help one recognize and avoid.

Another idea in [3.10], and one which no doubt led to this remark in the first place, can be seen in relation to the immediately prior remark: "The verification of language - thus the act through which it gets its sense - happens only in the present" (WA I,193,1). The *sense* of a proposition of ordinary language derives (according to Wittgenstein) from some relationship it has to immediate experience. This "verification", however, is not temporal: "the phenomenon (spacious [sic] present) contains time, but

is not in time" (*WA* I,191,5; *PR* VII,69,98)³⁵. Verification thus takes place in the "present", not in time. The idea of a phenomenological language was to represent these acts of verification, and thus the sense of ordinary propositions. Presumably ordinary propositions are also supposed to express their sense. This shows that what he now calls the two "modes of expression" must be different ways of representing the same thing.

These various readings of the content of the above passage are all compatible: the function of a phenomenological language would be to serve as a method of clarification of physical language, and must therefore represent the same thing as physical language through a different, perhaps more perspicuous, mode of expression. The idea that the distinguishing features of phenomenology and physics are their "modes of expression" contrasts with the foundational role for epistemology that phenomenology was previously assumed to have, as well as with the metaphysical talk about a physical world as opposed to a "world of data". As Stern has put it, "he soon came to see that the distinctions between phenomenal and physical, and primary and secondary, were only an overblown misinterpretation of two different ways of talking."³⁶

This perspective has further highly significant consequences that appear almost immediately in the manuscripts. Wittgenstein realizes that if the two modes of expression describe the same world, then visual space, and

phenomenological space in general, cannot contain private objects! It must be a *public* space, like that of physical objects. Thus he comes to the conclusion: "Visual space essentially has no owner" (WA I,193,4; PR VII,71,100); again, "The essential thing is that the representation of visual space represents an object and contains no hint of a subject" (WA I,193,7; PR VII,71,100). This is not a return to the 5.6's of the TLP ("what the solipsist means is entirely correct", 5.62); indeed it is quite the opposite. Rather than the idea that "the world is my world" the perceived world is now conceived of as a public space. The subject is no longer the owner of visual space, operating from its limit or outside the world, any more than the subject can have a place in the space of physics. There are two spaces, one world, and no subject. This is the initial step in a critique of Cartesian dualism that will reach its most explicit expression in the *Blue Book* and its most sophisticated form in the private language argument. As we shall see in the next chapter, that argument begins in the PR, in a direct development of the present line of thought.

The remainder of *Band II* is an exploration and defense of this view of visual space. From this point on visual space can only be distinguished from physical space in virtue of the different grammatical rules that apply to it; it is not opposed to the space of physical objects as a private space is to a public one. This would suggest that phenomenological language is already, so to speak, a dead language. Nevertheless, Wittgenstein appears to be making

another implicit reference to it near the beginning of this series of remarks on visual space:

[3.11] In the - secondary - language of "objective - physical - space" visual space is called subjective, or that is called subjective which in this language immediately corresponds to visual space. (WA I,193,5; PR VII,71,100)

The dashes, though, may suggest some reticence about using the term "secondary language"; and the content of the remark, like the ones that precede and follow it, reinforce this impression. The remark is part of an effort to consolidate the idea that visual space does not contain private objects. Wittgenstein realizes that one must still explain the apparent subjectivity of the visual field. Rather than do this by saying it is a realm of private phenomenological objects, he says that it is simply "called subjective" in a language whose function is to designate publicly available physical objects³⁷. Like the last reference we examined, this is an unlikely context in which to resubscribe to the idea of a phenomenological language. The reasons for questioning the pursuit of that project in the first place were that it seemed quite impossible to conceive of phenomenology as a description of an epistemically favored world, which led directly to the present doubts about conceiving of it as a description of a private world. Why would he now slip this idea back in without withdrawing his point, but rather in the midst of deepening it? The term "secondary - language" is probably only used here to identify the mode of expression in terms of his former distinction of "primary" and "secondary". It

cannot be taken to signify that he now once again thinks of physical language as derivative of, or founded on, phenomenological language.

Remark [3.11] comes from a passage that begins with the example of two people seeing an object from different perspectives, and it says that when we think of reality this way visual space is "interpreted as subjective; and an objective space is opposed to it, which is, however, only a construction with visual space as its basis" (WA I,193,5; PR VII,71,100). This must be a reference to Russell, who employed just this perspectival notion of objects from 1914 through the 1920's. He called objects "constructions" out of various "aspects" or "perspectives", also referring to them as "hypothetical" and to an actually perceived perspective as a "private world"³⁸. Now, Wittgenstein is thinking of this whole system as a representation on a piece of paper which shows the observers as well as the aspects³⁹. That, he says in the next remark, is "only one mode of representation"; rather than representing the two perspectives as emerging from two different pairs of eyes (i.e., as two private objects),

it is just as well if the part of the object that is "seen" is indicated by shading⁴⁰. Naturally one can always determine the position of the two eyes from the boundaries of this shading but that only corresponds to the translation of one mode of expression (*Ausdrucksweise*) into another. (WA I,193,6; PR VII,71,100).

From this it is clear that the idea of a "mode of expression" has taken hold. The mode of representation that includes the two eyes represents the same thing as the one

that excludes them and uses "shading", only the former is clearly meant to emphasize the subjective points of view, while the latter emphasizes the unity of the object. The latter corresponds to the physicalistic mode of expression, and to deduce the former from it (to determine the position of the eyes) is to translate this into the phenomenological mode of expression. There is absolutely no need of a phenomenological language here, unless that expression is now to have a completely different content, i.e., to be equivalent to the mode of expression of phenomenological propositions, or a way of characterizing a certain function of ordinary language rather than a separate or more perfect language.

3.10 Conclusion

Roughly six months after he started his new series of notebooks Wittgenstein came to the conclusion that the phenomenological project as he had originally conceived it was flawed. He had hoped to continue on the Tractarian model but substitute a language of immediate experience for a language of perspicuous logical form. He was no longer as concerned with Russell's paradox as he had been; he no longer entertained the idea of a logical theory that would mirror the whole of language and avoid self-reference paradoxes. His concern now was with necessary, metaphysical truths about the structure of experience, beginning with the nature of visual space and color perception. He was dimly aware from the start that in order to express such truths he would need a kind of phenomenological grammar; so he thought

that he had to end up with something roughly along the lines of a set of grammatical rules for a phenomenological language. But no sooner had this conception crystallized in the explicit notion of such a language than he realized the idea was fraught with problems.

One problem is that phenomenology was supposed to provide an *analysis* of physics. It was to be "the grammar of the description of those facts out of which physics constructs its theories" (see [3.1]), i.e., a set of rules for constructing propositions about immediate experience. These propositions then form the basis for judgements about the physical world. But the phenomena that a phenomenological language was supposed to describe seemed to comprise a world that is not the physical world at all. This simply will not work: phenomenology must describe the *same* world as physics, or the whole conception is incoherent. Moreover, if phenomenological language unfolds in physical time it cannot be an *immediate* representation of experience, even if it could keep pace with the flux of phenomena; but if it goes on in phenomenological time it cannot be expressed at all in any language we could use.

The upshot of this is that the idea of a "phenomenological language" per se, as originally conceived, is incoherent. But perhaps it could be thought of in a different way: as a manner of speaking about the world (the one world) "with less danger of misunderstanding", i.e., without making all the assumptions that physicalistic language makes. It would then not be an "analysis" at all,

much less a "language" strictly speaking, but might still be useful in philosophy, which seeks maximum precision in the description of reality. What it would be is a "mode of expression", a way of using language to avoid hypotheses. Under this title a phenomenological project makes sense; and it takes only a small amount of imagination to see that it must be an investigation rather than a construction project. This is how, in the course of time, Wittgenstein's grammatical philosophy is born.

Where does this leave "ordinary, physicalistic language"? Is there just a language of physical objects, and no other? The answer is "yes and no": we have only one language to express all that we want to say, but it is no longer the case that it is *simply* a "physicalistic language". Rather, because it is primarily used for the purpose of referring to the physical world, it encourages a physicalistic way of talking, or mode of expression, about the world, and this places obstacles in the path of the expression of our immediate experience of the world. This difference is key to understanding Wittgenstein's transition from his "middle" period, which from this perspective lasts only a year or so, to the later philosophy. Instead of a distinction between physical world/language and phenomenological world/language, the new idea is that we have to sort out the physicalistic mode of expression from all others.

To say that ordinary language describes the world of physical objects is just to say that in common discourse we

normally make assumptions about the existence of an external world. That is, to use Wittgenstein's own example (see [3.9] above), if I say "I see a lamp standing on the table" my meaning is not further elucidated by using a phenomenological qualifier to eliminate all assumptions, as in, "It appears to me as if I see a lamp standing on a table"; it is elucidated by making the realist assumption that I perceive an external world in which there are two physical objects, a lamp and a table, and one is resting on the other. But sometimes we do talk about how we experience things or about the contents of our own minds or those of others. We ascribe intentions to others; we speak about selves, souls, time, events, processes, properties, appearances, etc. Even this sort of talk has some tangible connection to bodies in space, at least prior to being filtered through some philosophical theory. But we also speak of abstract relationships in mathematics and logic, of concepts and theories, infinity and probability. Yet we have only a single language in which to carry on our discourse about slabs and apples as well as about visual impressions and infinity; and presumably this language is structured primarily to permit us to express practical facts about the world in which we live, not abstract concepts that emerge from reflecting on thought or language itself.

This leads to difficulties: we tend to use the physicalistic means of expression to talk about everything else. Earlier, it had seemed to Wittgenstein that there was an epistemological gap separating phenomenological language

from the physical world. Now that it is recognized that there is only one world that gap is closed; but another appears in its place. If ordinary language is doing just what it was designed to do then propositions about the physical world must be quite unproblematic; whereas our ability to get away from physicalistic language to express our direct experience of the world is now recognized as a challenge. To meet this challenge first of all requires training oneself to recognize how ordinary ways of talking presuppose a physicalistic orientation to the world. Thus if I say, "The car is parked around the corner" I presuppose that it did not dematerialize after I walked away. Secondly, the challenge is to see that in many philosophical situations we are tempted to use relations among physical entities as a conceptual model, even though the model leads to confusion. If I say, "I can recognize my car because a visual image of it is stored in my brain" this *does not* presuppose that someone can find the image if they know where (or how) to look for it in my brain, as the previous statement implied that someone would find the car if they looked around the corner. However, it sometimes *seems* that something like that is implied. Thus, distinguishing the grammar of physics from the grammar of those activities in which we speak about phenomenological concepts, and more generally, intangible things, would become the goal of the project. But this means Wittgenstein still sees his work as being at least in part a grammar of experience, or phenomenology. So whatever the earlier work contributed

toward this goal is still useful to the extent that it can be separated from the idea of a phenomenological language. This is the spirit that guided the creation of the *PR*.

His insights about the problems with a phenomenological language led Wittgenstein to question and eventually reject all of the assumptions about language, logic and representation that had been tied to the atomistic logic of his, Frege's, and Russell's earlier work. As Noë has so aptly put it,

Wittgenstein's rejection of the need for a phenomenological language has to be taken as the rejection of the entire philosophical project which Frege and the Wittgenstein of the *TLP* had launched, that namely of creating the logically perspicuous representation of that which is only confusedly expressed in our ordinary language.⁴¹

By the time he reached the end of his self-criticism the Tractarian program would be buried once and for all, and Wittgenstein would be well on his way towards his later philosophy. But we are not quite at that point yet. For though his stance seems firm and his arguments against the original conception cogent, Wittgenstein has difficulty pulling himself away from it. Recall all the references to "simplicity" in the *TLP* and the manuscripts: the analytic ideal that was at the heart of the Fregean program, Russell And Whitehead's *Principia Mathematica*, Russell's theory of descriptions, and Wittgenstein's own *TLP* had at least the virtue of simplicity in its basic understanding of the tasks of philosophy, and a certain elegance in its method of carrying them out. Wittgenstein was extremely sympathetic to the elegance and simplicity of this ideal, even if the

phenomenological version was not quite as simple and elegant as a "general form of the proposition" or the well-defined rules and axioms of formal logic. This must explain his reluctance to part with it, even on the basis of the well-considered concerns we have discussed. In the next chapter, we will follow Wittgenstein through his reconsideration of this program, and then to the ultimate demise of the phenomenological language project. In so doing we will find, in even more remarkable ways than we have done so far, that much of what we now call the later Wittgenstein arose from his critique of the possibility of a phenomenological language.

NOTES

1. In Chapters 3 and 4 I touch on material in the manuscripts that has been addressed by other Wittgenstein scholars, including the Hintikkas, *Investigating Wittgenstein* (especially Chs.6-7, 10); David Stern, *Wittgenstein on Mind and Language* (especially Chs.4-5); and Robert Alva Noë, "Wittgenstein, Phenomenology, and What It Makes Sense to Say". There is a large and constantly growing literature on Wittgenstein's transitional period, but I will have little to say about most of it since it is not based on the manuscripts. For reasons that should become clear in what follows, I do not think it is possible to obtain an accurate view of his transition from published works, though some specific insights can be achieved. For example, Dale Jacquette, in "Wittgenstein and the Color Incompatibility Problem" (1990) and his recent book *Wittgenstein In Transition* (which really covers the entire scope of Wittgenstein's work) touches on points about the role and impact of the color exclusion problem that I would also make if I had the space to discuss it in more depth. But his understanding of the transition is entirely based on *SRLF*, which is quite an inadequate source in my view.

The Hintikkas' work helped establish the idea that the difference between the language of physics and phenomenology was the key to Wittgenstein's transition, and pinpointed his philosophical crisis in October 1929. On these points I follow their lead; but as I have already indicated (Chapter 1) I head in a different direction when it comes to filling in the meaning of these developments. In its exposition of the main outlines of Wittgenstein's transition, Noë's article is a good elucidation of some of the views presented here. There are, however, some points of difference as well: I think Noë misses the importance of Wittgenstein's introduction of the term "Ausdrucksweise", and of his suggestion in January 1930 that hypotheses are confirmed, rather than verified. His use of the passages in which Wittgenstein suggests we are misled by physicalistic language is quite different from mine, though not incompatible with it. Other differences will be addressed in the text. Stern's book is a seminal contribution to the understanding of this period; I think our views are in the main complementary, but I address one or two important differences in the text below. Anticipations of certain aspects of the view put forward here can also be found in Hacker, *Insight and Illusion*, Ch.4. and in Garth Hallett, "The Genesis of Wittgenstein's Later Philosophy in His Failure as a Phenomenologist" (1991), an earlier article with a point of view more or less similar to Noë's.

Aside from Hallett and Noë, perhaps a dozen or more major articles on Wittgenstein's phenomenology have appeared since Herbert Spiegelberg's pathbreaking essay, "The Puzzle of Ludwig Wittgenstein's *Phänomenologie* (1929-?)", published in 1968. Virtually none of them are based on the manuscripts. The subject of Wittgenstein's transition was

also dealt with in reviews of the *PR* and the *PG* when they were first published: see e.g., Norman Malcolm, "Wittgenstein's *Philosophische Bemerkungen*" (1967), and Richard W. Miller, "Wittgenstein in Transition: A Review of the *Philosophical Grammar*" (1977). Most books which attempt to offer comprehensive overviews of Wittgenstein's philosophy have something to say about this subject, usually derived more or less exclusively from *SRLF*, the *PR*, and *WWK*. For more recent contributions to this literature see Michael Wrigley, "The Origins of Wittgenstein's Verificationism" (1989); Mathieu Marion, "Wittgenstein et son oeuvre posthume" (a review of the first two volumes of *WA*) (1996); and Albert Newen, "Die Entwicklung der Wittgensteinschen Sprachphilosophie von 1929-1932" (1997).

2. Malcolm, *A Memoir*, p.12n15.

3. See note 1 above.

4. See Appendix II, The Organization of the *Philosophical Remarks*.

5. In this chapter and the next I assign numbers in square brackets to some of the remarks in order to facilitate later references to them in the text. The numbers consist of the chapter number followed by a sequential number.

6. In the manuscript Wittgenstein wrote "psychological" before "color theory" in the second paragraph; this must have been changed to "phenomenological" in the typescript, as this is what is printed in the *PR*. The German edition of the *PR*, however, has "Wellen, Zellen etc. etc." as in the manuscript, not "waves, rods, cones and all that" as the translators render it.

7. The recorded conversations with the Vienna Circle begin on 18 December 1929, after the dating began, so comparison with them does not help us date the manuscript material. The lectures *WL30* begin on 20 January 1930. Unlike his early letters to Russell, Wittgenstein's extant letters from 1929 contain little of philosophical interest. The only help is provided by the fact that *SRLF* was published in April, which permits us to give a rough date to the section of the manuscript which contains remarks that form the basis of some of the material in the article. Otherwise, dating the 1929 remarks must be based on the assumption of equal daily production between 2 February and 6 October, a very rough guide at best. Between 2 February and 6 October Wittgenstein wrote some 300 pages in about 250 days, i.e., about 1.2 pages per day, or .83 days per page. I do not attempt to apply this formula in any rigorous way in what follows, but it can serve as a guide for the reader to judge whether my dating of later developments is credible.

8. Compare Karl Pearson's analogy of the subject of sensations as someone sitting at a telephone switchboard receiving messages from the imperceptible beyond (*The Grammar of Science*, pp.56-8). Pearson correctly concludes that given this view of things, there is really no compelling reason to posit a thing-in-itself, or, in Wittgenstein's case, a film, since nothing in the received data demands that one do so. Pearson goes on to illustrate his point by reproducing Mach's drawing of his visual field partially obscured by the bridge of his nose (*The Grammar of Science*, p.59), to which Wittgenstein often refers in these manuscripts.

9. It is hard to think of a coherent alternative to this given the assumptions Wittgenstein makes. For instance, suppose we say that though world A is known with certainty, and world B is only an inference or hypothesis based on experience, if it turns out that B exists it is (or may be) the same world as A. Then if the existence of A is known, the existence of B is already known, only it is just not known that it happens to be the world referred to by "B". But since B is by definition the "world of physics" this would mean that a world of physics exists and turns out to be just the phenomenological world, which we did not realize was the world we happened to be referring to when we spoke of a "world of physics". This would not be as innocent as saying, for instance, that the reference of "Morning Star" just turns out to be the same as that of "Evening Star"; it is rather like saying that the hypothetical object "Morning Star", which is by definition the referent of Morning-star-talk, might just turn out to be that which is by definition the referent of Evening-Star-talk. That is to say, not that we may falsely believe that two terms refer to different objects, but that we may falsely believe that they have different senses. But this seems tantamount to saying that we don't know what we mean, which seems like nonsense. At any rate, once we posit a difference in the epistemological status of the objects, it would be much more natural to account for this by making an ontological distinction between them than by reducing the epistemic difference to an inability to know what we mean.

10. See Russell, *The Analysis of Mind*, p.141: "It might seem natural to regard a sensation as a cognition, and until lately I did so regard it...". It is not entirely obvious from the text that Russell means to give up "sense-data" here, but this is how he later characterizes his position (see *My Philosophical Development*, p.245). The reason he offers for doubting this now is that "the subject... appears to be a logical fiction" (p.141), a position that no doubt owes as much to Wittgenstein as it does to James and the New Realists. I think it is arguable that the passage commits him to giving up "knowledge by acquaintance" rather than "sense-data", for not every conception of what sense-data are, including his own earlier view that they are part of

the physical world, requires that a sense-datum in itself be "a cognition".

11. The mistaken impression that Wittgenstein had originally used the term "primary language" for what he now calls "phenomenological language" is exacerbated in the English edition by one of the numerous misleading translations found there: the rendering of "wie ich sie nannte" as "as I used to call it". There are always several technically correct ways to translate the German imperfect indicative into English; only contextual considerations can provide an argument for one or the other. The translators may not have known that Wittgenstein had not used the term "primary language" prior to the expression "phenomenological language", but why they chose a translation that suggests that he did, rather than a neutral one, is hard to understand. In fact, when he says "as I called it" in his *Band III* notebook he can only be referring to the instance just cited at the end of *Band II* (which comes immediately after his first use of "phenomenological language"), since it is the only other instance in which he used this term in his post-1929 manuscripts (*Band I-X*).

12. Though we have been quite critical of the Hintikkas' interpretation of Wittgenstein's transition, their recognition that a fundamental change in his views took place in October 1929, and their pinpointing the manuscript remarks in which it occurs, was at the time a great advance in Wittgenstein studies. This, more than anything else they say, accounts for the historical significance of *Investigating Wittgenstein*.

13. Remember that for Wittgenstein this means practically all propositions: "Someone is playing the piano in the next room", "Bring me a flower", "Julius Caesar crossed the Rubicon", etc. It would be imprudent to say here, "propositions that refer to a physical world". For one thing, it is not clear whether Wittgenstein at this point would say that the above propositions do "refer" directly to the objects they mention, since he still thinks our only direct experience of the world is through phenomena. For another, it is not clear what he would think at this point about propositions like, "The physical world exists", or, "The world is made of physical objects"; but these are the only ones that literally "refer to a physical world".

14. Frege, *Begriffsschrift*, p.4.

15. See e.g., "The Ultimate Constituents of Matter", p.141; *The Analysis of Mind*, pp.124-9.

16. The remark immediately following those in [3.8] is an incomplete comment on extensional number theories and identity. I suspect it was meant to illustrate the idea that a complete description of an object by means of sense-

impressions is absurd. The reasoning would run along something like the following lines: if you describe an object by means of an expression such as " $x = a \vee x = b \vee x = c$ " etc" (WA I,191,9), i.e., a disjunction of its properties, you cannot at the same time introduce the same object by means of an identity function. That is, you cannot describe an object phenomenologically and then, describing it physicalistically, say "and this is the same object as that other (phenomenological) one". Unfortunately this remark was not completed, so the point was not drawn out, giving it the appearance of an irrelevant interpolation on the philosophy of mathematics. Consequently the remark which follows this one in the manuscript seems like a return to the discussion rather than a continuation of it. The incomplete remark was left of the PR for obvious reasons.

17. For an alternative translation of this and the previous passage see Stern, *Wittgenstein on Mind...* p.148-9. The Hintikkas cite these passages from roughly July-August, but they think that Wittgenstein was not "hit by the full force of the idea that language belongs to the physical world" until October (p.165). But it seems to me that this thesis is primarily a reinforcement of what he has already realized: that phenomenology and physics describe the same world. I do think the full impact of this idea is not felt until October (see Chapter 4).

18. Hintikka, *Investigating Wittgenstein*, p.164.

19. The closest they come to explaining this idea is the following statement:

Wittgenstein's 'deduction' thus ran as follows: the basic sentences of our language must be compared directly (virtually, superimposed on) the facts they represent. (*Investigating Wittgenstein*, p.166)

What this is supposed to mean, if not a mapping of logical form as in the TLP, is anybody's guess.

20. Hintikka, *Investigating Wittgenstein*, p.165.

21. Hintikka, *Investigating Wittgenstein*, pp.165-66.

22. To avoid a misunderstanding later on, it is important to distinguish the doubt I am introducing about this interpretation from a doubt introduced by Noë ("Wittgenstein, Phenomenology..."), which I dispute below. Noë thinks the Hintikkas must attribute to Wittgenstein the position that a phenomenological language could not represent what is physical, exactly the reverse of the thesis I am disputing here. I disagree with Noë on this because the concept of a phenomenological language in Wittgenstein is entirely intertwined with the two-worlds view and so it is true that one language cannot represent

the other world; whereas the concept of physical language as ordinary language does not entail that language cannot represent the phenomenological.

23. See e.g., *Investigating Wittgenstein*, pp.169-170, where they interpret certain passages as evidence that "Wittgenstein in effect rejects phenomenological objects in favor of physicalistic ones" (p.170); but they are forced to admit that "he fails to follow up on this result" (p.170). But there was no such result; phenomenological objects are the proper objects of the phenomenological mode of expression. Wittgenstein does at one point refer to color patches and tones as "uneigentlichen Gegenständen" (WA II,9,1; PR XI,115,136), which literally means "improper objects", but he is using it in the sense of "figurative" or "nonliteral" objects. Of course Wittgenstein does not mean to say that ordinary language cannot talk about phenomenological experience at all. See Appendix II and for a translation of these and other passages in the manuscripts relating to the use of the word "object".

24. Hintikka, *Investigating Wittgenstein*, p.164.

25. In the *PI* and *RFM* Anscombe translates "Ausdrucksweise" and "Ausdrucksform" interchangeably. Probably very little is lost by this since the two are very closely related, but on my reading the former is the general term and the latter the particular. See the references in the footnote below. The importance of Wittgenstein's introduction of these terms may be obscured by the fact that they are ordinary enough German compounds that do not quite have the sense of novelty that "Lebensform" or "Sprachspiel" have. The word "Ausdrucksweise" even appears several times in the *TLP* (4.015, 5.21, 5.526). But nothing suggests that it is a technical term there (whereas, on the other hand, the word "Ausdruck" is a technical term there: see 3.31-3.314). There seems little doubt, given their persistent use from this point forward in his writings to express the same sort of concept, that the two compounds with "Ausdruck" and cognate terms play a technical role for Wittgenstein.

26. For some of the many examples of Wittgenstein's use of these terms see *BT* p.438; *PI* 90, 91, 94, 111, 112, 356, 398, 402, 426; *CE* (1937) p.400; *RPP* I 163, 551, 1102; *RFM* II,46,138. Other cognate terms used in related ways are "Redeweise" (*RPP* I, 1101) and "Sprachformen" (*PI* 91).

27. Hintikka, *Investigating Wittgenstein*, p.161-2.

28. Unfortunately, describing phenomenology as offering a "more concise" mode of expression conflicts with most of his other statements about it; normally he takes physics as the simpler language and immediate experience as extremely complex. But this is an incidental point, perhaps a symptom

of some confusion that accompanied the important transition his thought was undergoing at this time.

29. See above, Chapter 1, Section 1.6, below in the present section, and the Conclusion of this chapter for expressions of Noë's point of view.

30. Noë, "Wittgenstein, Phenomenology...", p.16. As pointed out in a footnote above, this is not the criticism I made of the Hintikkas, though the form looks similar. I said they were wrong to imply that Wittgenstein held that ordinary language could not represent the phenomenological. Noë is saying that they are wrong to imply that prior to his transition Wittgenstein thought that a phenomenological language could not represent the physical. I am replying that on this count Noë is incorrect.

31. Noë, "Wittgenstein, Phenomenology...", p.19.

32. Noë, "Wittgenstein, Phenomenology...", p.19.

33. Noë, "Wittgenstein, Phenomenology...", p.19.

34. Cf. BT Section 90: "Philosophy. The Clarification of the Use of Language. Traps (Fallen) of Language" (BT 422; PO 183). In this section we find the following remark: "Language has the same traps for everyone; the immense network of well-maintained... false paths (*Irrwege*)" (BT 423; PO 185). Cf. also LCA 1: "There is constant surprise at the new tricks language plays on us when we get into a new field". Some "new fields" he describes in the previous remark are personal experience, numbers, quantification, personal identity, and valuation. In saying there are "new tricks" in each field he is not denying that they are mostly based on physicalistic thinking; in one case we may take impressions to be located in physical space, in another we treat explanations as if they were mechanical causes, in another we take private sensations to have public criteria of identification, in another we Platonize "Beauty", etc.

35. The reference is to the "specious present", William James's term for the time of immediate perception. James actually believed this interval was temporal: he says "it is only as entering into the living and moving organization of a much wider tract of time that the strict present is apprehended at all" and quotes Clay, the inventor of the expression, to the effect that "The present to which the datum refers is really a part of the past..." (*Principles of Psychology* I, pp.608-9). Indeed, the "specious present" lasts from 6 to 12 seconds, according to James (*Principles of Psychology* I, p.613). But the term was later used by Russell and others in a way that suggested it was not temporal, and this is no doubt the usage that Wittgenstein picked up. In Russell's use, if I understand it correctly, the "specious present" refers to a schematic series of

stages of the decay of sensations into memories (see *The Analysis of Mind*, p.174); it does not make essential reference to time. Some kind of temporality may be implicit in this decay, but it could be a logical progression rather than a temporal one. When Wittgenstein says a "phenomenon" is not in time and yet "contains" it, he seems to be using "specious present" as the time of phenomenological experience, and this time is itself thought of as phenomenological (like the conception of phenomenological language that he criticizes). James seems to hold that we experience phenomena in what Wittgenstein would call physical time, but the Peircian psychology behind the stream of experience makes it anything but a straightforward sequence of temporal images. I cannot go into this any further here.

James obtained the term "specious present" from E.R. Clay, who wrote about it in a publication called "The Alternative" (p.167). Clay's use seems to have been as a stepping stone to a proof of the unreality of time. It appears that Clay, James, Russell and Wittgenstein each had slightly different purposes in using the term and gave it slightly different meanings.

36. Stern, *Wittgenstein on Mind...* p.146.

37. The interpretation of this passage given by John W. Cook is superficially similar to mine, but has as its point that "'objective' (or 'physical') space is a construct - a logical fiction" (*Wittgenstein's Metaphysics*, p.74). Although there is a line right before the one I cite that could lead to this conclusion, I think Wittgenstein is saying that the notion of physical space as a "construction" is part of the subjective point of view. Cook seems to be defending the view that for Wittgenstein phenomenological space is a public space, while physical space doesn't exist at all; but I take Wittgenstein's point to be that phenomenological space construed as private doesn't exist at all.

38. See *Our Knowledge of the External World* (1914) p.93ff; "On Scientific Method in Philosophy" (1914) p.117; "The Ultimate Constituents of Matter" (1915), pp.128,139-42; and *The Analysis of Mind* (1921).

39. No doubt he also has in mind here Mach's famous drawing of his room, partially obscured by the bridge of his own nose; this drawing is referred to many times in these manuscripts, though not always explicitly. See Mach, *The Analysis of Sensations*, p.19. Aside from the present example (PR VII,71,100) see the explicit reference at PR XX,213,267, as well as PR XX,216,271.

40. Though I can find no support in the dictionary for translating the word "Anstrich" as "shading", as it is

rendered in the *PR*, none of the alternatives ("painting", "tinge", "upstroke", etc.) seem to work here.

41. Noë, "Wittgenstein, Phenomenology...", p.17.

CHAPTER 4

THE RISE AND FALL OF THE PHENOMENOLOGICAL LANGUAGE PROJECT (II): PATHS TO THE PHILOSOPHICAL INVESTIGATIONS

=====
"The world is not composed of sense-data and physical
objects. The relation between them is one in language -
a necessary relation." (WL30 81)

"Here it is like the relation: physical object and
sense-impressions. We have here two language-games, and
their relation to one another is of a complicated sort.
-If you try to put their relations into a *simple*
formula you go wrong." (PI p.180)

PHASE III: PHENOMENOLOGICAL LANGUAGE RESTORED?

4.1 Wittgenstein Reconsiders

Our previous chapter brought us to the end of
Wittgenstein's *Band II* manuscript, probably some time in the
summer of 1929. At the beginning of *Band III* Wittgenstein
suddenly turns back to the notion of a phenomenological
language, and there is no doubt at this point that he means
to reconsider his recent rejection of the project. Unlike in
the previous cases, he offers some definite arguments in
favor of it. Nevertheless, the scope of this reconsideration
is very restricted. Wittgenstein runs into significant
problems almost the moment he reopens the discussion and
after a lengthy attempt to come up with some mathematical
logic that could ground the idea he gives it up once and for
all.

Wittgenstein begins *Band III* with the remark:

It is not necessary to make eliminative (*ausschaltende*)
experiments (e.g., thought experiments). Visual space
has its own independent reality.

It contains no subject in itself. It is autonomous.

It can be immediately described (but we are far removed from knowing a mode of expression to describe it). Ordinary physicalistic language relates to it in a very complicated and instinctively known way. (WA II,3,3)

The first thing these ruminations confirm is the idea that the representation of experience requires no Cartesian subject, a thought that would remain in place right through the *PI*: "That which has no owner is the 'visual room'" (*PI* 398). The second thing they suggest is that there is some as yet undetermined mode of expression for the description of immediate experience, a throwback to the last paragraph of *SRLF* which already suggests that he is reconsidering the Tractarian project once again. But then, in what at first appears to be a leap into his later ideas about meaning, he says:

The decisive factor (*Moment*) for a language is its use. The thought with its support (*Hilfe*). (WA II,3,3)

This may show us something about where the idea of meaning as use originated, but it is not that concept. It is actually a reference to a phenomenological language, as becomes clear when he pursues the notion of a "support". Noting that the idea of a solipsism of the present moment "leads into a pit" (WA II,3,4) he says:

The error must be that we attempt to grasp the fleeting present with scientific methods. That must be as if we wanted to detach the firmness of a beam in order to grasp it. In order, so to speak, to distill it [the firmness] out of it... (WA II,3,4;)

From the impossibility of attempting this we must retain the insight (*Erkenntnis*) that we speak nonsense when we attempt to employ our language in this undertaking. (WA II,3,5)

The "fleeting present" would be phenomenological experience, and the attempt to grasp it using the language of physics removes the essence of what we are trying to study. If we can't employ "our language" in this enterprise, and the enterprise itself is coherent, then presumably a phenomenological language is called for. In the *PI* this kind of reasoning will be characterized as trying to "repair a torn spider's web with our fingers" (*PI* 106), reflecting the frustration he encountered trying to carry out this program. But here he sees the idea of a phenomenological language as a support for ordinary language, just as he sees phenomenological propositions as verifications of ordinary ones.

Yet there are serious misgivings already:

But if one says: But the philosopher must yet climb down into this pit and grasp the pure reality itself and pull it to daylight, then the answer is that he thereby must leave language behind and will come up from there without having achieved anything. (*WA* II,3,8)

Wittgenstein does not make this route (rather like an inverted version of Plato's cave analogy) sound like a promising one for philosophy. Having just stated that visual space "can be immediately described" he already seems to be doubting that that is possible. Even the next comment, his most hopeful yet, suggests some doubts about the program:

And yet there can be a phenomenological language.
(Where must this end (*Halt machen*)?) (*WA* II,3,9)

But now he goes on to give an actual argument for it:

When we want to imagine this language it is characteristic that at the very beginning we imagine the world to ourselves simply as it is. But this does

not speak against, but rather for, the possibility of this language, for we go a definite way around to get to it. (WA II,4,1)

This last phrase is a reference to the desire to "begin before the beginning", which he had mentioned in connection with the idea that we can begin philosophy with an "inarticulate noise", such as the *cogito*-like "I have, knowing of my knowledge, consciousness of something" (WA I,191,3; PR VII,67,98). The same idea is later expressed in a comment on Russell's theory of descriptions: it shows that one "cannot sneak into a knowledge of things from behind" (WA II,84,9; PR XIV,166,200-1). So Wittgenstein is here expressing optimism about the ability to grasp immediate experience that he did not have only a short time before and will lose again before the year is out.

This ambivalence is characteristic of the whole series of the remarks in the first few pages in *Band III*. The rest of this discussion shows Wittgenstein still groping for a way to retain the "support" of a phenomenological foundation for ordinary physical language. He suggests that perhaps "our ordinary language is also phenomenological", that it just fails to separate the various modes of sensory experience (WA II,4,2). He suggests that even the complexity of immediate experience shows that "the description is possible in principle" and that it is easy enough to "think of events in this space simple enough to be described" (WA II,4,3).

But after these somewhat hopeful remarks he comes once again on a difficulty that beset him earlier, and helped

convince him to abandon the project: the temporality of language.

If now phenomenological language isolates visual space and what happens in it from everything else, what does it do with time? Is the time of the "visual" phenomenon the time of our ordinary physicalistic mode of expression? (WA II,4,5; PR VII,75,103)

Note that the idea that ordinary language is itself phenomenological, suggested on the previous page of the manuscript, has already been dismissed¹. To deal with the problem of temporality Wittgenstein turns to analogies of physical time with a metronome (WA II,4,6) and a filmstrip (WA II,5,2) and the phenomenal world with the projected images. But these are no more than ways of representing the problem; the difficulty is not eliminated.

Let us take stock of what has happened thus far. Near the end of *Band II* Wittgenstein questioned the possibility of a phenomenological language in the very act of coining the term, and he offered a considered rejection of the idea shortly afterward. But at the beginning of *Band III*, he has apparently turned back to it. Within few months, though, it would be abandoned once and for all. How then are we to assess his reconsideration of this program? The first thing to notice is that everything in *Band III* that has been described so far, including the discussion of experience and time, takes place within the space of six manuscript pages. At Wittgenstein's rate of production in this period that could mean as little as a single day or as much as a week; on a reasonable estimate the remarks were penned within the space of a few days. As is clear from the discussion above,

this material contains only one or two unequivocally optimistic remarks about the project, and some that are downright skeptical. Shall we say, then, that he had taken up the phenomenological point of view again, or merely that he wanted to be sure the idea was not viable before fully committing himself to the skepticism he had expressed about it in *Band II*?

