Human Cognitive Abilities in Theory and Practice

Edited by
John J. McArdle
and
Richard W. Woodcock
University of Virginia
Contents

Introduction ix

I. KEYNOTE SPEAKERS

1. Introduction of John B. Carroll 1
   Richard E. Snow
   Human Cognitive Abilities: A Critique 5
   John B. Carroll

2. Introduction of Raymond B. Cattell 25
   John L. Horn
   Where Is Intelligence? Some Answers 29
   From the Triadic Theory
   Raymond B. Cattell

3. Introduction of E. N. Sokolov 39
   S. W. Porges
   Higher Mental Activity and Basic Physiology:
   Subjective Difference and Reaction Time 45
   E. N. Sokolov

II. INVITED TALKS

4. A Basis for Research on Age Differences 57
   in Cognitive Capabilities
   John Horn

5. Abilities as Aptitudes and Achievements 93
   in Learning Situations
   Richard E. Snow
CONTENTS

6. How Do Families Affect Intelligence? Social Environmental and Behavior Genetic Predictions  
   Sandra Scarr

7. Extending Gf-Gc Theory Into Practice  
   Richard W. Woodcock

III. POSTER SESSION PAPERS

8. Contemporary Statistical Models for Examining Test-Bias  
   John J. McArdle

9. Interbattery Convergent Measurement Models Applied to the WAIS and WJ-R  
   Steven H. Aggen

10. A Psychotelemetry Experiment in Fluid Intelligence  
    Steven M. Boker and John J. McArdle

11. A Developmental-Based Item Factor Analysis  
    Fumiaki Hamagami

12. A Structural Factor Analysis of Gender and Age Differences in Cognitive Ability  
    Patricia A. Hulick

13. Age Differences in Processes of Fluid and Crystallized Intelligence  
    Jennie G. Noll and John Horn

14. Decision Validity Methods Applied to Cognitive Assessments of Brain Disorder  
    Thomas S. Paskus

IV. DISCUSSIONS

15. Discussions of Human Cognitive Abilities Conference Papers  
    HCA Conference Participants