Vygotsky and Cognitive Science

Language and the Unification of the Social and Computational Mind

William Frawley

Harvard University Press

Cambridge, Massachusetts, and London, England | 1997

Contents

Acknowledgments *ix* Introduction *1*

Part I Foundations for Unification

- 1 Internalism and the Ideology of Cognitive Science 13
 - 1.1 Luria's Peasant and the Frame Problem 13
 - 1.2 The Deprivileging of External Causes 17
 - 1.3 Luria's Peasant, Again (and Fodor on Vygotsky) 26
 - 1.4 Vygotsky and the Frame Problem 31

2 From Plato's Problem to Wittgenstein's Problem 35

- 2.1 Plato's Answer: The Inward Turn 35
- 2.2 Universal Grammars 37
- 2.3 Troubles in Paradise 44
- 2.4 Wittgenstein's Problem 50
- 3 Architectures and Contexts: Unifying Computational and Cultural Psycholinguistics 66
 - 3.1 Incommensurablity and Unity 66
 - 3.2 Cognitive Science: A Primer 68
 - 3.3 Vygotskyan Theory: A Primer 86
 - 3.4 Architectures and Contexts: Three Prospects for Unity 106

Part II Three Unities

4 Subjectivity:

Consciousness and Metaconsciousness 121

- 4.1 Consciousness Regained 121
- 4.2 From Information Processing to Self-Consciousness 125

- viii Contents
 - 4.3 The Organization of Subjectivity 127
 - 4.4 Vygotskyan Demonstrations of Metaconsciousness 149
 - 5 Control and the Language for Thought 175
 - 5.1 The Importance of Reflexivity 175
 - 5.2 Defining the Language for Thought 178
 - 5.3 The Limits of Private Speech Research 183
 - 5.4 A Context-Architecture View of the Language for Thought 185
 - 5.5 The Linguistic Structure of the Language for Thought 187
 - 5.6 Computational Control and the Symptoms of the Machine Self 213
 - 5.7 Run Time and Relativity 230
 - 6 Control Disorders:

Splitting the Computational from the Social 234

- 6.1 Logic/Control Dissociations 234
- 6.2 A Catalogue of Control Disorders 235
- 6.3 Logic versus Control 238
- 6.4 Private Speech Disruptions 245
- 6.5 The Metaconscious Effects of Control Disorders 247
- 6.6 Two Final Clarifications 258

Epilogue:

Is Everything Cognitive Science? 261

Against Grand Schemes 261 Sociocomputationalism 263 Two Prospects for Sociocomputationalism 265 Does Internalism Win Out? 270

Notes 275 Bibliography 293 Index 321

....