

Reconstructing Rationality

**Agency and inquiry in John Dewey's project as a
foundation for social and urban planning**

Philipp Dorstewitz

PhD Thesis submitted to the Department of Philosophy, Logic and Scientific Method
At the London School of Economics and Political Science
August 2008

UMI Number: U613407

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI U613407

Published by ProQuest LLC 2014. Copyright in the Dissertation held by the Author.
Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against
unauthorized copying under Title 17, United States Code.



ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

THESES
F
8993



1321811

To my parents

Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

The copyright of this thesis rests with the author. Quotation from it is permitted, provided that full acknowledgement is made. This thesis may not be reproduced without the prior written consent of the author.

I warrant that this authorization does not, to the best of my belief, infringe the rights of any third party.

Abstract

The aim of this thesis is to develop a new concept of rationality in the field of planning and policy design. The argument maintains that classical pragmatism, in particular John Dewey's work, holds the key for a thorough and timely reconstruction of deliberative rationality.

The current project will develop a received "traditional" model of rational planning based on the Humean model of rational agency. This "linear instrumental rationality" model will be criticised by challenging its agency theoretic presuppositions. The thesis will interpret Dewey's epistemological, ethical and metaphysical contributions as chiefly aimed toward a reconstruction of the Humean "Folk-Model" of agency and rationality. Dewey's notions of imagination and intelligent inquiry will be discussed as central concepts in developing a new model of rational agency. His understanding of deliberative democracy as embodying effective social intelligence bridges agency theoretic discussions and collective deliberation and planning. This thesis aspires to be both a conceptual philosophical exploration and a contribution to planning theory that can provide understanding and guidance in applied contexts. Two chapters at the ends will deal with the consequences of this Deweyan reconstruction project for planning theory and practice. A novel model of rational planning will be developed and the move from a traditional "linear instrumental" understanding of rational planning to a new "*situational transactive*" model will be illustrated in two case studies of urban land use planning in the German Ruhr region.

Acknowledgements

The saying goes that behind the work of a great man is always a woman. Can it be inferred that a lesser man needs more women to achieve a decent result? For my part, I must admit that the present piece of work needed the support of at least two great women. Shyama Kuruvilla, my much loved friend, colleague, and role model has not only inspired many of my interests and thoughts, she has also helped me to find my feet in the technical process of research and writing. Far beyond the present work, I am grateful for the formative years of thinking, discussing, organising and enjoying the exploration of Dewey's work together with Shyama. Daphne Anayiotos, my partner and great love, gave me her patience and support over many years of sacrifice. Her steadfast dedication to and belief in me was a guiding light in many periods of doubt. I want to thank her for editing and re-editing my manuscripts, and for helping me in infinitely more ways that I don't know how to pay tribute to in this acknowledgement.

I dedicate this work to my parents who have raised me and nurtured my curiosity by feeding me questions instead of answers. I also thank them for believing in me and supporting my life in the world's most expensive capital.

I received financial support from the London School of Economics and its Department of Philosophy, Logic, and Scientific Method, which allowed me to pursue my studies.

Throughout my years in London I have had many friends who gave me support, love and inspiration. Kim Segel, Wenche Torrison, Fernando Caceres Jara, Shipra Agrawal, Tommaso Trevisani, Patrick Beyer, Richard Wentzell, Luigina Venturelli, Melany Anayiotos, Neeraj Mistry, , Levan Jugeli, Philipp Beckmann, Tasoula Hadjitofi, Mary and Chris Anayiotos and my sister Ulrike Dorstewitz are but a few. Many more must remain unmentioned - but not forgotten.

Several years of work with my friend and fellow student Saif Al-Islam Al Quaddafi were in many respects formative and will remain in fond memory.

Nancy Cartwright, Edward McClennen, Rene Gabriels, Philip Thonemann and Judge Georghios M. Pikis inspired my work with lucid and on-the-point comments.

When carrying out research for the case studies, I relied on the availability and expertise of at least 25 interviewees, many of whom devoted substantial time and effort to my interrogations. Mr Andreas Haack from the IHK Duisburg deserves a big “thank you” for providing materials, contacts and advice far beyond the call of duty.

I feel deeply indebted to Richard Bradley, my supervisor. Richard would have read any draft within a week and given detailed feedback. The quality of his advice was undiminished where my explorations left his own fields of research. Richard advised me to hold on to my vision as a whole when many other wise and well-meaning advisors urged me to narrow the scope of my investigation to only an aspect of the question. This strategic decision had momentous consequences in terms of workload and time, but I am glad I stuck with it and am very thankful to Richard for this encouragement. I believe it preserved the most original aspect of my work – a synthesis of several fields and questions into one large argumentative arch.

