## Thomas E. Uebel

## OVERCOMING LOGICAL POSITIVISM FROM WITHIN

The Emergence of Neurath's Naturalism in the Vienna Circle's Protocol Sentence Debate



Amsterdam - Atlanta, GA 1992

## TABLE OF CONTENTS

Preface

vii

1 Introduction: Otto Neurath, the Vienna Circle and the Protocol	
Sentence Debate	1
School Decare	
1.1 Neurath's Boat: A Motto for 'Post-Positivist' Naturalism	1
1.1.1 Neurath and Quine on Naturalistic Epistemology	2
1.1.2 Neurath's Boat and Epistemology	2 4 5 6 8
1.2 The Vienna Circle: Basic Doctrines and Aims	5
1.2.1 The Historical Situation of Vienna Circle Philosophy	6
1.2.2 The Marriage of Empiricism and Logicism	8
1.2.3 The Unity of Science	9
1.2.4 The Relevance of Science to Philosophy	10
1.2.5 The Nature of Vienna Circle Epistemology	12
1.3 Different Interpretations of Vienna Circle Philosophy	13
1.3.1 The Traditional View of Vienna Circle Philosophy	13
1.3.2 An Alternative View of Vienna Circle Philosophy	15
1.3.3 The Alternative Neo-Kantian Reading and its Critics	17
1.3.4 The Continental Neurath Rediscovery	19
1.4 Approaching the Protocol Sentence Debate	20
1.4.1 The Thematic Setting of the Debate	21
1.4.2 The Structure of the Debate	24
1.5 Course of Investigation	27
•	
2 The Background of the Protocol Sentence Debate: Carnap's Auft	bau 29
2.1 Carnap as Language Constructor: Overview of the Aufbau	29
2.2 Reconstructional Choices: The Mechanics of the Aufbau	30
2.2.1 The Phenomenalist Choice of the Object Domain	31
2.2.2 The Structuralist Choices of Language Form	32
2.2.3 The Compatibility of Groundplan and Method	35
2.3 The Point of the Aufbau (I)	37
2.3.1 The Traditional Reading: Phenomenalist Foundationalism	37
2.3.2 The New Reading: Structuralist Neo-Kantianism	39
2.3.3 The Constitutive Importance of Structure	41
2.3.4 The Compatibility of Phenomenalism and Structuralism	43
2.4 The Point of the Aufbau (II)	44
2.4.1 The Problem of the Basic Relation	45
2.4.2 Conventionalism the Aufbau	46
2.4.3 The Remaining Tension in the Aufbau	49
2.5 Summary	51

3 Sta	ge One, Stage Right: Schlick's Anti-Formalist Challenge	53
3.1 Sch	lick's Agreement with Carnap: Against Intuitive Content	53
	osophy as the Activity of Meaning Determination	56
3.2.1	Meaning Determination Through Psychic Acts	57
3.2.2	The Point of Schlick's Experiential Meaning Determination	58
	lick's Objections to the Aufbau	60
3.3.1	The Issue of the Certainty of Philosophical Knowledge	60
3.3.2		62
3.3.3		64
	lick's Experiential Turn Compared to Carnap's Formalism	67
3.5 Sum		69
4 Stag	e One, Stage Left: Neurath's Naturalistic Challenge	71
	its of Agreement between Neurath and Carnap	71
4.2 Neu	rath's 1928 Criticisms: Against Completist Idealizations	73
4.2.1	Against 'Complete Insight' and an 'Ideal Language'	75
4.2.2	The Scope of Neurath's Criticism	76
4.2.3	Against Carnap's Solipsistic Base	78
4.3 A C	ase in Point: Carnap's Scheinprobleme	80
4.3.1	The Given as a Sign	80
4.3.2	The Practical Irrelevance of 'Factual' Representations	82
4.4 Neu	rath's Prague Address: Against Aprioricism in Epistemology	84
4.3.1		34
4.3.2	Against A Priori Epistemology	85
	Against Correspondence Truth	86
4.3.4	Neurath's Early Naturalism	88
4.3.5	Neurath's Materialism	88
4.4 The	Problem of Intersubjectivity	89
4.4.1	Carnap's Change of Position between 1928 and 1930	9(
4.4.2	Intersubjectivity According to the Aufbau	92
4.4.3	Neider's Argument Explicated	93
4.4.4	The Inception of Physicalism	94
4.5 S	ummary	95
5 Back	ground for Stages Two and Three: Carnap' Syntactic Turn	9
5.1 Stag	e Two and Logical Syntax	97
	Overview of Stage Two	99
5.1.2		100
5.2.2		102
	alinguistic Talk according to Camap's Logical Syntax	103
5.2.1	The Material and the Formal Mode of Speech	104
5.2.2	The Principle of Logical Tolerance	105
	Anomalies of Carnap's Syntacticism	106
5.3.1	The Tenet that Analyticity is a Syntactic Notion	106
5.3.2	The Underlying Tenet that Form is Meaning	109
5.3.3	The Tenet of Descriptive Syntax that Ostensive Definitions are Syntactic	110
5.3.4	Evaluation of Caman's Logical Syntax	113

