

# Contents

	<i>Page</i>
<i>Preface</i>	v
<i>Introduction: A Preview of the Issues and an Overview of the Readings</i>	ix

## PART ONE. CRITICAL HISTORICAL CONTEXT

Introduction	3
1. The Contemporary Crisis or the Uncertainties of Uncertain Inference <i>Lancelot Hogben, F.R.S.</i>	8
2. Statistical Prudence and Statistical Inference <i>Lancelot Hogben, F.R.S.</i>	22
3. Significance as Interpreted by the School of R. A. Fisher <i>Lancelot Hogben, F.R.S.</i>	41

## PART TWO. THE CONTROVERSY IN SOCIOLOGY

Introduction	59
4. The Notion of a Hypothetical Universe <i>Margaret Jarman Hagood</i>	65
5. The Significance of Insignificant Differences <i>Hans Zeisel</i>	79

6. Statistical Problems <i>Seymour Martin Lipset, Martin Trow, and James Coleman</i>	81
7. Note on Significance Tests <i>Patricia Kendall</i>	87
8. Some Pitfalls of Data Analysis Without a Formal Criterion <i>James A. Davis</i>	91
9. A Critique of Tests of Significance in Survey Research <i>Hanan C. Selvin</i>	94
10. Comment on "A Critique of Tests of Significance" <i>David Gold</i>	107
11. Reply to Gold's Comment on "A Critique of Tests of Significance" <i>Hanan C. Selvin</i>	109
12. On "A Critique of Tests of Significance in Survey Research" <i>James M. Beshers</i>	111
13. Reply to Beshers <i>Hanan C. Selvin</i>	113
14. Randomization and Inference in Sociological Research <i>Robert McGinnis</i>	116
15. Some Statistical Problems in Research Design <i>Leslie Kish</i>	127
16. Theory, Probability, and Induction in Social Research <i>Santo F. Camilleri</i>	142
17. The Sacredness of .05: A Note Concerning the Uses of Statistical Levels of Significance in Social Science <i>James K. Skipper, Jr., Anthony L. Guenther, and Gilbert Nass</i>	155
18. Common Misinterpretations of Significance Levels in Sociological Journals <i>Thomas J. Duggan and Charles W. Dean</i>	161
19. Criteria for Selecting a Significance Level: A Note on the Sacredness of .05 <i>Sanford Labovitz</i>	166
20. Statistical Tests and Substantive Significance <i>David Gold</i>	172
21. Significance Tests Reconsidered <i>Denton E. Morrison and Ramon E. Henkel</i>	182
22. Proof? No. Evidence? Yes. The Significance of Tests of Significance <i>Robert F. Winch and Donald T. Campbell</i>	199

### PART THREE. CRITICISM BY PSYCHOLOGISTS

Introduction	209
23. The Statistical Concepts of Confidence and Significance <i>Robert E. Chandler</i>	213
24. The Fallacy of the Null Hypothesis Significance Test <i>William W. Rozeboom</i>	216

25. The Test of Significance in Psychological Research	<i>David Bakan</i>	231
26. Theory Testing in Psychology and Physics: A Methodological Paradox	<i>Paul E. Meehl</i>	252
27. Statistical Significance in Psychological Research	<i>David T. Lykken</i>	267

PART FOUR. CRITICISM FROM OTHER QUARTERS

Introduction		283
28. Tests of Significance Considered as Evidence	<i>Joseph Berkson, M.D.</i>	285
29. Publication Decisions and Their Possible Effects on Inferences Drawn from Tests of Significance—or Vice Versa	<i>Theodore D. Sterling</i>	295
30. Publication Decisions and Tests of Significance: A Comment	<i>Gordon Tullock</i>	301

PART FIVE. EPILOGUE

31. Significance Tests in Behavioral Research: Pessimistic Conclusions and Beyond	<i>Denton E. Morrison and Ramon E. Henkel</i>	305
References		313
Index		325