Chapter Overview

Abstract

Acknowledgements

Chapter Overview

Detailed Content

Part I Context: Rationality and Planning

Chapter 1 Introduction – Rationality, Agency and Planning

Chapter 2 Rational Planning – Some Theory and History

Part II Agency: Dewey's Critique of the *Folk-Model*

Chapter 3 Knowledge, Belief and the Primacy of Action

Chapter 4 Purposes in View of Instruments

Part III Intelligence: Developing a Deweyan Concept of Rationality

Chapter 5 Imagination in Deliberation

Chapter 6 Situation and Inquiry

Chapter 7 Social Planning and Collective Intelligence

Part IV Application: A Planning Model, Case Studies and a Concluding Remark

Chapter 8 The Decision-Cell – A Planning Model

Chapter 9 Mines and Malls – A Tale of Two Cities

Chapter 10 Conclusion – Perspective and Critique

Abbreviations

Literature

Detailed Content

DECLARATION	3
ABSTRACT	4
ACKNOWLEDGEMENTS	5
CHAPTER OVERVIEW	7
DETAILED CONTENT	8
PART I CONTEXT: RATIONALITY AND PLANNING	15
INTRODUCTION: RATIONALITY, AGENCY AND PLANNING	16
PLANNING AND DELIBERATIVE RATIONALITY	16
<i>Rationality and its rank</i>	<i>16</i>
<i>Rationality as method</i>	<i>17</i>
<i>Normative and descriptive theory</i>	<i>18</i>
<i>Against rational planning</i>	<i>21</i>
<i>Deliberative rationality</i>	<i>22</i>
A NOTE ON METHOD AND STRUCTURE	23
<i>Reconstructing planning theory</i>	<i>23</i>
<i>The role of agency theory</i>	<i>24</i>
<i>Chapter structure and strategy</i>	<i>27</i>
<i>Contribution and originality</i>	<i>30</i>
DEWEY	31
SCOPE, LIMITS AND AMBITIONS	35
CHAPTER 2: RATIONAL PLANNING – SOME THEORY AND HISTORY	38
INTRODUCTION	38
GARDENS, BLUEPRINTS AND UTOPIAS	40
<i>Architects and visions</i>	<i>40</i>
<i>Rationality in utopian planning</i>	<i>42</i>
Rational end-states.....	42
Rationality and implementation.....	42
Rationality in the development of designs.....	43
Critique of Utopian Rationality	44

THE MODEL OF LINEAR INSTRUMENTAL RATIONALITY	47
<i>From aesthetic visions to strategies and solutions</i>	47
<i>Rationality as linear procedure</i>	48
<i>Linear progression of stages</i>	49
<i>Some classical critiques of the linear progression model</i>	56
Perplexed messy situations.....	57
Decision points	59
Separation between planning and implementation.....	62
<i>Instrumentalism as technocracy</i>	64
Planning and positive science.....	64
Means and ends.....	69
<i>Rediscovering pragmatism</i>	74
Transactive planning: a new interest in pragmatism.....	75
Critical Pragmatism	77
Knowledge Management and Organisational Learning.....	78
1 Inquiry systems or the idea that learning can be designed.....	78
2 Learning as changing theory-in-use	80
CONCLUSION	83
PART II AGENCY: DEWEY’S CRITIQUE OF THE <i>FOLK-MODEL</i>	85
CHAPTER 3: KNOWLEDGE, BELIEF AND THE PRIMACY OF ACTION	86
INTRODUCTION	86
SOURCES	87
BACKGROUND	88
STRUCTURE OF THE ARGUMENT	92
THE UNITY OF BEHAVIOUR	93
<i>The passive-active separation: a root problem</i>	93
<i>The trouble with behaviourism</i>	94
<i>Doing and undergoing</i>	96
<i>Behaviourism’s inherent teleology</i>	97
<i>Integrated coordination</i>	98
<i>Intermediate summary of results and problems</i>	100
COGNITION, BELIEF AND KNOWLEDGE	101
<i>The nature of experience</i>	102
Dewey and empiricism.....	102
The transactive nature of experience.....	103
Immediacy	103
Connections and qualities.....	104
Experience and meaning	104

<i>Belief and knowledge</i>	105
Knowing and transforming.....	106
Knowing as learning.....	108
<i>Belief</i>	109
<i>Consequences for the Folk-Model</i>	110
CONCLUSION	111
CHAPTER 4: PURPOSES IN VIEW OF INSTRUMENTS – DEFINING AND USING ENDS.....	113
INTRODUCTION	113
INSTRUMENTS AND PURPOSES	117
<i>Means and ends – a blurred distinction?</i>	117
<i>Permissible anomalies in traditional theory and their remedies</i>	118
Strategic compromise.....	118
Concretisation.....	118
Sequential hierarchy	119
TWO FALLACIES	120
<i>The philosophical fallacy</i>	121
<i>A kind of naturalistic fallacy</i>	123
Utilitarianism.....	123
Hume	124
<i>The fallacy of naturalism</i>	125
VALUE AND “VALUATION”	127
<i>The sensitivity of ends to instruments – from prizing to appraisal</i>	128
Enjoyment and value	128
From impulses to desires.....	129
From basic desires to mature preferences.....	129
Value	131
A note on ends and instrumental reasons in planning.....	133
<i>Normative principles and faithful pursuit</i>	134
Instrumental morality.....	134
<i>Consequentialism and commitment</i>	135
Norms and instruments	137

ENDS IN ACTION	140
<i>Ends and ending points</i>	141
Needs, growth and functions	143
Ends as termini	145
Ends-in-view	146
<i>Ends and their functions</i>	148
Selection and reduction of complexity	148
Interpretation and intelligibility	149
Organising function	150
Stabilising function and flexibility.....	150
CONCLUSION	151
PART III INTELLIGENCE: DEVELOPING DEWEYAN CONCEPT OF RATIONALITY.....	153
CHAPTER 5: IMAGINATION IN THE DELIBERATION PROCESS.....	154
INTRODUCTION	154
A QUESTION	157
DEWEY’S ARGUMENT	159
<i>The “calculating” model</i>	159
<i>Dewey’s concern</i>	160
<i>Deliberation as a continuous exercise</i>	162
<i>Imagination and emotion in reason</i>	163
<i>Reason and value</i>	164
<i>Reason itself a variable</i>	165
THE CONCEPT OF IMAGINATION	167
<i>Is imagination an inferior form of reasoning?</i>	167
<i>A taxonomy of imagination</i>	168
Projective dimension.....	169
The dimension of significance and situational horizon.....	171
Aesthetic dimension and self control	172
Intuitive dimension	174
Legislative and transfer dimension	176
Dramatic dimension and thick social narrative	179
Affective perceptive dimension	180
Creative playful dimension.....	181
CONCLUSION	182

