

Contents

<i>List of Tables and Figures</i>	page xi
<i>Preface</i>	xv

Part A. Theory and Setting

1	Social Structure and Social Control	3
1.1	Social Differentiation	5
1.2	Social Process and Institutions	10
1.2.1	Strongly Constraining Structures	10
1.2.2	Weakly Constraining Structures	12
1.3	Interpersonal Agreements and Social Control	15
1.3.1	Structuralism	15
1.3.2	Interactionism	19
1.3.3	Social Choice	20
1.4	Concluding Remarks	21
2	Toward a Structural Social Psychology	23
2.1	Social Influence Network Theory	24
2.1.1	Formal Theory	24
2.1.2	Equilibrium Equations	27
2.1.3	Social Positions	29
2.1.4	Sources of Individuality	30
2.1.5	Social Organization	31
2.1.6	Consensus Formation	33
2.2	Concluding Remarks	34
3	A Setting in the Scientific Community	35
3.1	Anomy in Science	35
3.2	Social Differentiation	36
3.2.1	Micro-Level Instability	37
3.2.2	Macro-Level Stability	39
3.3	Social Process and Institutions	40
3.4	Interpersonal Agreements and Social Control	43

3.4.1	Formal Controls on Scientific Practices	43
3.4.2	Polanyi on the Control of Scientific Practices	45
3.5	Corporate Organization and the Unity of Science	46
3.6	Concluding Remarks	49

Part B. Measures of the Theoretical Constructs

4	A Structural Parameterization	53
4.1	Interpersonal Influence	56
4.2	Self and Other	57
4.3	Social Positions and Initial Opinions	58
4.4	Equilibrium Opinions and Total Interpersonal Influences	59
4.5	Summary of the Approach	60
4.6	The Survey	61
4.7	Preliminary Social Network Concepts	65
5	Interpersonal Influence	68
5.1	Structural Bases of Interpersonal Influence	68
5.1.1	Social Cohesion	69
5.1.2	Structural Similarity	70
5.1.3	Structural Centrality	72
5.2	Probability of an Interpersonal Attachment	73
5.3	Nonrespondents	77
5.4	Construct Validation	78
5.5	Concluding Remarks	81
5.6	Appendix	84
6	Self and Other	86
6.1	Bases of Power and Measures of Centrality	87
6.2	Indegree and the Self-Other Balance	93
6.3	Concluding Remarks	97
7	Social Positions	100
7.1	Defining Social Positions	102
7.2	Social Distance, Affiliations, and Relations	105
7.2.1	Departmental Affiliations	107
7.2.2	Social Distance and Social Ties	108
7.2.3	Social Distance and Dis-Equivalence	108
7.3	Social Manifolds and Social Differentiation	116
7.4	Concluding Remarks	118

Part C. Analysis

8	The Structure of Social Space	125
8.1	Segregated Structures, Ridge Structures, and Bridges	126
8.1.1	Bridges in Segregated Structures	126
8.1.2	Ridge Structure	127
8.2	Blockmodels, Link-Pin Organizations, and Social Circles	129
8.2.1	Ridge Structures and Blockmodels	129
8.2.2	"Linking Pins" in Formal Hierarchies	131
8.2.3	Social Circles	134
8.3	Macro-Structural Models and Transitivity	135
8.3.1	Elementary Concepts	136
8.3.2	Balance Model	137
8.3.3	Clustering Model	139
8.3.4	Ranked Clusters of M -Cliques Model	139
8.3.5	Transitivity Model	141
8.3.6	Hierarchical \tilde{M} -Cliques Model	142
8.3.7	Weak Transitivity Model	143
8.3.8	Ridge Structure in Transitive Macro-Models	145
8.4	Analysis of the Faculties of Science	147
8.4.1	Triad Analysis	147
8.4.2	Blockmodel Images of Attachments	150
8.5	Concluding Remarks	158
9	The Production of Consensus	163
9.1	Structural Conditions of Consensus	164
9.2	Structure of Direct Interpersonal Influences	168
9.3	Reduction of Social Distance	177
9.4	Equilibrium Destinations	180
9.5	Concluding Remarks	183
9.6	Appendix: Mean Influence of Position-Clusters	185
10	Influence of Actors and Social Positions	187
10.1	Effects of Social Positions	188
10.2	Influences among Actors	191
10.2.1	The Effects of Influential Position-Clusters	192
10.2.2	The Internal Organization of Influential Position-Clusters	193
10.3	Structural Foundations of Social Dominance	203
10.4	Concluding Remarks	205

11	Durkheim's Vision	207
11.1	The Transformation of Social Space	207
11.2	Prospects for a Structural Social Psychology	211
	References	215
	Index	225