The course of his development in this notebook suggests the latter. Towards the end of the material we have been citing Wittgenstein makes the following comment which pivots the focus of the discussion: "It can even appear that the certainty of mathematics or logic also undermines the observation of the bare present" (WA II,5,5). Thereupon he turns briefly to the philosophy of mathematics. This is hardly a return to phenomenology; he recognizes that the problems have not been worked out, and he is going to see if they can be. The mathematical discussion leads him to considerations about Frege's theory, in which context he makes one of several studies of subject-predicate sentences and the Fregean-Russellian analysis of them (see WA I,63-66; WA II,8,2 - II,9,5; WA II,202,1). Here he reiterates what he said in *SRLF*, i.e., that such an analysis covers up more of the grammatical form than it reveals. The study focuses on the use of the word "object" and the grammatical differences between various kinds of "objects", and strongly suggests that a confusion with the grammar of physics is implied by the Fregean analysis (see Appendix I for translations of this and other related passages). This too looks to be more

a part of his later ideas than the phenomenological approach; indeed, it is an important component of what will develop into his critique of the notion of logical form as it appears in the *PI*. At this point there is no reason to think he has recommitted himself to the construction of a phenomenological language.

The discussion of topics in the philosophy of mathematics continues for another 125 manuscript pages without any mention of phenomenological language. At one point the mathematical discussions turn more directly to considerations about visual space; much of Chapter XX of the *PR* comes from this material (*WA* II,17,7 - II,23,1)². This, and the fact that the whole mathematical episode is both preceded and followed by considerations about phenomenological language suggest that he was in some way trying to work out problems which had developed when he reconsidered his rejection of this program. The lengthy, uninterrupted stretch of remarks on mathematics is concerned directly with the notions of numerical series and rule-following: the real and prime number series, the development of π and other irrational numbers, proof by induction, limits and sums, and similar topics. Recall that *Band I* began with remarks about the real number series, and that these seem to have been directly tied in with his study of the nature of continuous phenomena, which emerged from the color exclusion problem. It is possible that in these later studies Wittgenstein was considering in part how the time-series of experiential phenomena can be related to that of

language. In any case, in these remarks rule-governed series are often opposed to apparently (but misleadingly) analogous series in the physical world (see Chapter 1). Thus they also constitute a further development of his idea that the nature of continuous phenomena (i.e., those where analysis ends with infinitesimal points or degrees rather than discrete, finite objects) is expressed by rules about the space rather than by terms which denote infinite classes of objects; that is, they are intensional rather than extensional. Where the phenomenological project contrasts the modes of expression used for continuous phenomena to the ordinary physical mode, the mathematical investigations contrast the mathematical expression of continuity with set-theoretic models whose extensions are classes of objects. Thus one can say that he is trying to solve the problem he has come upon in reviving the idea of a phenomenological language, that of comparing the time-series for visual phenomena and for language itself with time in physics, and at the same time working on the insight that has been developing from the beginning, the difference in the grammatical rules for phenomenology and physics.

The result of this survey of Wittgenstein's work up to this point is that there is no straightforward answer to the historical question of whether Wittgenstein was ever explicitly guided by the notion of a phenomenological language. We already know it had been implicit in his earliest work in 1929, as a response to the demise of the logic of the *TLP*. Yet as soon as he explicitly formulated it

he questioned its possibility, and very soon thereafter he rejected it outright. Much of the impression that he ever actually believed in it comes from the remarks in the first few pages of *Band III* in which he reconsiders the idea. But now we have seen that upon doing so he encounters problems, and all we have to go on from this point until he quite definitely rejects the program as "absurd" is a long stretch of mathematical philosophy in which he increasingly pursues ideas about rule-following and makes no explicit statements one way or another about the possibility or necessity of a phenomenological language. All we can really say in answer to the question is that in *Band III* he briefly expressed renewed interest in the possibility of a phenomenological language, ran into difficulties right away, and tried to work these out using analogous concepts in the philosophy of mathematics. Though this is merely a way of saying that the question cannot be answered directly, it is an important corrective to the standard view. Virtually every exposition of Wittgenstein's 1929 philosophy makes the assumption that at some point during this period, if not before, he had explicitly adopted and worked on the idea of a phenomenological language. This is understandable, since the terms in which he rejects it at the beginning of the *PR* ("a phenomenological language... I do not now have in mind as a goal; I no longer consider it necessary"; *PR* I,1,51) strongly suggest this. But whatever Wittgenstein had in mind as his goal, the written evidence shows that from the time he coined the term "phenomenological language" to the end of

the mathematical investigations he was in various degrees of doubt about it and spent much of his time developing ideas that would lead well beyond it without ever lending it any direct support.

**PHASE IV: SECOND INTELLECTUAL CRISIS AND THE DEMISE
OF THE PHENOMENOLOGICAL LANGUAGE PROJECT**

4.2 Crisis and Insight

It is now early in October 1929, still only nine months into Wittgenstein's work. The mathematical investigation begins to give way to phenomenological interests once again with the following comment:

What the immediate datum is to a proposition of ordinary language that it verifies, that is the observed (*gesehene*) arithmetical relationship of the structure to the equation that it verifies. (WA II, 84, 3)

That is, as sense data verify ordinary language proposition, or give them sense, an impression of the structural relationships within an equation gives sense to the equation, or to the proof it represents. This leads to thoughts on verification and proof; these remarks comprise part of Chapter XIV of the *PR* (#166-167). What occurs at this point is difficult to follow. We come to a place in the manuscript where for several pages nearly every remark is no more than a single short sentence, as if each thought led to a dead end (WA II pp. 88-9). The remarks range over a variety of topics without fixing on or really developing any of them. The last of them seem to be efforts to reintroduce the picture theory in the context of his phenomenological research, e.g.:

The observed (*angeschaute*) reality takes the place of the picture. (WA II,89,8)

"Blue and white lie next to each other", that is apparently a proposition, apparently also a picture. (WA II,89,11)

This might appear to be a productive line of thought, but Wittgenstein is actually, on my reading, already in the midst of an intellectual crisis which will put an end to the phenomenological language project once and for all.

On 6 October 1929, for the first time since the first few pages of *Band I*, he begins dating his remarks - perhaps a sign of his recognition that an important crossroads has been reached. His first dated comment begins: "Incapable of thinking. Thoughts like an anxiety-dream, going around in circles (*Gedanken fiebertraumartig, reitirierend*)" (WA II,90,1). This was written in his personal code, but the rest of the remark was not. It concerns a dream he had which he interprets as a representation of his fear that he will never really be understood by others. In his next remark, again in code, he describes himself as being in "*Gedankenmatt*", i.e., "thought-mate" (like checkmate), and complains bitterly of his inability to work and his feelings of worthlessness as a result of this (WA II,90,2). Very little of philosophical interest takes place for several more days. His last remark of 10 October (in code) reads: "Today I feel a particular poverty of problems around me; a sure sign that *before me* lie the most difficult and hardest problems" (WA II,92,6). In another coded remark the same day he describes himself as a "bad person" and complains of

being under pressure. At this point he had written little of any interest for more than a week.

It may be of some relevance that at this time Wittgenstein was working under a grant from Cambridge, with no guarantee that it would be renewed; he had not received his doctorate yet, had no teaching assignment, and in spite of his fame as the author of the TLP was completely beholden to the good offices of Russell, Moore, Ramsey and Keynes. This may have contributed to his sense of gloom; he even complains of feeling "alien (*fremd*)" (WA II,90,2). Nevertheless, the main source of the pressure was clearly intellectual: his mathematical explorations, though they are in hindsight an essential step in the development of his ideas on rule-following, had produced nothing that could support the concept of a phenomenological language. What he had complained of at the beginning of the notebook - that there was no obvious way of capturing the flux of experience by means of some special manipulation of a language that necessarily unfolded in time - remained every bit as much the case as it was before.

How does Wittgenstein emerge from this crisis? By finally putting in explicit terms a key insight that had been underlying his ideas all along, but that had been obscured by the chimerical pursuit of a linguistic system to replace the failed Tractarian project. Thus on 11 October, immediately after the last of his self-critical remarks, the conception that on our interpretation is central to the later Wittgenstein emerges with the force of a revelation:

[4.1] The worst philosophical errors always arise when we want to use our ordinary - physical - language in the area of the immediately given.

If one asks, for example, "Does the box still exist when I am not looking at it, then the only correct answer is, "Certainly, if no one has dragged it away or destroyed it". Naturally a philosopher would be not satisfied with this answer but it would quite rightly reduce his way of questioning *ad absurdum*. (WA II,93,2; PR VI,57,88)

All our forms of speech (*Redeformen*) are derived from normal physical language and are not used in epistemology or phenomenology without casting a distorting light on the object. (WA II,93,3; PR VI,57,88)

The very form of speech (*Redensart*) "I perceive x" is already derived from the physicalistic (world) mode of expression and here x should be a physical object - e.g. a body. It is already false to use this mode of speech (*Redeweise*) in phenomenology, where x must then mean a datum. For now "I" and "perceive" do not have the same sense as above. (WA II,93,4; PR VI,57,88)

In these passages, Wittgenstein forcefully states the view that will eventually lead him from his phenomenology to the later philosophy. Though he does not exploit the full power of these ideas until the *BLB* he already has the main concepts. When we speak in ordinary conversational or written language we take the existence of the physical world, and the reference of words to physical objects, as given, or unproblematic. When we say "I see a tree" we do not mean "I have a visual sense-datum that corresponds to what should be the physical presence of a tree"; we mean simply "There's a tree". The former is not an analysis of the latter but a new idea that replaces it in philosophical discourse. Wittgenstein suggests that we have all kinds of expressions in ordinary language that presuppose our ability to refer immediately to physical objects; it is what gives

ordinary language its particular use-value for us. But when we do philosophy, in this instance phenomenology, we posit different kinds of objects - sense-data, or whatever - and proceed to apply our normal physical mode of expression - "I perceive..." to this new entity. This is the idea that stands at the crossroads between what has become known as the "middle" Wittgenstein and his later philosophy.

Wittgenstein actually gives us examples of two kinds of errors: doubting that a tree exists when I'm not looking at it is like applying the language of phenomenology in the area of physics; whereas saying "I perceive x" where x is a sense-datum is the reverse. In either case, the point remains that we cannot cross grammatical realms and take the resulting propositions literally. He does not, however, say precisely what difficulties we encounter as a result of doing so. But they are not hard to come up with. For instance, if our ordinary talk about perceiving a tree should be interpreted as meaning we are perceiving sense-data, why stop there? How do we perceive sense-data *directly* if we can't perceive trees directly (especially if, as Russell believed, sense-data are part of the physical world)? It does not help to say that sense-data are "by hypothesis" things we perceive directly; we are talking about an empirical theory of perception, not a logical analysis, so we can't just posit perceptual entities willy-nilly. This forces us to say that when we talk about perceiving sense-data, we must really be saying we perceive ultra-sense-data which mediate between the sense-data and

our senses! This clearly leads to an infinite regress. The point is, the philosophical method in which we are supposed to be able to analyze reality in terms of immediately perceived phenomenal objects is not going to work. It is already difficult to accept the implication of such a program, namely, that we are making a huge mistake when we say we "perceive" physical objects - though this was not enough to dissuade its early 20th-century adherents. But if it turns out to be incoherent to say that what we *really* perceive are sense-data or phenomena, a whole philosophical program is ready to become history.

It is important to see that the fundamental insight in the above passages is not limited to the particular difficulty regarding sense-data. It is the idea that "all our forms of speech are derived from normal physical language", and that as soon as we apply these constructions to philosophical theory we "throw a distorting light" on what we are trying to talk about. Though the point is applied here to "phenomenology or epistemology", the generality of the statement about physical forms of speech suggests that one goal of philosophy (not just phenomenology) will be to avoid being misled by the intrusion of physicalistic modes of expression into our theoretical language. Note that this is just the reverse of the problem that figures so prominently in the Hintikkas' thesis, i.e., that Wittgenstein's change of mind about the phenomenological language project was due to the inability of such a language to express physicalistic truths. It was

the awkwardness of using *physicalistic* language to express *phenomenological* truths that played the crucial role.

Indeed, this insight engenders much of Wittgenstein's later conception of philosophy, as expressed in the metaphors of showing the fly the way out of the fly-bottle, understanding the picture that holds us captive, avoiding linguistic temptations, etc. All of these expressions originate from the idea that we generally lead ourselves into philosophical difficulties by failing to see the traps that language sets for us; and the most important of these occur when we invent metaphysical entities, processes or relations and apply our usual spatial and temporal concepts to them - our metaphors of inner and outer, or finitude and infinitude, or temporal continuity, or creation and destruction. Again and again in Wittgenstein's later work he returns to the simple idea expressed here, that ordinary language has a spatiotemporal bias that leads to confusion and paradox when it is unwittingly reflected in philosophical theories.

In Wittgenstein's use of these remarks in the *PR* it is already apparent how this insight may be applied to problems that go well beyond strictly phenomenological matters. Their function in the *PR* is to bolster a point that ties in with the issue of sense-data, but is wider in its implications, i.e., the claim that a Cartesian subject is not necessary for the representation of experience. Recall that this point was developed at the end of *Band II* and the beginning of

Band III. He begins Chapter VI of the *PR* with a slightly later expression of the same idea:

[4.2] One of the most misleading modes of representation of our language is the use of the word "I", especially where immediate experience is represented by it, as in "I see a red patch".

It would be instructive to replace this mode of expression with another in which immediate experience would be represented without the help of the personal pronoun, because one could thus see that that representation of facts is not essential.³ (*PR* VI,57,88; *WA* II,135,4-5)

In the manuscript these remarks are followed by others which develop the same line of thought. These are also printed in the *PR* (*WA* II,136,1; *PR* VI,58,88) but first remarks from [4.1] are interjected. They are clearly intended to support the point that the use of "I" as a subject of experience is a "misleading mode of representation". The idea of a Cartesian soul, as we saw in Chapter 1, can be seen as the kind of metaphor Wittgenstein is alluding to in saying that we make "the worst philosophical errors" by applying the discourse of physics in the realm of phenomenology. Taking literally the idea of the soul as a kind of ethereal substance inside the head, a metaphysical abstraction is extended to the point where philosophical problems fall like rain, e.g., in the form of paradoxes about the interaction of mind and body. So by May 1930 he has already taken this insight of October 1929 and made it serve as a pedestal on which to question fundamental assumptions in modern epistemology.

4.3 Digression: A Path to the Private Language Argument

Even more interesting things emerge if we ask why the epiphany of self-clarification that transformed his ideas in the manuscripts seemed most appropriate in the *PR* at this point. If one understands the basic ideas it is easy enough to see that [4.1] lends some support to remarks like [4.2]; but why should such crucial remarks as [4.1] be reserved for this particular context in the typescript? The intriguing answer, I suggest, is that they precede, and provide a foundation for, the earliest version of Wittgenstein's "private language argument"⁴.

The argument which continues Chapter VI depends, as does [4.2], on the idea with which he had begun his manuscripts: that there is no privileged mode of representation. Consider claims about being in pain: if these are to be represented phenomenologically there will be a certain claim that "I" (L.W.) am in pain that is immediately known; and all claims of the form "A has toothache" can be stated: "A is behaving as L.W. does when he has toothache" (*WA* II,136,1; *PR* VI,58,89). As Wittgenstein points out, "this language can have anyone at all at its center" (*WA* II,136,1; *PR* VI,58,89). That is, it makes no logical difference whether or not the "I" who serves as a paradigm of pain-behavior is the "I" that I experience as the subject of sensations. However, the solipsism in phenomenology comes out in that "among all the languages which have different people at the center, the one which has me at the center has a special position

(*Sonderstellung*)" (WA II,136,1; PR VI,58,89). At least, that is how it is typically conceived: I am supposed to be able to recognize *my* pain *immediately*, while that of others is known by inference from behavior (which is again known to me only phenomenologically). This alleged egocentric language is precisely a private language in which I can ostensibly point to a particular pain-sensation.

Wittgenstein does not dwell here on our inability to *reidentify* a particular pain-sensation ("the sensation *S*") as he does in the *PI* (258ff). The question is whether I can identify a pain as *mine*; but this is quite comparable, for in both cases, the answer turns on whether I can come up with reasonable criteria to justify the identification of something by private ostensive reference. It is presupposed by any theory of names for physical objects that there is ultimately some method like pointing and using demonstrative pronouns that makes reference to these objects publicly accessible. The warning about confusing physical and phenomenological means of expression applies just here: it suggests that what happens with the notion of privately identifiable sensations is that a subtle conceptual transfer has been made from the practice of naming physical objects. The faulty assumption is that ostension in a public space has a sufficiently comparable analogue in private space to justify private ostensive references.

Wittgenstein refutes this idea here with a move that is indicative of the originality of his later thought. He asks,

regarding the putative "privileged status" of the self-centered language:

[4.3] How can I express that? That is, how can I correctly represent its special position (*Sonderstellung*) in words? That is not possible. For if I do it in the language which has me at the center, then the privileged position (*Ausnahmestellung*) of the description of this language in its own terms is no wonder, and in the mode of expression of another language my language takes no special position at all. (WA II,136,1; PR VI,58,89)

In short, there is no language in which I can say that my sensations are the paradigm for all sensations, and thus phenomenologically distinguish my pain; for in a private language the proposition fails to say anything, and in a public one it fails to distinguish itself from the logically equivalent public proposition "there is pain". Note that Wittgenstein is not defending the absurd thesis that an individual cannot recognize when she is in pain. He is arguing against the idea that a phenomenological language can be a private language, by trying to show that in a phenomenological language it would be logically impossible to express the proposition that the pain I experience is my pain. The correct inference is not that I cannot know if I am in pain but that there is no privileged phenomenological position from which to assert the primacy of certain phenomena (one's own); we cannot "begin before the beginning" (PR VII,67,98; WA I,191,3), as he puts it. Of course, Wittgenstein would also deny that one "knows" or "recognizes" one is in pain in the same sense that we say we know or recognize empirical truths about the world; we do not, for instance, "learn" that we are in pain as we learn

what we usually know or recognize. But for the same reason Wittgenstein would consider it absurd to say we *do not* know we are in pain. My point is that his remarks are misinterpreted if they are taken as a defense of this absurd thesis.

The argument depends in part on two points already established in his manuscripts: his initial observation in *Band I* that all modes of representation are "equally justified", and his realization at the end of *Band II* that phenomenology and physics both describe the same world, and are simply different "modes of expression".⁵ Together these suggest that there is no way to establish a priority of the phenomenological or physical modes of representing the world⁶. Adding to these the ideas in [4.1] and [4.2] we come up with the position that philosophical confusions will arise when we give preference to one mode of representation over another; and that precisely such a confusion arises from privileging the phenomenological standpoint in first-person experiential reports. Finally, in [4.3] Wittgenstein gives a definite argument to prove this point: a phenomenological language that privileged its own standpoint would be incoherent, for it could not represent an experience as *mine to me*, since the solipsistic point of view does not recognize a *mine/thine* dichotomy; and to anyone else the representation of *my* experience (i.e., an expression in my solipsistic language) is just the representation of *an* experience, the same as anyone else's. Hence the phenomenological mode of expression must be

public, not private, and what it represents must be just as publicly accessible as anything represented physicalistically.

At one point during the private language argument in the *PI* Wittgenstein says that "in the end when one is doing philosophy one gets to the point where one would like to emit an inarticulate sound" (*PI* 261). The remark is rather obscure in this context, but it is a development of a remark we mentioned above, which is found in the *PR* towards the beginning of the next chapter (Chapter VII). It comes from the section at the end of the *Band II* manuscript where he discusses the model in which objects are moved about so that their positions correspond to the subject's visual field. There, as in the present remarks from *Band III*, he was developing arguments against the phenomenological language program. The mechanical model, he says, would be "the most immediate description one could think of" (*WA* I,191,2; *PR* VII,67-8,97; see section 3.8). If one tried to give a more immediate description than this (i.e., to express something in a strictly non-hypothetical phenomenological language) "instead of a description what would come is that inarticulate noise with which many authors would like to begin philosophy" (*WA* I,191,3; *PR* VII,68,97-8). Not only is the sense of the remark clearer in its original context, but here he explicitly confirms the anti-Cartesian intent which is often ascribed to the private language argument of the *PI*. In the *Band II* manuscript and the *PR* he provides in quotes an example of such an "inarticulate noise": "I have,

knowing of my knowledge, consciousness of something" (WA I,191,3; PR VII,68,98).

Wittgenstein also observes, in this early private language argument, that "only their application really differentiates languages" and that "all these languages only represent one single, incomparable thing and cannot represent anything else" (WA II,136,1; PR VI,58,89). The various solipsistic language are thus pragmatically undifferentiated, and therefore can only be taken in sum as a single, public language. Continuing in the same mode, he begins the next paragraph in the PR with the statement, "It is not possible to believe something for which one cannot think of a verification" (WA II,116,2). This remark is pertinent if we follow the line of reasoning that the inability to identify pains by private ostensive definition is due to the absence of any "application" which could distinguish my private language from all others. This means that there is no possible way in which the distinction can be verified. The present series of remarks in the PR makes the relationship between his early conception of verification and his later use of "criteria" plainly visible. On most interpretations of the private language argument in the PI, the problem of reidentifying "the sensation S" turns, at least in part, on the unavailability of publicly accessible criteria for such a procedure (PI 253, 258, 269, 288, 290), hence the inability to provide a "justification" (PI 261, 265, 289). Here too, the confusion of physical and phenomenological discourse is behind the

difficulty: our conceptions of verification, confirmation, and criteria are all based on the possibility of public exchange of information, but failing to notice this we are misled into thinking that we can privately (or solipsistically) verify, confirm, or produce criteria for mental facts just as we do publicly for empirical facts. In the *PI* he compares this to someone purchasing "several copies of the morning paper to assure himself that what it said was true" (*PI* 265) or to "my right hand giv[ing] my left hand money" (*PI* 268).⁷ He suggests over and over in the *PR* that propositions that are in principle unverifiable have no meaning, just as he argues later that a language without criteria is not a language.

There are many remarks in this section of the *PI* that could have been used in the earlier discussion as well.⁸ But the remarks which open the discussion of the famous "beetle box" example seem to refer as much to the earlier version as the later:

If I say of myself that it is only from my own case that I know what the word "pain" means - must I not say the same of other people too? And how can I generalize the one case so irresponsibly? (*PI* 293)

This is essentially the same problem first dealt with in the *PR*: all private phenomenological languages are equivalent, so how can I assign paradigmatic status to my experience? I can try to do so, but then what I point to mentally cannot be a public object, and if it is a private object I can say nothing more about it than can anyone else in their private language. The "beetle box" example illustrates this dilemma.

Each person in the example has privileged epistemic access to their "beetle", just as Wittgenstein's earlier phenomenologists had to their "toothache". In the earlier version he says that the ownership of the "toothache" cannot be expressed; here he claims that the "beetle" itself "cancels out" (*PI* 293). As before, he considers the question of finding a use for the private object: if the word "beetle" has an application "it would not be used as the name of a thing" (*PI* 293); "not even as a *something*" (*PI* 293), and "not a *nothing* either" (*PI* 304). Here we encounter one of the myriad later expressions of the insight of October 1929: conceiving the private entity as a "thing" is using a physicalistic model for the grammar of mental content. "Consider what makes it possible in the case of physical objects to speak of 'two exactly the same'..." (*PI* 253), he asks. That is the essence of the problem, early and late: grammatical mistakes made by assuming that we can talk of abstract entities in the same way we talk of physical objects.

All in all, an understanding of these early remarks leads to the conclusion that in his 1929 manuscripts, and even moreso in the *PR* the following year, Wittgenstein had already begun to formulate what would eventually become the "private language argument". If our discussion has captured the dynamic of his thought at this time, it should furthermore be clear that the idea that we transfer expressions and practices from the sphere of physics to that of phenomenology played a crucial role in facilitating that

argument. Moreover, it was his critique of the notion of a phenomenological language, with its odd combination of Ptolemaic egocentrism and Newtonian avoidance of hypotheses, that led directly to his realization that the notion of a private language was incoherent. The recognition that a phenomenological language would not hold a privileged position over a physical one, and simultaneously that it would have to have a different grammar, led to the formulation of the private language argument even as it began to dig the grave of the phenomenological language project.

4.4 The Demise of Phenomenological Language (Continued)

Wittgenstein's use of [4.1] in the PR as a means of undermining the possibility of a phenomenological language, conceived of as a language of private experience, lends support to the above interpretation of the 125 pages of remarks on mathematics which separate these remarks from the concerns at the start of the manuscript. It suggests that they were an unsuccessful attempt to find a solution to the philosophical problems he had started with, and [4.1] represents a return to the earlier line of thought and an acknowledgement that his doubts about phenomenological language were justified. They could not be removed by further investigation of the continuum, the time-series, or the infinite in general. At this point, the original project was dead for all intents and purposes. What supplied Wittgenstein with a way out of his crisis was the idea that ordinary language tempts us to carry over the physicalistic

mode of expression into the phenomenological; and this, as we have described it here, is not only the end of an intellectual crisis which stemmed from a problematic conception of the distinction between phenomenology and physics, but the first really explicit expression of the idea that will now guide his work right through the *PI*.

A few days later Wittgenstein once again voices doubts about his work; but this time he ends them much more quickly than before, with this comment:

[4.4] The assumption that a phenomenological language would be possible and that it would actually say what we must express in philosophy is - I believe - absurd. We must manage with our ordinary language and just understand it correctly. That is, we should not let it tempt us to speak nonsense. (WA II,102,5; 22 October 1929)

It would not be too much to call this passage the birth of the later Wittgenstein, in spite of the fact that it occurs in 1929, even before his recorded discussions with the Vienna Circle and near the beginning of what is usually considered his "middle period". What he rejects here is a worldview, which includes not just his own idea of a phenomenological language but a program for epistemological foundationalism and a conception of the tasks of philosophy. He rejects the idea that philosophers can construct a foundation for knowledge, or for scientific thought, out of necessary perceptual truths expressed in a formalized language. Though it was perhaps only Wittgenstein himself who had subscribed to this entire program per se, it is not hard to see that elements of it had guided the work of a wide range of philosophers, from Mach, Russell, Frege,

Moore, Husserl, Carnap, and James, to representatives of schools such as New Realism (Edwin Holt, for instance) and neo-Kantianism (e.g., Karl Pearson). The rejection of a phenomenological language has a ripple effect. It challenges the notion that formalized languages can help us formulate all valid inferences, such that any inference can be reduced to logical components and compared with systematic rules: that is, the program of Frege, Russell, Whitehead and Carnap. It throws into question the notion of sense-data or "the given", which rocks the boat of the entire Cambridge school from the early Russell and Moore through C.D. Broad, and many other philosophers sympathetic to this program (H.H. Price, for instance)⁹. The Kantian idea (if such it is) of a "thing-in-itself" standing behind the object is also upset; even such apparently intuitive notions as fixing a reference through "ostensive definition" can be found tilting if one begins to doubt the possibility of determinate identification by phenomenological criteria.

The evidence that all this and more is being opened up follows in fairly short order. Wittgenstein soon begins to see the idea of sense-data as an error of grammar, to question the notion of logical analysis through a further critique of the concept-object idea, and to raise doubts about naming and pointing. True, he holds on to a form of verificationism for awhile; but by January 1930 this would be transformed into a notion of *confirmation*, which (as we have seen) eventually leads to his later ideas of *justification*, *symptoms* and *criteria*. He does not yet fully

appreciate the significance of his discovery of philosophical grammar; and of course, the ideas of "family resemblance" and "language games" are not yet present. Nevertheless, these later concepts will gradually emerge out of the insight that is here well understood: that ordinary "physical" language is what we have to work with in philosophy as well as everyday life, and that the task is to isolate the ways in which it tempts us to speak in physicalistic metaphors when we try to talk about immediate experience (and much else, as he will discover over the years). Moreover, one path to the private language argument is already discernible. The space of objects of perception is a public space; so it is going to be misleading to use the grammar of perception to refer to anything like an "inner sensation" that is by hypothesis not in a public space. From this point on there is no backsliding on phenomenological language, only a deepening of the arguments for rejecting it.

Thus he abandons the idea of a phenomenological language, and with it the notion that physics rests on phenomenology as an inferential language on a direct one. He had already come to the conclusion that there are not two epistemically distinct worlds but merely two ways of representing the world. Now he also realizes that the two modes of representation are not distinct linguistic systems, but different grammatical features of ordinary language. Even the idea that we can construct a metalanguage of apodictically certain phenomenological propositions is

tossed aside. Having previously recognized the failure of Tractarian logic, he now sees that he cannot salvage the program of developing a syntactically pure "basis language" that mirrors the necessary truths that frame our discourse about the world.

At this point Wittgenstein could conceivably have chosen to give up philosophy a second time. Instead, he saw that in spite of the magnitude of his initial failures the essence of the task he had embraced from the start lay open before him for the first time. The whole problem had been that the sense of a sentence in ordinary language was not clear from its superficial form. The role of philosophy, largely defined for him by Frege's *Begriffsschrift* and Russell's theory of descriptions, was supposed to be to address this problem. This conception remained intact throughout his life (as is shown, for example, by his appreciation of the importance of Moore's paradox - "It's raining and I don't believe it"¹⁰). But why did the problem have to be addressed by developing alternate languages? Why not confront it head on, by sorting out the different uses of words and compiling, so to speak, a super-grammar of contextual linguistic usage? One obstacle was the aesthetic appeal of a logically perfect language; but this he now recognized as a chimera. Another was the tediousness of the procedure. But he had already gone deeply into the grammar of visual space, and explored the grammar of infinity in a way that was supposed to be propaedeutic to our concepts of time, space, number, and geometry. Why not continue the

project and explore all the important psychological spaces? A little later on, in Band IV, he would say, "The words 'color', 'tone', 'number', etc. could appear as the chapter headings of our grammar" (WA II,225,3). He could already have added the words "self" and "time". Before the end of Band IV "expectation" and "recognition", or more generally "intention", and "pain" would become topics of comparable importance. And as is already clear, one of the central tasks for each of these spaces, indeed what gets many of these discussions off the ground, is to reveal the misconceptions that arise from assuming that their grammar follows the model of physical space¹¹.

4.5 Wittgenstein's Alleged Ambivalences

In rejecting the two-worlds approach and the phenomenological language project Wittgenstein embarks on the course that would lead him to the *PI*. This process had begun with the series of remarks cited in Chapter 3, in which he starts to doubt the possibility of a "phenomenological language", and resumes a few months later with [4.4] above. On 21 November, probably less than six months after he first coined this phrase, he makes the well-known remark which constitutes (with one alteration) the second remark in the *PR*:

[4.5] A phenomenological language or 'primary language', as I called it, I do not now have in mind as a goal; I no longer consider it possible. All that is possible and necessary is to separate what is essential in our language from the inessential. (WA II,118,6; *PR* I,1,51)

This signals not only a final step in disengaging from the phenomenological language approach, but a major step towards the philosophy of the *PI*, in which investigation of the linguistic and epistemic structures of "our language", i.e., "ordinary" language, are the only path to philosophical understanding.

In the *PR* (I,1,51) Wittgenstein changes the word "possible" in the first sentence of [4.5] to "necessary". This is one of only a handful of changes he made to the manuscript remarks which were included in the *PR*, and since this is both a crucial remark in his own development and occupies a prominent a position in the *PR* the change has drawn the attention of most commentators who address Wittgenstein's phenomenology¹². It is generally recognized that it cannot signify that in the *PR* Wittgenstein thinks a phenomenological language, in the sense we have examined it, is possible; for in the very next sentence in [4.5] he suggests that it is not possible. Why, then, did he change the initial claim?

In this case the explanation given by the Hintikkas seems essentially correct. According to them, the change "reflects a genuine hesitation on his part, not concerning what he believed, but concerning what he thought he could prove".¹³ It is reasonable to suppose that Wittgenstein did not want to start the typescript on a note that might set up the expectation that he was going to demonstrate the impossibility of a phenomenological language; for although there is a kind of proof in Chapter VI, as we have seen,

that was not the goal of the work. It should be added, though, that the whole book, properly understood, demonstrates by example that such a language is not necessary. That is because it is a grammatical investigation which, as he says in a remark that follows shortly, "amounts to the construction of a phenomenological language" (PR I,1,51). So modifying this initial claim has the beneficial effects of avoiding undue emphasis on the proof in Chapter VI, and setting up expectations of what actually does follow - the construction of a phenomenology without a phenomenological language.

Stern may have something like this later, grammatical project in mind when he suggests that Wittgenstein uses the term "phenomenological language" in two different senses: the formal sense we have alluded to several times, and "a looser sense, meaning by it any way of talking about the content of experience". According to Stern, "in this sense of the term, he holds that a phenomenological language is possible, but not necessary"¹⁴. The problem with this way of putting it is that if there were a second sense of the phrase, it could only be that of a "grammatical investigation", or the closely-related notion of a phenomenological *Ausdruckweise*. Yet this would not be a "looser" sense of the term, but one that even at this point is more developed than the notion of a "phenomenologically perfect language", which was never fleshed out in more detail than the programmatic pronouncements of *SRLF*. Moreover, it seems very doubtful that Wittgenstein would

have expected the reader to be able to differentiate even these two senses of the phrase. There are only a few occurrences of the phrase "phenomenological language", and a few instances of "primary language", in all of Wittgenstein's manuscripts. Many of these are not even included in the *PR*; but even in the manuscripts it is quite difficult to make out more than one sense of either phrase, i.e., that of a replacement language for the Tractarian project. This suggests that he never did intend two different senses of the term "phenomenological language". One could at most make out a difference between the intended goal of the project and the actual content of the term: for although it was supposed to be a kind of formal or analytical language, it never had much more in the way of content than the collective sense of Wittgenstein's remarks on the grammar of visual space and other spaces. In any case, the fact that Wittgenstein denies the possibility of such a language (albeit circuitously) in the next sentence makes Stern's interpretation unlikely; for Wittgenstein would have to have switched to the alleged second sense of the phrase in the blink of an eye, without notice.

But we might say that what Stern wants to say is quite correct: Wittgenstein at least moved to deemphasize the point that a phenomenological language is not "possible" because he wanted to leave room for the idea that a grammatical investigation of ordinary language was essentially a phenomenology. If someone insisted on calling the result a "phenomenological language" they would be

saying something misleading, in virtue of the way Wittgenstein actually used the term, but not entirely wrong in spirit. As we shall see, by the time he put the *PR* together Wittgenstein had also written some other remarks, which are included in the *PR*, and give a kind of sense to the notion of a "primary language", though a different sense from the way he had used it at first (i.e., as a synonym for a formal phenomenological language). Thus by weakening "not... possible" to "not... necessary", in addition to avoiding the emphasis on a proof, Wittgenstein avoids the appearance of self-contradiction when he suggests that a kind of "primary language" is indeed possible.

Yet another interpretation of [4.5] and the remarks that immediately follow it is offered by John W. Cook, who is not concerned with the issue of whether a phenomenological language is impossible or only unnecessary but with the apparently ambivalent claims that Wittgenstein has given up trying to construct such a language and that, "a recognition of what is essential and what inessential in our language if it is to represent... amounts to constructing a phenomenological language"¹⁵. Like Stern, Cook resorts to the idea that "the term 'phenomenological language' is used here in two senses"¹⁶. He claims that what Wittgenstein rejects is "an explicit phenomenological language, i.e., one that would contain names of sensible qualities but not words such as 'table', 'chair', and 'Mr. Smith'". But in saying that it can be constructed, Wittgenstein "has something else in mind, namely, that our

ordinary language is a phenomenological language despite the fact that it contains words such as 'table' and 'chair'"¹⁷. However, Cook does not share our view that Wittgenstein thinks ordinary language permits different modes of expression; rather, his interpretation is that "ordinary language is a phenomenological language... in the sense that the propositions of ordinary language do not... refer to entities that transcend sense-data"¹⁸. Cook's goal here is to retain his interpretation of Wittgenstein as a lifelong phenomenalist in the face of the damaging remark that Wittgenstein has given up on the idea of a phenomenological language. Is Cook's reading plausible? Due to Wittgenstein's allusive and dialectical style there are many expressions of his views from which one can squeeze out a phenomenological reading, but Cook's dexterity in utilizing this kind of opening cannot get around every remark. For example, in a remark in the *BlB* (part of which was cited in Chapter 1), Wittgenstein writes:

There are propositions of which we may say that they describe facts in the material world (external world). Roughly speaking, they treat of physical objects: bodies, fluids, etc. I am not thinking in particular of the laws of the natural sciences, but of any such proposition as "the tulips in our garden are in full bloom", or "Smith will come in any moment". There are on the other hand propositions describing personal experiences, as when the subject in a psychological experiment describes his sense-experiences; say his visual experience, independent of what bodies are actually before his eyes, and *n.b.*, independent also of any processes which might be observed to take place in his retina, his nerves, his brain, and other parts of his body. (That is, independent of both physical and physiological facts.) (*BlB* 46-7)

To maintain that someone who writes a passage like this believes that "the propositions of ordinary language do not... refer to entities that transcend sense-data" flies in the face of reason. As we will see later on in this chapter, before the current transformation of his philosophy is over Wittgenstein will have decided that the very idea of "sense-data" is based on mistakenly reifying the appearances of things. This is all we need to say here about Cook's interpretation of Wittgenstein, though much energy could be devoted to hacking away the thickets of misreadings that are required to support the phenomenological interpretation of Wittgenstein's philosophy after this point.