CHAPTER 6: SITUATION AND INQUIRY – FROM AGENCY THEORY TO RATIONALITY ... 184

INTRODUCTION	184
THE QUEST FOR A FOUNDATIONAL CATEGORY OF AGENCY	185
A CONCEPT OF SITUATION AS FOUNDATION OF AGENCY THEORY	186
1. <i>Quality and coherence</i>	187
2. <i>Situations are practical – they demand action</i>	189
3. <i>Pattern of situations</i>	190
INQUIRY	191
<i>A definition</i>	191
<i>Dewey and Charles Sanders Peirce</i>	192
Truth and inquiry.....	192
Doubt as a quality.....	194
The concept of habit	195
Inquiry as problem solving.....	196
<i>The method of intelligence</i>	197
<i>Planning as inquiry</i>	199
<i>The Pattern of Inquiry</i>	199
RATIONAL PLANNING AS INTELLIGENT INQUIRY	209
CHAPTER 7: SOCIAL PLANNING AND COLLECTIVE INTELLIGENCE.....	211
INTRODUCTION	211
THREE INDICTMENTS AGAINST RATIONAL PLANNING	212
1 DEMOCRACY AND COLLECTIVE INTELLIGENCE.....	213
<i>Deliberate Planning and Dispersed Intelligence – A Liberal Worry</i>	213
<i>The Public</i>	215
<i>Science and Democracy</i>	217
Scientific community for Peirce	218
Scientific community for Dewey	220
Science as Democracy	222
<i>Avoiding two extremes</i>	224
<i>Democracy and effective social intelligence</i>	225
2 COMMON ENDS AND SHARED PURPOSES	228
<i>Democracy and Human Purpose</i>	229
<i>Liberal Worries and the Public</i>	231
<i>Common Ends and Power</i>	234
3 FORMATION OF AGENCY	240
CONCLUSION	245

PART IV APPLICATION: A PLANNING MODEL, CASE STUDIES AND A CONCLUDING REMARK	247
CHAPTER 8: THE DECISION-CELL – A PLANNING MODEL.....	248
INTRODUCTION	248
THE DECISION-CELL MODEL	250
<i>The cell</i>	251
<i>Situations</i>	253
<i>Communities of inquiry</i>	254
<i>Boundaries and the formation of agency</i>	254
Boundaries and power.....	257
<i>Define</i>	259
Frames	260
Boundaries	261
Dynamics	261
Structures of meaning	262
<i>Design</i>	262
<i>Realise</i>	263
Learning.....	264
Modes of active change.....	265
Unified situation	266
Executing or forming policy.....	267
<i>The Core: Deliberate – imagination and appreciation</i>	268
Imagination and conflict	268
Appreciation.....	270
<i>How to read the model</i>	273
EVALUATION AND RESULTS	275
Comprehensiveness	276
Best available	276
Inclusiveness	277

CHAPTER 9: MINES AND MALLS – A TALE OF TWO CITIES.....	282
INTRODUCTION	282
PLANNING AS PROJECTION AND PROJECT-MANAGEMENT: DUISBURG’S “MULTI-CASA”	286
<i>A brief history</i>	286
<i>Interpretation of analysis</i>	290
LIR and its limits.....	290
Linear progression.....	292
Decision points vs. hierarchically nested structure.....	293
Ends ex-ante.....	294
<i>Opposition</i>	297
Situation and context	298
Situation as problematique.....	299
Neutrality of inquiry	301
PLANNING AS APPRECIATION: COLLIERY AND COKING-PLANT “ZOLLVEREIN”	303
<i>A Brief History</i>	303
<i>A Problematic Situation</i>	305
<i>Planning as Inquiry, and Inquiry as Appreciation</i>	309
Norms in context	309
Means and ends.....	313
The planning-process: inquiry and philosophy	316
Rhythm of situations.....	321
Structuring a situation.....	322
Master planning and the decision-cell.....	323
Formation of agency	327
CONCLUSION	330
CHAPTER 10: CONCLUSION – DEWEYAN RATIONALITY IN PERSPECTIVE	335
CHALLENGES TO THE PROJECT	336
<i>Practical Relevance</i>	336
<i>False Objectivity?</i>	336
<i>Is Deweyan Rationality Conservative?</i>	338
<i>“Growth” as an ideology of progress?</i>	339
<i>How can we tell whether Planning was successful?</i>	340
<i>Power</i>	342
A RATIONALITY FOR OUR TIME?	342
ABBREVIATIONS.....	345
LITERATURE.....	347

Part I

Context: Rationality and Planning

Introduction: Rationality, Agency and Planning

'Reason' as a noun signifies the happy cooperation of a multitude of dispositions. 'Reason' is not an antecedent force which serves as a panacea. It is a laborious achievement of habit needing to be continually worked over.

