

## CONTENTS

ABSTRACT	v
I. INTRODUCTION: RECONCEPTUALIZING THE NATURE OF CHILDREN'S CONCEPTUAL STRUCTURES AND THEIR DEVELOPMENT IN MIDDLE CHILDHOOD <i>Robbie Case</i>	1
II. EXPLORING THE MICROSTRUCTURE OF CHILDREN'S CENTRAL CONCEPTUAL STRUCTURES IN THE DOMAIN OF NUMBER <i>Yukari Okamoto and Robbie Case</i>	27
III. EXPLORING THE MACROSTRUCTURE OF CHILDREN'S CENTRAL CONCEPTUAL STRUCTURES IN THE DOMAINS OF NUMBER AND NARRATIVE <i>Robbie Case, Yukari Okamoto, Barbara Henderson, Anne McKeough, and Charles Bleiker</i>	59
IV. EVALUATING THE BREADTH AND DEPTH OF TRAINING EFFECTS WHEN CENTRAL CONCEPTUAL STRUCTURES ARE TAUGHT <i>Sharon Griffin and Robbie Case</i>	83
V. CENTRAL SPATIAL STRUCTURES AND THEIR DEVELOPMENT <i>Robbie Case, Kimberly Marra Stephenson, Charles Bleiker, and Yukari Okamoto</i>	103
VI. CROSS-CULTURAL INVESTIGATIONS <i>Yukari Okamoto, Robbie Case, Charles Bleiker, and Barbara Henderson</i>	131
VII. MODELING THE DYNAMIC INTERPLAY BETWEEN GENERAL AND SPECIFIC CHANGE IN CHILDREN'S CONCEPTUAL UNDERSTANDING <i>Robbie Case</i>	156
VIII. SUMMARY AND CONCLUSION <i>Robbie Case</i>	189
APPENDIX A: ADMINISTRATION AND SCORING OF THE NUMERICAL TASKS	215

APPENDIX B: ADMINISTERING AND SCORING OF THE NARRATIVE TESTS	230
APPENDIX C: ADMINISTRATION AND SCORING OF THE SPATIAL TASKS	239
APPENDIX D: SAMPLE LESSON FROM THE RIGHTSTART PROGRAM	247
APPENDIX E: PROCEDURES AND PARAMETERS FOR FITTING THE GROWTH OF WORKING MEMORY WITH A SET OF LOGISTIC EQUATIONS	250
REFERENCES	252
ACKNOWLEDGMENTS	264
<b>COMMENTARY</b>	
A GRAND THEORY OF DEVELOPMENT <i>Robert S. Siegler</i>	266
CENTRAL CONCEPTUAL STRUCTURES: SEEKING DEVELOPMENTAL INTEGRATION <i>Daniel P. Keating</i>	276
<b>REPLY</b>	
MODELING THE PROCESS OF CONCEPTUAL CHANGE IN A CONTINUOUSLY EVOLVING HIERARCHICAL SYSTEM <i>Robbie Case</i>	283
CONTRIBUTORS	296
STATEMENT OF EDITORIAL POLICY	298