

# Contents

---

---

PREFACE	xi
ACKNOWLEDGMENTS	xvii
1. THE CHALLENGE OF DARWINISM	3
Introduction	3
Macro- and Microevolution	5
Darwin's Comparative Method	11
The Structure of Evolutionary Theory	15
Darwin's Claim of Universality	19
Survival of the Fittest What?	22
Population Regulation, Sex Ratios, and Senescence	24
Group Selection	36
The Concept of Inclusive Fitness	43
Inclusive Fitness and Group Selection	47
Social Reciprocity	48
Historical Relationships between Nepotism and Reciprocity	52
Why Live in Groups?	58
2. NATURAL SELECTION AND CULTURE	66
Introduction	66

Cultural Inertia	69
Cultural Change	71
A Comparison of Organic and Cultural Evolution	73
Arbitrariness in Culture	82
The Problem of Individual Development	86
Evolution and Learning	87
The Heritability Problem	89
Superseding Biological Constraints on Human Behavior	93
Needless Sources of Controversy	94
The Various Meanings of Determinism	98
Cultural Determinism	102
The Proximate Mechanisms of Inclusive-Fitness-Maximizing Behavior	103
The Ontogeny of Nepotism	105
Parental Behavior and the Social Learning Model of Nepotism	108
Models of Proximate Mechanisms of Nepotism Other than Social Learning	112
Social Learning and Individuality	121
Special Cases of Social Learning: Falling in Love	122
Effects of Rapid Changes in Social Interactions	124
Is Xenophobia Learned?	126
Inclusive-Fitness-Maximizing and the Capacity for Culture	128
Consciousness, Foresight, and Free Will	131
What Is Conscience?	133
Self-Deception	134
<b>3. NATURAL SELECTION AND PATTERNS OF HUMAN SOCIALITY</b>	<b>140</b>
Introduction	140
The Human Network of Kin	144
Some Terminological Problems	149
An Evolutionary Approach to Kinship Analysis	152
Classificatory Aspects of Kinship Systems	152
Biological Predictions about Human Sociality	156
Some Statements from Murdock Consistent with Evolutionary Theory	162

Some Statements from Murdock That Do Not Support Evolutionary Theory	165
Analysis of Two Other Phenomena Apparently Contrary to Evolutionary Theory	168
Cousin Marriage Asymmetries and the Avunculate	183
Social Learning and Cultural Patterns	191
Why Is Incest So Abhorred?	195
Reciprocity and Nepotism: Sahlins' Model	197
Apparently Nonreproductive Behaviors	202
The Biological Distinctiveness of the Human Species	208
Biology and the Long-Term Patterning of Human History	216
<b>4. EVOLUTION, LAW, AND JUSTICE</b>	219
Introduction	219
Causes of Human Groupings	220
Group-Living and Rules	233
What Is Justice?	235
Justice, Happiness, and Keeping Up with the Joneses	238
Reproductive Competition and Law-breaking	240
Changes in Rules with Development of Nation-States	249
An Aside on Human Evolution	259
More on Nation-States	262
A Note on Law and Magic	264
Science as a Social Enterprise	267
The Biological Basis of Ethics	270
Right and Wrong	273
Evolution and Normative Ethics	276
<b>EPILOGUE: ON THE LIMITS OF HUMAN NATURE</b>	279
<b>BIBLIOGRAPHY</b>	283
<b>INDEX OF NAMES</b>	299
<b>INDEX OF SUBJECTS</b>	303

## *List of Illustrations*

---

---

### FIGURES

1. Egg sizes, clutch sizes, and female body lengths for different species of Amphibia 27
2. Lifetime mortality curves for human males and females from different societies 34
3. Units in the hierarchy of life and their likelihood of being the units of selection 38
4. Genetic relatives potentially available to an individual for reproductively self-serving nepotism 44
5. The organism as nepotist 50
6. Different types of social reciprocity in primitive cultures 57
7. Benefits to individual reproduction from group-living 62
8. Overlapping relationships of three major systems in human sociality 151
9. Confidence of genetic relationships with putative offspring, and with various kinds of nephews and nieces 170
10. Kinds of cousins and cousin marriages 176
11. Distribution of symmetrical and asymmetrical treatment of cousins 181

12. Comparison of four postulated types of society in regard to cultural institutions	250
13. Comparison of the same four types of societies in respect to different cultural traits	260

TABLES

1. Categories of social behavior	40
2. A man's relatedness to his grandchildren in the four kinds of cousin marriages	185