John Dewey

Planning and Deliberative Rationality

Rationality and its rank

Rationality is an important reference when it comes to directing, coordinating and justifying planning projects. In contexts where decisions affect large numbers of people, rationality is a concept of more than theoretical interest. Personal decision-making can often pass as a spontaneous and idiosyncratic matter: what constitutes an agent's deliberation process – her impulses, motives or reasons – remains mostly implicit (e.g. why a person chooses to study history rather than dentistry, or whom she chooses as a confidant in a personal matter). In contrast, projects that involve and affect large numbers of people require explicit reasoning. The methods and standards of planning must be comprehensible, which is more than a democratic desideratum. It is a necessary prerequisite to achieving successful coordination in view of problems that demand concerted efforts. In such cases a shared conception of rationality, i.e. what constitutes a success-promoting process of deliberation and a satisfactory course of action, is of great importance.

We often hear complaints that decision-makers override moral considerations in the name of expediency or some rational calculus; and morality is not the only normative framework in this competition. Rawls argued that in the public debate references to *justice* trump arguments forwarded in the name of substantial *moral* standards. Elster adds that justice should supersede *rationality* as a normative framework in matters of collective deliberation,

since rationality has no application outside the contexts of personal decision-making. Contrary to such ideas, I hold that rationality provides powerful arguments in debates on planning and policy-making. Planners would rarely claim that *rationality* should trump all other normative demands in the same way that John Rawls suggested *justice* should trump other virtues in legitimising public institutions. However, a rational policy is *prima facie* one that can be publicly defended; whereas an acknowledged irrational planning decision is unlikely to find support, even if there are strong moral or other normative reasons in its favour. We may, for example, find it morally problematic or even unjust to focus humanitarian aid on areas with more accessible infrastructures, as this may neglect others with equally urgent needs. Nevertheless we could not rationally defend any other strategy. I suspect therefore that rationality occupies a position that itself cannot easily be trumped by other normative standards. I will not inquire further into the clout of rationality relative to other normative concepts. Rather I will attempt to develop a new concept of rationality that is able to incorporate normative and ethical concerns into its own definition.

Rationality as method

The spell-check of Word for Windows marks the plural form “rationalities” as a mistake. Like capitalised concepts of Truth, Rationality or the Catholic Church, Microsoft has made its own bid for universal prevalence, which could explain the bias. I chose to ignore the rippled markings and continue to speak about *rationalities* in the plural. I am convinced that any canonical concept of rationality is the product of a history of human inquiry, and as such is not without potential alternatives; more importantly, I believe that every rationality concept that we employ to understand and guide human activity is in occasional need of a revision. I am convinced, moreover, that the next round of revision needs to be more than a routine check-up. The need for a fundamental reconstruction of our concept of rationality is immanent, and the present thesis intends to explore this idea and make its contribution.

I approach rationality as a methodological framework, not as an independent normative standard *a priori*. Rationality as methodology requires developing, employing, criticising and, if necessary, abandoning or replacing normative principles. For example, traditional

theories of rationality often rely on a clear division between instrumental hypothetical considerations and questions of value, preference or motivation. Separating these domains in deliberation processes is treated as a normative demand on rational decision-makers. Rationality as methodology refuses to accept such normative claims as given or necessary. I will argue that a methodological concept of rationality should reconsider this separation and ultimately refuse a strict divide between purely instrumental reasoning and ethical deliberation. Such incisive conceptual changes are impossible if we start by defining minimal or necessary normative principles in determining the meaning of rational decision-making. Where traditional theorists reduce the core of instrumental rationality to a template, consisting only of efficiency and consistency criteria, rationality as a method is concerned with useful approaches, helpful guiding principles and effective orientations in the complexity of experienced deliberation problems. Norms and abstract principles play an important role in guiding and justifying decisions, but we would be ill-advised to rely only on them as *a priori* justifications while neglecting practical insight and experience as grounds for defining fundamental principles.

Normative and descriptive theory

Rationality as methodology is an attempt to avoid positioning the concept of rationality on either side of the normative-descriptive divide. The concept of rationality that I develop is neither strictly normative nor purely descriptive, but a bit of both at the same time.

Some readers of my drafts have insisted that I should take a more clear position by indicating which of my conclusions have a normative character and which are descriptive. I have tried to clarify the function and purpose of some of my arguments, but some ambiguities follow directly from the methodological understanding of rationality. Many still hold that a theory of rational planning either *describes* how actual decision-processes unfold, i.e. what rules and heuristics people employ in solving real problems; or else it must define the principles and norms that decision-makers *should* follow.

G.E.M. Anscombe's (1957) distinction between "representative" and "directive" statements illustrates the different ways in which normative and descriptive sentences relate to their object by comparing "shopping lists" to "inventories." If an inventory (a descriptive sentence) includes an item that is not found on the shelf, we would judge our inventory as incomplete or wrong. If an item on the shopping list (normative sentence) is not on the shelf we would judge our supplies as wanting and would not call our list "wrong." A similar unilateral "direction of fit" is often implied in the distinction between normative and descriptive rules. In some research projects on rationality this distinction is clearly visible. Many traditional theories of micro-economics, rational choice and decision-theory trace the *normative* principles of rational acting and their implications. The direction of fit here could be interpreted as (cf. Dorstewitz & Kuruvilla):

"Rationality → Practice"

I.e. our practices are evaluated or guided by a normative standard of rationality.