4.6 Ideal Languages and the Varieties of Representation

Moving away from the conception that philosophy should be concerned with "logically perfect" or "basis" languages of any sort was the fundamental step that marks the difference between the later Wittgenstein and all his earlier ideas. This step is memorialized in several passages in the *PI* where he contrasts his later view with the former ideas. Thus he notes that attempting to ferret out fine distinctions in language "can make it appear as if we saw it as our task to reform language" (*PI* 132); this, he says, can be done for practical purposes, but these are not relevant to his investigation. Again, considering the question "How does the sentence do [something] such that it [can] represent?", he says that one merely has to look, for "nothing is concealed" (*PI* 435). But what if one objects that "it all goes by so quickly" (*PI* 435)?

Here it is easy to get into that dead-end in philosophy where one believes that the difficulty of the task lies in that we should describe phenomena (*Erscheinungen*) that are hard to get hold of, the present experience that slips quickly by, or something similar. Where ordinary language seems to us too rough... (PI 436)

This is exactly the dead end that he escaped when he gave up looking for a phenomenological language.

After [4.5] Wittgenstein continues, in both the manuscripts and the PR, as follows:

[4.6] That is, when one has, so to speak, described the class of languages that fulfill their purpose then one has thereby shown the essential in them and thereby immediately represented immediate experience.

Each time I say that one could also present such and such a representation through this other one, we take a step farther toward the goal of grasping the essence of what is represented. (WA II,118,6; PR I,1,51)

The argument here for abandoning the phenomenological language project is inseparable from the recognition of the varieties of modes of representation in language. The "class of languages" he refers to is another precursor of the notion of "language games"; for physical and phenomenological language are the first two such games that he distinguishes. By recognizing these as different modes of representation of the same world we grasp more fundamentally the nature of what we are describing. Thus, recognition of the varieties of language, and a refusal to sweep all the nuances of one mode of representation under the rug of another, constitute the basic change of mind which prompts him to move from the phenomenological language conception to the idea of a grammatical investigation.

This idea of a variety of representations is the very point he drives home through much of the first part of the

PI. He suggests that the fundamental flaw in the philosophy of language tradition that he inherited from Frege and Russell was to conceive of all language on one pattern: basically that of the model suggested by the passage from Augustine in PI 1, i.e., naming and pointing to physical objects¹⁹. This constitutes a "narrowly circumscribed region" of language, "not... the whole of what you were claiming to describe" (PI 3). In the above passage in the PR the emphasis is on the different possibilities of representation, whereas in the PI the argument focuses on different games we use for different activities. But this contrast is not as important as it might appear. First of all, a language game is a "mode of representation" (PI 50). By noting the different language games we use to describe the world and act in it, as opposed to assimilating everything to one model, we are noting the different ways of representing it. Secondly, it is hard to find any basis for the appeal in [4.6] to languages that "fulfill their purpose" unless it is already a grasp of the idea that a mode of representation functions in the context of a particular kind of activity. For accomplishing a practical task we use the model of physics; for conducting a conceptual investigation we use others.

Consequently, in PI 2-5 (on the Augustinian conception), 10-14 (on referring), 23 (on naming), and the series of remarks on ostensive definition beginning with #27, Wittgenstein begins to carry out the program first proposed in these manuscript remarks and the PR: "that one

could also present such and such a representation through this other one". Hence: "you seem to be thinking of board games, but there are others" (PI 3); "how we group words into types will depend on the purpose of the classification" (PI 17); "think of how many different kinds of things are called 'description'" (PI 24); "as if there were only one thing called 'talking about a thing'" (PI 27); "the word name is used to characterize many different kinds of use of a word" (PI 38); etc. The PI is the ultimate realization of the conception of philosophy that Wittgenstein first hit upon when he abandoned the goal of a phenomenological language.

The momentum of the change in his views gathers steam the following month. In a remark of 21 December (still in *Band III*) he speaks of the fact that we sometimes take the appearance of something to be *opposed* to the reality of it, as in optical illusions. However, he says, "if appearance were ordinarily more important in life than the result of measuring then language would also show a different attitude to these phenomena" (WA II,145,5; PR V,53,84). This adds emphasis to the point we just made to the effect that he was already well aware of the relationship between our canons of representation and our practical activities. Moreover, it does more than suggest skepticism about the primacy of the phenomenological; it gives a definite argument for doubting it. The argument is that it is unreasonable to suppose that ordinary language would assume a topsy-turvy order in which what is "primary" in practice becomes "secondary" in

language. He had already noticed in October the hegemonic tendencies of the grammar of physical objects; now he suggests that this cannot be an accident, but that grammar reflects the pragmatic constraints of our interaction with the physical world.

Wittgenstein's next comment, which sounds ambivalent when taken out of its original context, as it is in the *PR*, is really a deepening of previous insights:

[4.7] There is not - as I believed earlier - a primary language in contrast to our ordinary "secondary" one. But one could speak of a primary language in contrast to our language insofar as no preference for certain phenomena over others could be expressed in it; it must be, so to speak, absolutely *objective* (*sachlich*). (*WA* II,145,6; *PR* V,53,84)

When he says that a primary language would be "objective" he means that it would elide all expressions that reveal a preference for the physicalistic mode of expression; i.e., that is, it would eliminate the subjective bias that comes out of our need to use language to manipulate the external world. Objectivity in this sense is simply a suppression of the operational constraints on our use of language. Thus two earlier points - that ordinary language prioritizes the physical, and that this does not reverse the order of reality but reflects our practical relation to it - are now harmonized with a third and very forward-looking one: that by isolating the pragmatic preference that is built into language we could see each grammatical space in its own right as a way of representing a part of reality. Thus Wittgenstein gives a new sense to the notion of a "primary language", and this may have in part deterred him from

proclaiming the impossibility of a phenomenological language.

One direction in which this leads is to the many thought experiments in Wittgenstein's later work where he asks us to imagine what we would say in unusual circumstances - whether we would be inclined to make the same assumptions about how language works²⁰. This is used, for instance, in the electric-shock example *PI* 409 to drive home the point he had already made in the *PR*, in a quite different way, about the use of "I" and the relation between identity and pain-sensations. Another such experiment is used in *PI* 420 in an attempt to undermine philosophical prejudices about what our linguistic preferences might be with regard to the relationship between mind and body. Again, the duck-rabbit example of *PI* II,xi, which begins with the words, "Two uses of the word 'see'" (p.193), is meant in part to help remove prejudices about the use of this word that we acquire from more typical instances of visual perception. More generally, the point that a "primary language" would be "objective" insofar as it removed our pragmatic prejudices is another way of expressing what we have taken to be the underlying thought of his later work. Language has a physicalistic bias, because our most primitive language games are oriented towards practical needs in a world of physical objects; and we have to eliminate that bias if we want to be able to play language games with concepts, experiences, sensations, and the like.

Remark [4.7] was written on 21 December 1929. The next day Wittgenstein addressed a meeting of the Vienna Circle with the following speech:

Earlier I believed that there is a colloquial language in which we all ordinarily speak and a primary language which expresses what we actually know, that is, the phenomenon. I have also spoken of a first system and a second system. I would now like to explain why I no longer hold this view.

I believe that in essence we have only one language and that is ordinary language. We don't need to first find a new language or to construct a symbolism; rather, colloquial language is already the language presupposed, which we must rid of the unclarities that are hidden in it. (WK 45)

The phenomenological language program and the notion of a primary and secondary realm were abandoned together, and the whole transformation quite clearly constitutes the final end of the original Tractarian program. He has completely given up the search for an ideal language, or a philosophical "basis language". "We don't need to first find a new language or to construct a symbolism": this is not because a "basis language" stood ready at hand awaiting philosophical employment, as the Hintikkas think, but because the whole program that had provided the foundation of analytic philosophy up to that point involved a false notion of clarification. Thus, in suggesting that the task of philosophy is to examine the "unclarities" in everyday language he is not introducing yet another version of the Russellian program; he is saying that philosophers need to be aware of the permeation of ordinary language by misleading implications and metaphors.

In fact, later the same day he discusses a number of examples of misleading physicalistic presuppositions we make in the philosophy of mind, of which the most explicit is this:

One represents (*bezeichnet*) memory as a picture. I can compare a picture with the original, but not a memory. The experience of the past is not like the objects in the next room: now I don't see them at all, but I can walk over to them. But can I go into the past? (*WK* p.48)

Several other examples of confusing the grammar of physics with that of phenomenology, including the notion of objects disappearing when not perceived ("a free-spinning wheel"²¹), or feeling someone else's toothache, are presented in the same discussion. This is all very far from suggesting anything like a theory of descriptions or a concept-script. Instead, it is entirely grounded by the idea that philosophy must offer a method of leaving out of a description of immediate experience all the linguistic assumptions that grow out of our ordinary discourse about physical objects, processes and relations.

We have already demonstrated that the idea that Wittgenstein was ambivalent about phenomenology in the *PR* is a mistake; he was quite clear, by this point, what his goal was, and what remains of his phenomenology in the *PR* is a grammatical program that does not differ in principle, though it does in emphasis and terminology, from the underlying philosophy of the *PI*. We can now also add that when he began to attend meetings of the Vienna Circle in December 1929 he was in fact *already* beyond the naive phase

of his phenomenological approach. It is true that he embraced verificationism for a time, and this led him to speak of physical propositions as "hypotheses" and phenomenological ones as "verifications" of these. It is possible that there was some underlying inconsistency in holding onto this while abandoning the "epistemological priority" and "two worlds" theses (see Chapter 3). This depends on one's interpretation of Wittgenstein's verificationism. We cannot examine this in detail here, but two points need to be emphasized.

The first is that whatever the nature of his verificationism, there is no question that he had already rejected, explicitly and in no uncertain terms, his earlier conceptions of the two systems, of the epistemological primacy of phenomena, and of phenomenological language. His verificationism must therefore be interpreted as either inconsistent with his other views, or as independent of them, in a way that would require some explanation. Second, the verificationist phase was even shorter than these other brief expeditions: already in January 1930 he is suggesting that verification is "not definitive" (WA II,174,8). Moreover, he proposes replacing "verification" with "confirmations (*Bestätigungen*)" (WA II,175,12), and says that "a hypothesis has a different formal relation to reality than that of verification" (WA II,177,10); again, "a hypothesis is in a so to speak looser relationship with reality than that of verification (WA II,177,1; PR XXII,227,284). Thus many comments after January 1930 that

may appear to express strict verificationism, and thus to suggest a relationship of primary and secondary between phenomenology and physics, are actually expressions of a much weaker confirmationist view that requires a similarly weakened ordering of the object and its appearances. In fact, as we have already pointed out, Wittgenstein's notion of confirmation and hypothesis leads directly to his later ideas of justification, criterion and symptom (the term "symptom" is already used frequently in these manuscripts, with changing emphases) and this view is clearly intended to bring out relations within language games and does not depend on an hierarchical ordering of physics and phenomenology.

Even though Wittgenstein had by this point essentially abandoned the original idea of a "primary language", in his manuscripts he occasionally falls back on the use of the terms "primary" and "secondary" for a while afterward. He suggests that "recognition" is "the primary" and identity "the secondary" (WA II,171,6); this remark is included in the PR (II,19,61), but the others are not. For example, a little later on he says that he is "mixing up" the "1st and 2nd systems" (WA II,174,1); like many of the remarks that betray his doubts about earlier conceptions, this one is excluded from the PR. In the last such remark in these manuscripts we can see him at last dragging himself away from the dualism of his earlier conception. In the context of a discussion about the relationship between expectation and occurrence (remarks that were mostly incorporated into

Chapter III of the *PR*), just 11 months after beginning his manuscripts, he writes:

With all my thoughts on these things (*Gegenstand*) I am still in a terrible confusion between the first and second systems of expression. The most that I would now like to say of them one need not and cannot say at all. (WA II,183,8; 29 January 1930)

With this comment he more or less drops this terminology from active use, though in later manuscripts he sometimes refers to or quotes his earlier uses²².

4.7 Other Transformations of Wittgenstein's Philosophy

We have focused, in this chapter, on the demise of the phenomenological language project. The undoing of the "two worlds" conception went hand in hand with this. We have also mentioned some other developments following the crisis of October 1929: phenomenological solipsism is soundly refuted; ordinary language is recognized as the only viable philosophical language and as a source of physicalistic misunderstandings; the verificationist phase is kicked off but the strict view of it goes quickly by the wayside. But these are far from comprising the totality of the transformation in Wittgenstein's views in this period. In what follows we will return to some of the concepts we examined in Chapter 3 and see the modifications that virtually made over his philosophy prior to the creation of the *PR*. It will then be even more apparent that we must read the *PR* quite differently than one would imagine from looking at the ideas in his first two notebooks, and even from looking at the *PR* itself without realizing what his path had been over the past 16 months. It was stated above that

Wittgenstein intended for the *PR* to express his ideas as they had emerged after the period of self-criticism that began in the summer of 1929 and lasted at least through January 1930. From the following it should become obvious that this makes the *PR* a very different work than it appears at first sight.

4.8 Sense-Data Rejected

In Chapter 3 we saw that Wittgenstein had helped himself to the idea of "sense-data" in his earliest 1929 work, calling phenomenological reality the "world of data". But his sympathy for this term does not last long. Though the term is used in several remarks that were included in the *PR* (VI,60,90; VI,61,91; XIV,166,200; XX,216,270), all of these remarks are in one way or another critical of the Russellian idea of sense-data and all but one suggest that the notion is incoherent.

One series of remarks, written on 30 November, found its way into the *PR* with a critical comment removed. In the manuscript he writes:

In the sense of the the word sense-data in which it is unthinkable to say that the other [person] has it, on just this ground one also cannot say that the other [person] does not have it. And on just this ground it is senseless to say that *I*, as opposed to the other [person], have it. (WA II,125,2; *PR* VI,60,90)

This indicates simply that something is not in order with the concept of sense-data. (WA II,125,3)

Only the first remark is printed in the *PR*, the critical content of which is not obvious by itself unless one appreciates, based on a prior understanding of Wittgenstein's views, that it is a ground for saying the

term "sense-data" is "not in order". But the reason the second remark was left out is just that the first comment supports the main point of Chapter VI - the fact that phenomenological space contains no subject - and the second does not. But he had come to the conclusion that the concept of sense-data was "not in order" many months before the PR; and indeed, a correct interpretation of the first remark shows well enough what is "not in order" about sense-data: I cannot say a sense-datum is yours, since it is by hypothesis impossible to know someone else's sense-data; consequently I cannot say it is not yours either; consequently I cannot say it is mine, insofar as that implies it is not yours, which we just said is nonsense. Something is indeed out of whack with the concept of a private object that cannot logically be attributed to anyone.

Later in the PR Wittgenstein says, "It is now the time to criticize the word 'sense-datum'" (PR XX,216,270; WA II,155,1). The alleged critique, however, is pretty hard to follow; as we will see, it is easier to understand in the light of later, clearer expressions of it. Wittgenstein first says that "a sense-datum is the appearance of the tree" (PR XX,216,271). Then he adds:

[4.8] the form of expression "the appearance of this tree" specifically contains the view that there exists a necessary relation between what we call this appearance and "the existence of a tree", and in fact either through a true cognition or an error... But this relation does not obtain. (WA II,155,1; PR XX,216,271)

Now Wittgenstein's point here is mainly to deny that the allegation that language "represents the secondary as

primary and the primary as secondary", for "ordinary language contains no decision between primary and secondary" (WA II,155,1; PR XX,216,271). What he apparently wants to deny is that language itself transfers the grammar of physical objects onto the phenomenalist mode of expression, but he suggests that in talking of "sense-data" we do so transpose it. For the term "sense-datum" is supposed to refer to something that exists regardless of whether the tree is really there (hence "through a true cognition or an error"); but that is just to take appearances on the physicalistic model. What we are justified in saying is that we cannot make an error about our sensations, but not that the appearance of a tree is somehow analogous to the tree, only in the "world of data". So we establish the necessary relation between appearance and existence; ordinary language, however, contains no thesis in this regard.

Wittgenstein's critique of the term "sense-data" occupies an important place among the paths that lead to his ideas about the grammar of physics. The critique is perhaps best expressed in the following passage from his 1936 lectures:

The word "sense datum" really means the same as "appearance". But the term introduces a particular way of looking at appearance. We might call it "objectification". If "personification" means, e.g., using the word "time" as though it were the name of a person, then objectification is talking of it as though it were a thing...

Suppose I say, "If this coat appeared grey, then something must have been grey". This is objectification. We assimilate the grammar of appearance to the grammar of physical objects. (LSDPE 312).

Wittgenstein goes on to connect the objectification of sense-data with the idea of the privacy of sense-data, and the notion that our thoughts are private pictures that we see, and finally the idea that "the picture is the only thing which is real, nothing else exists" (*LSDPE* 314). One might add, in the spirit in which we began our study, that perhaps the soul is the little man within who views these pictures. In any case, the critique of the concept of sense-data, like that of phenomenological language, is a path from his earlier ideas to the private language argument.

Inconveniently for our study, Wittgenstein is cited several times in his 1931-2 lectures (i.e., more than a year after the remarks in the *PR*) using the term "sense-data" in a way that would appear to be not only uncritical but more enthusiastic than even in his early 1929 manuscripts. For instance, he reportedly says,

A proposition is a judgement about sense-data, a reading of one's sense-data; for example, 'This is red'. No further verification is needed; it is a *priori*. (*WL30* p.66)

Again, he says, "there is no fact that this is a physical object over and above the qualities and judgements of sense-data about it" (*WL30* p.81). Another series of comments from the same lecture series includes the following:

[4.9] Sense-data are the source of our concepts; they are not caused by our concepts...

All propositions about causation are learned from sense-data. Therefore no proposition can be about the cause of sense-data. (*WL30* p.81)

It is nevertheless extremely unlikely that Wittgenstein went back to his earlier view of sense-data after the *PR*,

especially since critical remarks along the same lines as [4.8] appear again in *Band IV* as soon as 12 June 1930 (WA II,266,3), just a month or so after the composition of the *PR*, and in the *BT* (p.488), which was composed within two years of these lectures. But the difficulty presented by [4.9] and similar remarks is not so much that Wittgenstein might have been inconsistent in his attitude towards the term "sense-data". Given that these quotes are from lectures, indeed among the first lectures he ever gave, that could be explained any number of ways: perhaps he judged that he could present his ideas more easily if he utilized some concepts that were widely known, whatever reservations he may have had about them; or perhaps he thought he would lose his audience if he subjected them to an immediate critique of such commonplace ideas. What is more troubling is the possibility that his use of this term shows that he was not consistent about his rejection of the two-worlds position (**TW**) or his critique of the subjectivity of phenomena.

This concern is exacerbated by another remark included in these lecture notes:

[4.10] The world we live in is the world of sense-data, but the world we talk about is the world of physical objects. (*WL30* p.82)

This remark, moreover, appears to suggest a return to the *epistemological priority thesis* (**EP**), i.e., to some kind of phenomenism. It is taken that way, for instance, by John W. Cook, who says it suggests that "the world of physical objects is in some sense a product of our language"²³, in

contrast to the "real" world of sense-data. J. Hintikka uses it as evidence in support of a similar point:

The change in Wittgenstein's concept of language was precisely and only that: a change of language. It did not change Wittgenstein's conception of reality, which remained for him a phenomenological reality.²⁴

In fact, though, neither **TW** nor **EP** nor phenomenism in general is expressed by [4.10]. In a series of remarks just before this Wittgenstein tells his students:

There is a tendency to make the relation between physical objects and sense-data a contingent relation. Hence such phrases as "caused by", "beyond", "outside". But the world is not composed of sense-data and physical objects. The relation between them is one in language - a necessary relation. If there were a relation of causation, you could ask whether anyone has ever seen a physical object causing sense-data. We can talk about the same object in terms either of sense-data or hypothesis. (WL30 p.81)

There is, admittedly, a bit of inconsistency between this and [4.8], in that Wittgenstein seems to be acknowledging here that a "necessary relation" between object and sense-datum exists in language. Nevertheless, Wittgenstein was quite clearly using the term "sense-data" in expounding his thesis of the equality of modes of representation (**MR**), indeed of the later version of this in which ordinary language is the language of physical objects (**MR'**); he is not returning to **EP** or **TW** at all. Remark [4.10] expresses neither dualism nor phenomenism, but Wittgenstein's later linguistic monism in which different modes of expression or representation are acknowledged. The two "worlds" in this remark are nothing but different uses of language. To imagine, as the Hintikkas and Cook do, that he is saying that the "world we live in" is the real world, and that we

mistakenly refer to this world as if it were physical, is to completely misread not only this remark but the whole direction of his intellectual development. Wittgenstein's point is that our lives consist of our experience of the world, our sensations of it, but our language is not oriented towards expressing this, but rather towards reducing our experience, for the sake of practical simplicity, to our causal interaction with physical objects.

4.9 The Confirmation of Hypotheses

We mentioned in the previous chapter that Wittgenstein's use of the term "hypothesis" undergoes modification along with the rest of his philosophy. In its original use it referred to any proposition which made or presupposed a material claim, i.e., anything that would not be permissible in a phenomenological language. At that point this necessarily meant that hypotheses were in some sense a confused or inaccurate mode of speech which could only be perspicuously represented (analyzed) by phenomenological statements. The demise of the possibility of such a language spelled the end for the original notion of "hypotheses". Thus when he says, after his first period of crisis, that "a hypothesis is only an assumption about the practical/ correct/ mode of representation", adding that physicalistic language does not describe a "hypothetical world" (WA I,190,2-4; see Chapter 3) he is giving up the idea that "hypotheses" are in themselves misleading or require analysis. The philosopher's job is to be clear about when we are using physicalistic language and what its limitations

are, not to reduce physics to phenomenology, as Mach does. There is no "hypothetical world" to be validated by phenomenology; but it remains the case that the language of physics has sense only if it maintains some contact with experience. In this sense, hypotheses must still be verified by experience.

At some points Wittgenstein contrasts hypotheses with what he simply calls "statements" ("Aussage"; *WK* p.99) or "propositions" (*WA* II,128,2-6; *WL30* pp.50,66). Noë says that Wittgenstein makes this distinction as of "at least March of 1930"²⁵. In fact, it takes place in January of that year, but his usage is not consistent, either at that point or any other time. In a Lecture of 28 April 1930 Wittgenstein seems to be offering this contrast, but then says that a hypothesis "enables us to construct propositions which say what will occur and which can be verified or falsified" (*WL30* p.16). But no predictive proposition can be a phenomenological one. Again, in a lecture of 2 February 1931 he uses "proposition" in a perfectly ordinary sense and then distinguishes this from "propositions in the strict sense. 'There seems to be a man here' is a proposition. 'There is a man here' is a hypothesis" (*WL30* p.50). The remarks included in the *PR* do not recognize this distinction consistently either. Thus "Julius Caesar crossed the Alps" is referred to as a "proposition" (*PR* V,56,86; *WA* II,134,2), and is certainly not (for us) a proposition of immediate experience. At the opening of Chapter XXII he says:

The proposition, hypothesis, is coupled with reality and more or less loose. In the extreme case there no longer exists a connection, reality can do what it wants without coming into conflict with the proposition: then the proposition, hypothesis, is senseless! (WA II, 113, 6; PR XX, 225, 282)

Obviously "proposition" is not distinguished from "hypothesis" here. Yet later in the same chapter he includes a remark from a later part of the manuscript in which he says, "A hypothesis is a law for the construction (*Bildung*) of propositions" (WA II, 193, 4; PR XXII, 228, 285). There are many other statements in this chapter, in *LWVK*, and in *WL30* that make it seem as if Wittgenstein either had no clear conception of a hypothesis or that his conception changed so rapidly as to make it impossible to reconstruct.

Yet there is an explanation for these varying uses. The critical point is to understand Wittgenstein's rejection of his original notion of the relationship between verification and hypotheses, and his adoption of a confirmationist view. Originally he had assumed that physicalistic propositions had sense if they could be verified by being reduced to concatenations of phenomenological ones. This was a part of the post-Tractarian program of a phenomenological language. But in January 1930, after tossing the idea around for awhile, he decides, as we have seen, that they have "a different formal relation to reality than that of verification". What, then, is this "formal relation to reality" that a hypothesis has? Wittgenstein holds that "the essence of a hypothesis is... that it sets up an expectation, in that it permits a future confirmation

(*Bestätigung*) (PR XXII,228,285; WA II,177,8). This was written 22 January 1930. The relationship of *confirmation* is not that of *verification*, but rather a more modest standard of correspondence. Thus:

All that is necessary for our propositions (about reality) to have sense is that our experiences in some sense or other either more agrees or more disagrees with them. That is, immediate experience must prove [well-founded] (*bewahrheiten*) only something in them, some one facet. (PR XXII,225,282; WA ??)

In the sense that it is a picture of an expectation, "a hypothesis is a law for the construction (*Bildung*) of propositions" (PR XXII,228,285; WA II,193,4), i.e., those which tend to confirm or disconfirm the expectation. Here the use of "proposition" is close to that which Noë suggests.

The notion of a hypothesis as a "law" is related to another metaphor he uses to show the many-to-one relation of "propositions" to a hypothesis. He says that "a proposition is, so to speak, a cut through a hypothesis in a definite place" (PR XXII,228,286). That is, it is one of the cross-sections of reality that we would expect as confirmation of certain hypotheses:

The hypotheses of physics are so constructed that a great many experiences of different kinds are set in relation to one another. This connectedness (*Verbindende*) is the hypothesis. (WK 160-1)

These passages should be enough to emphasize the fact that Wittgenstein's sense of both "hypothesis" and of "verification" had been totally altered by January 1930. The impression that Wittgenstein remained a verificationist in a stronger sense than this is due partly to what he says about

synonymy, which, however, actually depends on this weaker, confirmational, view:

The two hypotheses, that others have pain, and that they have none and only behave as I do when I have [pain], must have identical senses if every possible experience that confirms the one also confirms the other. (PR VI,65,94-5)²⁶

According to my principle, two assumptions must have identical senses if every possible experience that confirms one also confirms the other. Thus, if no decision between the two is conceivable through experience. (PR XXII,225,282)

Here he is speaking of "possible" or "conceivable" confirmation, and this links up nicely with his later conception of phenomenology. Since that is a grammatical system which determines the possible propositions of experience, two hypotheses or propositions have the same meaning if the necessary grammatical relations are such that no phenomenological statement can confirm one but disconfirm the other. In a remark written just two weeks before he began to put the PR together he develops a further refinement: a proposition becomes a "postulate" if no phenomenological statement can disconfirm it (PR XXII,231,288; WA II,230,2).

Wittgenstein gives a nice example of the different ways of confirming a hypothesis in response to a challenge by Schlick, who suggested that in physics it is not "a" proposition that is verified by different methods, but different propositions which conform to a natural law. Wittgenstein's response shows that he actually agrees with the general point; it also provides an illustration of how propositions are like cross-sections of hypotheses:

[4.11] Wait a minute! That happens not only in science, but rather also in daily life. I hear, e.g., piano-playing in the next room and say: "My brother is in there". If someone now asks me how I know that, I can answer: "He told me that around this time he would be in the next room." Or: "I hear piano-playing and recognize his style." Or: "I have just heard a step which was just like his", etc. Now it seems that the same proposition has been verified in several different ways. But it is not so. What I have verified are different "symptoms" for something else... The piano-playing, the step, etc., are symptoms for the presence of my brother." (WK 158-9; 4 January 1931)

This passage really shows what kind of a "verificationist" Wittgenstein was at this point. He took the meaning of a hypothesis, a statement of physics, to be tied to the different phenomenological propositions that could be taken to confirm it; and what those propositions actually verify is a particular slice of reality as given in experience; "what we can verify is always just one such cut" (WK 159).

Here we can see one source of the confusion in terminology that abounds in the *PR*. Wittgenstein sometimes speaks of "verifying" a "cut" of a hypothesis, and of such a procedure as "verification", even though the point of view it expresses is quite different from traditional verificationism. He does not seem to believe that his original concept of verification, on which statements of physics are verified by phenomenological claims, has any application at all; but he *does* believe that *aspects* or *facets* of them are verified, and that they only have sense if some such verification is possible. This perspective he generally refers to, after January 1930, as *confirmation*; but once again not consistently. Thus, in the *PR*, he seems to have felt free to use "verificationist" terminology to

express the new view; since "cuts" are still verified, hypotheses themselves might still, in a sense, be said to be "verified" too. Moreover, on Wittgenstein's later view, one can still appeal to a *method* of verification, or to an attempt to verify a proposition, in the sense that such a method or attempt is necessarily also a method of confirmation. All of this makes for very confusing reading in the *PR*; little wonder that for a long time it was thought to represent nothing but a confused "transitional" stage for Wittgenstein. In fact, the transition had already happened; but it had not yet found a clear expression.

Nevertheless, the confirmationist view is well represented in the *PR*, especially in Chapter XXII, but also throughout the typescript in various places. Wittgenstein's first supposedly "verificationist" statement in the *PR* is found near the end of the first chapter: "One cannot exceed the possibility of evidence with language" (*PR* I,7,55). This was written on 5 April 1930, less than three weeks before he started to compile the *PR*. It is quite clearly an expression of the confirmationist view, not the verificationism that is usually attributed to him; for "the possibility of evidence" is what gives sense to a proposition on the confirmationist view, whereas verificationism demands the possibility of *proof*. Thus, the impression that some sort of robust verificationist view is represented in the *PR*, though surely understandable given the text, is misleading unless one understands that his whole view of verificationism underwent a radical change in January 1930.

Finally, let us take a closer look at the end of [4.11]: "What I have verified are different 'symptoms' for something else... The piano-playing, the step, etc., are symptoms for the presence of my brother." Here the various experiential statements which confirm the hypothesis are said to denote "symptoms". This term is used quite a bit in the manuscripts too. This suggests that in its distinction between the hypothesis and its various "cuts", Wittgenstein's notion of confirmation leads to his later distinction of "symptoms" and "criteria". It is tempting to think that this too is anticipated in the 1929-30 manuscripts. Little would be left of his later philosophy that was not already suggested here in one form or another: perhaps only the notions of "family resemblances" and "Lebensformen" ("forms of life", in the usual translation). Only further study of his later manuscripts could confirm the extent to which this is true. In any case, we have seen enough to be able to assert with confidence that the roots of the later Wittgenstein were already deep in the ground by the time he composed the PR. It is the later philosophy, not the naive phenomenism of early 1929, that is represented there.

4.10 Conclusion

The idea of a phenomenological or primary language, system, or world had run its course well before the PR was compiled. The remarks in the PR which seem to suggest some support for these conceptions acquire that implication only out of their original context, and only in the cases where

the new context he tries to give them in the *PR* fails to adequately express his intent to reject such conceptions. Given an understanding of his intentions, it is possible to read these remarks without taking literally the idea that he really thought a phenomenological or primary language in his original sense was possible, necessary, or desirable. Instead, they should be read as recommendations for his new grammatical approach. In giving up the phenomenological language project, Wittgenstein did not give up, for instance, his investigation of visual space; in fact, he enlarged it to other phenomenal areas, like that of bodily sensation. So he could talk of a "phenomenological language" insofar as phenomenology continued to interest him, as grammar, without really placing any emphasis on it as the background for physics. He could still speak of a "primary language" in the sense of an objective mode of expression that would show no preference for the physical or the phenomenological. But the original project was past history before the end of 1929, less than a year after it had begun; and before May 1930, when the *PR* was finished, he had changed his whole philosophical outlook.

Wittgenstein's early view of "primary" and "secondary" worlds bore an obvious similarity to Russell's early epistemology, with its distinction of "knowledge by description" and "knowledge by acquaintance". His later view of the world as alternatively phenomenological or physical also has a Russellian counterpart: the "neutral monism" of *The Analysis of Mind*, which was largely drawn from the "new

realism" of William James and his followers. The basic idea of those schools is that there is a single ontological "stuff" of reality (thus the "monism") which when taken in different aspects appears as either physical or mental material. For William James, for instance, the "stuff" was "pure experience"²⁷, thus a phenomenological conception in some ways similar to what Wittgenstein was thinking at some points. By proposing a single type of constituent of reality these monistic philosophies (not to be confused with Hegelian monism) hoped to do away with Cartesian dualism, another goal that Wittgenstein apparently embraced. They could then, like Wittgenstein, characterize the physical and phenomenological points of view as different modes of representation, the choice of which would be motivated by our pragmatic purposes.

But in spite of the similarity with neutral monism, Wittgenstein's thought by 1930 really has very little to do with it²⁸. The unity of physics and phenomenology is in our having only one language to work with, not in having one substance to work with. Similarly, the difference between phenomenology and physics is grammatical, not ontological: we have two different modes of expression, not two different worlds or substances. In some of our claims and observations we are speaking *ex officio*, so to speak, describing the world as we actually experience it; in others we make the assumption that we move about in a world of physical entities that we can refer to unproblematically. This grammatical dichotomy does not depend on there being a stuff

or material taken in different aspects. As we saw in Chapter 1, Wittgenstein regards neutral monism as an error of grammar just as much as dualism. In rejecting metaphysical dualism he is not adopting metaphysical monism; he is trying to see how far we can say whatever we need to say without using metaphysics at all.

Wittgenstein's rejection of phenomenological languages turns on his recognition that the real goal is to distinguish the grammar of physics from that of phenomenology; that the grammar of ordinary language is laden with physicalistic biases, and that we tend to import these into our epistemology. This thought leads along any number of interrelated paths to the later philosophy that finally finds adequate expression in the *PI*. Moreover, in recognizing that phenomenology must describe the same world as physics, Wittgenstein realized that phenomenological space cannot be private, or make essential reference to a subject. The argument for this is a vital step in the direction of the private language argument. Finally, in recognizing that a purely formal language of experience was not really possible, Wittgenstein was for the first time in a position to question the original basis of analytic philosophy - the Fregean, Russellian, Tractarian program for the formal expression of all necessary relations among propositions. Thus he began to formulate the critique of this program that would eventually appear in the *PI*. What all of this shows is that for all its brevity, the critique of the phenomenological language project was the key turning

point in Wittgenstein's thought. If our discussion has demonstrated this then it has opened a new window on our understanding of Wittgenstein.

NOTES

1. Thus my statement in the previous chapter that Noë cannot legitimately use this remark to refute the Hintikkas' position, for there is no evidence that this view ever held sway with Wittgenstein.

2. See Appendix II, The Organization of the *Philosophical Remarks*.

3. David Pears has written to me with the following comment: "The influence of James is much more extensive than the acknowledgements. E.g., W's treatment of "I" in *Phil Remarks* c.VI owes a lot to James..." (PC 9 May 1992) I think a correct interpretation of James's "Memorial Hall" example in "A World of Pure Experience", and of other things he says in the *Essays in Radical Empiricism*, supports the idea that he and Wittgenstein would have agreed on the public character of objects of perception. However, I can find no evidence that Wittgenstein had read these essays, and I doubt that the knowledge he would have obtained about James's radical empiricism from Russell's works (*Theory of Knowledge* and *The Analysis of Mind*, primarily) would have been enough to count James as an important influence here.

4. Anticipations of some aspects of the private language argument may be found, on my reading, as early as the NL (p.107). David Pears has pointed to ideas common to the passages on solipsism in the TLP and the private language argument (*The False Prison*, I, p.58; Pears went into more detail on this in a lecture at the CUNY Graduate Center in 1999). I believe the discussion that follows bears out his view. But in spirit and language this passage in the PR is much closer to the argument in the PI than any of the hints of it in his early works.

5. The Hintikkas were the first to draw the conclusion that Wittgenstein's acknowledgement of the public character of phenomenological language "is in effect a rejection of private languages, and as such the germ of his... 'private language argument...'" (*Investigating Wittgenstein*, p.172). However, their astute observation is undermined by two false beliefs: that Wittgenstein's sole ground for rejecting phenomenological languages was that they could not be directly compared with the physical world (p.241); and that Wittgenstein remained a phenomenalist even after the private language argument (pp.247, 251). Hence they think that in 1929 and throughout his "early middle period" he "did not yet have available to him conceptual tools for proving" the impossibility of a phenomenological language (p.241). On their reading that tool was the concept of language games (Chapter 10), which allowed him to show how we could "speak of [sense-data] in... the language of physical objects" (p.251). Consequently they completely overlook the present argument, which shows that already in 1930 Wittgenstein had

an ingenious argument against private languages, one which does not depend on language games or the physical character of language itself.

6. As mentioned in Chapter 4, the idea of the variety and equality of modes of representation is given much prominence by Noë ("Wittgenstein, Phenomenology..."). We are in complete agreement on this point in itself; the only difference is that I do not take it to be the central feature of Wittgenstein's transition. But see below, where this point is not only given due emphasis but tied in with one of the main thoughts in the *PI*.

7. The analogies are quite complex and bear some study. One way of looking at them is that in each one a relationship between two physical objects is falsely assumed to acquire a social component (the empirical confirmation of a fact, or the exchange of value) by the addition of an act of pure thought. Or, to put it differently, the comparison or interchange between two physical objects (the two newspapers, or the left and right hand) is made in a way that seems to ignore the phenomenology of the type-token distinction (in the case of the papers) or the value relation. One way emphasizes the substitution of mental acts for public criteria; the other suggests that we can also mistakenly rely on phenomenological relations that fail in physicalistic discourse. The reason Wittgenstein usually has the first in mind rather than the second is that they are the kinds of mistakes he thinks philosophers (and others) actually make. The second scenario is possible too, but since our training in ordinary language normally emphasizes the acquisition of such techniques as the ability to distinguish (in ordinary circumstances) between types and tokens, or between human individuals, mistakes like these are much less frequent and are more easily corrected when they occur.

