

Scientific Growth

**Essays on the Social Organization
and Ethos of Science**

Joseph Ben-David

**Edited and with an Introduction by
Gad Freudenthal**

UNIVERSITY OF CALIFORNIA PRESS
Berkeley / Los Angeles / Oxford

Contents

Preface ix

General Introduction: Joseph Ben-David, An Outline of
His Life and Work by Gad Freudenthal 1

Part I. Conditions of Scientific Growth: The Scientist's Role

Introduction 29

1. **Roles and Innovations in Medicine (1960)** 33
2. **Social Factors in the Origins of a New Science: The
Case of Psychology (1966; with R. Collins)** 49
3. **Socialization and Career Patterns as Determinants
of Productivity of Medical Researchers (1968; with
L. Aran)** 71
4. **The Concepts of "Role," "Status," and "Reference
Group": A Theoretical Statement (1958)** 91

Part II. Conditions of Scientific Growth: Academic Organization and the Profession of Science

Introduction 97

5. **Scientific Productivity and Academic Organization in
Nineteenth-Century Medicine (1960)** 103

- 6. **Universities and Academic Systems in Modern Societies (1962; with A. Zloczower)** 125
- 7. **Science and the University System (1972)** 159
- 8. **Academy, University, and Research Institute in the Nineteenth and Twentieth Centuries: A Study of Changing Functions and Structures (1978)** 175
- 9. **The Profession of Science and Its Powers (1972)** 187
- 10. **A Comparative Study of Academic Freedom and Student Politics (1966; with R. Collins)** 211

Part III. Questions of Policy: The Planning of Science and the Utilization of Scientific Knowledge in Practice

- Introduction 255
- 11. **Scientific Research and Economic Growth (1968)** 257
- 12. **The Central Planning of Science (1977)** 263
- 13. **Scientific Societies, Professional Organizations, and the Creation and Dissemination of Practical Knowledge (1982; with S. Katz)** 283

Part IV. The Ethos of Science: The Emergence and Institutionalization of Modern Science

- Introduction 295
- 14. **Scientific Growth: A Sociological View (1964)** 299
- 15. **Organization, Social Control, and Cognitive Change in Science (1977)** 321
- 16. **Puritanism and Modern Science: A Study in the Continuity and Coherence of Sociological Research (1985)** 343

Part V. The Ethos of Science: The Social Scientist's Role in Society

- Introduction 363

17. Innovations and Their Recognition in Social Science (1975) 365

18. Sociology and Its Uses (1980) 385

Part VI. The Ethos of Science in Question: The Sociology of Scientific Knowledge

Introduction 409

19. Theoretical Perspectives in the Sociology of Science 1920–1970 (1970) 413

20. Emergence of National Traditions in the Sociology of Science: The United States and Great Britain (1978) 435

21. Sociology of Scientific Knowledge (1981) 451

22. “Norms of Science” and the Sociological Interpretation of Scientific Behavior (posthumous publication) 469

23. The Ethos of Science: The Last Half-Century (1980) 485

24. Academic Market, Ideology, and the Growth of Scientific Knowledge: Physiology in Mid-Nineteenth-Century Germany (1986) 501

Part VII. The Changing Fortunes of the Ethos of Science: A Historical and Sociological Perspective

Introduction 517

25. Science, Scientism, and Anti-Scientism (1986) 521

26. The Ethos of Science in the Context of Different Political Ideologies and Changing Perceptions of Science (posthumous publication) 533

Bibliography of Joseph Ben-David’s Writings 561

Acknowledgments 569

Index 571