Anthropologists, in contrast, often seek to understand different rationalities as alternative ways that cultural communities make sense of their worlds. They define rationalities as contingent frameworks of rules and traditions by which members of different societies establish social relations and coordinate their interactions. Authors like MacIntyre (1970a; 1970b), Winch (1970a; 1970b), Levi-Strauss (1962), Geertz (1973; 1974; 1983; 1994) or Taylor (1982) often refrain from normative judgements that would expose the way alien practices like witchcraft or prophecy violate universal standards of rational conduct. They see culturally embedded practices as the ultimate arbiters of judgements on rules and norms that they distinguish as "their rationality." The direction of fit would have to be turned around (cf. Dorstewitz and Kuruvilla 2007):

"Practices → Rationality"

Rationality understood as methodology does not perfectly fit into either of these models. In the above-cited article, Shyama Kuruvilla and I described a third alternative (Dorstewitz and Kuruvilla 2007):

“... [R]ationality could serve as a *standard of procedural excellence* that incorporates both normative and descriptive elements. As a normative standard, rationality would give orientation to practice. At the same time, in its heuristic function, it would remain embedded and intimately connected to the praxis that it informs ...we represent this relationship between practice and rationality as a bi-directional one:”

“Practice ↔ Rationality”

In my interpretation of rationality as *methodology* I would like to further specify this bi-directional relationship. A methodology indicates how our knowledge of tools, principles and relations are put to use *in specific contexts*. A methodology provides orientation, not in the form of norms or imperatives but in terms of knowing what to do and how to go about doing it in certain circumstances. Guidelines are abstract principles that clarify the approach to be taken in certain situations. Guidelines and normative principles in a methodology depend in their formulation on experience and in their application on circumstances. Descriptive aspects are therefore as strong as normative ones; moreover their distinction seems inconclusive. I will point out that traditional concepts of rationality in planning falsely assume that ends and performance measures must be defined before meaningful instrumental choice is possible. These arguments refer principally to the experience of planners and to the observations of planning theorists. The consequences, however, are not merely descriptive. Such arguments do not only say something about how decision-processes normally unfold. If we follow the methodological route in developing a concept of rationality, we employ experience to formulate guiding norms and rules for orientation. Hence, these norms and rules can translate into actual practice because they are designed for it, giving methodological norms another empirical or descriptive edge.

Shyama Kuruvilla and I have argued that, in turn, (Dorstewitz & Kuruvilla)

“...where empirical practice and guiding norm become too disparate ... the normative model ... may be as useful as a recipe for cup cakes when we have the ingredients for a T-bone steak.”

The relation between normative and descriptive aspects of my theory will remain problematic and ambiguous, but I will be as explicit as possible on the possible functions that my results can have. My aim is to develop a concept of rationality that is true to the empirical formation of deliberate agency and is therefore able to provide guidance in real-life planning situations. This rationality conception eschews hard and fast criteria like efficiency and optimality, and it avoids specifying normative axioms like consistency or completeness. It is an inquiry-centred approach, i.e. its guiding norms will be measured against the documented collective experience of a discipline and against the background of a philosophical psychology whose perspective is naturalist and whose central tenet is compatibility with experience.

Rawls developed the concept of “reflective equilibrium” in order to determine how his principle of justice as fairness relates to public commonsense in living democratic institutions. “Reflective equilibrium” can be a helpful metaphor for understanding the project of *rationality as methodology*. Normative elements are also established and developed in view of empirical conventional aspects. However, stronger than in Rawls’ theory, a reflective equilibrium must balance normative principles with successful *practice* in problematic contexts. It is not enough to calibrate the equilibrium between a concept of rationality and an intellectual commonsense on what constitutes a rational decision.

Against rational planning

In recent decades an increasing number of theorists have rejected the idea that social planning and policy-making could be understood as rational processes. Many have even argued that rationality, as traditionally defined, cannot be the measure of good planning.

These theorists put forward persuasive arguments challenging traditional notions of rationality and their applicability to policy contexts.

Nevertheless a reference to rationality seems crucial in concerting efforts and in publicly justifying planning projects and policy decisions. If a project goes wrong, we seek reasons for its failure and ask whether it could have been avoided through foresight, more careful evaluation or better deliberation. Rationality is still the central virtue of planning. The planning theorist Charles Hoch confessed (1996b p.225):

“‘Rationality’ may not be everything but it is peculiarly ours.”

We should take recent critiques of rationality in planning seriously, but should not dismiss the concept altogether. We would risk losing orientation in our activities, coherence in our coordination, and public adherence to our strategies. It is therefore crucial to develop a conception of deliberative rationality that is capable of answering powerful philosophical and empirical doubts that had been cast over traditional rationality models. We need a conception of rationality that helps to understand plans and guides planners in their own problem-contexts – a conception that promises to bring our best capacities to fruition.

Deliberative rationality

Philosophical investigation into the concept of rationality can mean many different things. Rationality as an attribute of *belief* has been addressed by epistemologists and philosophers of science. Rationality as an attribute of *decisions* has recently received much attention from rational choice- and decision-theorists. Both of these quests have been predominantly concerned with defining normative criteria for substantiating the conditions under which we call a belief or a choice ‘rational.’ Only recently have these fields opened themselves to more empirical perspectives in establishing rationality claims. Bruno Latour, for example, emphasised the need to take the context of discovery more seriously in any theory of good science, and behavioural economists discussed the place of empirical problem-solving heuristics or survival strategies within a theory of rational choice.

I define my project as a study of “deliberative rationality.” By this I intend to avoid a narrow perspective on instances of *decisions* and the evaluation of *choices*. Deliberative rationality sees decision-making as an extended process, which I refer to as the *formation of action*. It covers everything from the initial disorientation that is felt in an indeterminate environment to the processes of deliberation over concrete option and decision-making. I later argue that even executive phases of action and implementation should be part of a theory of deliberative rationality.

