CONTENTS

SUMMARY 1

CHAPTER 1. Measurement of Latent Traits 4
Plan of the Book 11

CHAPTER 2. Latent Trait Models for Dichotomous Choice Data 13
The Rasch Model 15
Rasch Analysis of "Attitude towards Drugs" Statements 18
The MOKKEN Model 20
MOKKEN Analysis of "Attitude towards Drugs" Statements 21
The PIRT Model 22
PIRT Analysis of Attitude towards Capital Punishment 24
MUDFOLD 25
MUDFOLD Analysis of Preferences for Six European Party Groups 27
Conclusion 27

CHAPTER 3. Paralellogram Analysis (PARELLA) 29

CHAPTER 4. Estimating the Parameters of the PARELLA Model 36
An Estimation Procedure for the Marginal PARELLA Model 39
Estimation of Person Parameters 48
Fisher Information 52
Marginal Maximum Likelihood : Correct Standard Errors of the Estimates 59

CHAPTER 5. Accuracy of the Estimates 61
Validation of the Estimation Procedure of the PARELLA Model 61
The Robustness of the Estimation Procedure 61
An Empirical Investigation of the Bias of the Estimates 87
Conclusion 87

CHAPTER 6. Goodness of Fit Tests for the PARELLA Model 89
A Test for Differential Item Functioning 91
Comparing Expected and Empirical Item Characteristic Curves 93

CHAPTER 7. PARELLA Analysis of Extreme, Random and Dominance Data 100
PARELLA Analysis of Extreme Data 100
The PARELLA Model Perfectly Fits Random Noise 104
The PARELLA Model Perfectly Fits Dominance Data 104
The PARELLA Model Perfectly Fits Data Generated According to the Rasch Model 107
Conclusion 110

CHAPTER 8. Analysis of some Empirical Data Sets 111
Measurement of the Attitude towards Capital Punishment 112
Measurement of the Attitude towards Nuclear Power 115
Preferences of American Party Activists for Politicians 118
Importance Ratings of American Party Activists for Political Measures 121
Evaluation of Political Measures (Szirmay) 124
Search for a PARELLA homogeneous Set of Statements about Income Restraint 129
Self Evaluation by means of Male Personality Characteristics 132
Self Evaluation by means of Female Personality Characteristics 136
Discussion 138

CHAPTER 9. Discussion 141
Problems and Prospects of the PARELLA Model 141
Extension of the PARELLA Model 143
Epilogue 146

REFERENCES 147

NEDERLANDSTALIGE SAMENVATTING 152