8. In the *PI* version there are a number of other remarks which could be echoes of the earlier point that we could not express or verify the privileged position of a self-centered language. For example, he says that if someone invented a name for a sensation when there were no outward criteria for being in pain "he couldn't make himself understood when he used the word" (*PI* 257). Some other comments reminiscent of parts of the earlier argument include: "a note has a function, and this 'S' so far has none" (*PI* 260); "if a person speaks when no one else is present, does that mean he is speaking to himself?" (*PI* 260); "The essential thing about private experience is really not that each person possesses his own exemplar, but rather, that nobody knows whether the other [person] also has *this* or something else" (*PI* 272); etc. But Wittgenstein did not necessarily take these points directly from his earlier discussion; these just happen to be some of the original ideas that remained

intact through the lengthy process of development and editing that resulted in the *PI*.

9. See for instance Moore's "Some Judgements of Perception" or "Visual Sense-Data"; Chapter 1 of H.H. Price's *Perception*, entitled "The Given"; or Chapters 7-13 of C.D. Broad's *Scientific Thought*.

10. See Malcolm, *Ludwig Wittgenstein: A Memoir*, p.56; and *LRKM* p.177 (M.42, Wittgenstein to Moore October 1944).

11. In fact physical time figures in many of his discussions as centrally, or more so, than physical space per se, but if what we said in Chapter 2 is correct, time, like space, is one aspect of the conceptual space of "physics". It would be interesting, but beyond the scope of relevance here, to consider whether this implies more similarities or differences between Wittgenstein and Kant.

12. See Hintikka, *Investigating Wittgenstein*, p.140; Stern, *Wittgenstein on Mind and Language*, pp.136-7; Noë, "Wittgenstein, Phenomenology...", p.4.

13. Hintikka, *Investigating Wittgenstein*, p.140.

14. Stern, *Wittgenstein on Mind...*, p.137. It seems clear from Stern's text that he does think Wittgenstein intended the two different senses. What he says exactly is:

Wittgenstein sometimes uses the term "phenomenological language" in a restricted sense, to mean a canonical analysis of the experience of the present moment. In this sense, he consistently maintained after 1929 that such a primary language was indeed impossible.
(*Wittgenstein on Mind...* p.137)

and,

But he also spoke of "phenomenological language" in a looser sense, meaning by it any way of talking about the content of experience, and, in this sense of the term, he holds that a phenomenological language is possible but not necessary. (*Wittgenstein on Mind...* p.137)

This appears to attribute to Wittgenstein an awareness of the distinct senses.

15. Cited in Cook, *Wittgenstein's Metaphysics*, p.103. I retain Cook's translation here, which differs slightly from the *PR* (I,1,51).

16. Cook, *Wittgenstein's Metaphysics*, p.103.

17. Cook, *Wittgenstein's Metaphysics*, p.103.

18. Cook, *Wittgenstein's Metaphysics*, p.104.

19. As noted in Chapter 1, many commentators have recognized this as an important theme. See e.g., Baker and Hacker, *Understanding and Meaning*, p.33ff. More recently this point has been emphasized at great length by Dale Jacquette in *Wittgenstein in Transition* (Chapter 7, "Naming", and the chapters after this). Jacquette takes the new conception of naming to be the central change in Wittgenstein's philosophy. I think he overemphasizes it, but there is certainly something very central to Wittgenstein's later philosophy about overthrowing the concept that all language functions on the model of name and object.

20. It seems to me obvious that Wittgenstein uses what we call "thought experiments" all the time, in spite of his criticism of that phrase in the 1929-30 manuscripts. The first remark in *Band III* is: "It is not necessary to make determinative (*ausschaltende*) experiments, e.g., thought experiments. Visual space such as it is has its own independent reality." (WA II,3,1). This remark was not included in the PR; but another one from the end of this manuscript was: "What Mach calls a thought experiment is of course not an experiment at all. At bottom it is a reflection on grammar (*eine grammatische Betrachtung*)" (WA II,194,6; PR I,1,52). It seems to me that Wittgenstein's problem with the notion of a thought experiment was not with the use of imaginary examples, but with the possibility that one would mistake the nature and result of a thought experiment with that of a scientific experiment - i.e., once again a qualm about mixing up the grammar of physics with that of a conceptual investigation. No new empirical knowledge can come out of a thought experiment; it is only a way of understanding how we use language. (One could also say, *pace* Wittgenstein, that that is empirical knowledge, in which case a thought experiment would be an experiment in the ordinary sense of the term.)

21. The term "*leerlaufendes Rad*" is usually translated by Anscombe, in the *PI*, as "wheel turning idly". This translation hooks up with the notion that "language is idling" when we say nonsense that sounds as though we were saying something meaningful. When Wittgenstein uses the term "*leerlaufendes Rad*" he is probably thinking of a mechanical part called a "freewheel" in English. Such a part is not a wheel that is completely useless, which is what the term "idle" or "idling" implies (to me, anyway). A freewheel serves a function, such as to make a chain or a belt run smoothly, prevent it from sagging, etc. The problem seems to occur when we think it is doing more than it is, when we think it is "part of the mechanism" in a different sense: e.g., that it is pulling the belt that it is merely supporting, or that it is an essential part of a power train. I don't know how far to pursue this point. It suggests to me that if the analogy was carefully chosen, a

phrase that was compared to a "leerlaufendes Rad" would not be complete nonsense; but in another analogy in the same passage Wittgenstein says that the phrase "I cannot feel his toothache" is "pure nonsense" (WK p.49). It is not clear that he saw a difference between this and the statement, "the stove disappears when I'm not looking at it".

22. The manuscripts which comprise Band IX and Band X are largely reworkings of some of the remarks from early volumes; see WA 5.

23. Cook, *Wittgenstein's Metaphysics*, p.144.

24. J. Hintikka, "Wittgenstein as a Philosopher of Immediate Experience", p.158. See also *Investigating Wittgenstein*, pp.141,247.

25. Noë, "Wittgenstein, Phenomenology...", p.12.

26. In composing this remark Wittgenstein took the unusual measure of splicing together parts of two remarks from different parts of the manuscript. See WA II,186,4 and II,195,1.

27. See James, "Does Consciousness Exist?", in James (1967) p.4.

28. For an alternate view see John W. Cook, *Wittgenstein's Metaphysics*. I do not think the argument in the book has much to recommend it. Moreover, Cook doesn't really seem to understand what neutral monism was, either for Russell or the New Realists, for he equates it with a kind of phenomenalism reminiscent of Berkeley, but possibly even more radical. This is the view he attributes to Wittgenstein, which he calls "neutral monism".

CHAPTER 5

THE CRITIQUE OF LOGICAL ATOMISM: ANALYSIS AND THE METHOD OF PHYSICS

=====
"I might say: the old logic contains much more convention and physics than anyone has realized. If a substantive is the name of a *body*, a verb e.g. signifies a movement, and an adjective serves as the property of a body, then one can well see how full of assumptions this logic is, and one can hypothesize that these original assumptions also go deeper in the use of words, and reach into the logic of propositions." (PG, Part I, Appendix 2, p.204)¹
=====

5.1 Logic and Physics

In his pre-*Tractatus* manuscripts, the *Notebooks 1914-16*, Wittgenstein struggles mightily with the conceptual obstacles to the fundamental ideas of logical analysis: that ordinary propositions can be reduced to elementary ones which represent atomic facts, and that the atomic facts are concatenations of irreducible objects. In spite of the sometimes intractable difficulties it posed, this logical atomist conception was a cornerstone of his early conception of philosophy, and he would not relinquish it, come what may. Ideas about objects, pictures, elementary propositions, and the like would have to bend to accommodate the basic intuition that there must be an ultimate, determinate conclusion to the analysis of any meaningful proposition. It is a testament to Wittgenstein's tenacity in his lifelong effort to understand the nature of language that he zeroed in on this very conception that he had been so reluctant to part with and subjected it to a torrent of criticism in his later work. The criticisms begin early in his 1929

manuscripts and continue through the *PI*; indeed as late as *OC* we still find him attacking elements of the earlier conception. Though the feeling remains that some deep underlying continuity connects the Wittgenstein of the *TLP* with his later incarnation, and though one can point to a few elements of the Tractarian philosophy that seem to have been retained in one form or another, there is hardly a section of the *TLP* that is not directly or indirectly implicated in critical remarks over the course of his later career.

We shall restrict our examination of these criticisms to those which bear on our primary subject, the grammar of physics. More specifically, we will show that many of the criticisms Wittgenstein directed against "logical atomism" were based on the idea that the Physics² metaphor captured in that description had not been as innocent of physicalistic presuppositions as he had apparently thought. On his post-1929 view, a physicalistic grammar, appropriate to physical objects and the material world but not to the purely logical theory at which he and Russell had been aiming, had infected the whole conception. This line of criticism does not, of course, constitute the whole of his criticism of the *TLP*; for instance, it does not say much about his dissatisfaction with the treatment of color exclusion, or the reason he gave up the idea that atomic propositions are logically independent. But as we shall see, it strikes at the early work on level that is much deeper than it first appears; and in many ways it is the criticism

that most clearly exemplifies important characteristics of his later work. Moreover, this type of criticism was touched on almost immediately after he returned to philosophy in 1929, and continues well into the later work.

The kind of self-critical remarks to which I am referring are exemplified by the quotation above. On one level, what he is saying in this passage is that one problem with the analytic conception was the ready transference into logic of conceptions that are more appropriate to the physical world; and thus to Physics, since Physics is the fundamental science of the physical world as logic was supposed to have been the basic science of language. But there is more to it than that. What Wittgenstein is describing here is a conception of the *analysis* of language: "the old logic" not only harbors a conception of language as an arrangement of the names of physical objects, movements, and properties, but makes the "assumption" that as Physics peels away the phenomenal garb of the material world and shows us the laws that operate beneath the surface, so logic was supposed to give us an "analysis" of language that went beneath the grammatical phenomena.

When he says there is "convention" in this logic he means we apply to the grammar we find in language *a priori* norms that are based on our conception of the physical world. In an earlier passage, which deals with the analysis of sentences into argument-function form, he says, "in that case that we now have nothing to do with objects and concepts, as the result of an analysis, but rather with

norms into which we have squeezed the proposition" (WA II,9, 3). The same thing is suggested by the projection metaphor in *SRLF*: where language presents "ever so many different logical forms" (*SRLF* p.31) we apply a template based on conceptions we bring with us to the analysis. It is the same with our habit of expressing things in terms of the objects, processes, laws, and events of the physical world: tempted by a facile conception of how language works we apply the same template wherever we find a problem.

As we shall see presently, the passage we began with is far from being an isolated application of this criticism, and if one's initial reaction is that it is an example of Wittgenstein's rich imagination rather than his considered critique of the *TLP*, we will see that this view cannot hold up. But before we proceed to unfold this criticism as Wittgenstein explicitly expressed it in other remarks, let us consider for a moment what might have led him to believe that the language of *Physics* had somehow intruded itself into formal logic.

Consider, then, not only the terminology of the *NB* and the *TLP*, but of Russell's *Philosophy of Logical Atomism* and the other essays in which he defended the atomist viewpoint. These writings displayed a preoccupation with terms from *Physics*, and one must at least occasionally wonder, why these? For instance: *atoms*, *elements*, and *molecules* are prominent descriptions of the particulars under investigation; *complexes*, *analysis*, *substance*, *structure*, and *space* are used to describe their phenomenological form

or that of the medium in which they subsist. It is true, of course, that most of these terms have a philosophical history as well as a place in Physics; but by the time logical atomism came into the picture there was really no question that they had a distinctly scientific ring. In any case, the way they are applied (the notion, for example, that there are "molecular" propositions which consist of "atomic" or "elementary" ones), the central position of several of these terms in one body of philosophical theory, the keen interest of both Wittgenstein and Russell in the Physics of their time, and the occasional use of terms that could not but come from Physics or chemistry (like "molecular"), suggest that it is not Democritus, Aristotle, or Descartes who provide the main background here. It was Wittgenstein himself who authorized the translation of "*Sachverhalt*" as "atomic fact". Since this is in no way a literal translation, it is a safe assumption that he was quite intent on introducing an analogy from Physics here.

The list can be expanded to less obvious terms as well. The notion of a *method of projection* sounds like an application of either geometrical optics or mechanical drawing; I will also suggest a connection with Hertz's view of scientific models, below. Even if no conscious borrowing took place here, the idea at least derived some support from physical theories that had become part of the intellectual background. Mathematics supplies an additional stock of terms like logical *product*, logical *sum*; and the whole idea of logical "space" first appears in the *NB* as a kind of

Cartesian coordinate system (NB 31). This suggests that Physics, or some quasi-physical conception, was operating on some level, whatever intentions there were to the contrary.

Moreover, it is telling that in pursuit of this atomist metaphor, everything which might have led to a self-correction had been pushed aside. The fact that no examples of simple objects were available was rationalized by thinking of the logician as someone who need not be bothered with obtaining empirical evidence for the existence of his theoretical entities, just as a theoretical physicist can leave these questions to the experimentalist to sort out.³ If simple objects need not be found neither do "atomic" propositions; even if those which *should* have turned out to be elementary were deprived of that status by the color exclusion problem (TLP 6.3751). Hints in the NB and the TLP about the vagueness of language, the indeterminacy of meaning, problems with intentionality, etc., were all set to one side with quick theoretical moves, leaving only the "crystalline purity" of logic and logical form. On the one hand Wittgenstein saw a need to distinguish logical analysis as being of "a totally different kind than any other science" (NB 120); on the other there was the temptation to wear the mantle of the heroic scientist unveiling a theoretically pristine model of the essence of nature. The analytical conception of philosophy thrived on the latter as much as the former.

Though the critique of this conception really begins almost immediately in the post-1929 work it will be more

conducive to understanding the point if we look first at some clearer statements of the self-critical stance. One such example occurs in one of the 1932 lectures, in a passage which is explicitly concerned with criticizing the notion of an "atomic proposition". Wittgenstein says:

Russell and I both expected to find the first elements, or "individuals", and thus the possible atomic propositions, by logical analysis. Russell thought that subject-predicate propositions, and 2-termed relations, for example, would be the result of a final analysis. This exhibits a wrong idea of logical analysis: logical analysis is taken as being like chemical analysis". (WL32, p.11)⁴

This is very much in the spirit of the citation at the head of this chapter, and not far removed from it in time. The remark is more directly targeted at the concept of analysis, though. In the previous passage Wittgenstein was saying that the logical template through which we view the proposition makes it look like it consists of parts of a physical system; the lesson about logical analysis had to be inferred. Here he is confronting it directly. In chemistry we begin with some complex substance - say, some organic compound - and by applying various tests to it we discover a hidden structure. This might on a first approximation be a certain configuration of molecules, arranged in some definite pattern (which we depict as a geometrical structure). Then we apply further tests and discover that each such structure consists of a definite arrangement of carbon, hydrogen and oxygen atoms. This will be our analysis. Logic is supposed to do something very similar: start with the complex proposition, keep breaking it down

until we reach atomic propositions composed of "objects". But as Wittgenstein now realized, this conception really does not work at all - in some sense, is not even coherent - when dealing with concepts. One cannot make much progress by thinking of ordinary propositions as concatenations of irreducibly simple ones, nor of thoughts as concatenations of logically simple parts.

This point, that the notion of logical analysis incorporated a subtle, but real and highly misleading, transference from the notion of physical analysis, will be the main theme of this chapter. Our immediate concern will be to address the issue of how to properly interpret remarks of this type - that is, to get clear on the sense of Wittgenstein's critical remarks. Following that, we will examine a number of applications of this kind of criticism. The net result, I hope, will be to see the relationship between Wittgenstein's critique of the original concept of analysis and the development of his idea that philosophical confusions arise from the misuse of physicalistic metaphors.

5.2 The Sense of Wittgenstein's Critique of "Physics"

The kind of self-criticism I am emphasizing in this chapter is quite at odds with the usual way of approaching the transformation of Wittgenstein's philosophy; so much so that one might take the lack of attention to such remarks in the Wittgenstein literature to indicate that it is not considered appropriate to attribute much significance to them. That sort of misgiving will, I hope, be sufficiently relieved in the following section. But assuming, for the

moment, that the self-criticisms are intended quite seriously, it is important to have an idea of the spirit in which they are made. Although one can find evidence pointing in different directions, I will maintain that one particular reading is the correct one. In what follows I will consider three possible ways of reading these remarks, and suggest that one of them (the last) is the most plausible.

The first possible reading, though I believe it is mistaken, is perhaps the most straightforward and obvious interpretation. On this reading Wittgenstein is saying that he and Russell had developed and defended the logical atomist viewpoint under the influence of the view that philosophy should emulate the natural sciences. On this view, the early Wittgenstein felt that by following this scientific paradigm philosophy could achieve explanatory and practical successes similar to those of the physical sciences. What this paradigm might have been is hard to say explicitly, but it would have involved some notion of a scientific *method* that could be abstracted from scientific practice and applied to philosophy. This interpretation gains a certain plausibility from the historical fact that the quasi-scientific conception of philosophy has surfaced again and again in modern philosophy, from Descartes to the present. It could not be seriously maintained that Russell did not have such a conception of philosophy, whether or not Wittgenstein ever did. So it is worth exploring the evidence for and against this reading.

We might therefore consider the fact that the whole picture conception, and much else in the TLP, was influenced by Hertz's *Principles of Mechanics*, which suggests a large-scale transfer of methodology from physical theory to philosophical atomism. Indeed, the degree of Hertz's influence is deep enough that it requires a separate discussion; we will therefore put the main discussion of this point off until later. However, what can be said about it in general is that although the influence of Hertz runs very deep, it is not so much the scientific method as found in Hertz that attracted Wittgenstein. Aside from its quasi-deductive style, what impressed him were Hertz's philosophical ideas and the reliance on *models* and a method of *projection*. These are the aspects which give Hertz's *Principles of Mechanics* its distinctive character and appeal. The influence of Hertz is indeed implicated in Wittgenstein's later criticisms; but it is primarily what is misleadingly physicalistic in Hertz's *philosophical* framework, rather than what is scientific in itself, that forms the target of the criticism. The Hertz connection does not, therefore, establish that Wittgenstein had capitulated to scientism.

Wittgenstein's criticisms of atomism are often explicitly applied to Russell as well as himself. Russell maintained at least as much interest in contemporary Physics as Wittgenstein did. Sometimes he appeared to be suggesting a philosophical method for the sciences rather than the reverse. This is evident, for example, in the antirealist

account of the theoretical entities of atomic Physics he offers in "The Ultimate Constituents of Matter": "The persistent particles of mathematical physics I regard as logical constructions, symbolic fictions enabling us to express compendiously very complicated assemblages of facts..."⁵. But in "On Scientific Method in Philosophy" he explicitly said that it is "from science, rather than from ethics and religion, that philosophy should draw its inspiration"⁶. It is the "method" rather than the "results" of science that should serve as a model⁷. What he takes that method to be emerges from the suggestion that the correct method in philosophy, which he now explicitly calls "logical atomism"⁸, consists in applying a "piecemeal and tentative" approach to the resolution of philosophical problems⁹. The conception of philosophy as "analysis, not synthesis"¹⁰ has its roots, for Russell at least, in the belief that philosophy should emulate science.

But what did Wittgenstein think of this perspective? Explicitly, he opposed it. In May 1915 he says of Russell's essay of the previous year, "Russell's method in his 'Scientific Method in Philosophy' is actually a step backwards (*Rückschritt*) from the method of physics" (NB 44)¹¹. This naturally leads one to doubt that Wittgenstein had taken the same position as Russell, and hence to doubt that his later criticisms were meant to suggest that he himself had had a scientistic view. Nevertheless, there is some difficulty in leaving it at that; for there is very little that Wittgenstein could have reasonably objected to

in the essay. Certainly he did not object to the analytic approach or the notion of "logical atomism". Was there some other perspective put forward here that might have provoked Wittgenstein's ire?

Russell begins by explaining that the problem with other philosophical (especially Hegelian) systems is that they start from ethics, which is anthropocentric, and that philosophy should set out from a more objective perspective. Even if Wittgenstein could conceivably have had a problem with this, it would be senseless to call this "a step backwards from the method of physics". Russell next establishes that philosophy cannot rest on the basis of the unity of experience nor of the generality of scientific law. Again, it is hard to imagine Wittgenstein objecting. When Russell offers details as to how his "scientific method in philosophy" is distinguished from scientific method in general, the essay actually starts sounding like an anticipation of the *TLP*. Philosophical propositions must first of all be "general"; secondly "they must be *a priori*". Russell adds: "A philosophical proposition must be such as can be neither proved nor disproved by empirical evidence"¹². This amounts to saying that "*philosophy is the science of the possible*"; hence "philosophy becomes indistinguishable from logic"¹³. It is moreover "concerned with the analysis and enumeration of logical *forms*, i.e. with the kinds of propositions that may occur, with the various types of facts, and with the classification of the constituents of facts"¹⁴.

Thus, in spite of Wittgenstein's comment, one might well wonder whether he did not end up finding some inspiration in this essay. There is, however, one remaining matter of substance in the essay, i.e., what follows from the above-mentioned "piecemeal and tentative" approach that Russell recommends. Of his scientific philosophy Russell says,

above all, it will be able to invent hypotheses which, even if they are not wholly true, will yet remain fruitful after the necessary corrections have been made. This possibility of successive approximations to the truth is... the source of the triumphs of science, and to transfer this possibility to philosophy is to ensure a progress in method whose importance it would be almost impossible to exaggerate."¹⁵

This does have the feeling of a quasi-scientific battle cry with which Wittgenstein could wholeheartedly disagree. With this, one can see how Wittgenstein might have reacted to the essay as a whole: where Russell differentiates scientific and philosophical method, Wittgenstein would have found a perspective that he would later carry to great lengths; where he identifies scientific method with philosophy, Wittgenstein would have detected a spirit alien to his own intuitions. This also sheds some light on what Wittgenstein means by "a step backwards from the method of physics", at least if (as seems plausible) he had Hertz in mind as an example of that method. Hertz treats the fundamental laws of Physics as having a role like the axioms of a logical model; he says that a "principle of mechanics" is such that "the whole of mechanics can be developed from it by purely deductive reasoning without any further appeal to

experience"¹⁶. What Wittgenstein says in *TLP* 6.3ff, and related earlier remarks in the *NB*, leaves little doubt that he had full confidence in this Hertzian program. Compared with this, Russell's "piecemeal and tentative" method must have seemed a step backwards indeed¹⁷; and his explicit denial that Newton's famous dictum about hypotheses applies even in science, much less philosophy, would likely have raised Wittgenstein's hackles even more¹⁸.

This provides us with more reason to doubt the first interpretation, for there is at least a basis for saying that his objection to Russell's essay rested on serious misgivings about the application of scientific method (as Russell conceived it) in philosophy. Finally, Wittgenstein's early system prohibits any direct association between philosophical and scientific methods. In spite of some ambiguous comments¹⁹, there are remarks which all but put an end to the plausibility of the first interpretation. For instance, he says in the *TLP*:

Philosophy is not a natural science.
(The word "philosophy" must mean something which stands above or below, but not next to, the natural sciences.) (4.111)

Almost equally forceful are the statements that "psychology is no nearer related to philosophy than any other natural science" (4.1121) and that evolutionary theory does not have any more philosophical content than "any other hypothesis of natural science" (4.1122). Now, these pronouncements about natural science may not be directly aimed at the conscious conception of philosophy as a quasi-scientific enterprise.

On the view of Wittgenstein's early philosophy presented in previous chapters, the fundamental aim of his work was to have a theory of logic that could do without a theory of types, and the reason he sought such a theory is that he thought logic had to be free of any empirical content whatsoever. Russell had tried to protect logic from self-contradiction by introducing into its foundations quasi-empirical propositions about the nature of the objects in the world. Wittgenstein may be countering here, as he does in numerous other ways in the *TLP*, with the argument that once that road is taken there is no reason to call the solution philosophical, or indeed logical, at all. Be that as it may, his opposition to all quasi-scientific philosophizing is clear, and these remarks leave no doubt that a quite conscious principle of his early work was the inadmissibility of any appeal to the methods of natural science.

Aside from this, it is one of the main thoughts in the *TLP* that philosophical truths, to the extent that they can be called "truths" (as he does call them in the "Preface"), are arrived at by *a priori* reasoning from logical premises, not by inductive reasoning from empirical facts. Moreover, in 6.3ff he extends this idea even to higher-order scientific truths. The correct method in science was that of logic, not the other way around. Therefore, unless he himself misrepresents his earlier view, Wittgenstein's later view cannot be that he had indulged pseudo-scientific conceptions at this level in the *TLP*; i.e., that he had in

some way depended on the notion that principles, methods, results, or theories taken from empirical science would provide the ground for philosophical truths.

The first interpretation, therefore, must be dropped. In fact, it probably does not have a legitimate target in Russell either. It is doubtful that even he had confused philosophical investigation with scientific practice, even if he claimed to find a model in scientific method. In *The Philosophy of Logical Atomism* Russell seems quite clear on the distinction between logical and Physical atomism²⁰, and as in the earlier essay, he relates philosophical atomism, by contrast, to Hegelian monism²¹, rather than to Physics. Wittgenstein could of course have been mistaken about Russell and blown his scientism out of proportion. But as we shall see later, his criticism of both himself and Russell, including the idealization of the "method of science", places the error at a different level than the naive confusion that this interpretation suggests.

If he had not intended his atomist language to be read as quasi-scientific theorizing, it is tempting to say that for Wittgenstein at least, the scientific language of logical atomism was largely a matter of convenience, and had no real scientific commitments. On this deflationary view, a second possible reading of his later remarks suggests itself. On this reading, Wittgenstein was offering a *reductio* of the model that is implied by the use of terms like "atoms" and "elements". That is, he was hoping to undercut the analytic conception by taking literally the

features of its vocabulary that express structural relations among its terms and showing they lead to absurdities. Though these features - the language of Physics - would be contingent in the sense that they were not directly dependent on the theory from which the terms were drawn, and could presumably have been replaced by terms not derived from the physical sciences at all, the point of attacking them would be to bring out disanalogies in the linguistic model that might betray confusions in the underlying assumptions that led to it. So, for example, if atomic structures always have emergent chemical properties at the molecular level, one might expect molecular propositions to always have emergent meanings; and one might try to show that this, and other such inferences, are false, inconsistent or counterintuitive. Thus he might have hoped to push the implications of the model to the point where he uncovered consequences that are valid for the analysis of matter but are clearly unacceptable in the analysis of language and thought. By forcing atomists to acknowledge that the model breaks down one forces them to adopt strategies which are to one degree or another unattractive: they must either find another model that incorporates the same assumptions but avoids the disanalogies, or admit that they cannot come up with a model that brings out the main features of the subject in an intuitive way, or (what the critical strategy really aims at) acknowledge that the underlying assumptions captured in the use of this model are incorrect.

The last point here is, I think, close to the correct reading of what Wittgenstein is trying to achieve with his self-criticisms. He is in part trying to undermine the model of Physics by showing that the analogy contains false presuppositions. But first, the method he is using is not properly described by saying that he is primarily attacking the model itself. Rather, the point of pushing the Physics metaphor into the open is to challenge its presuppositions directly. It is not by way of ridicule, so to speak, that he compares "logical analysis" with "chemical analysis"; it is to confront a general tendency towards the assimilation of the conceptual to the physical. Second, it is not in Physics, the science, but in physics, the various forms of description of the material world, that Wittgenstein locates the threat; utilizing the language of Physics, though it is not without some implications, is not the underlying problem. Third, the strategy of repudiating a theory by deconstructing the analogies on which it is based is just too subtle to have much chance of success. If one did not entirely miss the point of the criticisms, it might just seem that the critic had failed to exercise even the most minimal degree of charity. Further, one could always counter that the basic ideas of the theory are correct even if the analogy is poorly chosen.

In order to develop a tenable interpretation of Wittgenstein's self-criticisms we have to account for his borrowing from the language of Physics in a way that does not presuppose any intent to associate his early theory with

scientific strategies per se but does open his work to the self-criticisms which suggest that there is some physics in it anyway. The first thing to note is that the atomic model, as a mode of representation, had achieved great success in explaining the surface phenomena of the physical world in terms of a hidden structure. This was just what Russell and Wittgenstein had hoped to do for language; so Physics seemed to provide a perfect model for the analysis of language in terms of underlying logical structures, more or less along the lines of Russell's theory of descriptions. But, secondly, this would be the case *irrespective of whether any other aspect of Physical theory or method was to be adopted*. It was just because what he and Russell had in mind was a method of *analysis* that they thought it quite innocent to speak of atoms, molecules, elements, and the like. For analysis seemed to be a concept that was abstract enough to owe nothing to empirical science, and it was quite plausible to think that analytical reasoning in the sciences, be it mereological or some more complex structural relation, would be something that physics owed to logic, rather than vice-versa²². So the adoption of a metaphor from Physics could hardly do any damage to the "crystalline purity" of logic. Moreover, one can imagine several apparent advantages that might have been considered. One is just that of being able to state one's theory in the terms of an already well-known and widely accepted model. Another is that the model was not only successful but well-ramified, so that new relationships between logical "atoms" or "elements" could be expressed by

means of concepts already established by science²³. My point here is not that these benefits were actually consciously considered (though I think what we see in the next section will suggest that they were present at some level) but that the use of the model *could* be justified independently of any appeal to scientific method in philosophy, or any real dependence on the methods, results, or empirical facts of Physics.

But the whole force of Wittgenstein's later criticisms is to suggest that *in spite of this*, the use of this model was not as innocent as they believed. Their error, however, was not consequent on the adoption of a specific language from modern Physics; it was a conceptual error, which was already expressed in their confidence that the model could serve their purposes and was further deepened by exactly that easy inference from one expression to another that was offered by the use of an established model. *The essence of the error was the implicit assumption that the logical concepts could be entirely separated from their normal applications.* Specifically, so long as "analysis" in logic and language was conceived of in either a baldly mereological sense, or even in the more sophisticated structural sense that would capture the spirit of early 20th-c. atomic theory, the model could not but tend to mislead those who adopt it. To see this, consider the fact that even something as apparently mereological as a mathematical set does not "have" parts in anything like the same way that a house "has" parts; nor does it "consist" of

its elements in the way a carbon atom "consists" of protons, neutrons and electrons. Moreover, when we consider such "entities" as events, experiences, propositions, numbers, etc. the notion of analysis, if it is useful at all, must have a completely different meaning from its application to the material world. That this distinction was not sufficiently appreciated is clearly seen in Wittgenstein's early meditations on watches (see NB 60-70). Distinguishing philosophy from science in general was not sufficient for distinguishing logical analysis from scientific analysis in particular.

The adoption of the language of atomic *Physics* did, therefore, betray a physics that lay at the basis of the early conception of philosophical analysis. It betrayed a false idea of the way in which "complex" thoughts or propositions were complex, and an unworkable program for achieving simplicity (and thereby a degree of certainty analogous to that of science) through the "reduction" of these complexes to "atomic" propositions. The whole constellation of terms relating to "analysis" - complex, composite, reduction, simple, atomic, etc. - were an expression of the erroneous belief that one could innocently adopt a model which worked for the analysis of matter and transfer its logical structure to philosophy. The logic of the model was specific to the subject matter, and could not be transferred without promoting confusion²⁴.

One can speak of the "analysis" of a poem, meaning (more or less) the explanation of intended semantic

relationships among the words, ideas, and symbols used in it. A similar kind of operation might be carried out on the "meaning" of a sentence or a thought, and there is, so far, nothing inherently physicalistic about such a procedure. One can even analyze physical entities without being "physicalistic", e.g., in terms of their function within a system, or their historical evolution. But the conception of analysis that was employed in formal logic, being so closely tied to notions of reference, extension, object, thing, subject, set, etc. (even the notion of "sense" had a referential function for Frege) was not a purely logical conception. It was useful for the categorization of entities - not as tables and stars and elephants but as entities that could be clearly individuated, reidentified, etc. by looking, testing, experimenting, and other physical procedures - and for the description of entailments among propositions about those entities. But this commitment, far from being acknowledged, was explicitly denied by Frege and Russell, who thought it was a matter of indifference whether the variables of logical functions represented bricks, numbers, mental images, or events. Having generalized a particular conception of "analysis" in this way, it would appear that one could solve difficulties that arise in the analysis of a thought or proposition by proceeding as if thoughts and propositions involved parts and wholes, substructures and superstructures, fundamental and emergent properties, or combinatorial possibilities. In other words, having adopted the model, one now tends to make easy

transitions to solutions that would apply to relationships among material entities, and go on as if philosophical "entities" were just like that.

The underlying problem with this program is suggested in a remark that expresses a central feature of our interpretation of Wittgenstein's transition. He says: "We need new concepts and again and again we take those of physical language" (WA 2,95,1; PR XX,213,266). Though its scope is much broader than the present problem, this remark sums up in a few words the entire difficulty with the analytic program. For the foundation of the analytic enterprise was the effort to use late-19th c. developments in formal logic to reestablish the leading role of philosophy in the pursuit of conceptual truths in general. In order to do this one had to get at the structure of reality in a way that was not available through either the prevailing Hegelian trends or a simple return to empiricism. But one cannot approach any such effort with a totally new stock of concepts, or the relationship to our existing body of knowledge would be very tenuous. Instead, the natural tendency is to turn to existing concepts and apply them in new ways. But this, of course, already contains the seeds of error; for one does not, in the pursuit of a new level of certainty, turn to already abstract or fuzzy concepts, but to those apparently solid geometrical relations that characterize the world of spatial entities. This is the essence of Wittgenstein's remark.

We were looking for a way of characterizing Wittgenstein's comments on the "physics" of his earlier philosophy that would justify these criticisms without suggesting that he thought he had somehow endorsed the scientistic program that Russell and others had tried to follow. We have now achieved such an interpretation. Wittgenstein's early philosophy had rested on a notion of analysis of which atomic physics had been the paradigmatic example. It was not anything peculiarly scientific about that model, but rather its logical structure that had been admired. But that logical structure *itself* had its roots in the concepts we use to understand relationships between physical entities. On the superficial level the vocabulary of Physics was adopted; beneath that, there was not (in Wittgenstein's case, at least) a direct emulation of Physics or scientific method but rather an adaptation of the physics in our ordinary language and concepts, that which is captured in a notion of *analysis* as involving parts and structures, and which underlay not only Physics but physics. This is the solution to the puzzle of how Wittgenstein could have explicitly denied the applicability of scientific method to philosophy while retaining concepts that essentially brought in physics through a back door.

5.3 The Physics of Analysis

It follows from what has been said above that overt references to physical theory in atomist writings, though they are not hard to find, are not even the main point of the problem Wittgenstein was addressing in his later work.

Rather, what illustrates the root of the problem that Wittgenstein is talking about, are statements like these:

The nature of philosophic analysis... can now be stated in general terms. We start from a body of common knowledge, which constitutes our data. On examination, the data are found to be complex, rather vague, and largely interdependent logically. By analysis we reduce them to propositions which are as nearly as possible simple and precise... (Russell, in *Our Knowledge fo the External World*, 1914)²⁵

I confess it seems obvious to me (as it did to Leibniz) that what is complex must be composed of simples... (Russell, in "Logical Atomism", 1924)²⁶

Every statement about apparent complexes can be resolved into the logical sum of a statement about the constituents and a statement about the proposition which describes the complex completely. (Wittgenstein, *NL* p.101)

It seems that the idea of the SIMPLE is already contained in the idea of the complex and in the idea of analysis... and we realize the existence of the simple object - *a priori* - as a logical necessity. (Wittgenstein, *NB* 60)

It is in these claims that we find, on my reading, the confusions to which Wittgenstein is pointing. We have already seen, in our study of the *NB*, that this analytic conception is fraught with difficulties even when applied to the simplest problems. What, then, accounts for its appeal? Perhaps we begin with the conception of the physical world as a tremendously complicated structure of interconnected parts, and we see the progress made by science in the ever deeper analysis of those parts and their relations. Why should the same thing not hold in logic? Isn't language, like the physical world, a highly complex amalgam of grammatical parts with endlessly varying relations between them? Doesn't it seem obvious that our "complex" ideas

cannot be *sui generis* but must be "composed" of simple ones? Only through logical analysis, then, can we arrive at the simple propositions which constitute the complex one. This train of thought presses so hard on our intuitions that one is almost inclined to deny that the analogy with Physics is necessary at all. What further justification do we need, really, for "analyzing" propositions, experiences, or thoughts?

