

Rolf Hvidtfeldt

# The Structure of Interdisciplinary Science

palgrave  
macmillan

# Contents

<b>1</b>	<b>Introduction</b>	1
	The (Epistemic) Fundamentals of Interdisciplinarity	2
	Interdisciplinarity Studies	5
	My Alternative	5
	Does Everybody Represent?	7
	The Intermediate Layer	10
	Tools, Algorithms, and Basic Assumptions	11
	An Example	13
	Why Engage in this Kind of Madness?	16
	A Bit of Terminological Explication	17
	Targets	20
	Approaches	21
	“Distance” and “Proximity”	22
	Summing Up	23
	References	29
<b>2</b>	<b>Disciplines and Approaches</b>	31
	What are These Things Called ‘Disciplines’?	33
	Distinctive Discussions of “Discipline”	35
	Problems of Disciplinarity	35
	Three Dimensions (Plus Some) of Disciplinarity	38

Social Aspects Only	39
Objects Only	40
Objects and Tools Combined	41
All Included?	43
Where Does This Leave Us?	43
Approaches	46
Approaches vs. Fields	49
Distance vs. Proximity Revisited	50
More on Temporality	52
Summing Up	53
References	55
<b>3 Interdisciplinarity Studies</b>	<b>59</b>
What is Interdisciplinarity?	61
Knowledge Generation and Integration	63
Interdisciplinarity is Not New	65
More Recent Developments: The Turn-Turn	67
Literature Studies	68
Psychoanalytic Literature Studies	69
A Different Approach	70
The Evolutionary Turn	71
The Neurological Turn	74
What is the Point?	78
More Reasonable Reasons for Interdisciplinarity	79
Specialisation vs. Integration	81
Three Modes of Integration	84
The Polymath Mode	84
The Social Mode	84
The Educational Mode	85
All of the Above	85
Science without a Core Set?	86
Degenerating Hard Core Sets	87
Summing Up	88
References	91

<b>4</b>	<b>The Relevance of Philosophy</b>	97
	Relevant Philosophical Approaches to Interdisciplinarity	100
	Kitcher's Historical Perspective	100
	Weisberg's Vehicle Perspective	103
	Pluralism and Representation	104
	Summing Up	107
	References	108
 <b>5</b>	 <b>Representation</b>	 111
	The Basics	113
	Enter Ronald Giere	116
	Constructive Realism	117
	Perspectival Realism	120
	The Expanded and Enriched <i>X</i>	123
	Deflation	124
	To Model (Mathematically) or Not to Model (At All)	126
	The Propositions	129
	Weisberg on Construal; Assignment; Fidelity	130
	Use & Similarity	132
	Summing Up	134
	References	139
 <b>6</b>	 <b>Pluralisms, Perspectives, and Potential Problems</b>	 143
	Pluralism—What is It?	144
	The Pluralisms	148
	#1—Internal Pluralism	148
	#2—External Pluralism	149
	#3—Metaphysical (Nomological) Pluralism and CP-Clauses	149
	#4—Epistemic (Representational) Pluralism	151
	Perspectivism	152
	Perspectives of Theory	155
	Laws and Perspectives	158
	Distortions	158
	Idealisation	159

Relocational Idealisation	163
Approximation	164
Distortions of Scale	165
Simpson's Distortions	166
Distortion of Variance	168
The Case of Operational Definition	174
Operational Definition Makes Its Way into Psychopathology	178
Current Problems Facing Operational Definition in Psychopathology	182
Final Remarks on OD?	184
Simpson's Revisited	185
Summing Up	188
References	191
<b>7 Representational Crossbreeding</b>	<b>197</b>
The Simple Duplex	199
Social Integration	202
Target Integration	204
Targeting a Different Target by Means of the Same Approach?	206
Purpose Integration	206
Approach Integration	207
The Method	213
Transferring Vehicles	213
Inserting Elements of Approaches as Parts of Vehicles	215
Relocating Elements of the Intermediate Layer	216
Two Strategies	218
Strategy #1: De-idealisation	219
Strategy #2: Bold Conjectures	221
Summing Up	222
References	225

<b>8 Phenomenology Imported with EASE</b>	229
So, What is Psychiatry and Psychopathology?	232
What is Schizophrenia?	234
What is EASE, Then?	238
The NP2014 Approach	246
Parent Approaches?	247
How Distant are the Parent Approaches?	250
The Vehicle of the Integrated Approach	251
The Target	254
The Intermediate Layer	256
(1) The Importance of in-Depth Qualitative Analysis	256
(2) The Significance of Quantification	257
The Elements	257
Target Group Delimitations (Definitions/Algorithms)	258
Exclusion Criteria	259
Semi-structured Interviews, Expertise, and the Likert Scale	260
(1) Semi-structured Interview	260
(2) Specialists' Categorisation	261
(3) The Likert Scale	262
Dichotomisation	263
Statistical Tools	265
The Vehicle	266
The Verdict	266
The Good News	271
What Causes the Problems?	272
To Do-List	273
Summing Up	275
References	279
<b>9 Conclusion</b>	283
A Brief Reflexive Moment	286
Future Opportunities	287
<b>Index</b>	289