Chapters 3 and 6 will explicitly challenge the separation between an epistemic rationality of beliefs and a deliberative rationality of choice and action. The main thrust in the idea of deliberative rationality is the inclusion of empirical agency processes in a definition of rationality.

A Note on Method and Structure

Reconstructing planning theory

The present project tries to satisfy some demands for philosophical groundwork that disciplines like planning, management, and operational research have implicitly and explicitly posed. A look at recent literature in planning theory raises the suspicion that the project thoroughly revising the concept of rationality is already well under way. I argue, however, that Dewey’s contribution to building a comprehensive framework has hitherto been underestimated.

I distinguish between a received *linear instrumental-* and a reconstructed *situational transactive* model of rationality. The former is based on the Humean means-ends-scheme and holds that rationality must be defined by an efficient employment of means to further given ends and goals. The linear instrumental approach translates this rationality model into a procedural progression of various planning stages. A typical example of such a process model is: (1) clarification of mission-statements, (2) definition of resources and possible

courses of action as preconditions for (3) a formal decision process, and (4) coordinated implementation.

The *situational transactive* model, in contrast, holds that a theory of rational planning cannot presuppose that ends and problems will be defined in the beginning of a planning process. Instead it claims that planning begins with perplexing and somewhat murky situations. The definition of a problem to be solved or an end to be achieved is subject to an inquiry process. Further, this process should be allowed to take just as long as the entire planning project itself (including its implementation). The *situational transactive* model of planning rejects the a priori prescription of an order in the progression of planning stages. A procedural logic should not be part of the definition of rational planning. Actual planning processes require the flexibility to move freely between modes of activity, such as defining a problem, designing a strategy, and realising a project.

A central aim of this thesis is to develop the idea of a *situational transactive rationality* (STR) in a systematic fashion. Aspects of this approach have frequently surfaced in planning theory but a coherent definition appears to be a novel project. I believe that Dewey's contribution to building a comprehensive framework has thus far been underestimated.

My aim is not merely to sketch the difference between these two rationality models, but to put them to test in actual case studies (Chapter 9) of urban planning projects from the German Ruhr region. I argue that each case manifests important aspects of one of the two rationality models, respectively. During the study of these cases I hope to elicit the two models and to show how the *situational transactive* approach holds its own in complex and multifaceted social settings.

The role of agency theory

This thesis asks: what would a satisfactory concept of rationality for planning contexts look like? Before answering, we must first explain what would constitute a satisfactory answer

to this question. I believe that any concept of deliberative rationality relies on a particular agency theory. Hence, no convincing discussion of rationality can bypass reflections on the theory of agency.

What I envision is a somewhat dissident conception of rationality. It should be a conception that is close to the experience of planners in their fields and coherent with actual human deliberation processes, but this is precisely what will set it at odds with most traditional concepts of rational action. At the same time it should be a conception that is able to provide orientation and guidance. Developing this new concept of rationality requires the philosophical equivalent of a root canal treatment, operating on the very foundations of our received agency theory. This reconstruction will make extensive use of resources provided by classical American pragmatism, namely by John Dewey's philosophy.

Hume famously explained that reasons and passions are respectively the guiding and motivating components of human action. He postulated that we serve our motivations (passions) best if we allow our capacity of reasoning to work unhampered and unimpeded by wishes, ends or desires. This minimal definition of rational agency relies on an agency theory that separates categories of ends (purposes, desires, or passions) and means (beliefs, cognitions, instruments or reasons). It further understands these categories as *antecedent* components of any decision-process and executive action.¹

The traditional *linear instrumental* model of planning relies on a Humean model of agency, which, in its simplest form, is called the *Folk-Model* of agency. This Folk-Model is often depicted as follows:

¹ I do not mean to prejudge the famous dispute about whether these components (interpreted as *desires* and *beliefs*) should be understood as causal antecedents of action or as logical premises in explaining human action (cf. contribution by Donald Davidson, Alasdair MacIntyre, G.-H. von Wright).

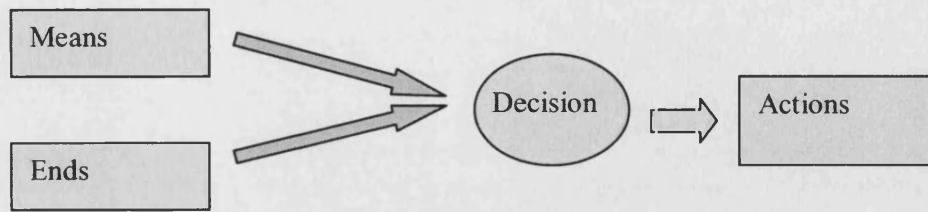


Figure 1.1: The Folk-Model of Agency

I believe that no philosopher has done more than John Dewey to challenge the foundations of this basic model, and I interpret the main thrust of his work on epistemology, ethics and logic as a contribution to agency theory. Dewey offers more than a powerful critique of the Folk-Model. I argue that Dewey's theory of inquiry provides the key for a new conception of rationality, and it is this new conception that can meet expressed demands for a more contemporary planning theory. For these reasons I give Dewey a prominent position in my work.

