

The Working Mind

The Working Mind

Meaning and Mental Attention in Human Development

Juan Pascual-Leone and Janice M. Johnson

**The MIT Press
Cambridge, Massachusetts
London, England**

© 2021 Juan Pascual-Leone and Janice M. Johnson

This work is subject to a Creative Commons CC-BY-NC-ND license.
Subject to such license, all rights are reserved.



The open access edition of this book was made possible by generous funding from Arcadia – a charitable fund of Lisbet Rausing and Peter Baldwin.



This book was set in Stone Serif and Stone Sans by Westchester Publishing Services.

Library of Congress Cataloging-in-Publication Data

Names: Pascual-Leone, Juan, author. | Johnson, Janice M., author.

Title: The working mind : meaning and mental attention in human development /
Juan Pascual-Leone and Janice M. Johnson.

Description: Cambridge : The MIT Press, 2021. | Includes bibliographical references and index.

Identifiers: LCCN 2020027072 | ISBN 9780262045551 (hardcover)

Subjects: LCSH: Developmental psychology. | Cognition. | Task analysis.

Classification: LCC BF713 .P378 2021 | DDC 155.4/13--dc23

LC record available at <https://lcn.loc.gov/2020027072>

Contents

Preface vii

Acknowledgments xiii

I Foundations of a Causal Constructivist Theory: Semiotic Processes

- 1 Dialectical Constructivism: The Working Mind Underlying Working Memory 3
- 2 Problems of Cognitive Developmental Theory 33
- 3 Emergence of Mental Attention in Infancy: From Sensorimotor to Symbolic Processing 61
- 4 Meaning, Mental Attention, and the Symbolic Function 119

II Theory of Constructive Operators (TCO)

- 5 Schemes/Schemas and Their Causal Constructivist Learning 141
- 6 Automatic Attention: Effortless, Perceptual, and Personal 181
- 7 Mental Attention, Intelligence, and Consciousness 205

III TCO, Task Analysis, and Neuroscience

- 8 Process Analysis and Mental Task Analysis: Foundations 257
- 9 Process and Mental Task Analysis: Methods and Examples 289
- 10 The Working Mind Inside a Working Brain: A Neuropsychological Introduction 317
- 11 The Working Mind Inside a Working Brain: Functional Dimensions in Brain Semiotics 359
- 12 The Working Mind Model across Human Domains 397

Appendix: On Metasubjective Task Analysis (MTA)	413
Glossary	421
Notes	427
References	435
Index	471

This is a section of [doi:10.7551/mitpress/13474.001.0001](https://doi.org/10.7551/mitpress/13474.001.0001)

The Working Mind

Meaning and Mental Attention in Human Development

By: Juan Pascual-Leone, Janice M. Johnson

Citation:

The Working Mind: Meaning and Mental Attention in Human Development

By: Juan Pascual-Leone, Janice M. Johnson

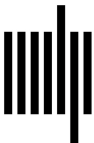
DOI: 10.7551/mitpress/13474.001.0001

ISBN (electronic): 9780262363082

Publisher: The MIT Press

Published: 2021

The open access edition of this book was made possible by generous funding and support from Arcadia – a charitable fund of Lisbet Rausing and Peter Baldwin



The MIT Press

© 2021 Juan Pascual-Leone and Janice M. Johnson

This work is subject to a Creative Commons CC-BY-NC-ND license.
Subject to such license, all rights are reserved.



The open access edition of this book was made possible by generous funding from Arcadia – a charitable fund of Lisbet Rausing and Peter Baldwin.



This book was set in Stone Serif and Stone Sans by Westchester Publishing Services.

Library of Congress Cataloging-in-Publication Data

Names: Pascual-Leone, Juan, author. | Johnson, Janice M., author.

Title: The working mind : meaning and mental attention in human development /
Juan Pascual-Leone and Janice M. Johnson.

Description: Cambridge : The MIT Press, 2021. | Includes bibliographical references and index.

Identifiers: LCCN 2020027072 | ISBN 9780262045551 (hardcover)

Subjects: LCSH: Developmental psychology. | Cognition. | Task analysis.

Classification: LCC BF713 .P378 2021 | DDC 155.4/13--dc23

LC record available at <https://lcn.loc.gov/2020027072>