But if Wittgenstein is right, this already betrays philosophical confusions born of the tendency to borrow physical concepts - spatial, causal, mereological - to map the new conceptual terrain. Therefore, even Wittgenstein's early criticism of Russell's "On Scientific Method" does not show that he himself did not succumb to the same temptation. He hints at this point in the *BLB*:

Our craving for generality has another main source: our preoccupation with the method of science. I mean the method of reducing the explanation of natural phenomena to the smallest possible number of primitive natural laws; and, in mathematics, of unifying the treatment of different topics by using a generalization. Philosophers constantly see the method of science before their eyes, and are irresistably tempted to ask and answer questions in the way science does. (*BLB* 18)

The reduction to "primitive... laws" and the demand for a "unifying... generalization" was as much a paradigm for his own early work as for anyone who overtly emulated the "method of science". David Pears has suggested that the above passage also ties in with Wittgenstein's later criticisms of theorizing in philosophy, and that these criticisms are meant to be applied to his own earlier method as well. As Pears observes, "the point would not be worth

making if nobody had ever supposed that philosophy did operate in that way"; so he proposes to consider "whose philosophical theories would have struck Wittgenstein as examples of this error":

One obvious example was his own earlier work, especially the dogmatic presentation of it in the *Tractatus*, where he claimed to have discovered the structure of all factual language: it had to be a truth-functional development of elementary sentences, each of which had to be produced by putting together the names of simple objects. This structure was not our invention but something imposed on us by the nature of things. So the familiar phenomena - in this case our own language and thought - could be explained only if we went beneath them and discovered their underlying structure and its basis in reality.²⁷

Pears' point is similar to mine: it is the very idea of *analysis* - of going "beneath" some complex phenomenon to find the "underlying structure" of relations of simple objects - that constitutes the point of entry of the conception of physics. My point is also that Wittgenstein's criticism of the borrowing from *Physics* is part of a larger criticism of a tendency to adopt *physicalistic* conceptions when faced with philosophical problems. But this is compatible with Pears' emphasis on Wittgenstein's rejection of *theorizing* and of scientific method in general.

But my basic explanation of the difficulty differs somewhat from the analysis Pears provides:

These claims were evidently inspired by the achievements of science. If the kinetic theory of gases could explain such a wide range of physical phenomena by moving to a deeper level, why should not philosophy do the same for all language and thought? The point to notice here is not just that logical atomism is modeled on physical atomism. It is that this whole way of doing philosophy is modeled on the methods of science, even if its results are firmly distinguished from scientific results, as they were in the *Tractatus*.²⁸

I have not denied that at some level the Tractarian program was "inspired by the achievements of science", as Pears puts it; but I have sought to avoid the implication that Wittgenstein, in his early work, had subscribed to Russell's program of following the "methods of science", or that he had in his later work believed that he had formerly adopted this program. Wittgenstein saw the program of Hertz and others as proof that a program of *logical* atomism could be carried out for that limited domain of statements which constitutes the true claims about the physical world.²⁹ But it remains true that "this whole way of doing philosophy is modeled on the methods of science" insofar as those are the paradigmatic methods for the analysis of matter; for it was a particular method of *analysis*, not some more general conception of the "method of science", on which the work was modeled. It would have been no more than a fortunate coincidence if this methodology were to have proved successful in the pursuit of conceptual truths.

I will return to Pears' interpretation below. My point is that when Wittgenstein says that philosophers seems to always have scientific models in mind, the central issue is not whether they consciously try to emulate theoretical physicists but that they think of philosophical analysis as "like chemical analysis" in that it is supposed to permit inferences similar to those we make when we discover the "underlying structure" of matter. Moreover, this is one facet of a yet broader point Wittgenstein is making. The transference of physicalistic concepts into the language of

metaphysics or epistemology not only emerges from adherence to a scientific paradigm but from the very nature of language. We need words to express new concepts, and the temptation is to fall back on the modes of expression we are most familiar with - those that describe the external world. There seems to be a vocabulary and a grammar all prepared for our use.

Indeed, the passage Pears and I have cited from the *BlB* is but the last of a list of "tendencies connected with particular philosophical confusions", all of which are characterized by the error of assuming that a "general idea" can somehow be seen as roughly analogous to a material entity of one sort or another. It is worth looking at this passage for a moment, for it establishes the point that the target of Wittgenstein's criticisms of is not fundamentally scientism but a more generic tendency to transfer the logic of physicalistic relationships into all areas of thought. The first source of confusion is, more or less, an implicit essentialism that Wittgenstein contrasts with his notion of family resemblances. Of this confusion he says, "It is comparable to the idea that *properties* are *ingredients* of things which have the properties; e.g., that beauty is an ingredient of all beautiful things as alcohol is of beer and wine..." (*BlB* 17). It is a small step from here to the idea that in order to find the essences of general terms what we need is an analysis that is comparable to chemical analysis. The next source of confusion is

a tendency, rooted in our usual forms of expression, to think that the man who has learnt to understand a general term, say, the term 'leaf', has thereby come to possess a kind of general picture of a leaf, as opposed to pictures of particular leaves... [W]e are inclined to think that the general idea of a leaf is something like a visual image... (Galtonian composite photograph.) This again is connected with the idea that the meaning of a word is an image, or a thing correlated with a word" (BlB 17-18).

Here instead of reified properties we have reified meanings, condensed into images that can serve as the reference of words. The third source of confusion, just before passage cited above, is "the confusion between a mental state, meaning a state of a hypothetical mental mechanism, and a mental state meaning a state of consciousness" (BlB 18). The word "mechanism" is meant to be taken literally here; it is what corresponds in this passage to the Galtonian photograph and the alcoholic drink. These are all examples, not only of our "craving for generality", but of our craving to cash out properties, meanings and relations in physical terms. This is how the admiration for the "method of science" gains a foothold; for all its pretension to objectivity and rigor, it is really based on a yearning for simple answers, based on the combinatorial or mechanical logic of material entities, in the face of complexity, vagueness, and other difficulties which accompany more ethereal concepts.

A later expression of Wittgenstein's view comes in some famous remarks in the *PI*. He says, "*The essence is hidden from us*": this is the form our problem now assumes" (*PI* 92). Hidden essences were to be revealed by distilling the pure meanings out of sentences too coarse to be studied in their

natural state. This is the promise of the theory of descriptions, of the *Begriffsschrift*, of logical atomism: meanings are hidden by the superficial form of sentences, forcing us to conceive the investigation of meaning as something conceptually similar to investigating the subatomic structure of matter. The metaphor of the logical analysis as pseudo-chemistry is used again in the following remark:

Compare 'logically possible' with 'chemically possible'. One might perhaps call a combination 'chemically possible' if a formula with the right valencies existed (e.g. H-O-O-O-H). Of course such a combination need not exist; but even the formula HO_2 cannot have less than no combination corresponding to it in reality. (PI 521)

This is a direct reference to the picture theory: a state of affairs was supposed to be logically possible if the objects had the right "valencies", or combinatorial possibilities. The proposition could be false, but it was not nonsense, it could not have "less than no combination corresponding to it in reality", so long as the names represented atoms of the right sort. There is no suggestion here that this chemical analogy is exactly what Wittgenstein was thinking when he developed the picture theory; the immediate considerations could be explained within the realm of logic. But there is certainly a suggestion that "a picture held us captive"; it was the picture of an actual physics that lay at the bottom of the pseudo-Physics of logical atomism.

This picture, and the problems with it, were already understood by Wittgenstein in 1929. This is apparent from a passage from his second (Band II) notebook in which he

discusses the successor relation. To fully appreciate the point, we must set out the context of the remark.

Wittgenstein has been discussing the concept of infinity for much of this notebook. Over the last several pages he has been at pains to clarify the distinction between the infinite possibility of values that satisfy a rule, and the possibility of an infinitude of things³⁰. In a similar spirit he explains that the expression "the highest point of a curve" does not denote some particular point among several but rather a determinate outcome of the function which produces the curve (WA I,163,6). In these remarks the fundamental point is to distinguish the intensional object as determined by a rule from the material object that satisfies a description. This is apparent, for example, in Wittgenstein's concern with distinguishing the grammar of the word "can" in the expression "infinitely many things can lie in this direction" from that in "a book can lie on this table" (WA I,136,5). It is even more apparent in the section of the *PR* in which some of this material is placed. He begins this section with a remark from a few pages later in the manuscript, in which he says that the notion that there could be "infinitely many things" in space comes from "our confusing the things of physics with the elements of knowledge" (*PR* XII,147,168; WA II,140,6)³¹. Thus, the general concern of these early rule-following explorations is essentially the same as that which led him to find in the *TLP* "a wrong idea of logical analysis": we think we are still talking about purely logical relations whereas in fact

we have already slipped into thinking about extensions and the physical world.

This is the context that has been established when he begins to look at the successor relation. He describes this relation as follows: "Each thing has one and only one predecessor (*Vorgänger*); a has no descendants. All things other than a have one and only one descendent" (WA I,139,1; see PR XII,147,169). "These propositions", he says, "appear to describe an infinite series", but then he goes on to say:

Can't one take the above propositions as propositions of physics, which represent a scientific hypothesis? Then they would be incontestable. As it would be if physiology found a species of animal in which each individual appeared to come from one earlier one, and that was expressed as a hypothesis.

Are we misled here by the appearance that the pieces of matter - thus here for example the individuals of the species - are simple objects?

That is, isn't that which one can imagine multiplied to infinity the combination of things in their infinite possibility but not the things themselves? (WA I,139,3-5)

The point here is essentially the same as that which he has been making in the previous passages. In the propositions Wittgenstein has used to express the successor relation, it looks as if the rule could be taken extensionally. In this case they would be "propositions of physics", and would therefore express an empirical claim, or in other words (in the terminology of these manuscripts) a "hypothesis". This leads to the idea that units of succession, rather than being the merely *logically* possible outcome of a rule, are the actual extension of the series, or "simple objects". The example has recourse to biological succession since that is

the most natural example of a series of physical objects that "follow" from one another. But the point is fundamentally the same as the examples in which elementary physical particles serve as simple objects. The target of both is the idea that the analysis of a proposition *must* be like the analysis of matter, that it *must* arrive at "simple objects". A tendency of the mind, based on or reflected in something built into the structure of language, leads us to make misleading analogies between the simple terms that might serve as the ultimate constituents of a proposition and bits of matter that constitute the ultimate constituents of physical reality. The corrective to this is to understand that what is represented is "the combination of things in their infinite possibility but not the things themselves".

Another expression of this critique appears in Wittgenstein's "Remarks on Frazer's *Golden Bough*". He says:

To drive out or slay death; but on the other hand it is represented as a skeleton, as itself dead in a certain sense. "As dead as death." "Nothing is as dead as death; nothing is as beautiful as beauty itself." The picture in terms of which one conceives of reality here is such that beauty, death, etc. are the pure (concentrated) substances, while they are present in a beautiful object as an admixture. - And do I not recognize here my own observations about 'object' and 'complex'? (PO p.135)

In the absence of any other interpretive cues it is quite difficult to see what similarity Wittgenstein finds between "death" or "beauty" in these aphorisms and his Tractarian ideas of "object" and "complex". But the passage is immediately comprehensible as a comparison of the Tractarian

terms with the misplaced, and reified, notion of death and beauty as "pure (concentrated) substances" and their presence in an object as an "admixture".

The point should be sufficiently clear now. The critique of the *TLP*, in particular the critique of the notion of analysis and of the related ideas of simple objects, elementary propositions, and complexes, is thoroughly bound up with the idea that a host of concepts which had seemed quite promising in the analysis of the material world were applied, with misleading results, to philosophical analysis. This critique began as early as 1929 and continued through the *PI*. The struggle against this kind of metaphor became an organizing principle of Wittgenstein's work. The same struggle is expressed in the phrase "the crystalline purity of logic". Having taken off the tinted glasses, Wittgenstein realized that "a picture held us captive" (*PI* n115). It was the picture of logical analysis, conceived on a model that could not possibly lend clarity to a conceptual investigation.

Propositions do not share the logical form of physical structures; the scientific theories which model such structures are meant to range over the whole of nature (or at least, as Hertz says, of inanimate nature), but they do not extend to the representational structure of language. The latter, in any case, probably cannot be modeled in one way, and for this reason the proper and productive tendency of science to look for universal laws becomes a positively harmful "craving for generality" in the logical analysis of

language. From one sphere of discourse to another the representation may vary in form; and the apparent forms, like those of subject-predicate and relational propositions, do more to disguise the variety of structures than to reveal their inner nature.

5.4 The Mechanics of the Tractatus

Consideration of the influence of Hertz appears to lend some credence to the idea that a preoccupation with models adopted from Physics led Wittgenstein down the path of scientism in the *TLP*. However, as was argued above, it was primarily the philosophical content of Hertz's system and method that interested Wittgenstein; rather than attempting to emulate the "method of physics", in borrowing from Hertz Wittgenstein was primarily acknowledging the strength of Hertz's assimilation of the method of philosophy. Yet in spite of this, the final coup here belongs to science. For what lies at the bottom of the whole Hertzian system is a scheme for modeling the relationships between material systems. By applying this scheme to psychological modeling as well, Hertz achieves an elegantly simplified representational system in which theoretical models, mental pictures, and physical systems are all conceived as projective models of one another³². But the point, after all, was to account for the systems which are the subject of Physics, so it is no surprise that projective relations are conceived along lines that are most intuitive for the mapping of systems in space. The result, for both Hertz and the early Wittgenstein, is a view of meaning and its

"objects" that takes this relationship to be almost exactly parallel to the way models of material systems correspond to their objects.

Hertz's influence on the picture theory is too well known to require arguing here.³³ The statement at TLP 2.1, "*Wir machen uns Bilder der Tatsachen*" (more or less literally, "We make pictures of facts for ourselves") and the whole unfolding of the picture theory that follows seems to be heavily indebted to the conception that Hertz offers in the first paragraph of his introduction: "We form for ourselves images or symbols of external objects; and the form which we give them is such that the necessary consequents of the images in thought are always the images of the necessary consequents in nature of the things pictured."³⁴ Though this passage has been cited innumerable times it is worth noting that it not only contains an anticipation of the picture theory but of the idea of inference as an unfolding of the "necessary consequents" of the model; this is as important to the conception of the TLP as the picture theory itself. But there is much more of the TLP than this broad anticipation of the picture theory in Hertz's *Principles*. A clear example is the conception of science expressed in 6.3ff, including the "net" analogy. The notion of mechanics as a deductive system based on Newton's laws or other basic principles was not peculiar to Hertz (Helmholtz and others had similarly conceptions), but Wittgenstein's appropriation of this model was primarily based on Hertz³⁵.

But even more interesting connections turn up when we examine Wittgenstein's explicit references to Hertz. For example, at *TLP* 4.04 he says:

In the proposition there must be exactly as many things distinguishable as there are in the state of affairs which it represents.

They must both possess the same logical (mathematical) multiplicity (cf. Hertz's *Mechanics*, on Dynamic Models).

What Hertz says about "dynamic models" is of considerable interest for much more than the notion of multiplicity. If "a material system" is a dynamic model of another "the connections of the first can be expressed by such coordinates" that "the number of coordinates of the first system is equal to the number of the second", and therefore any equation that describes a displacement in one system describes it in the other as well³⁶. Hertz's first comment on this definition is that, "Any two of the coordinates so related to one another in the two systems are called corresponding coordinates"³⁷. Now, the remark at 4.04, which is clearly related to this, is one of a series (4.01, 4.02, etc.) in which Wittgenstein comments on the idea of sense in *TLP* 4: "The thought is the proposition with sense." So the following picture emerges from Hertz's "dynamic models": there are simple objects in the world, and names in propositions, and simple ideas in thought, and each is a model of the other insofar as all the elements are in one-to-one correspondence with one another. That is quite a central doctrine of the *TLP*; it also ties in neatly to the idea of a "method of projection" discussed in *TLP* 3.11-3.13.

Here we have a real scaffolding that was apparently influenced by Hertz's scientific models; and if Hertz's aim was to map the freedom of movement of a "material system", a mechanical conception of the mind cannot be more than a whisper away when this is transposed into the philosophy of psychology.

In another comment on dynamic models Hertz says: "In order to determine beforehand the course of the natural motion of a material system, it is sufficient to have a model of that system."³⁸ Here we have something like the notion of logical possibility, the idea that the connections of objects in "logical space" are determined by the nature of the objects. Quite a bit of the *TLP* - the whole thing, really - rides on the idea that the logical possibilities of objects predetermine the possible propositions with sense. Debts to a mechanical model in this regard suggest a conceptual congruence between the logically possible movements of a mechanical system and the possible relations of logical atoms, but such a congruence seems *prima facie* very limited. No wonder Wittgenstein's later work is peppered with examples of wheels turning idly, and machines that break down: it is again a matter of the kind of thinking that was behind the Tractarian model in spite of the generally anti-scientistic stance.

Yet another of Hertz's observations on dynamic models that bears on the *TLP* is this: "it is impossible to carry our knowledge of the connections of natural systems further than is involved in specifying models of the actual

systems"³⁹. This approaches the idea of the limits of language, or of "silence": you cannot get outside the model to say something about it. The passage also seems to anticipate the idea that one cannot say anything other than "the propositions of natural science" (6.53), since these are the specifications of Hertz's model. The thing to notice here is that the model has a totally different impact when applied to language than it does for physics. It is an absolutely essential feature of scientific inquiry that we not claim to know anything beyond what established theory predicts. That is partly because it logically undermines the whole enterprise to do so; but speaking practically as well, theories often prove more robust than apparent pieces of knowledge which seem to contradict them. But it is quite counterintuitive to suggest, as the Tractarian picture does, that language or thought are limited *a priori* by the possibilities inherent in the objects and facts that constitute the elements of the model. We expect language to be productive and the mind to be able to entertain new conceptions. The logical possibilities of language are supposed to be the limits of our knowledge according to the TLP. Language determines *a priori* what we can and cannot say, or think, about the world (cf 5.5571). Of course, there is evidence that Wittgenstein himself was not entirely convinced of this; for instance, he says, "It is essential to propositions that they can communicate a new sense to us" (4.027) and "A proposition must communicate a new sense with old expressions" (4.03). It is pretty clear that he thought

language is productive in a way that does not easily square with the *a priori* conception elsewhere visible in the *TLP*. But on his later view the conception of language in the *TLP* was *misleading* in that it suggested this mechanical picture, whether or not Wittgenstein himself was misled in this way. His allegation that the language of the *TLP* had a quasi-scientific bias generally amounts to saying that it promoted this kind of potentially misleading picture, rather than that anything was done under the banner of a scientific paradigm. The picture suggested in his later work - the interplay of language games, the anti-essentialism of family resemblances, the rejection of determinate rule-giving - is more likely to conjure up the image of language as a highly fluid medium in which new ideas or types of knowledge can always be represented.⁴⁰

Hertz concludes the discussion of dynamic models with the following observation, which demonstrates not only the inseparable link between Hertz's physics and the Tractarian conception, but exactly what Wittgenstein later opposed about this conception:

The relation of a dynamical model to the system of which it is regarded as the model, is precisely the same as the relation of the images which our mind forms of things to the things themselves. For if we regard the condition of the model as the representation of the condition of the system, then the consequents of this representation, which according to the laws of this representation must appear, are also the representation of the consequents which must proceed from the original object according to the laws of this original object. The agreement between mind and nature may therefore be likened to the agreement between two systems which are models of one another, and we can even account for this agreement by assuming that the mind is capable of

making actual dynamical models of things, and of working with them.⁴¹

Clearly Hertz was doing philosophy of mind here as surely as he was setting out a program of theoretical physics. But consider what is assumed or implied in this passage: (1) that psychological inference can be adequately understood on the model of causal interaction between two material systems; (2) that a mental state ("condition") is very much like the state of a physical system; and (3) (as a consequence of these) that a mental image behaves very much like an object. Nothing could be more characteristic of Wittgenstein's later work than the effort to undermine these three ideas, and they are all expressed with the utmost clarity in this passage. Moreover, the problem with all three ideas can be traced to a single, fundamental conceptual difficulty: mental phenomena (inferences, beliefs, or memories, for example) cannot really be very much like the objects of the physical world, in the sense of being subject to physical causes or material states.

Another example of the way Hertz's underlying materialism finds a home in the *TLP* has to do with his definition of the concept of "mass" in terms of infinitely small "material particles"⁴². These are in turn defined, in the First Book of the *Principles*, as a relation between space-time points⁴³. The material particles are said to be "invariable and indestructible"⁴⁴. In the *TLP* Wittgenstein says objects are "the fixed, the existent (*Bestehende*)⁴⁵; the configuration is the changing, the variable" (2.0271).

Thus Tractarian objects are conceived in much the same terms as Hertz's "material particles" or "points"⁴⁶, the units of matter. This was not the only, or even the main consideration that went into them. But it is one consideration, and the following passages from the *NB* emphasize the importance of this factor: "the division of the body into material points, as we have it in physics, is nothing more than the analysis into simple components" (*NB* 67). The next day he adds: "It always appears as if there were complex objects which function as simples, and then also *actual* simples, like the material points of physics, etc." (*NB* 21 June 1915, p.69). From this it appears likely that ideas derived directly from Hertz's physics were among the factors that influenced Wittgenstein's conception of the nature of objects. He calls Hertz's material points "*actual* simples" and says in the *TLP*, "The object is simple" (2.02).

What we have just said illuminates a puzzling comment on Hertz that occurs only in the *NB*. The ancestor of the "net analogy" passage is followed by the same remark as in the *TLP*: "Mechanics is an attempt to construct, according to a single plan, all true propositions which we need for the description of world" (6.343)⁴⁷. But the *NB* version is followed by the comment, "(The invisible masses of Hertz)" and then: "The invisible masses of Hertz are *admittedly* pseudo-objects (*Scheingegenstände*)" (*NB* 36). The question is, what does Wittgenstein mean by "pseudo-objects"?

Hertz does not actually refer to "invisible" masses; Wittgenstein is no doubt thinking of Hertz's "hypothetical"

bodies, "which we can neither handle, move, nor place in the balance [i.e., weigh]..." About the latter, Hertz says, "The mass of such bodies can only be determined by hypothesis"⁴⁸. The "material points", then, which are explicitly defined as objects with a definite mass, and (in the Second Book) a definite weight, are the "real" objects, i.e., correspond to the objects Wittgenstein thought of as the ultimate bearers of meaning. The hypothetical masses are the "pseudo-objects"; and the reason, apparently, is that they are known only in virtue of their criteria. This suggests that "real" objects cannot be known only by description. Strictly speaking, for Russell, material objects were also known only by description; but perhaps Wittgenstein is ignoring that and thinking that in order to fulfill their function as objects of reference logical objects cannot be hypothetical⁴⁹.

Now, even after he had decided that the existence of objects is a necessary outcome of logical considerations (NB 50) Wittgenstein remained convinced that they could somehow be *identified*. But now it appears that their being identified by *description* would not suffice. So his thinking at this point, and perhaps in the *TLP* as well, contains the assumption that the identities of objects would at some point have to be verified. But this does not cohere well with the rest of his ideas. Objects were supposed to provide the basis for a strictly *a priori* description of the logical possibilities of reality; how could he have assumed that some as yet undiscovered but verifiable type of entity had

to have the strictly logical properties that are required to contain all the possible propositions with sense?

One possible rationale for this assumption would be that in physics one can postulate as yet undiscovered entities that are known by description to have certain physical characteristics. The postulate may be wrong (phlogiston) but it is standard scientific procedure: e.g., Yukawa's hypothesis about the π -meson, or the postulate of the "dark matter" that is supposed to prevent the permanent expansion of the universe. At first glance the idea of transferring this license into philosophy looks like a solidly positivist move. But on closer inspection it turns out to be more characteristic of rationalism. The rationalist begins with an urge to provide a single *a priori* explanation of all our knowledge of the material world, and then posits the existence of entities which have the requisite logical properties: Spinoza's God, DesCartes's substance, Leibniz's monads, and (negatively) Kant's *Ding-an-sich*. Whatever metaphysical status these entities are supposed to have it is clear that they cannot be nothing: the rationalist epistemologist can only deliver on the promise of a unifying theory by becoming a realist metaphysician (often *malgré lui*, as in Kant's case). The objects of the TLP were just such metaphysically real entities ("*das Bestehende*"); moreover, they were not just a logician's metaphysical baggage, they were conceived as logical descriptions of Hertz's "material points". Wittgenstein's later concerns with there being a physics in

"the old logic" are nowhere more justified than in his earlier preoccupation with Hertzian objects.

5.5 Theories and Things

Our final task in this chapter is to take account of David Pears's treatment of the transition in Wittgenstein's philosophy, which bears some similarity to ours. Pears, as we have seen, places much emphasis on Wittgenstein's rejection of theorizing in philosophy.⁵⁰ He begins with the observation:

His [Wittgenstein's] early system had been constructed under the guidance of the old idea, that philosophy penetrates phenomena and reveals their underlying structure. Its results were, therefore theories.⁵¹

Pears points out that in the *TLP* Wittgenstein had adopted, implicitly or explicitly, the following positions: (1) philosophical theories are not like scientific theories (therefore not subject to empirical verification); (2) all philosophical theories are "unsinnig" ("nonsense")⁵²; (3) the *TLP* is just such a nonsensical theory (or contains several such theories). He says that this "was not a stable position"⁵³; for if philosophical theories are neither empirically verifiable nor grammatically sensible, the question is whether there is any sense in talking about "theories" at all in philosophy. The logical conclusion would be to look for some way of doing philosophy other than attempting to ferret out the underlying structure of reality.

Pears offers as an example of the new view Wittgenstein's well-known dictum in the *PI* that "we may not

advance any kind of theory... We must do away with all explanation, and description alone must take its place" (*PI* 109). He comments: "Part of his meaning is that philosophers must not try to explain things in the same way as scientists"⁵⁴; and Pears charitably observes that "the point would not be worth making if nobody had ever supposed that philosophy did operate in that way"⁵⁵. As we have seen above, Pears holds that one example of such a philosophical spirit was the *TLP*.

Two points may be added to his observations. First, though in the *TLP* Wittgenstein never uses the word "theory" to describe the *TLP* or anything in it, he used this word repeatedly in his earlier writings to refer to his own work; and he continued to refer to various "theories" of his own through his first five post-1929 notebooks.⁵⁶ It is therefore quite plausible to attribute to him a kind of theorizing in the *TLP*. Second, though the relationship between philosophy and natural science goes back as far as philosophy itself, the idea of a scientific *method* as basis for philosophy is a more modern one, and receives several impulses which can plausibly be seen as targets of Wittgenstein's attack, even if his own early work is not among these. The initial impulse was the effort of Descartes and Locke to bind the theory of knowledge to the perception of mathematically measurable properties of matter. The positivism of Saint-Simon and Comte was explicitly based on the emulation of scientific method. The theory of evolution had a decisive impact in a number of areas. C.S. Peirce, a

scientist himself whose philosophy was avowedly indebted to Darwin, says quite plainly that "philosophy ought to imitate the successful sciences in its methods..."⁵⁷ Russell's admiration for the methods of contemporary physics has already been mentioned, and we have also referred (obliquely) to the similar views of another nemesis of Wittgenstein's, Karl Popper. There is plenty of substance to Wittgenstein's point that "philosophers constantly see the method of science before their eyes". Perhaps it is even fair to say that it would take more than the sincere but isolated epigrams directed against scientific theorizing in the *TLP* to really pitch this entire tradition overboard. That sort of revolution can be found in the *PI*, but not in the early Wittgenstein.

It should be apparent that to this extent Pears' thesis is compatible with, and complimentary to, the one presented here. For if Wittgenstein criticized the *TLP* for being infected with a kind of pseudo-physics of language and thought, it is surely plausible that he also criticized the *methodology* of this presentation as an implicit confusion with scientific theorizing. Pears' interpretation of the transition therefore adds an important dimension to what has been said above. But what Pears has said differs with the present interpretation in that if the present view is correct, he is too cautious about the broad picture and too sweeping in his appeal to Wittgenstein's qualms about theorizing. Pears calls "the idea that philosophy neither is, nor is like, a science" the later Wittgenstein's

"leading idea"⁵⁸. He recognizes that this theme is only occasionally mentioned in the *PI* but says that "the gap between philosophy and science is, for the most part, taken for granted" there, and that "attention is focused on consequential developments"⁵⁹. These are strong claims for the anti-scientism theme; they suggest that what he is doing in the *PI* is a development of this theme. But this view does not appear to explain the content of the *PI* as well as the view that what he is working out are the consequences of *all* types of metaphorical transposition from the grammar of physical objects to that of concepts. The opening remarks, the language game of the "builders", the private language argument, the objections to logical atomism, the injunctions about causal explanation, as well as the objections to pseudoscientific theories, can *all* be seen as developments of the idea that philosophical mistakes stem from applications of the grammar of physical objects to the grammar of all objects. At least, this is the contention being defended here, and if it is valid then something akin to scientific methodology, namely inference to the simplest and most comprehensive reasonable explanation, bids us view it as the preferable one.

Thus, on our view, Wittgenstein's point about pseudoscientific theorizing is understood as being part of a larger project of getting us to stop dealing with the conceptual world as if it is like a mystical shadow of the physical one; or stop thinking there is a conceptual "world" (a shadow-world) at all. The qualms about theorizing are not

the root of the problem. The difference comes out in Pears' discussion of some points which figure in our argument too. Pears suggests two levels of impact of the theorizing in the *TLP*. One is that atomism is supposed to be established *a priori*, but an assumption is nevertheless made that it will *someday* be verified (e.g., when the nature of objects is "discovered").⁶⁰ This is clear enough, but at another level Pears identifies two other consequences of Wittgenstein's alleged scientism by more subtle argumentation. One has to do with the idea that the application of a word is fixed by a theory of meaning⁶¹. The other is the promotion of a kind of folk psychology into a "theory" of the mind: "the easy generalization that the mind is a private place"⁶², or "our natural tendency to model the inner world on the outer one"⁶³. Wittgenstein's well-known attacks on these conceptions are clearly critiques of certain kinds of theories, but they are only with difficulty seen as *primarily* following from a critique of philosophical theorizing in general. On the other hand, the criticisms of both the "belief box" picture of the mind and the notion of inner mental objects that follow causal laws are quite easily seen as developments of the idea that misapplications of physicalistic grammar result in misrepresentations of the nature of the mind. This is the fundamental problem; the problem of theorizing runs parallel with the others.

It is also worth pointing out that the manuscript material and lecture notes from 1929 on contain an enormous number of remarks following the theme emphasized here, and

very few that are concerned with philosophical theorizing per se. But that does not detract from the importance of what Pears draws attention to; the idea of philosophy as a purely descriptive enterprise is an important feature of Wittgenstein's later work. However strongly it is emphasized it tends to lend support to the present interpretation, so long as it is not made the ground on which the later work rests. Another consideration that tends to work against the weight Pears puts on the anti-theorizing principle is that Wittgenstein's concerns about quasi-scientific theorizing go as far back as his early remark to Russell that philosophy "must be of a totally different kind than any other science". That is, they do not begin with the TLP or even the NB. Whatever transgressions he may have made against this principle in the TLP were not a kind of moral weakness that was overcome by a more concerted effort in the later work. If he did not recognize the problem in the TLP there was something more fundamentally wrong; it is this that he tries to understand, beginning in 1929, by examining the grammatical preconceptions of the Tractarian system.

Not to belabor the difference with Pears, which is mainly one of emphasis, but it is worth noting a particular practical difference in interpretation which emerges from how the emphasis is placed. Pears cites two passages from the PI in which Wittgenstein talks about the origin of philosophical problems⁶⁴, and perceptively notes an interesting dichotomy (which is not immediately obvious):

one suggests that philosophy solves grammatical difficulties, the other that it creates them. Pears remarks:

The two passages... are not irreconcilable. We could take him to mean that the problems of philosophy become intractable when a misunderstanding intervenes, and that, though language goes on holiday as soon as we step back from our use of it and ask how it works, the holiday does not have to start as an intellectual Saturnalia. We certainly do not want to saddle him with the thesis that someone who asks, 'What is a number?' must already be confusing the abstract with the concrete. True, he does think that certain philosophical problems arise only because a mistaken assumption has been made; for example, that a child who asks his mother how she knows that her visual impressions of red are not like his of blue, is assuming, mistakenly, that visual impressions are like objects. But it is obvious that this kind of aetiology cannot be extended to all philosophical problems.⁶⁵

Towards the end of this passage Pears correctly identifies the thesis that is here being attributed to Wittgenstein: that mistakes of the general form "visual impressions are like objects" are indeed the root of at least all metaphysical "problems" (or we might say, are what is actually happening when we think we are faced with a metaphysical problem). Pears says that according to Wittgenstein this error is made by "a child who asks his mother" the question about impressions, but not by the person who asks, "What is a number?". But the error that the child makes is not philosophically significant in the same way as when someone who already knows the use of the word "number" asks, "What is a number?". For the child, assuming she has not yet assimilated the grammar of visual space very well, does not know what sort of answer to expect and therefore does not really make any philosophically interesting error at all⁶⁶. Whereas any linguistically

competent adult who asks what a number is does not have in mind an answer like, "It is what you use to count with", but an answer that gives something like the metaphysical equivalent of a response to the question, "What is lightning?". This person is "already... confusing the abstract with the concrete" in asking the question; and this is also why philosophy is sometimes the cause of grammatical confusions and sometimes the cure for them.

Therefore, while it is of course prudent to avoid attributing to Wittgenstein wildly general theories about the nature of philosophical errors, it is not necessary to abandon our thesis that his later work is fundamentally concerned with sorting out the distinction between the grammar of physical objects and that of abstract (especially mental and linguistic) concepts. Pears' own example shows that the application of this distinction is very general indeed.

5.6 Conclusion

In this chapter we have explored Wittgenstein's critique of the *TLP* from a particular angle: the infiltration of a physicalistic conception of analysis and meaning into the core logic of the work. It was Wittgenstein's considered opinion, in remarks made over a period of at least 15 years, that a grammar of physics, or a constellation of mental and linguistic habits tied to our understanding of the material world, underlay the appeal of Physics and the model of logical atomism. This intrusion of physics occurred in spite of a conscious effort to

distinguish philosophy from science, and to eliminate everything empirical from philosophy and logic.

Several factors worked against this effort, including the reliance on Hertz's notion of models and the adoption of numerous terms from the language of Physics. But the most fundamental problem was the assumption that the mereological or structural relations that apply to the analysis of spatiotemporal entities could work for the analysis of language. The urge to understand leads to a conservative inclination of the mind in matters of representation, and a concomitant linguistic conservatism suggests the extension of a metaphor rather than the invention of new language games. These tendencies lead us to fall back on relationships that hold for our interactions with the physical world. Thus, we reason, if language can be analyzed, perhaps a reasonable paradigm for this analysis is the identification, individuation, and combination of simple physical parts into a complex whole⁶⁷. This primitive physical conception seemed as if it would serve very well; perhaps with a nod toward "*das Mystische*" to cover what lies beyond the limits of such a conception.

But Wittgenstein's early difficulties in identifying simple objects were more portentous than he realized. His assumption, upon failing in that effort, was that they would be identified in due time; what he didn't realize was how much was at risk if it turned out that his inability to provide the details was not a mere misfortune but a sign that the notion of a simple object was not as coherent as it

seemed. This attitude - that one can run the theory anyway and leave the details to providence - is criticized as late as *OC*. He says of his own suggestion that "any empirical proposition can be transformed into a postulate":

But I am suspicious even of this. The sentence is too general. One almost wants to say "any empirical proposition can, theoretically, be transformed...", but what does "theoretically" mean here? It all sounds too close to the *Tractatus Logico-Philosophicus*. (*OC* 321)

Using a model derived from Physics was a risky move in the first place in a treatise concerned with eliminating everything empirical from logic. Trusting to some future investigation to detect the theoretical entities it needed to succeed made the whole thing look like an empirical theory awaiting verification by experiment. It was as if the objects *must* be found, and this "must" had the ambiguous status of being a *logical* demand for something that could only be conceived of as an ultimately simple material body.

Another problem, identified in the passage with which we began this chapter, was a conception of the nature of the proposition that divided up the parts of speech into words which identify objects, properties, and processes. This emerges from the Fregean tradition in the philosophy of language, which we have only touched on above; it is examined in more detail in Appendix I in the context of Wittgenstein's later comments on subject-predicate form.

Wittgenstein's critique of the *TLP* has many dimensions which have not been explored here. Among them are his rejection of his earlier solution of color exclusion. This led him down another path, in which he explored the various

"spaces" in which propositions have sense (see Chapter 2). His criticism of the "picture" metaphor is another aspect of his critique of his early work. The end result of all of these paths was that he knew the logic of the TLP could not be sustained. His attempts to move beyond it all followed the general formula: distinguish the grammar of physical objects from that of all other objects. One aspect of that was distinguishing the models we use in scientific or empirical descriptions of the world from those we need in philosophy. The notions of "rule", "grammar", and "language-game" answered to the latter need.

NOTES

1. The manuscript source for this remark is near the beginning of Wittgenstein's *Band V* (*WA Band III*, 12, 1; 17 August 1930). The remark was included in a short typescript consisting of three essays (von Wright *TS* 214); von Wright dates the typescript "probably 1933" (Wittgenstein, p.47). Anthony Kenny, editor of the *PG*, writes that Wittgenstein had clipped these essays together "with what intention we do not know" (*PG* p.489). I would suggest that the intention was a work or part of a work that would be a critique of the central concepts of the *TLP*. The titles of the essays, "Complex and Fact", "Concept and Object", and "Object" suggest this.

2. To avoid confusion as much as possible, I will write "Physics" (capitalized) when I am referring to the science of physics and "physics" when I am referring to general discourse about physical objects (which might, therefore, include for instance biological facts, spatial relations, etc.). Note, though, that neither of these domains completely excludes the other; whether the sense is exclusive in any particular proposition must be determined from the context. E.g., in the present sentence, it should be clear that "physics" includes Physics.

