

Contents

<i>Preface to the second edition</i>	page ix
<i>Preface to the first edition</i>	xi
1. Introduction	1
1.1. <i>Interaction and behavior sequences</i>	1
1.2. <i>Alternatives to systematic observation</i>	2
1.3. <i>Systematic observation defined</i>	3
1.4. <i>A nonsequential example: Parten's study of children's play</i>	4
1.5. <i>Social process and sequential analysis</i>	6
1.6. <i>Another nonsequential example: Smith's study of parallel play</i>	7
1.7. <i>A sequential example: Bakeman and Brownlee's study of parallel play</i>	8
1.8. <i>Hypothesis-generating research</i>	12
1.9. <i>Summary: Systematic is not always sequential</i>	13
2. Developing a coding scheme	15
2.1. <i>Introduction</i>	15
2.2. <i>What is the question?</i>	16
2.3. <i>Physically versus socially based coding schemes</i>	17
2.4. <i>Detectors versus informants</i>	22
2.5. <i>The fallacy of equating objectivity with physically based schemes</i>	22
2.6. <i>Keeping it simple</i>	23
2.7. <i>Splitting and lumping</i>	24
2.8. <i>Mutually exclusive and exhaustive codes</i>	26

2.9. <i>The evolution of a coding system</i>	27
2.10. <i>Example 1: Interaction of prehatched chickens</i>	28
2.11. <i>Example 2: Children's conversations</i>	30
2.12. <i>Example 3: Baby behavior codes</i>	33
2.13. <i>Example 4: Children's object struggles</i>	34
2.14. <i>Example 5: Monkeys' activities</i>	35
2.15. <i>Summary</i>	36
3. <i>Recording behavioral sequences</i>	38
3.1. <i>Recording units: Events vs. intervals</i>	38
3.2. <i>Momentary versus duration events</i>	38
3.3. <i>Continuous versus intermittent recording</i>	39
3.4. <i>Coding events</i>	40
3.5. <i>Recording onset and offset times</i>	43
3.6. <i>Timing pattern changes</i>	45
3.7. <i>Coding intervals</i>	46
3.8. <i>Cross-classifying events</i>	49
3.9. <i>Nonsequential considerations: Time sampling</i>	50
3.10. <i>The pleasures of pencil and paper</i>	52
3.11. <i>Why use electronics?</i>	52
3.12. <i>Summary</i>	55
4. Assessing observer agreement	56
4.1. <i>Why bother?</i>	56
4.2. <i>Reliability versus agreement</i>	59
4.3. <i>The problem with agreement percentages</i>	60
4.4. <i>The advantages of Cohen's kappa</i>	62
4.5. <i>Agreement about unitizing</i>	68
4.6. <i>Agreement about codes: Examples using Cohen's kappa</i>	71
4.7. <i>Generalizability theory</i>	75
4.8. <i>Unreliability as a research variable</i>	79
4.9. <i>Summary</i>	80
5. <i>Representing observational data</i>	81
5.1. <i>Representing versus recording</i>	81
5.2. <i>Event sequences</i>	82

<i>Contents</i>	<i>vii</i>
5.3. <i>State sequences</i>	83
5.4. <i>Timed-event sequences</i>	84
5.5. <i>Interval sequences</i>	85
5.6. <i>Cross-classified events</i>	87
5.7. <i>Transforming representations</i>	88
5.8. <i>Summary</i>	90
6. <i>Analyzing sequential data: First steps</i>	91
6.1. <i>Describing versus modeling</i>	91
6.2. <i>Rates and frequencies</i>	92
6.3. <i>Probabilities and percentages</i>	93
6.4. <i>Mean event durations</i>	94
6.5. <i>Transitional probabilities: An introduction</i>	95
6.6. <i>Summary</i>	99
7. <i>Analyzing event sequences</i>	100
7.1. <i>Describing particular sequences: Basic methods</i>	100
7.2. <i>Determining significance of particular chains</i>	101
7.3. <i>Transitional probabilities revisited</i>	103
7.4. <i>Computing z scores and testing significance</i>	108
7.5. <i>Classic lag sequential methods</i>	111
7.6. <i>Log-linear approaches to lag-sequential analysis</i>	116
7.7. <i>Computing Yule's Q or phi and testing for individual differences</i>	127
7.8. <i>Summary</i>	132
8. <i>Issues in sequential analysis</i>	136
8.1. <i>Independence</i>	136
8.2. <i>Stationarity</i>	138
8.3. <i>Describing general orderliness</i>	139
8.4. <i>Individual versus pooled data</i>	141
8.5. <i>How many data points are enough?</i>	144
8.6. <i>The type I error problem</i>	147
8.7. <i>Summary</i>	148

9. Analyzing time sequences	150
9.1. <i>The tyranny of time</i>	150
9.2. <i>Taking time into account</i>	151
9.3. <i>Micro to macro</i>	153
9.4. <i>Time-series analysis</i>	154
9.5. <i>Autocorrelation and time-series analysis</i>	167
9.6. <i>Summary</i>	175
10. Analyzing cross-classified events	177
10.1. <i>Describing cross-classified events</i>	177
10.2. <i>Log-linear models: A simple example</i>	179
10.3. <i>Summary</i>	182
11. Epilogue	184
11.1. <i>Kepler and Brahe</i>	184
11.2. <i>Soskin and John on marital interaction</i>	185
11.3. <i>Marital interaction research since 1963</i>	188
Appendix	194
<i>A Pascal program to compute kappa and weighted kappa</i>	194
References	198
Index	205