## xiii

<ul> <li>5.4 Neurath's Adoption of the Syntactic Turn Assessed</li> <li>5.4.1 Metalinguistic Investigations in Neurath's Physicalism</li> <li>5.4.2 Was Neurath's Meaning Talk Legitimate?</li> <li>5.5 Summary</li> </ul>	110 110 119 120
6 Stage Two, Part One: Neurath's Naturalistic Challenge Radicalized	12
6.1 The Early Discussions of Physicalism 6.1.1 In the Circle, February 1931 6.1.2 Carnap's Physicalism of Early 1931 6.1.3 Neurath's Physicalism of Early 1931 6.2 Neurath's 1931 Physicalist Charge in Publications 6.2.1 Neurath's Private Language Argument: a First Analysis 6.2.2 The Neurath-Principle: Coherentist Justification 6.2.3 Neurath's Naturalistic Epistemology: Further Hints 6.3 Carnap's Incomplete Response to Neurath's Physicalism 6.3.1 Carnap's Retention of the "Primitive" Protocol Language	123 124 128 130 130 134 136 140
6.3.2 Carnap's and Neurath's "Essential" Agreement	143
6.4 Summary	146
7 Stage Two, Part Two: Neurath's Naturalistic Challenge Sustained	14
7.1. Carnap's Physicalism of Early 1932 7.1.1. Carnap's Private Language Argument 7.1.2. Carnap's Physicalism and the Language of Epistemology 7.2. The State of the Debate, Winter/Spring 1932 7.2.1 The Difference Between Carnap's and Neurath's Protocols 7.2.2 Did Carnap and Neurath Misunderstand Each Other? 7.3.1 The Anti-Carnapian Argument of "Protocol Statements" 7.3.2 Neurath's Alternative 7.4 Carnap's Considered Response 7.4.1 Carnap's Defense of the Phenomenalistic Protocol Language 7.4.2 Caranap's Preference for a Physicalistic Protocol Language 7.5.1 Two Disagreements and a Deep Suspicion 7.5.2 Zilsel's Query To Carnap 7.5.3 Carnap's Problematic Defense of Empiricism 7.6 Popper's Role in the Protocol Sentence Debate 7.6.1 Popper's Criticism of the Aufbau 7.6.2 Popper's Anti-Psychologism 7.7 Summary	147 148 150 152 153 156 157 162 164 165 167 169 170 172 173 175
8 Stage Three: Schlick's Challenge to Radical Physicalism	177
8.1 The End of an Era 8.1.1 Overview of Stages Three and Four 8.1.2 Behind the Scenes of Stage Three 8.2 Schlick's Challenge To Radical Physicalism 8.2.1 Schlick's Rejection of Radical Physicalism 8.2.2 Neurath's Rejoinder to Schlick	177 177 178 180 181 183
o.z.z	100