3. A famous example in modern physics is the description of the properties of a particle of formerly unknown type (eventually named the π -meson) by Hideki Yukawa, in the mid-1930's. The existence of the particle was later (1947) confirmed experimentally. See Feynman, *Lectures I*, 2-8. Malcolm reports having asked Wittgenstein whether he had "decided upon anything as an example of a simple object" when he wrote the *TLP*, and that Wittgenstein replied that "at that time his thought had been that he was a *logician*, and that it was not his business, as a *logician*, to try to decide whether this thing or that was a simple thing or a complex thing, that being a purely *empirical* matter" (Malcolm, *A Memoir*, p.70). If that was indeed Wittgenstein's attitude it increases the sense that he thought of a *logician* as being something like a theoretical physicist who could leave the matter of verification to the experimentalist. If Wittgenstein's remark is an accurate representation of his view when writing the *TLP*, it represents a definite change from his stance when he wrote the *NB*, for there he made strenuous intellectual efforts to determine what might or might not be a simple or complex thing.

4. Essentially the same remark is applied to himself alone in a typescript of about the same time in which he criticizes the notion of an "elementary proposition"; see *PG* p.210. See also *WL30* pp.34-5, where, in a slightly different context, he had already criticized the idea that philosophy is analysis in the sense that chemistry is.

5. "The Ultimate Constituents of Matter", p.128.
6. "On Scientific Method in Philosophy", p.98.
7. "On Scientific Method in Philosophy", p.98.
8. "On Scientific Method in Philosophy", p.111.
9. "On Scientific Method in Philosophy", p.113. The idea is comparable with Karl Popper's later theory of "scientific discovery"; see, e.g., *The Logic of Scientific Discovery*, pp.32-3.
10. "On Scientific Method in Philosophy", p.113.
11. Anscombe's translation of this phrase as "simply a retrogression" does not quite capture the critical tone of this comment. Her translation makes the remark into a description of Russell's method: Russell wishes to derive his philosophical method from that of physics. But Wittgenstein is here casting aspersions on such emulations. Moreover, her translation makes it appear that Wittgenstein is endorsing Russell's claim to have abstracted a methodology from the sciences, whereas the tone of the remark suggests quite the reverse.
12. "On Scientific Method in Philosophy", p.111.
13. "On Scientific Method in Philosophy", p.111.
14. "On Scientific Method in Philosophy", p.112.
15. "On Scientific Method in Philosophy", p.113.
16. Hertz, *Principles of Mechanics*, p.4.
17. Cf. Hacker, *Insight and Illusion*, p.9.
18. Later on he enunciates this explicitly: "There is no [such thing as a] logical hypothesis" (WA I,137,3). Russell's endorsement of hypotheses also seems to contradict his own statement that philosophical propositions must be a priori. Are some (or all) of them to be a priori hypotheses? The idea seems quite incoherent.
19. The ambiguity comes from his sometimes identifying philosophy with science, while at the same time suggesting that they are utterly different. For example, in his first known letter to Russell he says that "logic must turn out to be a totally different kind than any other science" (NB 120; Wittgenstein to Russell, 22 June 1912). The ambiguity is also captured in the famous passage near the end of the TLP: "the right method in philosophy" would be "to say nothing except... the propositions of natural science, i.e., something that has nothing to do with philosophy" (6.53). If

the first passage seems to count philosophy as a science of a unique kind, the second suggests that scientific propositions (presumably meaning the kinds of very general propositions he discusses in the remarks which precede this one) are both the only content available to philosophy and the limit at which philosophical discourse turns into its opposite. Even so, the main impact of both statements is to suggest a distinction between philosophy and science, even if it is not altogether clear what this distinction amounts to.

20. *The Philosophy of Logical Atomism*, p.27.

21. *The Philosophy of Logical Atomism*, p.36.

22. Much of the dispute between Russell and Moore, on the one hand, and the British Hegelian tradition, on the other, took place over the question of relations, which was closely related to that of part-whole conceptions. The first chapter of Moore's *Principia Ethica* is partly devoted to this debate. For a discussion of the relationship between mereological questions and logical atomism see Peter Hylton, *Russell, Idealism...*, p.113 and Chapter 4.

23. I will offer some more specific examples of these ramifications, and what we might call "inferences by analogy", below.

24. Cf WL30 p.35: "When we analyse in science we describe some further event. In chemistry we analyse water and find that its composition is H_2O ; we find out something new about it. Analysing here means finding something new. But this is not what we mean by analysis in philosophy. In philosophy we already know all that we want to know; philosophical analysis does not give us any new facts. It is not the results of science which are of interest to philosophy but its methods. Philosophical analysis does not tell us anything new about thoughts (and if it did it would not interest us)." The penultimate sentence is more or less a quote from Russell, and one which Wittgenstein criticizes in other contexts. It may be that the notes used by Lee did not correctly convey the spirit in which Wittgenstein repeated this aphorism.

25. *Our Knowledge of the External World*, p.229.

26. *The Philosophy of Logical Atomism*, p.173.

27. David Pears, *The False Prison*, V.2, p.203.

28. David Pears, *The False Prison*, V.2, p.203.

29. Wittgenstein himself suggests that this is what Physics (or "mechanics") tries to achieve; see TLP 6.343 (cf 4.11).

30. For instance, he says: "An infinite number series is only an infinite possibility of finite number series. It is senseless to speak of the whole (*ganzen*) infinite number series, as if it were also an extension" (WA I,137,5).

31. Although the distinction here involves the so-called "primary" or phenomenological versus the "secondary" or physical mode of speech, it still demonstrates that in the PR he consciously placed these manuscript remarks in the context of a distinction between physicalistic and non-physicalistic ways of thinking.

32. The word *Bild*, as Hertz uses it, is usually translated as "model". Since nothing in my discussion depends on whether we call Hertz's *Bildern* "pictures" or "models" I will stick to the standard rendering. It is obvious that Wittgenstein's "pictures" might also be called "models" but I will not be depending on this either. I assume only the general fact that the "picture theory" involves modeling reality through thoughts and propositions.

33. The literature on this topic is extensive. See for instance Janik and Toulmin, *Wittgenstein's Vienna*, pp.139-46, 179-91; Hacker, *Insight and Illusion*, Chapter 1; Barker, "Hertz and Wittgenstein"; and Wilson, "Hertz, Boltzmann and Wittgenstein Reconsidered". This literature approaches the influence of Hertz in pursuit of a constructive interpretation of the picture theory; my discussion below, which is concerned with his later critique of the picture theory, overlaps these sources at a few points but generally puts the influence of Hertz in a new perspective based on my interpretation of the later criticisms. Wilson's article is largely concerned with demonstrating that Wittgenstein was probably influenced by Boltzmann prior to reading Hertz. I do not think it would alter much in my discussion if some of the ideas that I believe the later Wittgenstein saw as problematic in the Hertzian conception were originally obtained from Boltzmann.

34. Hertz, *Principles of Mechanics*, p.1.

35. But see again Wilson, "Hertz, Boltzmann and Wittgenstein Reconsidered". Also, see Brockhaus, *Pulling Up the Ladder*, pp.224-250, for an interesting discussion of what Wittgenstein may have been rejecting in Hertz's philosophy of science.

36. Hertz, *Principles of Mechanics*, #418, p.175.

37. Hertz, *Principles of Mechanics*, #418, p.175.

38. Hertz, *Principles of Mechanics*, #425, p.176.

39. Hertz, *Principles of Mechanics*, #427, p.177.

40. It is not clear that he ever entirely gave up the idea that our concept of the world is somehow limited by language. But if this is true of the later work it has to be understood in a very different way than is suggested by the *a priori* limitations of the TLP.

41. Hertz, *Principles of Mechanics*, #428, p.177.

42. Hertz, *Principles*, #4, p.46, and #300, p.140.

43. Hertz, *Principles*, #3, pp.45-6. Note that these points are actual spatiotemporal entities, not, for instance, merely the specification of coordinates on a 4-dimensional graph.

44. Hertz, *Principles*, #3, p.46, and #300, p.140.

45. This word is translated as "existent" by Ogden, "subsistent" by Pears/McGuinness, and "persistent" by Stenius. Nothing in what I say here rides on any particular translation.

46. See Gerd Graßhoff, "Hertzian Objects in Wittgenstein's *Tractatus*", and Peter Barker, "Hertz and Wittgenstein", on this subject.

47. The words "an" and "single" are italicized in the NB.

48. Hertz, *Principles of Mechanics*, #301, p.141.

49. This of course does not answer the obvious question of why Wittgenstein mentions these hypothetical masses in the context of his description of mechanics as a template for the production of "true propositions". I believe this has to do with the emphasis in the "net" passages on the idea of constructing the world according to "a single plan", or "with these and only these stones" (NB 35). That is, if the discoverable objects do not suffice for grounding all the true propositions you must simply posit whatever else is needed to maintain the unity of the plan. Similarly, the totality of objects is just whatever is needed to duplicate the multiplicity of language.

I have not been able to discover if Hertz had a specific scientific problem in mind that required his "hypothetical masses"; perhaps it was some difficulty regarding the properties of the ether. In any case, there does not seem to be any good explanation for them except that hypothetical entities could account for verified propositions of physics that apparently contradicted Newton's laws.

50. See *The False Prison*, V.2, Chapter 1.

51. Pears, *The False Prison*, V.2, p.199.

52. Pears is correct to translate this as "nonsense", though the Ogden/Wittgenstein translation has it as "senseless".
53. Pears, *The False Prison*, V.2, p.199.
54. Pears, *The False Prison*, V.2, p.202.
55. Pears, *The False Prison*, V.2, p.203.
56. Here are several examples from the early work:

"In my theory p has the same meaning as not-p but opposite sense. The meaning is the fact. The proper theory of judgement must make it impossible to judge nonsense." (NL p.95)

"Characteristic example for my theory of the meaning of physicalistic descriptions of nature..." (NB 37)

"For my theory does not really bring out that the proposition *must* have two poles." (NB 53)

"This theory deals exclusively with propositions..." (NB 55)

"I am very sorry to hear that my objection to your theory of judgment paralyzes you. I think it can only be removed by a correct theory of propositions." (LRKM, R13, p.24)

The following examples from the post-1929 notebooks demonstrate his continuing belief in philosophical theorizing through about 1930:

"Wie verhält sich diese Theorie [of numbers] zu der Freges und Russells?... Diese Grundklasse wäre in meiner Theorie die Klasse der Substantiva..." (WA I,8,4)

"My theory [of intentions] is completely expressed in the fact that the state of affairs satisfying the expectation of p is represented by the proposition p." (PR p.66)

"Das hat eine Bedeutung in der Theorie der Grammatik." (WA III,12,3)

"Meine Theorie kommt darauf hinaus, daß man die Sprache in gewisser Beziehung nicht erklären kann." (WA III,69,31)

57. C.S. Peirce, "Some Consequences of Four Incapacities", p.29.

58. Pears, *The False Prison*, V.2, pp.220.

59. Pears, *The False Prison*, V.2, pp.221.
60. See Pears, *The False Prison*, V.2, pp.204-7.
61. Pears, *The False Prison*, V.2, pp.207-211.
62. Pears, *The False Prison*, V.2, p.211.
63. Pears, *The False Prison*, V.2, p.213.
64. PI 109, 38; cited in Pears, *The False Prison*, V.2, pp.216-217.
65. Pears, *The False Prison*, V.2, pp.217-218.
66. Admittedly a child who can even formulate the question Pears puts in her mouth has a certain amount of linguistic sophistication; but I assume, since this sort of question could easily be posed by an adult, the point of putting it in the mouth of a child was to suggest some degree of linguistic naivete. I do not know if Pears is closely paraphrasing Wittgenstein here, since I have not found the source of this question. But whether it is Wittgenstein's example or not, it seems to be inconsistent with Wittgenstein's later views in general to attribute errors of this sort to subjects who are not yet linguistically competent. For the person who asks "What is a number?" or "Does my red look like your blue?" and does not yet understand the use of number or color terms is not asking a philosophical question but wants to know the use of the word. Therefore they must surely be making a different kind of mistake from someone who knows the use and nevertheless demands an answer. For remarks relevant to this question, and which I think support my view (though not without some interpretation), see Bouwsma, *Wittgenstein: Conversations 1949-1951*, p.27.
67. When I am using a word processor, and I want to change the wording of a passage, it always seems to me that I am saving something by not "erasing" the parts I can use in the new wording - recycling them, as it were. Even if it costs more time to modify rather than retype I often retain what I can of the old passage. This strikes me as a modern example of the automatic tendency of the mind to assimilate whatever we can to physicalistic conceptions; for it is difficult, in spite of my knowledge of computers and how they work, to shake the idea that the letters in front of me exist and are destroyed when they are erased.

CHAPTER 6

CONCLUSION: WITTGENSTEIN AND PHILOSOPHY

6.1 Wittgenstein's Insight

Our discussion has primarily been an effort to make a case for a certain reading of the transition in Wittgenstein's philosophy. This transition began in 1929. It had no definite end, for Wittgenstein continued to expand and deepen his studies into the nature of language and thought throughout his career. But on our reading, some of the most critical steps had been taken within a year. Our central idea is that many important aspects of Wittgenstein's later work may be explained as the unfolding of a particular insight: that ordinary language is oriented toward the description of physical objects and their spatiotemporal relations. When we naively apply ordinary language to philosophical problems we transfer, in more or less subtle ways, the grammar of these objects and relations to abstract or conceptual realms of discourse, and as a result we end up with philosophical problems, if not pure nonsense. Wittgenstein thought this explained a lot about philosophical puzzlement and applied it very widely. Thus, Frege's idea that all subject-predicate sentences can be analyzed into the logical components of concept and object, Russell's theory that direct knowledge consists in acquaintance with sense-data, and Wittgenstein's own earlier idea of logical analysis, are all seen as confusions based on the misapplication of a grammar that is really only suited to discourse about the material world. Calling every

grammatical substantive an "object" gives us the opposite of an analysis: it submerges distinctions between sentences of different grammatical form, and thus leads to confusions. Thinking of sensations as packets of exotic matter (sense-data) emitted by physical objects, or of meanings as simple parts (Tractarian objects) like the sticks and brushes of brooms, are two examples of this kind of confusion.

We have seen many examples of how Wittgenstein expresses in his own words the idea on which we are focusing, but perhaps one more very clear one will be appropriate, if only to let Wittgenstein have his say in this concluding essay:

We are tempted to use the grammar which we use for a word designating a physical object - we are tempted to use this grammar for words that designate impressions. In our primitive language most substantives relate to some physical object or other. When we begin to talk of impressions, we have a temptation to use the same kind of grammar. This produces a puzzle which doesn't look as though it were a grammatical puzzle. (LSDPE 356)

The passage is from lecture notes taken by Rush Rhees, dated 23 May 1936, six years after the end of the manuscripts on which we have focused. Wittgenstein held on to his idea for a long time, following it over many paths to the philosophical contents of the *PI*: the private language argument, the critique of logical atomism, the pluralistic view of language games, and the conception of philosophy as guidance for the grammatically perplexed. Though we have not entered into a detailed discussion of the *PI*, we have shown that many of its most important discussions can be traced to ideas which were first expounded in his 1929-30 manuscripts.

In the *PI* these ideas are finally synthesized into a wide-ranging but coherent philosophy.

In addition to arguing for the importance of his idea that ordinary language is oriented towards the grammar of physics, we have suggested that this insight emerged from Wittgenstein's critique of his own "phenomenological language" project. The recognition that phenomenology must describe the same world as physics - for otherwise how could it provide the *analysis* that Wittgenstein was looking for? - led to the realization that a language of private experience was incoherent. How then to distinguish these two different ways of describing the world? One way is to think of them as different modes of expression within a single language. But ordinary language, he had assumed, is not precise enough for philosophical use, for it depends on the assumption that there are physical causes behind experience, and betrays this way of thinking at every turn. How could a physicalistic language be the same one we use in phenomenology? The answer is that it *must* serve this purpose, but the strain is apparent: as we grope for ways of expressing our phenomenological experience or mental life, "we need new concepts and we continually resort to those of physicalistic language". Through this line of reasoning, or something very close to it, Wittgenstein simultaneously gave up the project that had consumed analytic philosophy since Frege, the chimera of an analytical language of perspicuous form, and arrived at his ideas about the grammar of physics.

6.2 Is Ordinary Language Defective?

We are left with two possible readings of Wittgenstein's fundamental idea, each of which seems to have some textual support. One is that ordinary language, as he had said as long ago as the *TLP*, is "logically completely in order" (*TLP* 5.5563); the other, as he had also said there, is that "from it it is humanly impossible to gather immediately the logic of language" (*TLP* 4.002). In the present context, one view has it that language itself is neutral in its ordinary use, favoring neither the physical nor any other vantage point, yet in philosophy it is misused in the service of metaphysical or epistemological theories and its physical mode of expression is adopted (intentionally or not) as a general form for all discourse. The other view is that language itself is hopelessly biased towards the physical, and therefore not well equipped to express those truths of phenomenology or psychology that we nonetheless need to express to describe the world accurately. On the first view, the problem lies in the philosophical extension of language; on the second, ordinary language itself is built on a grammatical structure that is only really useful for helping us manipulate the material world.

The impression of an antinomy here, as so often in philosophy, is exaggerated. Both views express partial glimpses of Wittgenstein's insight. He might have said that language is not logically defective, precisely because it is perfectly in order for the expression of that which it was

designed to express. This includes both our interaction with the physical world and our phenomenological experience. But what kind of phenomenology do we need in practice? Suppose I say, "What a lovely pink flower", and someone else replies, "It's not really pink, but the setting sun makes it look pink". I stand corrected; what more needs to be said? I see a puddle of water on the road, swerve to avoid it, and then realize it was not really there. Is there really any question about what the "it" is that was not really there? This pedestrian sort of phenomenology is far from misleading in the grammar of ordinary language. Now, suppose I am riding with a philosopher, who suggests: "But what was there (somewhere) was your *perception* of a puddle". Perhaps she is trying to soothe my feelings at nearly having caused an accident; more likely, she is worried that my words would be meaningless without a reference, and that reference must be to some metaphysically respectable entity. I might frown a bit and say, "Well, that's not how we usually talk about it, but if you insist!". The average speaker is not ordinarily confused, prior to the attempt to explain or theorize.

On the other hand, the average speaker can be easily misled by such attempts, and this points to a different way of looking at the problem. For there must surely be something about language that permits this to happen. One might of course suppose that philosophers are just exceedingly boorish people who lack the common social skills that others have and hence use language in peculiar ways; though tempting, this is probably too rich an empirical

assumption to have much force. Surely one reason that the philosophical use of language leads us awry is that here it is normal to talk of experiences and mental faculties and abstract concepts as the subjects of sentences; and it is just in their being the subjects of sentences that we tend to take them on the analogy of ordinary nouns which denote physical objects. But that temptation may be said to be in language itself; or at least in our standard conception of the grammar of language - and isn't that our primitive understanding of how language works? We are ever attentive to the structures of sentences as a function of their grammatical parts, and the rules are conceived to be independent of the content of the parts. That is how we ordinarily learn grammar: nouns can stand in this position, verbs and modifiers in that, etc. Wittgenstein says of Augustine's conception of language acquisition: "If you describe the learning of language this way you are, I believe, thinking primarily of nouns like 'table', 'chair', 'bread', and of people's names, and only secondarily of the names of certain actions and properties; and of the remaining kinds of words as something that will take care of itself" (*PI* 1). But Augustine's view is not supposed to represent the end result of a sophisticated philosophical theory; it is a first shot, an attempt to say how we ordinarily think of language. Thus there are facts about language itself that tempt philosophers.

One philosophical move that is naturally likely to mislead is when we posit new entities to explain the way we

talk about mental things; as if this were helpful in the same way that a physicist might posit a new particle to explain anomalies in cloud chamber observations. This is Plato's move, and perhaps that of Descartes, Leibniz, Russell, Husserl, Meinong, and many others too; it is the move of the above fictional philosopher who found a perception in the middle of the road. But that is only the end of the story; it has much more plebian beginnings. Consider for instance the language of Judeo-Christian religion: first the power of self-movement is explained as a union of dead matter with a soul; then the soul itself is given a location, and described as the recipient of blessings, the possessor of virtues, or an agent "lost", "saved", and finally "judged". Is this any less determined by analogy with the physical than philosophical theories of sense-data?

If religion is too close to philosophy to be considered pretheoretical, there are many other discourses that offer the same lesson. Wittgenstein often discussed the grammar of the word "can", suggesting that we tend to think of logical possibility as if it were physical possibility. In ordinary language the word "can" is connected with ability: "You can't outrun a cheetah" means that people are physically incapable of performing this act; there are causal constraints. But what about, "You can't count to infinity"? It sounds like the same kind of constraint is in question. Language makes no distinction here between logical and causal possibility. Thus Wittgenstein writes: "There is a

constant temptation to picture an enormous extension when we find the remainder in a division equal to the dividend... And it looks as if some superhuman being might survey the infinite extension even though we cannot"¹ (WL32 p.189). This seems to be a prephilosophical conceptual error, though it may come to be magnified in philosophical discussion. For other examples, consider how we talk about electronically reproduced images, or fictional characters, or the information in a computer: it is normal to describe or discuss them as if they were entities with spatial and temporal continuity and other quasi-physical properties. We know that nothing is "on the TV" except perhaps last night's coffeecup, that data does not flow like a river (you can't step into it even once), and that Pogo, Popeye and Pinnochio are not entities but fictional names used in stories of a certain type (aided, of course, by readily identifiable types of drawings). But even in these common uses, language prompts us to fall back on physicalistic expressions.

But this does not mean language is defective. It does not normally prevent us from saying things in a non-misleading way. If one is inclined to attend to the nuances, and one finds an audience similarly inclined, phenomenology, psychology, and the more abstract branches of philosophy can be discussed without provoking confusion. There would be little point to Wittgenstein's constant warnings about the "danger" of this expression or that if he thought the situation was hopeless. Even the minimal precaution of noting the limits of application of the model one is using

can sometimes have the desired effect. However, this does not mean that philosophical concepts can be expressed without recourse to physicalistic language at all; for that is too pervasive, and even reaches into such expressions as "grasping a concept" or "having a thought in mind".

Many years after Wittgenstein developed his ideas about the grammar of physics, George Lakoff and Mark Johnson wrote in an influential book on metaphor:

Our experience of physical objects and substances provides a... basis for understanding... Understanding our experiences in terms of objects and substances allows us to pick out parts of our experience and treat them as discrete entities or substances of a uniform kind. Once we can identify our experiences as entities or substances, we can refer to them, categorize them - and, by this means, reason about them...

Just as the basic experiences of human spatial orientation give rise to orientational metaphors, so our experiences with physical objects... provide the basis for an extraordinarily wide variety of ontological metaphors, that is, ways of viewing events, activities, emotions, ideas, etc., as entities and substances.²

Lakoff and Johnson were not much influenced by Wittgenstein in this part of their theory³, but their ideas might in one respect serve as an elucidation of his view. As they make clear in both the content of their book and the title *Metaphors We Live By*, we cannot get along without metaphors that relate our more abstract concepts to common spatiotemporal relations. Wittgenstein would have agreed, and no more than them would he have called this a "defect" of language. Neither is it an accidental feature of language that it expresses things first and foremost in terms of what Kant called our *a priori* forms of outer and inner intuition, space and time. But perhaps signaling a difference with the

Kantian conception, Wittgenstein is not saying that we cannot but think in terms of inner and outer, only that we cannot but be drawn to this way of thinking, i.e., tempted by it.

Thus, to summarize, Wittgenstein did not think language was in any way defective. He *did* think language was naturally oriented towards the expression of everything in spatiotemporal terms. He thought this was a problem in philosophy because this is precisely where we don't want to express everything this way; yet the more we try to explain, the more we get caught in the web of our ordinary conceptions and expressions. The first line of defense against temptation is to recognize it as a temptation. Perhaps this makes Wittgenstein sound a little like a latter-day Augustine. That is probably an apt analogy, though we should be cautious about extending it too far.

6.3 Whither Phenomenology?

Wittgenstein was almost never a phenomenologist⁴. For a brief period he entertained the idea that there was a "world of phenomena", distinct from the physical world; or at least that this was a useful way to talk about reality. Each world had a language which described it: ordinary language presupposed and normally referred to the physical world, while phenomenological language referred directly to the data of perception. Physics, in Wittgenstein's broad use of the term, was a way of saying what we need to say in order to pragmatically interact with the world, and this could include hypotheses which collapse "the incomprehensibly

complicated phenomenological description" of the world into a more manageable set of relations among physical objects. But this world of physical objects was, if not a fiction, then at best a construction. Phenomenology would be a way of expressing the logically incontestable truths of experience out of which this physical world was constructed. But it would not simply be a more accurate way of depicting reality; it would be an *analysis* of the *language* we use to talk about reality. It would be a language of immediate experience which would show us the underlying form of the language of physics, or in short, a phenomenological language.

Wittgenstein's interest in this project stemmed initially from the color exclusion problem. But he may also have imagined that this type of solution to the problems with the *TLP* would be even wider in its appeal than the *TLP* itself. It would, for instance, create a quasi-formal basis for Mach's program in *The Analysis of Sensations* (a program he had once unequivocally rejected⁵). This program had been widely influential; even Einstein was sympathetic to it at one point, and V.I. Lenin devoted his only philosophical work to refuting it⁶. William James, in his widely read *Essays in Radical Empiricism*, as well as Russell and the New Realists, who had responded to James's approach, all had some sympathy for Mach's ideas; together they developed positions which Russell collectively characterized as "neutral monism". Their basic idea was that the distinction between the material world and and perceptions of it - that

is, between the world of physics and that of phenomenology - was a pragmatic or perspectival difference rather than one of substance. They hoped thereby to avoid both metaphysical dualism of the Cartesian variety and epistemological monism of the Hegelian type. Wittgenstein's phenomenological system answered to the same needs. Though his two-worlds view could hardly be called either neutral or monist, we have said of this phase that he had temporarily veered off course; he actually started with a quite neutral conception of the relationship between physics and phenomenology and returned to it after a short while. So his phenomenological language idea might also have represented a formalized version of neutral monism, something to which in fact some of the New Realists themselves aspired'.

In 1928, just as Wittgenstein began to think about philosophy again, Husserl's *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie* was reissued and his lectures on time-consciousness (*Vorlesungen zur Phänomenologie des inneren Zeitbewusstseins*) were published for the first time. Wittgenstein discussed Husserl with the Vienna Circle, and though he argued that phenomenological expressions are not synthetic a priori judgements⁸ (WK 67-8;78-9), he may well have thought initially that Husserl's fundamental approach was correct. The most obvious source of sympathy for his program, though, was no doubt within the Vienna Circle itself. Carnap's *Die logische Aufbau der Welt* was also published in 1928; in his Preface to the second edition he says: "In this book I was

concerned with the... thesis... that it is in principle possible to reduce all concepts to the immediately given"⁹. Other members of the circle had some degree of sympathy for the phenomenological program. In short, the phenomenological approach was an extremely popular philosophical thrust of the time.

What Wittgenstein hoped to contribute to this trend was of course not just another phenomenological system, but something fundamental. The result of his research was not to be just a categorial analysis of experience by means of the various modes of sensation, nor an encyclopoedic catalogue of the empirical foundations for knowledge, but a calculus of possible experience by means of a language that would express the necessary truths upon which all higher-order propositions would be based. Thus all synthetic expressions would be reducible to some concatenation of phenomenologically verifiable sentences. In this way, Wittgenstein could have something analogous to his Tractarian program and provide a leading idea for the phenomenologists too.

Within six months or less he came to the conclusion that the whole idea was incoherent. The phenomenological world was supposed to be built up out of a consciousness that was necessarily private. But how could it then provide an analysis of physicalistic propositions, whose very essence was to express something objective that all observers could equally well perceive? Then perhaps the phenomenological language simply referred once again to the

world of physics, he thought. But this would not make sense either; why would we need another language to refer to that which we can already talk about in a way that was entirely adequate to its purpose? Besides, if our goal was to capture the flux of experience, this had to take place either in a public, and therefore physical language, or else in a private one. But how could a physical language, which goes on in the time of physics, hope to keep pace with the complex, continuous, and ever-deepening stream of experience? On the other hand, how could a private language ever express the primacy of experience over physics? For in the world of public objects this language has no claim to primacy, but in its private world its claim to primacy "cannot be said", i.e., it is merely tautological. So the idea of an analytical language of experience was seen to be deeply incoherent, and the analytical program was dropped. In any historical sense of the word, Wittgenstein was no longer a phenomenologist at this point; he was no longer under the impression that you could provide a foundation for something else, something confused or vague or synthetic, by means of statements of pure experience.

But in a different sense Wittgenstein did not drop phenomenology; it continued to serve as a stepping stone to his later ideas. Only now the point was not to analyze anything, but to document the rules that are actually put into practice in talking about experience; "the question is not one of explaining a language-game by means of our experiences, but of noting a language-game" (*PI* 655). But

why would anyone be interested in this kind of project? Why should a philosopher spend time describing experience, especially when poets and novelists do it so much better? Wittgenstein's deflationary remarks about philosophical theory and explanation are apt to be misleading unless their context is understood. The work of describing our language-games is not simple; much of it consists in saying why certain assumptions cannot be made, why certain analogies fail, and also why they fail to be noticed, when we play games with experiences, as well as with concepts, intentions, numbers, and events. This is why the project can go on; indeed, why it can evolve into the central ideas of his later work. Phenomenology, psychology, the philosophy of mathematics, and much else, are reformulated as efforts to untangle their particular grammar - what it makes sense to say about these things - from the grammar of physics. Phenomenological language turns out to be just a way of using ordinary language without indulging the sirens of physicalistic thinking.

It might be thought pertinent to consider what Wittgenstein believed phenomena actually were, once he had dropped his idea of a phenomenological language. The term "sense-data", we have seen, he takes to be a kind of category error, suggested by the idea that our impression of a tree is an object like a phantom tree. Then what do we sense, when we sense what we do? Unfortunately, it is not clear to me that there is any good answer to this question. Wittgenstein's whole later philosophy concerns the use of

words. There seems to be no reason to believe that in 1930, any more than in 1945, he had so much as an opinion on "what" a sensation was. The very use of "what" here suggests that we are looking yet again for an analogy with an object or substance of some kind, whereas the whole idea is that such endeavors are chimerical. "I know my method is right", he once said; but his method was to investigate the grammar of concepts, not to offer theories about the nature of entities.

Above all, we should avoid the kind of endless debate that has developed over "what" objects were in the *TLP*. In that case, Wittgenstein said just enough about objects to make it seem respectable to develop hypotheses about what he had in mind. But whatever he had in mind, he did not commit himself to a particular ontology of objects in the *TLP*; in fact, he says that "one cannot e.g. say 'There are objects'" (4.1272), and one ought to infer that "Objects are universals" or some such thing would equally be nonsense. Compare this to the later statement that we have cited before: "Grammar says what kind of object something is". One can no more step outside a particular language-game to define what its objects are than one could temporarily exit the logic of objects in the *TLP* to say "there are objects". A sensation, a phenomenon, an experience, or anything else, is just whatever our ordinary talk of such things amounts to. Though this may not satisfy every philosopher, we must avoid the temptation to say that, after all, Wittgenstein must have thought sensations were *something*.

6.4 Wittgenstein and Philosophy

In Chapter 5 we examined Wittgenstein's critique of logical atomism, in particular the idea that philosophy must discover the underlying structure of language in a way that resembled, even when it did not intentionally mimic, the methods of science. This critique followed from the demise of the phenomenological language project. After attempting a logical analysis of language on purely syntactic lines, and then a phenomenological analysis by means of direct experience, and finding both of these enterprises to be ultimately incoherent, Wittgenstein came to the conclusion that something was wrong with the whole approach. Phenomenology was not to be replaced by a third formulation of the analytic project. But what does that leave as the task of philosophy? And in particular, how could Wittgenstein have gone on to fill up thousands of additional notebook pages for another twenty years after these disappointments?

Indeed, philosophy as originally conceived in the analytic tradition must come to an end at this point. This conclusion is expressed in many ways in Wittgenstein's later work. His injunctions against theorizing, explaining, and analyzing all lead to this conclusion; as does the idea that all we can do is correct the damage that is done by confused metaphysical theories and false epistemological foundations. "Philosophy shows the misleading analogies in the use of language", runs the title of Section 87 of the *Big Typescript*; and if one is tempted to think that this cannot

really be the sum total of what philosophers are supposed to do on Wittgenstein's account, that impression may be corrected by any number of passages in his later work, including this one that occurs just a few remarks below this title:

If I rectify a philosophical error and say that it has always been conceived (*vorgestellt*) this way, but it is not so, I always point to an analogy //I must always point to...// that was followed, and that this analogy was not correct //... I must always point to an analogy by which one had been thinking, but which one did not recognize as an analogy. (BT 408-9; PO 163)

This is the program for philosophy, and it is directly opposed to metaphysics: "We lead words back from their metaphysical to their correct use in language... And this is what the solution of all philosophical difficulties looks like" (BT 412; PO 167).

From this we should be able to understand the relationship between Wittgenstein's discoveries in the critique of his phenomenological language program and his later philosophical method. We said that his fundamental idea was that ordinary language is overrun with physicalistic metaphors. But we have also said that this is (as proprietors of computer software are wont to say) not a defect but a feature. It is the strong connection between language and practice, and the need to ground our abstract concepts in ways that we can grasp visually and tactually, that accounts for this feature of language. But these metaphors tempt philosophers; they lead beyond themselves, and philosophers follow willingly in search of analyses on the model of scientific understanding. Philosophy, in

Wittgenstein's later thought, convinces us to "abandon a certain combination of words as senseless" (BT 406; PO 161). In several remarks in the "Philosophy" section of the *Big Typescript* Wittgenstein compares his method to that of psychoanalysis: "resistances of the will must be overcome" (title of Section 86), he says, and the subject must be led to acknowledge the errors that lead to one's present verbal behavior: "what the other [person] acknowledges is the analogy that I propose to him as the source of his thinking" (BT 410; PO 165). Philosophy leads us away, not from defects of language, for there are no such things, but from following the analogies that language sets before us but which we must not extend for philosophical purposes beyond their natural use.

Some of the resistance to Wittgenstein's philosophy in modern times may be attributed to the belief that if Wittgenstein is right there must be an end to philosophy itself. This impression is encouraged by other facets of his later philosophy. If many of our cherished philosophical concepts are "family resemblance" concepts it does not make any sense to develop theories which try to specify the necessary and sufficient conditions for the instantiation of such concepts. If a human being following a rule is not much like a computer carrying out a series of coded instructions or a particle following a trajectory described in advance by mathematical equations, then the "laws" of thought and action are not going to be much like the laws around which scientific theories are built. One might think, then, that

in denying that philosophers may invent theories of anything, Wittgenstein is really counseling us to give up philosophy altogether. Like Marx, who is thought to have said that we should stop interpreting the world and concentrate on changing it¹⁰, Wittgenstein is imagined as having deposited us at the door of ordinary language and told us to get over our puerile obsession with philosophical theorizing.

But Marx was probably well aware that one cannot change the world in any meaningful way without first interpreting it, and Wittgenstein too must have known that one cannot offer grammatical advice without having some theoretical conception of the nature of language. Wittgenstein's injunctions against theorizing in philosophy are thus misinterpreted if they are taken to mean that we should stop thinking and talking about the nature of language and concepts altogether; or that we should lie in wait only to pounce on the first unsuspecting philosopher who offers an idea about anything. We are not to construct analytical theories on the model of science, of course. But Wittgenstein's own later work consists largely of what we would ordinarily call "theories"; only the theories he offers only purport to describe the phenomena of language without attempting to penetrate to a hidden essence. Thus, the idea that in many cases the meaning of a word is "its use in the language" (*PI* 43), or that many concepts consist in instances linked by "a network of similarities overlapping and criss-crossing" (*PI* 32) rather than one

essential feature, qualify as theories; only not in the sense of finding a substructure. Instead, they are theories that might be introduced by the preamble: "The following is a helpful way of describing features of language that anyone can see:... etc." Propositions like this could be tested and contested in certain ways, if not verified or falsified. These "theories" could be compared to propositions about Wittgenstein's duck-rabbit (*PI* II,xi). For example, the following theory would be helpful:

1. You can see this as a picture of a rabbit.
2. If you look at it this way you can see the long narrow feature on the left as the ears.

This would be analogous to a "helpful" theory; it is enlightening, but what it says could be verified by anyone with average visual competence. But "theories" of this type could also be rejected on various grounds: "The feature on the left is the trunk of an elephant" would not work at all; while a claim like, "The aspectual change represents the artist's suppressed rage at his alcoholic mother" would be comparable to the rejected conception of theory as a search for hidden meanings.

Thus, in addition to the arguments offered in Chapter 1, we now have further reason to be reassured that we can follow Wittgenstein without abandoning philosophy. We may be forced to abandon some traditional philosophical enterprises: the pursuit of a hidden order of meaning, the search for necessary and sufficient conditions to define a concept, or the attempt to solve problems by developing ontological

classifications of objects. This requires a philosophical housecleaning of the kind that occurs from time to time anyway. This happened, for instance, in the 17th century when many aspects of Aristotelian scholasticism were rejected by Descartes, Hobbes, and others, or at the end of the 19th century when associationist psychology, Hegelian monism, and some aspects of Kantianism were rejected by philosophers in the pragmatist and analytic schools. Such events serve rather to keep philosophy healthy than to initiate its demise. In fact, philosophers seem to have adapted to much of Wittgenstein's perspective already. It is commonplace, for instance, to build a certain amount of indeterminacy into one's theories to account for family resemblances. Philosophers are more concerned today to make their theories work for paradigm cases and to tell an interesting story about the rest, than to engage in comprehensive conceptual analyses. They are more likely than before to avoid the assumption that a "law of thought" is like a law of science, though some of what goes by the name of "folk psychology" might persuade us otherwise. In general, it is quite common nowadays to find even explicitly anti-Wittgensteinian philosophers acknowledging some of the constraints that Wittgenstein's arguments have put on traditional philosophical theorizing, while continuing to construct theories in light of these constraints.