The present project was inspired by a section in Hans Joas' (1996) book, "The Creativity of Action," entitled "A non teleological interpretation of the intentionality of action." Joas argues that the traditional means-ends (or "Folk-") model of human agency fails to account for the origin of its assumed *ends*- and *means* dimensions, thereby misconstruing their role in the formation of agency. Joas argues with Dewey that the categories of instruments and purposes are only a *product*, not an antecedent, of human agency. Joas explains that the very juxtaposition of means and ends is merely a *possibility* and not a necessity in the formation of intentional agency. Defining separate pairs of ends and means can be *instrumental* for achieving coordination in our activities. But having an end or a clearly defined purpose is *not* a necessary precondition for initiating action. Agency theory can assume that we are habitually active. According to Dewey, we follow certain patterns and habits without the external motivating force of a goal or end until these habits and patterns are interrupted or inhibited. Our agency passes through phases or "*situations*" of habitual coordination, which become interrupted, turn problematic, and give way to efforts at re-

establishing a habitual equilibrium. Joas proposed replacing the means-ends model of agency with one centred on such habitual and problematic “situations.” These ideas are discussed in detail in chapters 3, 4 & 6.

Returning to the question of what a satisfactory concept of rationality for planning contexts would look like, my first claim is that we must begin by reflecting on the fundamentals of agency theory. This is of course only part of the answer. Below I explain my strategy in more detail.

Chapter structure and strategy

Besides a thorough revision of the foundations of the concept of deliberative rationality in agency-theory, a few other important points must be worked out.

The main elements of my project are the following:

- Pointing out the relevance and direction of a conceptual revision of rationality in planning and policy making (Chapter 2).
- Presenting John Dewey’s philosophical project as a source for a fundamental critique of traditional agency theory (Folk-model) (Chapters 3&4 and part of 5&6).
- Introducing and discussing an alternative conception of deliberative rationality based on Dewey’s notions of imagination and inquiry (Chapters 5&6).
- Pointing out how this model relates to planning processes (Chapters 7-9).

Chapters 1&10 provide guidance to the project as a whole.

Below is a commented schedule of the aim and content of individual chapters:

Chapter 2 Rational Planning – Some Theory and History

This chapter introduces the ideal type of a traditional *linear instrumental* model of rationality (LIR). I develop this idea with reference to a short historical background of urban planning theory, and I discuss how LIR relies on the Humean *Folk-Model* of agency. Following a critical discussion of several distinctive aspects of LIR, I will turn to some

contemporary developments in planning and related disciplines which suggest the rise of an alternative rationality model.

The following three chapters are structured as a systematic critique of the Humean *Folk-Model* of agency as in Fig. 1.1. I develop a Deweyan perspective that successively deals with the three resting points *means-ends-action* (or *belief-desire-action*) of the Folk-Model.

Chapter 3 Knowledge, Believe and the Primacy of Action

I investigate the relationship between epistemic categories like (*knowledge, cognition, belief*) and actions. The aim is to show that these epistemic categories are not preconditions or premises for the formation of intentional agency but rather its product. This chapter will introduce “experience” as perhaps the most fundamental concept in Dewey’s philosophy.

Chapter 4 Purposes in View of Instruments – Defining and Using Ends

I proceed by examining the second leg of the *Folk-Model*, which represents ends (*desires or purposes*), and ask questions about the origin and the philosophical foundation of motivations and value-premises in our agency. Dewey’s account roots the origin of purposes and value-premises within the context of unfolding agency and instrumental reflection. By the same token Dewey rejects the notion that values and motivations were to be regarded as external antecedents or premises in the formation of deliberate agency. This part of Dewey’s theory yields two important results: 1. there is no strict separation between epistemic evaluative processes, 2. ends (including “final” purposes) are have meaning only in the context of unfolding agency, where they play a functional role.

Chapter 5 Imagination in the Deliberation Process

Chapters 3&4 should yield the promised inversion of the MEA model. This, however, creates many questions, and in particular one looming gap: if means and ends cannot longer be understood as inputs or as logical antecedents for deliberative processes, if they are the outcome of the formation of agency, what can we rest a model of rationality on? The traditional criteria of efficiency, optimality and success can no longer serve as standards for rational decision-making where their basic measures are floating. This chapter introduces

Dewey's notion of imagination as an alternative method of gaining orientation in such indeterminate situations where a clear definition of means and ends dimensions is still missing. I will go beyond Dewey's definition and provide a more inclusive look at various dimensions and functions of "imagination" in deliberation processes.

Chapter 6 Situation and Inquiry – From Agency theory to Rationality

By this point we will have left the Humean model of rational agency behind and need to see how a new "*situational transactive*" model begins to take shape. Chapter 6 discusses Dewey's notion of a "rhythm" of changing "situations" (oscillating between settled and problematic poles) as a new basic model of agency-theory. Dewey's concept of "situation" could thus replace the reference points "means" and "ends", as Hans Joas previously suggested. A new concept of rationality, based on Dewey's notion of intelligent inquiry will be introduced and discussed.

Chapter 7 Social Planning and Collective Intelligence

Some possible objections to this application must be answered pre-emptively: How can Dewey's theory of intelligent agency apply to both individual and collective forms of deliberation? It will be argued that common objections to moving from individual to collective agency must be premised on the Humean framework. All distinctions that the Humean model relies on, including that between agent and environment, are, for Dewey, products rather than *a priori* starting points in a "transactive" agency theory. A Deweyan theory of rational action seems therefore less vulnerable to many concerns about the possibility of moving from a theory of individual deliberation to the aggregate level of a rationality of social action. Indeed Dewey provides a detailed theoretical account of collective and public forms of deliberation, but he refuses to understand these as a second order form of rationality that would have to be modelled upon individual decision-making. This interim chapter will briefly introduce Dewey's notion of "effective-" or "social intelligence."