8.2.3 The Hempel-Schlick Exchange	188
8.2.4 Schlick's Coda	190
8.3 Carnap's Attempt at Reconciliation	196
8.3.1 The Discovery of Tarski's Theory of Truth	196
8.3.2 The Distinction between Truth and Confirmation	197
8.3.3 The Liberalization of Empiricism	200
8.4 Summary	202
9 Analysis: The Protocol Sentence Debate as the Struggle for Tru	
'Scientific Philosophy'	20
9.1 The 'Critical' Protocol Sentence Debate	205
9.1.1 'Critical' Scientism	205
9.1.2 The Issues of the Protocol Sentence Debate	207
9.2 The Question of 'Foundations'	209
9.2.1 The Content of Basic Statements	209
9.2.2 The Form of Basic Statements	210
9.2.3 The Epistemological Status of Basic Statements	211
9.2.4 The Answers to the Basis Question	212
9.2.5 Were Schlick and Carnap Foundationalists?	212
9.2.6 Carnap's and Schlick's Non-Foundationalism	214
9.2.7 One Debate or Many?	217
9.3 The Underlying Problems of the Debate	218
9.3.1 The Structuralization Problem and the Question of the	210
Representability of Logical Form	219
9.3.2 Three Conceptions of Representation and Meaning	220
9.3.3 The Modal Scope of the Defense of Knowledge Claims	222
9.3.4 The Problem of Epistemological Adequacy	223
9.4 The Vienna Circle and the Heuristics of Scepticism	225
9.4 1 Different Answers to Different Sceptical Heuristics	225
the state of the s	
The second secon	226
9.4.3 The Frame Problem of Viennese Epistemology	228
9.5 Three Guiding Conceptions of Epistemology	229
9.5.1 Schlick's Guiding Conception	229
9.5.2 Carnap's Guiding Conception	230
9.5.3 Neurath's Guiding Conception	232
9.6 Summary	233
10 Neurath's Argument for Naturalism	23
10.1 The Conceptual Objections to Neurath's Views	234
10.1.1 The Viennese Neurath Reception: General Remarks	234
10.1.2 Schlick's Conceptual-Ideological Objection	236
10.1.3 Carnap's Deflection of Neurath's Challenge	237
10.2 Carnap's and Neurath's Private Language Arguments Compared	238
10.2.1 The Difference Between their Arguments Recapitulated	238
10.2.2 The Focus of Neurath's Argument	240
10.2.3 Neurath's and Camap's Conflict Restated	241
10.2.3 The History of Neurath's Argument	243
10.3.1 Later Uses of Neurath's Argument	243
10.3.2 The Background of Neurath's Argument	243
10.5.2 The Dackground of Premain 5 Augument	244

10.4 A Private Language Argument for Naturalism?	246
10.4.1 How Neurath Did Not Argue for Naturalism	247
10.4.2 The Argument for Naturalism	249
10.5 Neurath's and Carnap's Metaepistemologies	252
10.5.1 Naturalism vs. Rational Reconstruction	252
10.5.2 The Primacy of Practice	253
10.5.3 Compatible or Competing Research Programs?	255
10.6 The Motivation for Neurath's Naturalism	257
10.6.1 The Point of Heuristic Meaning Scepticism	257
10.6.2 The Idea of 'Controllable Rationality'	259
10.6.3 The Deep Background of Neurath's Argument	262
10.7 Summary	263
11 Neurath's Theory of Protocol Statements	265
11.1 The Mechanics of Neurath's Proposal Questioned	265
11.1.1 Popper's Criticism	265
11.1.2 Schlick's Criticism	267
11.1.3 Hempel's Misinterpretation	269
11.2 Neurathh's Continuing Advocacy of his Proposal	271
11.2.1 Further Remarks on Protocol Statements	272
11.2.2 How to Answer Neurath's Critics	276
11.3 Interpretation of Neurath's Proposal	277
11.3.1 The Decomposition of Neurath's Protocols	278
11.3.2 The Formal Conditions: The Validity of Protocols	280
11.3.3 The Pragmatic Condition: Valid Protocols as 'Binding'	283
11.4 Neurath's Proposal Vindicated	285
11.4.1 The Inapplicability of Standard Criticisms	286
11.4.2 Carnap's Non-Psychologistic Alternative	288
11.4.3 Comparison with Contemporary Work on Observation	290
11.5 Summary	292
12 Conclusion: Beyond Logical Positivism	294
12.1 Reflexivity in Unified Science	294
12.1.1 Horkheimer's Critique	295
12.1.2 Reflection in Encyclopedic Unified Science	296
12.1.3 Normative Questions in Unified Science	299
12.1.4 Reflexivity and Naturalism	300
12.2 Neurath's Program for Naturalistic Epistemology	301
12.2.1 One Program for Naturalistic Epistemology	302
12.2.2 Neurath's Endorsement of that Program	303
12.2.3 Neurath's Normative Social Scientific Naturalism	304
12.2.4 Outstanding Issues for Neurath's Naturalism	308
12.3 Naturalism, Controllable Rationality and Neurath's Boat	310
12.4 Logical Positivism Overcome	314
Notes	316
Bibliography	348
Name Index	374