
Contents

1	Introduction	1
1.1	Responsibility in Science and Technology: Examples from Policy-Making	2
1.2	Responsibility and the Challenges of Science and Technology	6
1.3	Researching Responsibility: Three Directions	7
1.4	The Rationale and Structure of the Book	9
2	Responsibility and Social Action	15
2.1	Responsibility: Explorations in Conceptual Semantics	15
2.2	Responsibility from Semantics to Social Processes	20
2.3	The Consequences of Action: Responsibility and Ethics in Max Weber	25
2.4	Weber's Theory of Action and Responsibility: a Matter of Causes and Motivations	28
2.5	Responsibility: 'Modes of Enactment' and the Implications of Weber's Theory of Action	31
3	Expectations, Action Orientation and Implications for Responsibility	37
3.1	Theorising Expectations: Max Weber and Selected Perspectives in Sociology	38
3.2	Expectations, Change and Action Orientation in Science and Technology Studies	43
3.3	Expectations and Contingency: Trust in Action Orientation	48

4 Science, Technology and Society Relationships as the Background of Responsibility	53
4.1 The Problematisation of Responsibility in Science, Technology and Society Relationships	53
4.2 Science and Society: in a 'Social Contract of Science'?	54
4.3 The Acknowledgement of Uncertainty and the Consequences of Science and Technology	58
4.4 Knowledge and Criteria in Assessing Science and Technology	62
4.5 Relevant Actors in Science, Technology and Society Relationships	66
5 A Heuristic Framework for Responsibility	71
5.1 Motivations, Responsibility and Social Action: <i>Reprise</i>	71
5.2 Varieties of Expectations	74
5.3 Expectations and Types of Trust	75
5.4 A Heuristic Framework of Responsibility	76
5.4.1 An Illustration of the Framework	77
5.4.2 Generating Ideal Types	80
6 Conclusions	87
6.1 Exploring Forms of Responsibility	87
6.2 Actors, Collectives and Directions of Future Research	89
References	93

Responsibility in Science and Technology

Elements of a Social Theory

Arnaldi, S.; Bianchi, L.

2016, VI, 103 p. 5 illus., Softcover

ISBN: 978-3-658-11013-0