There are even a few philosophers who have recognized to one degree or another the ideas we have focused on here.

For instance, in an article on the philosophy of mathematics, Arthur W. Collins writes:

The model of physical objects is very powerful. But numbers, of course, do not exist in the manner in which physical objects do, they do not take up space and do not have mass, and they cannot move around. They cannot cease to exist or lose their features. This means that we are not to think of the existence of numbers on this pattern. Although it is still right to say that they exist, it is not right to think that you might look for them and find them. This is a comment on what we mean when we speak of the existence of numbers. It does not mean that numbers are strange things. It just means 'Do not look for them'.¹¹

Or as Collins says in *The Nature of Mental Things*,

We readily imagine retained beliefs as stored entities like the several contents of files where old records are kept... In philosophy... these imaginative aids do not function as innocent heuristic devices to which we attach no literal significance. On the contrary, we are very much tempted to think that the constituents of our mental lives must be realities like the things we imagine...¹²

E.D. Hirsch also demonstrated an awareness of the problem, after comparing what he calls the "verbal meaning" of a text (i.e., the speaker's intended public meaning) with an iceberg (the implications of the text being the submerged part):

Physical analogies are dangerous, but in this case the analogy holds. The self-identity of a verbal meaning depends on a coherence that is at least partly analogous to physical continuity.¹³

But such insights into the temptations and dangers of physicalistic analogies may well be limited to philosophers who have been directly influenced by Wittgenstein.¹⁴ It cannot be said that Wittgenstein's views about the temptations of the grammar of physics and the grammatical errors this leads to have penetrated very far. In fact it is

difficult to imagine what philosophy would be like today if they had. Some of his insights have found their way into every field from aesthetics to the philosophy of science to international law, but if our interpretation is correct, recognition of one of his central doctrines remains rare. Philosophers hardly ever worry about the possibility that their views are clouded by misplaced physicalistic analogies, or undermined by linguistic models that they may have unconsciously adopted. Why is this?

Partly this is because this aspect of Wittgenstein's work has not received the emphasis that others have. Perhaps, too, this line of thought, though fundamentally simple, is more difficult to understand than a clearcut conception like that of family resemblances, or the idea that "every course of action can be made out to accord with [a] rule" (PI 201). But it is also conceivable that at least a few philosophers have understood Wittgenstein's point, and rejected it; though if so, there is virtually nothing in the literature that constitutes an argument against it. Let us consider, though, some reasons why it might not have persuaded those who have understood it.

One thing is that not only does it lack the intrinsic appeal of more glamorous philosophical ideas; from the point of view of philosophers who may have devoted much of their lives to developing metaphysical or epistemological theories, it may seem downright provocative. It sounds like the idea is that philosophers are a rather dim lot, who cannot tell when a metaphor has gone overboard, or who

actually introduce confusions that were not present before. One reading of Wittgenstein's remarks makes it seem that philosophy as traditionally practised not only does not solve philosophical problems but creates them where everything was perfectly in order before. This suggests that the most interesting philosophical debates have no real solutions, and this is a result that would make most philosophers feel that they have been wasting their breath.

We might read him differently. Perhaps he is only saying that philosophy cannot solve the confusions that arise when we look at ordinary language analytically, because philosophers have not understood that the problems only occur when the wrong linguistic models are applied to a particular area. Every kind of discourse, from ordinary conversation to judicial decisions and scientific theory, employs rational methods of argument; but rational methods often apparently lead to contradictions which then require resolution. In philosophy these contradictions usually occur in our analysis of concepts: e.g., the concept of a soul, of causality, infinity, meaning, justice, or art. But philosophers lose their way because they don't see the real origins of the problems, which are, according to Wittgenstein, in the nature of our language and our need to extend it to meet new needs. Where a specialized grammar is already being stretched they tend to stretch it more, not realizing that each model works best when applied only to a specific field of discourse. It is alright to think of a belief or expectation as a mental "state"; we will find we

need some physical metaphor or other to describe it eventually. But philosophers pursue the analogy and end up with something like the idea of "thought as a gaseous medium".

Unfortunately, though it somewhat ameliorates the sense of gloom about the pursuit of solutions to philosophical problems, this perspective leads to another uncomfortable conclusion: that the only correct method of doing philosophy is to do it exactly as Wittgenstein did. Most philosophers believe their own theories are correct and that everyone should believe them; but no one has ever before suggested that everyone else must use their *method*. It is as if accepting the validity of Wittgenstein's method would mean that all efforts at originality were useless. This might explain why there is more sympathy for some of his conclusions than for his grammatical method. Nevertheless, even if his method is correct it is an invalid conclusion that one could not adopt it without becoming a kind of philosophical clone. This would be comparable to the idea that anyone who adopted Arnold Schoenberg's twelve-tone method in musical composition could not have had an original method or style of his own; which is disproved even by the music of Schoenberg's own pupils, such as Anton Webern and Alban Berg. One could take up Wittgenstein's grammatical conception of philosophy and apply it in original ways, as many students of his have done¹⁵.

But there is one obvious possible cause for resistance even for those who have understood his idea and who are not

intimidated by its implications, and that is that Wittgenstein is simply wrong. Our entire discussion so far has been directed towards explaining his point of view and defending its importance in his philosophy. Let us conclude, then, by considering the merits of his idea.

6.5 Was Wittgenstein Right?

"Philosophy is a struggle against the bewitchment of our understanding by means of our language" (PI 109), says Wittgenstein. We have asserted that behind this thesis lies the belief that language is predisposed to represent everything in terms of physicalistic relations and objects, and that philosophical problems arise out of our failure to recognize and avoid this tendency to express everything in physicalistic terms. Moreover, we have said above that this is *all* there is to philosophical perplexity: it is *all* based on errors of grammar, and these are overwhelmingly of the physicalistic sort. Can this be correct? Or is it a vast oversimplification of the sources of philosophical puzzlement?

Let us identify the idea that some sources of philosophical perplexity are due to misapplied physicalistic grammar as the *Weak* version of the argument, and the idea that *all* such sources are due to such misapplications as the *Strong* version. It seems to me that the *Weak* version is closely related to a more general philosophical view that is neither new nor particularly controversial, the idea that the misuse of language is a source of error in philosophy. This is arguably already a feature of Aristotle's

philosophy, for instance; the *Categories* and *de Interpretatione* can easily be understood as attempts to head off such errors, and his criticisms of Plato's theory of Forms seem at once logical arguments and arguments about the use of words ("since things are said to be 'good' in as many ways as they are said to be... clearly the good cannot be something universally present in all cases and single...")¹⁶. But the idea becomes explicit no later than Hobbes, who makes a big point of it. Both Hobbes and Berkeley, moreover, consistently identify the use of metaphor and analogy as the specific way in which philosophical errors arise. Around the time Wittgenstein developed his ideas, there was also a quite prominent tendency to identify the lack of adequate definitions as a prime source of philosophical confusion; this is explicitly emphasized, for instance, by Ogden and Richards in *The Meaning of Meaning*, and by the New Realists in *The New Realism*¹⁷. This seems to be inspired by similar considerations about grammatical confusion and illicit word transfers between distinct conceptual realms. In itself, therefore, the belief that errors of "grammar" account for many philosophical confusions is widely held. It may be that the appeal of this view has more to do with intuition and experience than with rigorous argument. But any argument for it would come down to an interpretation of why a particular philosopher makes a particular kind of error, and that has to finally rest on things like our feeling for language and

background assumptions about its use. That does not seem to be a good reason not to give it serious consideration.

Wittgenstein's particular argument for this idea, and thus the *Weak* version of his thesis, may be reconstructed as follows:

(1) Ordinary language is primarily constructed around the physicalistic mode of expression.

(2) Because ordinary language is constructed around the physicalistic mode of expression we often use this mode of expression for nonphysical concepts, by applying physicalistic terms metaphorically.

(3) When we apply physicalistic expressions metaphorically we tend to lose sight of the metaphor, whereupon we discover (or generate) philosophical problems by extending the physicalistic grammar of the transferred expressions to the nonphysical concepts we are investigating.

Let us consider these theses independently. With regard to (1) I can find no direct precedent for Wittgenstein's view. Wittgenstein does not provide any specific argument for it, and it would seem that the only way to demonstrate it would be to proceed by cases, showing in one case after another that common discourses are built around physicalistic expressions and spatiotemporal metaphors. An effort in this direction can be found in the above-mentioned work of Lakoff and Johnson. They defend the idea of what they call the "systematicity" of metaphors, i.e., that we

maintain the semantic relations between terms when we use them metaphorically. For instance:

CONSCIOUS IS UP; UNCONSCIOUS IS DOWN

Get up. Wake up. I'm up already. He *ris*es early in the morning. He *fell* asleep. He *dropped* off to sleep. He's *under* hypnosis. He *sank* into a coma. Physical basis: Humans and most other mammals sleep lying down and stand up when they waken.¹⁸

From this example both the strength and weakness of the thesis can be seen. It is an interesting fact, at least, that we sometimes apply orientational concepts to states of consciousness. On the other hand (a) all of the above examples of "UP" metaphors look as much like literal references to standing up as metaphorical references to gaining consciousness, and (b) there are many other ways we talk about conscious states that do not clearly employ orientational metaphors at all. To be conscious "of" something might imply nothing more than the "aboutness" of consciousness. Perhaps, though, an argument could be made to the effect that virtually all prepositions have some original spatiotemporal significance.

This suggests that more work needs to be done if (1) is to be convincingly demonstrated. But I see no reason to doubt that this effort would meet with considerable success. How hard would it be to show that *most* of our talk about consciousness centers around spatiotemporal orientation if we include not just "up/down" metaphors but "inner/outer" metaphors, metaphors related to geometrical and pictorial form (mental "images", "clear" ideas), metaphors related to tactual relations ("having", "grasping" or "rejecting" an

idea, "rough" ideas), and of course the mereological metaphors of composition and decomposition we discussed in Chapter 5? The fact that most of the metaphors we are talking about are "dead" metaphors¹⁹ does not undermine the thesis but in fact supports it, for it shows how deep in the structure of language these metaphorical expressions are embedded. So there seem to be reasons to think that this thesis could be demonstrated if someone were inclined to make the arduous effort of investigating our language thoroughly.

Nevertheless, it bears mentioning that although (1) certainly is part of Wittgenstein's system of ideas, it is not necessary to hold it in order to demonstrate (3), i.e., that we tend to make grammatical mistakes when we adopt the physicalistic mode of expression for abstract or nonmaterial concepts. For this could be the case whether or not language was particularly oriented towards the physical. We could remove the first clause of (2) (call this (2')), and make an independent argument for (2') and (3). This would remove one source of support for (2') but not every conceivable reason for holding it.

In any case, let us assume that the antecedent of (2) has some merit and consider the consequent, that we often utilize physicalistic terms metaphorically (or through some other linguistic trope - metonymy, etc.) to describe or understand the nonphysical. Though it is hardly a common idea, it is not completely without precedent, as is shown in the following historical synopsis by David E. Cooper:

Hegel thought that metaphors were originally required by people to represent "mental" (*geistig*) phenomena in terms of the "sensory" (*sinnlich*) phenomena which, necessarily, their understanding had first encompassed. Vico thought differently: metaphorizing the mental in terms of the physical was a fairly late development, in an age "in which philosophies had begun to become more refined".²⁰

Though Hegel's reference is to "'sensory' phenomena" he clearly does not mean that we cognize the mental in terms of other mental experience but in terms of things we interact with through our senses. Vico's disagreement would only make Wittgenstein's thesis a later development; both seem to agree that we understand conceptual things in terms of physical objects or relations.

Though (2) clearly represents a development of the argument that begins with (1), it is not so clear what kind of additional support is needed for it if (1) is accepted. For if it is true that language itself is physicalistically oriented, it is true precisely because we often express much more than physical relations by means of physically-oriented language. So expressing some nonphysical concepts in physicalistic terms will be a virtual necessity, imposed by the fact that language, and to the degree that our mental capacities are language-dependent cognition too, does not have the internal complexity to maintain completely distinct modes of expression for all types of discourse. Indeed, how could this fail to be the case? For if we ask ourselves how fine-grained language would have to be to maintain such distinctions, it seems obvious that it could not be psychologically manageable and at the same time avoid

cutting across conceptual lines altogether. What would language be like if, for instance, we had a completely independent pool of prepositions to express the relations of concepts, ideas, intentions, etc. to minds and brains (instead of "in" the head ideas would be "*shmin*" the head, lunatics would be "*shmout*" of their heads, etc.)? Would we need another set for numbers, and one for colors? Would we be able to express the relationships between these prepositions and physicalistic ones, or would we need another set to do that, and so on?

Moreover, how could we be certain that language contained the *right* distinctions if it did cut so finely? Perhaps some natural languages would make distinctions along conceptual lines that others did not recognize, just as English has separate words for "mind" and "spirit" while in German and French the same term is normally employed (*Geist* or *esprit*). Moreover, the finer distinctions would not necessarily eliminate philosophical problems generated by analogies from one conceptual domain to another (assuming for the moment that such problems exist); the same problems could arise in different ways, e.g., it might be proposed that there are relations that the finer-grained language does not capture (rather than distinctions that it glosses over), and this would be considered a philosophical problem in that system.

It seems, then, that language can never be more than a rough guide to conceptual or philosophical distinctions, and therefore that it can be pretty much taken for granted that

language will favor some modes of expression and de-emphasize others. Moreover, speaking from the point of view of a fictional creator of language, there is at least one obvious argument for making physical relations the bedrock of all others in language: they are the ones whose expression and understanding have the most survival value, and therefore we master these techniques most thoroughly. In addition, a very large percentage of our mental apparatus is devoted to visual perception; but this is primarily oriented towards discriminating physical objects and their motions. Hence physicalistic models also have a ready advantage in being the easiest to visualize.

Thus it seems to me that if we acknowledge the likelihood that (1) is correct, we have little choice but to accept (2) as well. The whole matter then comes down to (3), i.e., to the question: does the use of physicalistic models or metaphors pose a problem? Does it lead to errors? Or are the results of using such models in some way protected from error by the fact that physicalistic analogy is prescribed by language itself, that it is our easiest way of handling abstract concepts, and that it is in any case unavoidable?

No support for Wittgenstein is likely to come from theories of metaphor on this point, especially not from Lakoff and Johnson. There is a general conviction among those who have studied metaphor that it is as integral to language as literal speech is, and the idea of it being a "problem" to follow a metaphor is replaced by the idea that this is how new meanings get created. Thus I think the

question turns on one's view of the specific instances of the putative fallacies discussed in Wittgenstein's manuscripts and lectures: for example, those that are supposed to show that we misconstrue visual space or infinity or other nonphysical domains by following physicalistic models. Many of these examples have been presented above, especially in Chapters 1, 2, and 5. As should be obvious from our discussion, I believe that at least some of these examples are convincing, and most of them ring a bell. To deny this would be to assert that, e.g., the picture of the mind as a closed container for mental objects has never or rarely misled philosophers. But problems about mind-body interaction and knowledge of other minds do not arise from ordinary logical fallacies; something more subtle must be going on or these problems would not persist for centuries. Its own self-description suggests that physicalistic assumptions played a large role in the language of logical "atomism" and helped generate a false conception of meaning that captured the imagination of some of the best philosophers of the early 20th century. Just as in the sciences a wrong model (or picture) can be the basis of much more significant and lasting errors than an erroneous equation, so it would seem that in philosophy it must sometimes be the case that the difficulties we face lie in the basic assumptions on which our models are based.

Thus I take the *Weak* version of Wittgenstein's thesis to be basically correct. It is certainly sometimes the case that we are misled by physicalistic analogies, and that one

reason we are is that we are most comfortable with - our language and thought most easily accommodates - the representation of both concrete and abstract things in terms of physicalistic relations. Let us proceed, though, to some additional considerations that might help us put this result in context.

Wittgenstein's insight, if we accept it as I have proposed, has some obvious application to traditional epistemology. Much of the exposition we have given it has had a roughly Cartesian or Lockian view of the mind as a kind of silent nemesis; the differences over innate ideas are less important than the strong inner/outer emphasis in both empiricist and rationalist epistemology. Why, then, would the difficulty have gone unnoticed for so long, until Wittgenstein pointed it out? I think the answer lies in the fact that the orientation in the philosophy of mind, language, phenomenology, logic and mathematics in the early 20th century created especially fertile ground for recognizing the problem. For one thing, it seemed quite promising at the time to construe formal logic as a general foundation for philosophy. At the core of the logical *Weltanschauung* was the analysis of the declarative sentences of natural language into "object" and "concept". Now, it is inherent in the syntactic nature of formal logic that at least in first-order propositions semantics has no effect on syntax; that is, the exact same formal moves can be applied regardless of what terms stand in the object position. Frege says in "*Über Sinn und Bedeutung*", "Places, instants,

stretches of time, logically considered, are objects; hence the linguistic designation of a definite place, a definite instant, or a stretch of time is to be regarded as a proper name."²¹ In the *Grundgesetze* he adds, "I count as *objects* everything that is not a function, e.g., numbers, truth-values, and... value-ranges"²². Russell, too was quite explicit about this:

Points, instants, bits of matter, particular states of mind, and particular existents generally, are things in the above sense, and so are many terms which do not exist, for example, the points in a non-Euclidean space and the pseudo-existents of a novel. All classes, it would seem, as numbers, men, spaces, etc., when taken as single terms, are things...²³

Note the contrast of "particular existents generally" with "terms which do not exist". Russell held that anything that could be referred to had "being" but only some had "existence": "Numbers, the Homeric gods, relations, chimeras and four-dimensional space all have being, for if they were not entities of a kind we could make no propositions about them."²⁴

Now, this conception of logic is not in itself a misplaced metaphor; one may begin to be suspicious when Russell talks about the "being" of numbers and chimeras, but that is not the point. The very strong emphasis on the logical equality of all sorts of objects, at least until these are complex enough to generate the self-reference paradoxes to which Russell's theory of types was addressed, was a necessary step in the development of formal logic. But it virtually demanded that some work be done to reassert the underlying difference between what can be formally asserted

of any object whatsoever insofar as it is merely taken as an individual, i.e., insofar as it can be manipulated according to syntactic rules, and what can be asserted of each particular type of object once the semantics of the names is brought back into consideration. This work begins with Wittgenstein's assertion in *SRLF* that various simple subject-predicate sentences have different logical forms. At that point the project of examining the variety of logical spaces was initiated. Such a project could not but lead at some point to consideration of the relationship between the most obvious conceptual space, that of physical objects and relations, and the rest of what we talk about.

Another factor, or group of related factors, has to do with phenomenology. Russell thought sense-data were a part of the physical world. This seems ontologically extravagant, though of course he had his arguments for it. His theory of descriptions though, which had been a model of philosophical theory for Wittgenstein, was directed largely against Meinong, who of course had proposed glamorous objects of all sorts to account for what seemed to be nonreferring expressions ("the golden mountain"). Mach, James and the New Realists had proposed various substances as the material of both the physical and the mental: "elements" (Mach), "pure experience" (James), or "neutral stuff" (Holt and Russell). At the same time these philosophers had tried to back away from these substances, suggesting in the same breath that such terms were essentially pleonastic. Other examples could be found, such as Russell's realism about relations in the

Theory of Knowledge and Moore's version of ethical realism. All of this betrays a general confusion, not in the mind of any one philosopher but in the general philosophical Zeitgeist: philosophers tended to gravitate towards realistic hypotheses about entities and substances to solve philosophical problems, while being generally intolerant of extravagant ontologies. This suggests nothing so much as that philosophy was in the grip of a model that was straining at the seams, and yet philosophers could only see this model from the inside and so continued to repeat its basic ideas. The physical world is composed of objects which are composed of matter which is just connected particles. Scientific problems are solved by discovering what these are and what laws they obey. Philosophy in the early 20th century depended on analogies from this model for many of its basic ideas. But the situation was ripe for a Wittgenstein to come along and reveal the model and the fallacy of reasoning from it.

There are other trends that lead to the same conclusion. Probably the main one is in the philosophy of mathematics, especially the theory of infinity and continuity. Brouwer's provocative denial of the law of the excluded middle²⁵ caused a good deal of ferment just before Wittgenstein began his manuscripts. We will not rehearse again Wittgenstein's arguments against the notion of infinity as an unimaginably large collection of objects or a string that never stops. The only point here is that these

fallacies too were not just historical problems but were very much a part of the intellectual milieu.

In short, taking all these trends together makes it seem less odd that Wittgenstein should have reached the conclusion he did. There were enough threads to lead Wittgenstein in the direction he went. What was needed in addition was a bit of inspiration and a lot of stamina for withstanding the temptation to go (or keep going, after the TLP) in the same direction. Wittgenstein had a sufficient amount of both.

We return at last to the Strong version of Wittgenstein's idea. It consists of adding a fourth proposition to (1)-(3) above:

(4) All (or very nearly all) philosophical problems are a result of (3).

I can think of only one source of support for this idea: the more general belief that all philosophical problems are linguistic in nature, and that philosophy of language can solve every philosophical difficulty. The thesis can be taken descriptively, in which case it says that philosophy of language is the Rosetta stone that philosophers have long sought to untangle the traditional difficulties for which the primitive tools of metaphysics and epistemology were formerly used. It can also be taken prescriptively, in which case it is equivalent to saying that we should not call anything a philosophical problem if it cannot be solved (is logically immune to being solved) by the philosophy of

language. If the philosophy of language is the source of all philosophical solutions it is always conceivable that Wittgenstein's grammatical philosophy is the right way to approach it.

I do not propose to spend much time studying this position. It seems *prima facie* obvious that not all philosophical problems are pseudoproblems, to be untangled when the linguistic errors are revealed. It may be that all problems have linguistic components that require clarification, but this does not mean they will disappear when the clearest possible language is employed. In any case, it certainly does not seem warranted to say that all or nearly all such clarifications must reveal an overextended physicalistic analogy. I doubt that the problem of consciousness is amenable to such treatment. Neither is the Gettier problem. Nor are virtually any problems in applied ethics based on misapplications of physicalistic thinking. It is possible that some problems in aesthetics can be seen this way, such as some problems about fictional characters; but questions about art and expression or emotion are not likely to be alleviated by such methods. Wittgenstein's dependence on the idea expounded here plays very little role in his own discussion of Moore's "proof" of an external world in *On Certainty*. Perhaps these are not the kinds of problems Wittgenstein had in mind; but if the point is not applied universally it is not clear where the lines should be drawn. Not every philosophical problem can be

expressed in as neat a form as the Sorites paradox. Thus the *Strong* version of the argument cannot be correct.

But it would be unfair to conclude this essay on such a note. It is rare in philosophy that someone comes up with a new method for solving a wide variety of problems.

Wittgenstein's idea, if it has significant applications, stands in something like the position of Platonic dialogue, Aristotelian logic, Humian skepticism, Hegelian dialectic and Fregean analysis. It is a new way of doing philosophy, and one that over the course of history may turn out to put certain kinds of problems, and with them certain ways of thinking, behind us. Wittgenstein's ideas about the grammar of physics deserve to be put in the company of great philosophical ideas. All such ideas begin with a simple insight which gathers force from the variety of ways it can be applied. That is what Wittgenstein did with the notion of a grammar of physics.

NOTES

1. This observation is almost certainly directed against the following passage from Russell's *Principles of Mathematics*, or a similar passage of Russell's:

[P]articular classes, except when they happen to be finite, can only be defined intensionally, i.e., as the objects denoted by such and such concepts. I believe this distinction to be purely psychological: logically, the extensional definition appears to be equally applicable to infinite classes, but practically, if we were to attempt it, Death would cut short our laudable endeavor before it had attained its goal. Logically, therefore, extension and intension seem to be on a par. (6, #71; p.69)

Wittgenstein, as we explained in Chapter 1, thought the extensional definition was a conceptual error, not an empirical impossibility.

2. Lakoff and Johnson, *Metaphors We Live By*, p.25. Some of the ellipses remove a point that is important to Lakoff and Johnson's thesis but not, so far as I can see, to Wittgenstein's: that the ultimate basis of our physicalism is our sense of our own bodies as discrete, bounded, physical entities.

3. They do credit Wittgenstein's concept of family resemblances with influencing certain aspects of their work, but their discussion of influences suggests that the present citation was more influenced by psychologists like Jean Piaget and J. J. Gibson (see *Metaphors We Live By*, pp. xi-xii).

4. See Harry P. Reeder, "Wittgenstein Never Was a Phenomenologist".

5. Wittgenstein wrote to Russell in 1913:

I was very interested to hear your views about matter, although I cannot imagine your way of working from sense-data forward. Mach writes such a horrid style that it makes me nearly sick to read him; however, I am very glad that you think so much of a countryman of mine. (LRKM 20; dated by Russell January 1913)

In this passage Wittgenstein refers to Russell's sympathy for Mach's phenomenalism (this was several months before Russell set out to refute neutral monism in his *Theory of Knowledge*). He clearly rejects the idea of it and then indicates he has read Mach, though he does not say what. Since he refers in various places to Mach's "thought experiments" and to his drawing of his room it is usually assumed that he read *The Analysis of Sensations*, though it

could conceivably have been *Erkenntnis und Irrtum*, where "thought experiments" are discussed in more detail but the phenomenism is more in the background.

6. See Lenin, *Materialism and Empirio-Criticism*. Karl Menger correctly points out that Lenin overindulges a comparison of Mach with Berkeley, mainly in an effort to discredit him (Menger, *Reminiscences...*, p.21). Mach's tremendous influence in Austria and beyond is an established fact of intellectual history; for references relevant to the present material see Menger, *Reminiscences*, p.23; and Janik and Toulmin, *Wittgenstein's Vienna*, p.133.

7. Worship of formal logic was in fact one of the hallmarks of this trend. References to logic, formal logic, the logic of relations and logical analysis abound in the collection of writings published as *The New Realism*, including in their original manifesto, the "Program and platform of six realists" (*The New Realism*, pp.471-480). Edwin Holt bases much of his theory in *The Concept of Consciousness* on mathematical logic. No wonder Russell found that he could live with this philosophy after all.

8. Husserl associates his "Regions" with Kant's categories and hence his "regional axioms" with synthetic a priori judgements (*Ideas* #16). He is far from making this an important thrust of the work, though, and it is somewhat curious that Wittgenstein responds to Schlick's question as if he must have had Husserl in mind. Perhaps this reflects some prior conversations which were not recorded in *WK*.

9. Carnap, *The Logical Structure of the World*, p.vi.

10. See Karl Marx, "Theses on Feuerbach", #11, in Marx and Engels (1968) p.30. This manuscript was found in Marx's *Nachlass* and published posthumously by Engels, who calls it "notes hurriedly scribbled down for later elaboration, absolutely not intended for publication..." ("Ludwig Feuerbach and the End of German Classical Philosophy", p.595).

11. Arthur W. Collins, "On the Question 'Do Numbers Exist?'", pp.35-6.

12. Arthur W. Collins, *The Nature of Mental Things*, p.x.

13. E.D. Hirsch, *Validity in Interpretation*, p.54.

14. Collins says, "I am most influenced by Wittgenstein" (*The Nature of Mental Things*, p.xviii). Hirsch's book displays Wittgenstein's influence throughout; by combining lessons from the *TLP* and the *PI*, particularly the ideas that meanings must be determinate and that they are publicly available, he reaches the unusual position of having a Wittgensteinian yet largely Platonistic conception of

meaning. Thus he defines a "verbal meaning" as a "willed type" where the "type" is sharable (p.48).

15. G.E.M. Anscombe, P.T. Geach, Norman Malcolm, Gilbert Ryle, Stephen Toulmin and John Wisdom are all examples of this. But there are others whose work owes a great deal to Wittgenstein who did not study with him or purport to be disciples but whose use of his ideas is integral to their work. I believe there are many of these philosophers; the most prominent ones who come to mind at the moment are N.R. Hanson, E.D. Hirsch and Kendall Walton.

16. Aristotle, *Nicomachean Ethics*, 1096a.

17. See Ogden and Richards, *The Meaning of Meaning*, pp.15, 111, 121-131 and elsewhere; *The New Realism*, pp.22-3.

18. Lakoff and Johnson, *Metaphors We Live By*, p.15.

19. From this metaphor we can also see that we talk about language in systematic metaphors: we speak of dead languages, of the growth of language, of vivid expressions. For an examination of metaphors of language as economic value see Jacques Derrida, "White Mythology: Metaphor in the Text of Philosophy".

20. David E. Cooper, *Metaphor*, pp.140-1.

21. Frege, "On Sinn and Bedeutung", p.164.

22. Frege, *Grundgesetze V.I*, I,2, in Beaney (1997) p.213.

23. Russell, *Principles of Mathematics*, #48, p.45. In this context we should also take note of the terminology of G.E. Moore, e.g., in "The Refutation of Idealism": "Any sensation or idea is a 'thing,' and what I have called its object is the quality of this thing" (p.23).

24. Russell, *Principles of Mathematics*, #427; p.449. This entire section of the *Principles*, which is directed against Lotze, is an exposition of Russell's realism.

25. See Brouwer, "Mathematik, Wissenschaft und Sprache".

APPENDIX I: WITGENSTEIN ON SUBJECT-PREDICATE FORM

The following three sets of passages are found at three different points in Wittgenstein's 1929-30 manuscripts. Much of this material has not been previously translated or published (other than in the *Wiener Ausgabe*). These passages constitute an ongoing examination of the use of subject-predicate form in analysis, as practised by both Frege and Russell. In the first set of remarks, much of what he says is inspired by an effort to come up with an original theory of numbers. This project is pursued on and off in *Band I* and *Band II*, after which his interest in it fades rapidly. Wittgenstein characterizes his theory as "extensionalist" but it clearly has intensionalist components too. To summarize it very briefly, he holds that a number is a property of the objects picked out by a concept rather than a property of the concept itself, as Frege held. The concept is necessary to pick out the objects, but the objects it picks out have whatever number they have independently of the concept. This should be enough to understand the context of at least the first two sets of remarks. But the interest of the remarks lies less in their relationship to Wittgenstein's theory of numbers than in their exploration of the fundamental assumptions behind the concept of analysis.

Though Wittgenstein explores subject-predicate form in many different ways, his critical thoughts on the matter center on one general theme: the effect on our thinking about the logical forms of sentences that comes out of

treating every grammatical substantive in the same way. It is clear that Wittgenstein thinks this is misleading. His reasons for this are initially given in *SRLF*, in a passage drawn from some of the remarks below. But the remarks here do not constitute an argument so much as an investigation. Their importance is twofold. First, they are one path by which he reached his grammatical philosophy, in which it is essential to distinguish the grammar of each "space" in spite of the superficial similarity of the subject-predicate sentences that have sense in different spaces. Second, in questioning whether nouns that denote processes, events, and "complexes" in general, as well as those that denote sounds, colors, and physical objects can all be treated in the same way he moves a step closer to seeing that philosophical problems arise when we take the grammar of all substantives on the model of the grammar of physical objects.

It is useful to compare these remarks not only with *SRLF* but with a later series of remarks, many of which were eventually collected into a short typescript called "Complex and Fact", which was printed as an Appendix to both the *PR* and the *PG*. The original remarks are found near the end of Wittgenstein's *Band VI* manuscript; see *WA* III,302,7 - III,304,9. In these remarks Wittgenstein complains of the problem of transposing the physical conception of a "complex" onto the concept of a "fact", and says, "The root of this muddle is the confusing use of the word 'object'" (*WA* III,304,8; *PR* p.303; *PG* p.201). The intimate relationship of these remarks to the passages on subject-

predicate form below is confirmed by the fact that Wittgenstein clipped "Complex and Fact" together with a typescript called "Concept and Object, Property and Substrate" (PG pp.202-7; see von Wright's comment on p.489) which contains several of the remarks printed below. The two typescripts were in fact attached to a third, called "Objects", and the three were given consecutive paging; together they look very much like the beginning of a critique of the *TLP*. Thus another measure of the importance of the following remarks is that they lead to a critique of Wittgenstein's earlier philosophy that is explicitly informed by the central idea we have been discussing: that taking the grammar of physical objects to be a model for all language leads to philosophical confusion. That is of course one of the main lessons of the opening of the *PI* as well.

=====

SERIES 1

Wiener Ausgabe: I,63,4 - I,66,1

Manuscript: *Band II* pp.109, 111, 112, 114, 116, 118, 120

Published works: *SRLF*; *PR* IX,93,118-9

Date: March 1929 (roughly)

WA I,63

4 Let's think of two planes; on Plane I are figures which we want to depict (*abbilden*) on Plane 2 through some projection method. Then we have the possibility of determining a projection method (for example, that of orthogonal projection) and then to interpret the pictures on Plane 2 corresponding to this method of depiction. But we can also follow a completely different course: we determine, for instance, on some ground that the pictures in Plane 2 should all be circles whatever the figures in Plane 1 might be. That is, different figures in Plane 1 will be depicted through different projection methods in Plane 2. And then to understand the circles in 2 as pictures I would have to say of each circle which projection method belongs to it. But the mere fact that a figure in 2 is represented as a circle would say nothing at all. - So it goes with reality if we

depict it in subject-predicate sentences. That we use subject-predicate sentences is only a matter of our symbolism (*Zeichengebung*); the subject-predicate form is in itself not yet a Logical Form and it is a means of expression of innumerable fundamentally different logical forms like the circles on Plane 2. The sentences: "The clock is round", "The man is tall", "The patch is red", "The picture is beautiful", have in their form nothing in common.

5 If my theory is correct that objects with the multiplicity of real numbers enter into elementary propositions this points to a more general conception of number - like Frege's and Russell's - as I myself already had. I said then that numbers followed from the concept of a calculus, and there is certainly something in that.

WA I, 64

1 Naturally one difficulty of the Fregean theory is the generality of the words "concept" and "object". For since one can count tables and sounds and vibrations and thoughts and trials, it is difficult to bring all of them under one roof (*unter einen Hut zu bringen*)¹.

2 Concept and object, but that is predicate and subject². And we have just said that subject-predicate is not a [single] logical form.

-----[PR #93 ends here.]-----

3 Now one could first show that each sentence must be able to be represented as a subject-predicate sentence, for if I pick out one from among their objects I can call *that* the subject and everything else the predicate. (That means I can write it in the manner: " $f(x)$ ".)

4 But that in itself would still not be general enough for the application of the cardinal numbers, for I can after all even count complexes (events, etc.).

5 Though that only means that there is even a subject-predicate sentence in which the subject is some complex of objects.

6 The question would now be, for instance, whether everything can be the subject, or only determinate forms. - But can't we count some tension the complexes have in common with one another that makes them subjects?

7 Then can't a subject-predicate sentence generally be formed thus: I write any sentence at all in the form " $F(A)$ " in which under " $F(\Gamma)$ " I understand any variable which can be formed out of it, under " $\Phi(A)$ " those other variables which complete the sentence " $F(A)$ " for the first.

8 And here the equivalent is to give up the one-sided method of writing (*Schreibweise*), and to write "FA" or AB, where now both signs are equally justified.

9 But how is it: I can just as well count the properties that one object has as the objects that have one property?

WA I, 65

1 There appears to be a certain difference there. For as it appears through logical multiplication or addition any sentence at all can enter in the predicate but not in the subject.

$f(a) \ \& \ p$

2 On the other hand can't I form just as general a subject when I say something of a process or of a fact?
(For instance: "I am pleased (at the fact that, etc.)")

3 A language which existed partly out of written signs but partly in that one would move these signs through space in a determinate way.

4 Does it make sense to say: "In one place is only one color at a time"? That is obviously a tautology if one determines the sense as coordinated with "and"; in the other case it is nonsense.

5 Is the most general situation that: I have a propositional variable (*Satzvariable*) and count the values that make it into a true proposition[?]. Or in other words I count the true values of the variables.³

6 (Then I could also say: I always count the true propositions of a determinate form.)

7 Instead of saying "there are two objects which have this property (*Eigenschaft*)" one should really say "there are two which possess (*besitzen*) this property". (That it is an object is self-evident.)

8 I can say: wherever I have a propositional variable I can form (*bilden*) a subject-predicate proposition. But where I have a subject-predicate representation I also have a number (*Anzahl*) in the Fregean sense. So generally do we actually use them in our language when we form predicates, concepts, as I have just now enumerated (*aufgezählt*) them.⁴

9 As I once described my theory of numbers: the Fregean theory repelled me because it seems to me too specialized (*speziell*). This error disappears when one apprehends the subject-predicate proposition in its full generality.

WA I, 66

1 (Nevertheless there remains with me an uneasiness that would disappear if I could get hold of another theory that would not help itself to the subject-predicate concept.)
=====

SERIES 2

Wiener Ausgabe: II,8,2 - II,9,5

Manuscript: Band III pp.10-14

Date: mid-1929.

WA II,8

2 If ones looks at addition as an event in the propositional form, what is the most general way it occurs?

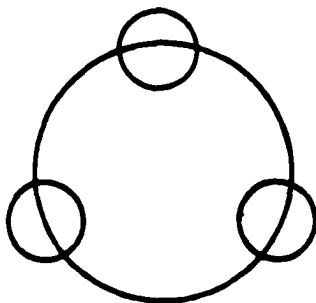
3 My opposition to the Fregean interpretation was always that it appeared to me to be too specialized.

And that comes out of this, that not every numerical statement is the statement of a real function.

4 "There are four men in this room", "In my visual field are four red circles." In order for "x is a red circle" to have sense x must already be [of] the logical form of a color patch in my visual field. (And analogously for the first sentence.) It seems to me that this theory of numbers is just a remnant of the subject-predicate theory of sentences (or should I only say: that it is immediately connected with this.)

5 This is how I feel: In our ordinary language each numerical statement is the statement of a concept, that is, of a predicate, but I believe that the most [widely] varying logical structures are disguised by this predicate form, and that only through an artificial method of representation can it appear as if we were dealing with concepts here.

----- {PR VI,115} -----
6 Not even a certain generality is essential to a numerical statement. If I say e.g. "I see three circles of equal size arranged equidistant from one another."



7 If I give a correct description of the visual field in which three red circles stand on a blue ground, there certainly would not enter into this the expression
"(Ex,y,z): x ε circular and red & y ε circular and red etc."

8 The typical thing is that in the propositional form $F(n)$ I must be able to insert one number after another [for underlining (? - seems like a transcription error)] and every time the proposition must through this insertion alone receive a completely determinate sense. {Not in PR 115}

WA II,9

1 Admittedly one could write: There are three circles which have the property of being red. But here enters the distinction between the figurative [*uneigentlichen*] objects, color patches in the visual field, tones, etc. etc. and the elements of knowledge, the real objects.

It stands out that the proposition about the three circles does not have the generality or the indeterminacy that a proposition of the form $(Exyz) \phi x \ \& \ \phi y \ \& \ \phi z$ possesses. Namely, in this case one can say: I really know that three things have the property ϕ , but I don't know which [ones].

In the case of the 3 circles one cannot say that.

"There are now three red circles of such and such size and position in my visual field" completely determines the fact and it would be nonsense to say, I still don't know which circle it is [PR: "circles they are"].

2 [If] we think of "objects" like a stroke of lightning, the simultaneous occurrence of two events, the intersection of a straight line with a circle, etc. for all these cases the 3 circles in the visual field are an example.

3 Naturally one can interpret the subject-predicate, or what is the same thing, the argument-function form, as a norm of representation and then it is admittedly important and characteristic that in each case when we use numbers the number may be represented as the property of a predicate. Only we must be clear in that case that we now have nothing to do with objects and concepts, as the result of an analysis (*Zerlegung*), but rather with norms into which we have squeezed the proposition. And it has of course a significance that it can be brought under these norms. But this squeezing-into-a-norm is the opposite of an analysis (*Analyse*). Just as in order to study the natural growth of an apple tree, one does not look at an espalier tree, unless it is to see how this tree holds up under this constraint (*Zwang*).

4 That one can count the coincidence of trials and lunar eclipses, admittedly says that we have a concept of logical form, but naturally it does not show that we are in possession of a [logical] analysis of these events. That is to say, that the Fregean theory of numbers is applicable so long as we do not intend an analysis of propositions. This theory explains the concept of number for the form of expression of ordinary language. {Not in PR 115}

5 Frege, though, would have said (I recall in a discussion) that the coincidence of a lunar eclipse and a trial would be an object. And what is the matter with that (was ist dagegen einzuwenden)? Only that we then use the word "object" in an ambiguous way (in zweideutiger Weise verwenden, lit. "with a double meaning") and thus confuse the results of the logical analysis.

----- {End PR VI,115} -----

WA II,10

1 It is a matter, namely, of which meaning the variables in the sign "(Ex)φx" should assume. Whether one thus admits a proposition "(Ex)x is a trial, etc." [.] [A]nd that one can just [do], if one does not thereby cause confusion that the same form is used in the analysis of propositions.

2 And since one does not need the sign "(Ex) etc" for speech about trials, and in any case analysis of these things would yield a completely different picture; so it would probably be better to restrict (vorzubehalten) the sign "(Ex) etc" to logical analysis.

=====

NOTE: This section of the manuscript continues with remarks on the idea that some number *n* of objects already contains the possibility of being described as the sum of two smaller numbers of objects.

=====

SERIES 3

Wiener Ausgabe: II,202

Manuscript: *Band III* pp.298-300

Date: 15 February, 1930 (the day before he began *Band IV*)

"The concept of a possible predicate." What is, e.g., the subject of which I state that it is a Meeting or a Storm? Of course I can say: *what I see here is a meeting and not a crowd*. But if I say: "the meeting went stormily" ("*die Versammlung verlief stürmisch*")⁵] do I say here that a certain event which has the property of being a meeting is going stormily? But even if this is so, still that of which I can say that it is a meeting must have another nature than that, for instance, of which I can say that it is a lamp. Or is the proposition that a meeting is a lamp actually just false?! At most, insofar as, for instance, the visual image of a lamp and the visual image of a meeting belong to the same category one can thus imagine that someone sees a meeting and takes it for a lamp. In any case, that of which one can say, e.g., that it is a musical piece is another form from that of which one can say it is a piece of blue sky.

What then is the subject of the predicate "white circle"? Naturally one can say, "I have seen something that

was not a blue rectangle, but rather a white circle". And here the Something is the subject and apparently means as much as [the] patch in my visual field.

Is it now an analysis if I say the proposition "the white circle is on the red rectangle" means: something that is a white circle is on something that is a red rectangle? I would think that the state of affairs is completely described through the statement white circle, red rectangle, and the positions; and any subject whose predicates were those concepts doesn't come in at all. Of course one can say "this is over that" and this is a white circle and that a red rectangle[.]

But the words "this" and "that" are used in categorically different senses, just like predicates. For if I say "this is the color red", "this is a circle", "this is the tone c", then I have used the word "this" in three completely different ways[.] [W]hat emerges from that is it is something else to point at a body, at a color, or at a tone. (And here the word "to point" is just as ambiguous as the word "this" was earlier.)

NOTES

1. Cf PG, pp.307-8, where this comment is criticized.
2. See PR IX,93,119, where this is translated "subject and predicate", which turns the Fregean distinction upside down.
3. Up to this point I have translated "Satz" as "sentence, which seems more natural in the context of the discussion of subject-predicate form. But it is unavoidable from this point on in this series of remarks to vary the translation between "proposition" and "sentence" depending on the context.
4. See Russell, *Principles of Mathematics* (V,32,#249): "the idea which the Germans call *Anzahl*, the idea of the number of terms in some class..." There does not seem to be an equivalent English word; "enumeration" is close, but could be misleading, as it implies an actual counting which is not indicated in the German usage. On the other hand "enumerate" is a standard sense of *aufgezählen* but (just to make things more confusing) this is not exactly the way Wittgenstein uses it here. The idea, which comes from Frege, is that predicates pick out a class of objects. Wittgenstein seems to be saying that because it is so obvious he has only just begun to notice that predicates contain the *Anzahl* of their classes within them; but this is a little hard to believe, since the idea comes straight out of Frege, so perhaps his meaning is not obvious. This idea is a key point of *SRLF*, and perhaps also a reason he repudiated that work.
5. I retain the literal form for obvious reasons in spite of the awkward adverb.

APPENDIX II: ORGANIZATION OF THE PHILOSOPHICAL REMARKS

It appears, from a comment by Rush Rhees in the published translation of the *PR*, that Wittgenstein did not actually indicate the chapter divisions in his typescript (*PR* p.348). David Stern, who has seen a copy of the typescript, confirms this¹ (personal communication). The chapter numbers in the *PR* were added by Rhees. There is, however, a logic to the divisions, far from obvious but discernible after some study. Each chapter contains remarks which Wittgenstein collected from various parts of his manuscripts with an eye to organizing them, with little or no modification, into a treatment of a particular subject. It would be a difficult task indeed to make out the beginning and end of each subject if the typescript were one continuous series of remarks. This suggests that there were in fact some notations or page breaks indicating the end of one series of remarks and the beginning of another, corresponding to Rhees's chapters. For instance, in practically every case, where a chapter ends and a new one begins, the series of manuscript remarks that the first chapter ends with also ends, and the next chapter begins in a different part of the manuscript. The section numbers also frequently correspond to the beginning and end of a more or less contiguous series of remarks in the manuscripts; where the remarks in a section are not completely contiguous in the manuscript there are usually markings in the manuscript that indicate which marks were and which were not to be included in the *PR*. All in all, then, the chapter divisions

make enough sense to attribute to Wittgenstein the intention to organize the PR around some such divisions; and the section numbers, though not a perfect guide to the grouping of remarks in the manuscripts, give at least a rough sense of how remarks of different chronological origin are put together.

It is only after reading the PR and the manuscripts very carefully that one can get a good sense of what each chapter is about. In some cases the distinction between one chapter and the next seems quite fuzzy even after many readings. Chapters X and XI, for instance, seem to be close enough in subject matter to be combined into a single chapter, as do XIII and XIV. Moreover, since the same terminology - "phenomenological language", "hypothesis", "space", "verification", etc. - is used throughout, without the benefit of the original context, it is easy to see in the PR nothing more than a hodge podge of vaguely related topics in phenomenology and even more distantly related matters in the philosophy of mathematics. The exclusion of many of the remarks that show the course of Wittgenstein's development and the doubts he had at various points also contributes to this impression. A further reason for it is that a large percentage of Wittgenstein's manuscript remarks are *examples* or *applications* of the fundamental ideas he is thinking about, and these remarks are often put forward with only the most minimal general introduction, or none at all. This makes it appear as if the specific subject matter of one or more remarks is actually the main topic under

investigation; whereas more often than not there is a quite general concern that is only understood by stepping back as from a large painting, until the brushstrokes and color patches are submerged in the form of the whole.

Speaking most broadly, the *PR* is Wittgenstein's *Phenomenology*. But it contains remarks from various phases of his conception of what a phenomenology would be: a phenomenological language, a description of spaces corresponding to the modes of sensation, or a general grammar of propositions pertaining to our perceptual experiences. Since Wittgenstein could not have wanted to convey to readers the ideas he had abandoned by the time he compiled the *PR* he must have wanted the older remarks to be seen in the light of the ones that expressed his more developed views. We must therefore assume that the overriding idea is that phenomenology is grammar, which he in fact says in his first few remarks in the typescript, albeit in a way that already suggests ambivalence to the reader who does not know the original context of the remarks. Thus the *PR* is a kind of philosophical grammar of phenomenological spaces.

With this in mind, the structure of the work can be gleaned. In the first few chapters Wittgenstein presents the general philosophical principles on which a phenomenology would be constructed. The second broad section includes some very general applications of these principles: space, time, intentions and the ego, and an overview of visual space. (These might also be counted as *themselves* among the

principles; the ideas are not developed far enough in the work as a whole to argue decisively for one view or the other.) This section ends with a solution to the color exclusion problem which is largely continuous with what he said in *SRLF*, but with more detail². Thus there is a kind of closure to this broad section: phenomenology has been introduced as an answer to the problems of the *TLP*, and the most important part of that solution has been offered.

In the next section Wittgenstein discusses the concept of numbers and other topics in the philosophy of mathematics, as well as generality and quantification theory. The latter appear here largely because of their integral place in Frege's theory of numbers. This section of the *PR* can be thought of as a groundwork for a phenomenology of number. That may seem an odd way to characterize a section in which one of his main concerns is to reject the Fregean theory that numbers should be understood as objects. For given that numbers are clearly not sensations, one might well wonder what a phenomenology of numbers could be if they are not objects in something like Frege's sense. Nevertheless, what Wittgenstein says about them still has the ring of a phenomenology: he relates number to appearances, the visual field, and phenomenological properties of objects, and he introduces a "stroke" notation for numbers which trades partly on direct visual recognition. Some of this may relate indirectly to his attempt, in *Band I* and some of *Band II*, to develop what he considered an extensionalist theory of numbers (see Appendix

I); the theory could roughly map onto a phenomenology in the sense that one would want a concept of number that was adequate to explain the enumeration of objects given in experience, like visual circles or color patches. In any case, however vague or incomplete his ideas on it may have been, this section of the *PR* deals with the relationship between number and phenomena.

Following this he moves into a new section in which the subjects of infinity, rule-following, number series and proofs are discussed. The context and purpose of these discussions in relation to phenomenology can be understood by contrast with the previous section: there he deals with numeric properties of discrete phenomena, here he considers the mathematics of continuous phenomena, including physical space, visual space, the color spectrum, and time. Moreover, the discussions in this section show by example how to talk about all intensional phenomena. This whole section represents a preliminary attempt by Wittgenstein to get his ideas about rule-based grammars together, and thus ties in the phenomenological interests with his later work on rule-following.

After this Wittgenstein takes a more in-depth look at visual and color space. He concludes with an overview of the distinction between physical propositions (hypotheses and natural laws) and phenomenological ones, thus concluding the work more or less where it began. In theory at least, these sections have been enriched by the mathematical investigations; at least, that seems to be the only

reasonable explanation for separating the discussion of visual space from earlier discussions of the same subject. Perhaps Wittgenstein had a better idea of what was thus accomplished than we can offer here.

This is a reasonable plan of construction; but one can certainly raise objections to its execution. The connection of the rule-following material with the rest is never directly shown or argued for. The resurrection of the picture theory in Chapter III does not seem well integrated with the rest of what he says. The whole subject of expectation, and intention in general, is arguably never set in very clear relation to the grammatical philosophy until the *PG* or even the *PI*. It is very hard to discern a principled difference between the earlier and later discussions of visual space. Moreover, as argued above, many facets of his philosophy that are spread throughout the text are meant to be read in the light of the transformation of his views that began in late 1929, but in fact give the appearance of self-contradiction, indecision, and ambiguity.

Be that as it may, there is a definite conception to the construction of the *PR*, and had it been carried out more carefully and under less pressure it might have shown how far Wittgenstein had already advanced towards his later philosophy when he compiled it. The following is a proposed **Table of Contents** for the *PR*; not an "Analytical Table of Contents" as provided by Rhees but a set of chapter headings and descriptions of their contents. The chapter headings proposed are hardly the only possible ones, but they suffice

to show the overall plan that I believe Wittgenstein had in mind, even if he did not notate it in his typescript. In supplying the titles of Parts I-V I do not meant to suggest that Wittgenstein himself would have used these titles, only that they represent his overall conception of the work. If the chapters and sections I am proposing capture something close to Wittgenstein's own conception of the PR then the least we can say is that it was a more carefully thought out work than it is usually taken to be. Moreover, it would justify our giving it a new title too:

THE GRAMMAR OF PHENOMENA

PART I: Basic Principles of Phenomenology

- I. Grammar
- II. Meaning and Verification
- III. Intention and Picture

PART II: General Applications in Phenomenology

- IV. Space
- V. Time and Memory
- VI. Self and Sensation (Pain)
- VII. Visual Space and Time
- VIII. Color Exclusion (Elementary Propositions)

PART III: The Phenomenology of Number

- IX. Generality
- X. Number
- XI. Number and Generality

PART IV: The Nature of the Continuum (Rule vs. Extension)

- XII. The Concept of Infinity
- XIII. Proof, Rules and Systems
- XIV. Proof
- XV. Continuity
- XVI. Continuity in Mathematical Logic
- XVII. Irrational Numbers
- XVIII. Real and Rational Numbers
- XIX. Negation

PART V: Phenomenology and the Grammar of Physics

- XX. Visual Space
- XXI. Color
- XXII. Phenomenology and Physics (Hypotheses and Natural Laws)

NOTES

1. "My best guess is that he didn't work on this collection for long: he collected everything he'd written that he thought was along the right lines..., grouped it by rough topics - probably piling up passages on related topics in separate folders - and then pasted it all into a book so that Russell could look it over. 'Chapters' makes it seem more considered, revised, and carefully organized than that. It might be better to think of them as topical groupings, or proto-chapters" (Personal communication by email, 9 August 1999). Stern doesn't say explicitly that there were no markings corresponding to the published chapter divisions, but that seems to be the implication. But I am less concerned about whether there were specific markings than whether the divisions were in some way indicated and are not just a product of Rhees's editing.

2. There is a debate in the literature regarding this point; some feel that the solution here is fundamentally different from what he said in *SRLF*. I do not agree, but since my main interest here is not the color exclusion problem I pass over this point. Accounts of the putative differences between the solutions are given in James Austin, "Wittgenstein's Solution to the Color Exclusion Problem"; Don Sievert, "Another Look at Wittgenstein on Color Exclusion"; and Albert Newen, "Die Entwicklung der Wittgensteinischen Sprachphilosophie von 1929-1932".

APPENDIX III: PHASES OF WITTGENSTEIN'S PHENOMENOLOGICAL LANGUAGE PROJECT

This chart is of course an overly schematic way of representing the process of development of Wittgenstein's ideas but it is helpful to keep the various materials and stages synchronized. Within this scheme there are other short stages; e.g., Wittgenstein's ideas at the very beginning of PHASE I were closer to those of PHASES II and IV than to the rest of PHASE I. PHASE V is really the phase of constructing a new system, of which the *Philosophical Remarks* is the expression.

373

<u>PHASE</u>	<u>DATES</u>	<u>MANUSCRIPTS</u>	<u>WIENER AUSGABE</u>	<u>DESCRIPTION</u>
I	2 FEB - JUNE(?) 1929	<i>Band I-II</i> (ending on verso p.105 of <i>Band I'</i>); SRLF	I,4,1-I,189,5	"Two-worlds" version of phenomenological language project
II	JULY(?) 1929	<i>Band II</i> (p.108 of <i>Band I</i>) - end of <i>Band II</i> (p.134 of <i>Band I</i>)	I,190,1 - I,196,1	First crisis and critique of phenomemo- logical language project
III	late JULY(?) - SEP 1929	<i>Band III</i> p.1 - <i>Band III</i> p.153	II,3,1 - II,89,11	Attempt to resurrect the phenomenological language project
IV	6 OCT 1929 - JAN 1930	<i>Band III</i> p.153 - end (p.300) of <i>Band III</i>	II,90,1 - II,203,4	Second crisis, and final rejection of phenomenological language and his early system
V	16 FEB 1930 - MAY 1930	<i>Band IV</i> , TS 208, TS 209 (the PR)	II,207,1- II,242,3(last day of remarks before the PR)	Constructive phase; phenomenology as grammar

NOTES

1. Wittgenstein's *Band I-II* manuscripts were not consecutively paged during composition; e.g, some of *Band II* was actually written on the verso pages of *Band I*.

BIBLIOGRAPHY

- Anscombe, G.E.M.
 An Introduction to Wittgenstein's Tractatus (New York: Harper and Row, 1965).
- Aristotle
 Nicomachean Ethics, tr. W.D. Ross and J.O. Urmson, in *The Complete Works of Aristotle: The Revised Oxford Translation*, V.II, ed. Jonathan Barnes (Princeton University, 1984).
- Austin, James
 "Wittgenstein's Solution to the Color Exclusion Problem", *Philosophy and Phenomenological Research*, XLI (1980) pp.142-149.
- Baker, Gordon P., and P.M.S. Hacker
 An Analytical Commentary on the Philosophical Investigations, V.1: *Understanding and Meaning* (Oxford: Basil Blackwell, 1980).
- Barker, Peter
 "Hertz and Wittgenstein", *Studies in the History and Philosophy of Science*, 11 (1980), pp.243-256.
- Beaney, Michael, ed.
 The Frege Reader (Oxford: Basil Blackwell, 1997).
- Broad, C.D.
 Scientific Thought (New York: Humanities Press, 1952; orig. 1923)
- Brouwer, L.E.J.
 "Mathematik, Wissenschaft und Sprache", *Monatshefte für Mathematik und Physik* 36 (1929) 153-164.
- Bouwsma, O.K.
 Wittgenstein: Conversations, 1949-1951 (Indianapolis: Hackett, 1986).
- Brockhaus, Richard R.
 Pulling Up the Ladder: The Metaphysical Roots of Wittgenstein's Tractatus Logico-Philosophicus (LaSalle, IL: Open Court, 1991).
- Carnap, Rudolph
 The Logical Structure of the World, tr. Rolf A. George (University of California, 1967).
- Cavell, Stanley

"Notes and Afterthoughts on the opening of Wittgenstein's *Investigations*", in Sluga and Stern (1996) pp.261-295.

Collins, Arthur

The Nature of Mental Things (University of Notre Dame, 1987).

"On the Paradox Kripke Finds in Wittgenstein", *Midwest Studies in Philosophy* 17 (1992) 74-88.

"On the Question 'Do Numbers Exist?'" , *The Philosophical Quarterly* 48 (1998) 23-36.

Cook, John W.

Wittgenstein's Metaphysics (Cambridge: Cambridge University Press, 1994).

Cooper, David E.

Metaphor, (Oxford: Basil Blackwell, 1986).

Copi, Irving

"Objects, Properties, and Relations in the *Tractatus*", in Copi and Beard (1966) pp.167-186.

Copi, Irving, and Beard, Robert W., eds.

Essays on Wittgenstein's Tractatus (New York: MacMillan, 1966).

Derrida, Jacques

"White Mythology: Metaphor in the Text of Philosophy", in Derrida (1982).

Margins of Philosophy, tr. Alan Bass (University of Chicago, 1982).

Dwyer, Philip

"Cooking the Books: John W. Cook on Wittgenstein's Purported Metaphysics", *Journal of Philosophical Research* 23 (1999) 311-343.

Engels, Frederick

"Ludwig Feuerbach and the End of German Classical Philosophy", in Marx and Engels (1968) pp.594-632.

Fann, K.T., ed.

Ludwig Wittgenstein: The Man and His Philosophy (New Jersey: Humanities Press, 1978).

Feynman, Richard P., Leighton, Robert B., and Sands, Matthew

The Feynman Lectures on Physics, V.I (Reading, MA: Addison-Wesley, 1963).

Frege, Gottlob

- Begriffsschrift* (1879); in van Heijenoort (1967) pp.5-82; tr. Stephan Bauer-Mengelberg.
Grundgesetze der Arithmetik V.I (1893) (selections) in Beaney (1997) pp.84-129.
 "On Sinn and Bedeutung", in Beaney (1997), pp.151-171.
The Frege Reader (see listing under Beaney, Michael).
- Freud, Sigmund
A General Introduction to Psychoanalysis, tr. Joan Riviere (New York: Simon and Schuster, 1953; orig. 1924).
- Graßhoff, Gerd
 "Hertzian Objects in Wittgenstein's *Tractatus*", *British Journal for the History of Philosophy* 5,1 (1997), pp.87-119.
- Hacker, P.M.S.
Insight and Illusion: Wittgenstein on Philosophy and the Metaphysics of Experience (London: Oxford University Press, 1975).
- Haller, Rudolph and Brandl, Johannes, eds.
Wittgenstein - Towards a Re-Evaluation, I: Proceedings of the 14th International Wittgenstein-Symposium (Vienna: Verlag Hölder-Pichler-Tempsky, 1990).
- Hallett, Garth
A Companion to Wittgenstein's "Philosophical Investigations" (Ithaca: Cornell University Press, 1977).
 "The Genesis of Wittgenstein's Later Philosophy in His Failure as a Phenomenologist", *Philosophy and Theology* 5 (1991) 397-311.
- Hanfling, Oswald
 "Critical Notice of John W. Cook's *Wittgenstein's Metaphysics*", *Philosophical Investigations* 19:2 (1996).
- Hardin, C.L.
Color For Philosophers: Unweaving the Rainbow (Indianapolis: Hackett, 1988).
- Hertz, Heinrich
The Principles of Mechanics Presented in a New Form, tr. D.E. Jones and J.T. Walley (New York: Dover Publications, 1956; orig. 1894).
- Hertzberg, Lars
 Review of Wittgenstein's *Metaphysics* by John W. Cook, *Philosophical Review* 107 (1998) 163-166.

- Hintikka, Jaakko
 "Wittgenstein as a Philosopher of Immediate Experience", in Haller and Brandl (1990), pp.155-167.
- Hintikka, Merrill B. and Jaakko
Investigating Wittgenstein (Oxford/New York: Basil Blackwell, 1986).
- Hirsch, E.D., Jr.
Validity in Interpretation (Yale University, 1967).
- Holt, Edwin B., Walter T. Marvin, William Pepperrell
 Montague, Ralph Barton Perry, Walter B. Pitkin and Edward
 Gleason Spaulding
The New Realism: Cooperative Studies in Philosophy (New York: MacMillan 1912).
- Holt, Edwin B.
The Concept of Consciousness (New York: MacMillan, 1914; reprinted by Arno Press, New York, 1973).
- Hume, David
A Treatise of Human Nature, ed. L.A. Selby-Bigge
 (Oxford: Oxford University, 1978).
- Hunter, J.F.M.
Understanding Wittgenstein: Studies of Philosophical Investigations (Edinburgh University, 1985).
- Husserl, Edmund
Ideas, tr. W.R. Boyce Gibson (New York: Collier-MacMillan, 1962; orig. 1913).
- Hyman, John (ed.)
Investigating Psychology: Sciences of the Mind after Wittgenstein (London: Routledge, 1991).
- Hylton, Peter
Russell, Idealism, and the Emergence of Analytic Philosophy (Oxford: Oxford University, 1990).
- Irvine, A.D. and Wedeking, G.A., eds.
Russell and Analytic Philosophy (University of Toronto, 1993).
- Jacquette, Dale
 "Wittgenstein and the Color Incompatibility Problem",
History of Philosophy Quarterly 7 (1990) pp.353-365.
Wittgenstein in Transition (Purdue University, 1998).
- James, William

- Principles of Psychology*, V.1 (New York: Henry Holt & Co., 1890).
- "Does Consciousness Exist?", in James (1967) pp.1-38.
- "A World of Pure Experience", in James (1967) pp.39-91.
- Essays in Radical Empiricism & A Pluralistic Universe* (Gloucester, MA: Peter Smith, 1967).
- Janik, Allan & Stephen Toulmin
Wittgenstein's Vienna (New York: Simon & Schuster 1973).
- Kenny, Anthony
 "The Homunculus Fallacy", in Hyman (1991) pp.155-165.
- Kripke, Saul
Wittgenstein on Rules and Private Language: An Elementary Exposition (Harvard University, 1982).
- Lakoff, George, and Johnson, Mark
Metaphors We Live By (Chicago: University of Chicago Press, 1980).
- Lenin, V.I.
Materialism and Empirio-Criticism (New York: International Publishers, 1927; first Russian edition 1908).
- Mach, Ernst
Beiträge zur Analyse der Empfindungen (Jena: 1886); English translation (of the 1906 edition) *The Analysis of Sensations, and the Relation of the Physical to the Psychical* (New York: Dover, 1959).
Erkenntnis und Irrtum. Skizzen zur Psychologie der Forschung (Leipzig: 1905); English translation *Knowledge and Error: Sketches on the Psychology of Enquiry* (Dordrecht: Reidel, 1976).
- Malcolm, Norman
 "Wittgenstein's *Philosophische Bemerkungen*", *Philosophical Review* 76,2 (1967):220-229.
Ludwig Wittgenstein: A Memoir, 2nd ed. (Oxford: Oxford Univ. Press, 1984).
- Marion, Mathieu
 "Wittgenstein et son oeuvre posthume" (a review of the first two volumes of *Wiener Ausgabe*), *Dialogue* 35 (1996) 777-789.
- Marx, Karl
 "Theses on Feuerbach", in Marx and Engels (1968), pp.28-30.

- Marx, Karl and Engels, Frederick
Selected Works (New York: International Publishers, 1968).
- Menger, Karl
Reminiscences of the Vienna Circle and the Mathematical Colloquium, ed. Loius Golland, Brian McGuinness and Abe Sklar (Dordrecht: Kluwer Academic Publishers, 1994).
- Miller, Richard W.
 "Wittgenstein in Transition: A Review of the *Philosophical Grammar*", *Philosophical Review* 86,4 (1977): 520-544.
- Monk, Ray
Ludwig Wittgenstein: The Duty of Genius (New York: The Free Press 1990).
- Moore, G.E.
Principia Ethica (Cambridge: Cambridge University, 1959; orig. 1903).
 "Some Judgements of Perception", in Moore (1968) pp.220-252.
 "Visual Sense-Data" in Swartz (1965), pp.130-7.
 "The Refutation of Idealism", in Moore (1968) pp.1-30.
Philosophical Studies (Totowa, NJ: Littlefield, Adams & Co., 1968) (orig. 1922)
 "Wittgenstein's Lectures in 1930-33" in *Philosophical Occasions* (1993); orig. pub. *Mind* 63 (1954) and 64 (1955).
- Newen, Albert
 "Die Entwicklung der Wittgensteinischen Sprachphilosophie von 1929-1932", *Zeitschrift für philosophische Forschung*, 51,3 (1997): 427-447.
- Noë, Robert Alva
 "Wittgenstein, Phenomenology, and What It Makes Sense to Say", *Philosophy and Phenomenological Research* 54 (1994), 1-42.
- Ogden, C.K., and Richards, I.A.
The Meaning of Meaning (New York: Harcourt, Brace & World, 1923).
- Pears, David
The False Prison, V.1 (New York: Oxford University Press, 1987).
The False Prison, V.2 (New York: Oxford University Press, 1988).

"Russell's 1913 *Theory of Knowledge* Manuscript", in Savage (1989), pp.169-182.

"Wittgenstein's Naturalism", *Monist* 78(4), 10/95, pp.411-424.

Pearson, Karl

The Grammar of Science (London: J.M. Dent & Sons, 1937; first published 1892).

Peirce, Charles Sanders,

"Some Consequences of the Four Incapacities" (1868), in Peirce (1992) pp.28-55.

The Essential Peirce, V.I, ed. Nathan Houser and Christian Kloesel (Indiana University, 1992).

Popper, Karl

The Logic of Scientific Discovery (New York: Harper and Row, 1968 (orig. 1934)).

Price, H.H.

Perception, 2nd Ed. (London: Methuen & Co., 1950; orig.1932).

Reeder, Harry P.

"Wittgenstein Never Was a Phenomenologist", *Journal of the British Society for Phenomenology*, 20,3 (1989), 257-276.

Ricketts, Thomas

"Pictures, Logic, and the Limits of Sense in Wittgenstein's *Tractatus*", in Sluga and Stern (1996).

Russell, Bertrand

The Principles of Mathematics, Second Edition (New York: Norton, no date; Second Edition orig. 1938; orig. Preface dated Dec. 1902).

Our Knowledge of the External World, 2nd Ed. (New York: W.W. Norton, 1929; orig. 1914).

"On Scientific Method in Philosophy" (1914); reprinted in Russell (1925) pp.97-124.

"The Ultimate Constituents of Matter", *The Monist* (July 1915); reprinted in Russell (1925), pp.125-144.

The Philosophy of Logical Atomism (Lasalle, IL: Open Court, 1985; orig. 1918 & 1924).

The Analysis of Mind (London: Allen & Unwin, 1921).

Mysticism and Logic and Other Essays (London: Longman's, Green and Co., 1925).

My Philosophical Development (London: George Allen and Unwin, 1959).

Theory of Knowledge (London: Routledge, 1992).

Russell, Bertrand, and Alfred North Whitehead

- Principia Mathematica*, V.I, 2nd Ed. (Cambridge: Cambridge University Press, 1960) (orig. 1910)
- Savage, C. Wade, ed.
Rereading Russell: Essays on Bertrand Russell's Metaphysics and Epistemology (Minneapolis: University of Minnesota Press, 1989).
- Shanker, Stuart
 "Wittgenstein Versus Russell on the Analysis of Mind", in Irvine and Wedeking (1993), pp.210-241.
 "The Enduring Relevance of Wittgenstein's Remarks on Intentions", in Hyman (1991) pp.67-94.
- Sievert, Don
 "Another Look at Wittgenstein on Color Exclusion", *Synthese* 78 (1989) 291-318.
- Sluga, Hans, and Stern, David G.
The Cambridge Companion to Wittgenstein (New York: Cambridge University Press, 1996).
- Specht, Ernst Konrad
The Foundations of Wittgenstein's Late Philosophy, tr. D.E. Walford (Manchester University, 1969; orig. 1963).
- Spiegelberg, Herbert
 "The Puzzle of Ludwig Wittgenstein's *Phänomenologie* (1929-?)", *American Philosophical Quarterly*, 5,4 (1968), 244-256.
- Stenius, Erik
Wittgenstein's Tractatus: A Critical Exposition of the Main Lines of Thought (Bristol: Thoemmes Press, 1996; orig. 1960).
- Stern, David
Wittgenstein on Mind and Language (New York: Oxford University Press, 1995).
- Swartz, Robert J., ed.
Perceiving, Sensing, and Knowing (London: University of California Press, 1965).
- van Heijenoort, Jean
From Frege to Gödel: A Source Book in Mathematical Logic, 1879-1931 (Cambridge, MA: Harvard University Press, 1967).
- von Wright, Georg Henrik
Wittgenstein (University of Minnesota Press, no date).

Wilson, Andrew D.

"Hertz, Boltzmann and Wittgenstein Reconsidered",
Studies in the History and Philosophy of Science 20
(1989), pp.245-263.

Wilson, George M.

"Semantic Realism and Kripke's Wittgenstein",
Philosophy and Phenomenological Research 58 (1998) 99-
122.

Wisdom, John

"Ludwig Wittgenstein, 1934-1937", in Fann (1978)
pp.46-48.

"A Feature of Wittgenstein's Technique", in Fann
(1978) pp.353-365.

Wittgenstein, Ludwig

*The Blue and Brown Books: Preliminary Studies for the
Philosophical Investigations*, 2nd Ed. (New York: Harper
& Row, 1960; 1st Ed. 1958).

"Cause and Effect: Intuitive Awareness" (1937), in
Wittgenstein (1993) pp.371-405.

*Lectures and Conversations on Aesthetics, Psychology,
and Religious Belief*, ed. Cyril Barrett (University of
California, 1972).

Letters to Russell, Keynes and Moore, ed. G.H. von
Wright (Cornell University, 1974).

"The Language of Sense Data and Private Experience"
(1936) in Wittgenstein (1993) pp.290-367.

Last Writings on the Philosophy of Psychology, V.1,
ed. G.H. von Wright and Heikki Nyman, tr. C.G.
Luckhardt and A.E. Aue (University of Chicago, 1990;
orig. ed. 1982).

Notebooks 1914-1916, 2nd Ed., ed. G.H. von Wright and
G.E.M. Anscombe, tr. G.E.M. Anscombe (Oxford: Basil
Blackwell, 1979; 1st ed. 1961).

"Notes on Logic" (1913), in Wittgenstein (1979),
pp.93-107.

"Notes for Lectures On 'Private Experience' and
'Sense Data'" (1934-6) in Wittgenstein (1993) pp.202-
288.

"Notes for the Philosophical Lecture" (1941?) in
Wittgenstein (1993) pp.447-458.

On Certainty, ed. G.E.M. Anscombe and G.H. von
Wright, tr. Denis Paul and G.E.M. Anscombe (New York:
Harper & Row, 1972; orig. 1979).

Philosophical Grammar, ed. Rush Rhees, tr. Anthony
Kenny (University of California, 1978; orig. English
ed. 1974).

Philosophical Investigations, 2nd Ed., tr. G.E.M.
Anscombe (New York: The Macmillan Company, 1958 (1st
Ed. 1954)).

Philosophical Occasions, ed. James C. Klagge and Alfred Nordmann (Indianapolis: Hackett, 1993).

Philosophical Remarks, ed. Rush Rhees, tr. Raymond Hargreaves and Roger White (University of Chicago, 1975).

Philosophische Bemerkungen, ed. Rush Rhees (Frankfurt am Main: Suhrkamp Verlag, 1993; orig. 1984).

Remarks on the Foundations of Mathematics, Revised Ed., ed. G.H. von Wright, Rush Rhees and G.E.M. Anscombe, tr. G.E.M. Anscombe (Cambridge, MA: MIT Press, 1978; 1st Ed. 1956).

"Remarks on Frazer's *Golden Bough*" (1931 and later) in Wittgenstein (1993) pp.118-155.

Remarks on the Philosophy of Psychology, V.1, ed. G.E.M. Anscombe and G.H. von Wright, tr. G.E.M. Anscombe (University of Chicago, 1980).

"Some Remarks on Logical Form" (1929) in Wittgenstein (1993) pp.29-35.

Tractatus Logico-Philosophicus, tr. C.K. Ogden (London: Routledge, 1922; orig. German ed. 1921).

Tractatus Logico-Philosophicus, tr. D.F. Pears and B.F. McGuinness (London: Routledge & Kegan Paul, 1961).

Ludwig Wittgenstein Wiener Ausgabe, VI-6, ed. Michael Nedo (Vienna: Springer-Verlag, 1994-6).

Ludwig Wittgenstein und der Wiener Kreis, 4th Ed., ed. B.F. McGuinness (Frankfurt am Main: Suhrkamp Verlag, 1993; orig. 1984).

Wittgenstein's Lectures: Cambridge, 1930-1932, ed. Desmond Lee (University of Chicago, 1980).

Wittgenstein's Lectures: Cambridge, 1932-35, ed. Alice Ambrose (University of Chicago, 1989; orig. 1979).

Wrigley, Michael

"The Origins of Wittgenstein's Verificationism",
Synthese 78 (1989): 265-290.