Chapter 8 The Decision-cell – A Pragmatist Planning Model

I will turn to the application of Dewey's framework in a new model of planning and policy-making processes. This "decision-cell model" is the product of my collaboration with Shyama Kuruvilla over several years (Dorstewitz and Kuruvilla 2007; Kuruvilla and Dorstewitz forthcoming).

Chapter 9 Mines and Malls – A Tale of Two Cities

I will illustrate the difference between the received "linear instrumental" approach and the proposed "situational-transactive" model by juxtaposing two brief case studies. Both examples describe recent urban land use planning projects in Germany's Ruhr region and illustrate why planners have good reason not to ignore the *situational transactive* approach.

Chapter 10 Conclusion: Perspective and Critique

In the final chapter I will take a critical perspective on the project of a Deweyan rationality concept as a whole. I will address likely criticism that my project will meet with and outline some possible approaches to their solution. The purpose here is not to solve all remaining problems in one sweep, but to indicate which direction future research will have to take.

Contribution and originality

What is the expected gain from this project? And wherein lays its innovation or achievement?

A number of points seem central to evaluating my project.

I am not aware of any other work that has so systematically reviewed John Dewey's critique of the traditional Humean conception of rationality. I construct a reading of Dewey's epistemological, ethical and logical work which consequently sees him as an agency theorist. I elaborate upon Dewey's rich and powerful idea of imaginative inquiry as the foundation stone of a new concept of deliberative rationality.

The interest here is not purely philosophical. I intend to construct a bridge between planning theory and the tradition of philosophical pragmatism. My ambition is to show that classical pragmatist thought of the late 19th and early 20th centuries had already worked out solutions to problems that still haunt planning theorists in the 21st century.

Not only will I point out the relevance of this philosophical reconstruction project for policy-makers and planning theorists, I shall also apply the theory in a new deliberation model for planning processes, and will relate the conceptual results of this project to case studies where I illustrate the difference between a more traditional (LIR) and a reconstructed (STR) approach.

Dewey

Exegesis vs. problem-solving

In the beginning of my studies, at the Essen University in Germany, I was taught that philosophical dissertations fall into two classes: those interpreting a philosopher's position, and others directed at solving a philosophical problem.

The problem with this dualism between problem-focused and exegetic work is not only that it reeks of the unfortunate divide between continental hermeneutics and Anglo-Saxon analytics, it also insinuates that *understanding* a philosopher's ideas could be separated from *solving* intellectual problems.

This thesis is intended to both construct a reading of John Dewey's philosophy and to solve a problem. The problem is concerned with defining a contemporary and viable concept of rationality – a concept that does not merely withstand philosophical critique but also corresponds to our empirical deliberative capacities and can provide orientation in contexts of planning and policy design.

I believe that approaching Dewey's philosophy as a resource to be extracted, refined and employed rather than a self-sufficient hermeneutic exercise does justice to Dewey's own understanding of philosophy as a process of living inquiry.

Reading Dewey

Dewey is one of the most prolific philosophers of all time. His collected works comprise 37 volumes which contain over 40 published books and ca. 700 articles (Dewey and Boydston (ed.) 1969 [1882-1898]; 1969 [1899-1924]; 1969 [1925-1953]; 1996 [1882-1953]).²

There is no individual book that can be singled out as Dewey's main work, nor would any of his publications, taken on its own own, fully licence Rorty's judgement, which pronounces Dewey as one amongst four of the most eminent philosophers of the 20th Century (the others being Wittgenstein, Russell and Heidegger).

Many scholars have rightly complained about Dewey's drawn out style, crowded with anecdotal details, and his tendency to repeat ideas. His writings are not philosophically dark or convoluted; mostly they are conversational and contain a lot of commentary knick-knack. It is often difficult to find orientation in Dewey's works: he rarely provides chapter headings and stints with guiding or summarising comments about his intentions and the structure of his argumentation. Thomas Alexander concluded that reading Dewey is "like swimming through oatmeal," (Alexander according to Festenstein 1997 p.23), but I believe this goes too far. It is a pleasure to watch Dewey unfold his complex and subtle arguments. His ideas are carefully thought through and are expressed clearly.

The quality and depth of Dewey's contribution can only be measured if one is willing to follow his thoughts for some while. It is easy to underestimate the explosive power of Dewey's philosophical work after reading a small portion of it. Nothing in his conversational style suggests how much Dewey demands from his reader in terms of

²Unless otherwise indicated, all Dewey citations refer to the collected works electronic edition.

References will use the standard format e.g. LW.12.130, which translates to 'Later Works – Volume 12 – Page 130'.

sacrificing fundamental beliefs and revising basic concepts. Heidegger signalled his intention to shake the foundations of philosophy with a hermetic style and a language of neologisms. Dewey refused to build such a hermeneutic fortress around his project and preferred to reconstruct concepts within common language. Only where he felt that our common language relied too strongly on received philosophical dualisms did he propose such hyphenated expressions as “symbol-meanings,” “problem-solutions,” “facts-values,” and “organism-environments,” and not without calculating the unease and the cognitive dissonance they are bound to cause.

Alan Ryan (1995) saw Dewey as a “visionary of the here and now” (p.369). He argued that Dewey concerned himself with ideas and concepts not because he was seeking timeless truths, but on the contrary because he understood “...philosophy not as an isolated thing but as a chapter in the development of civilisation and culture.” (MW 12.93). The contribution that philosophers had to make to human destiny was to ask the right questions at the right time and to provide answers that would help human beings gain orientation and enrich their activity. His philosophy is forward-looking and his questions are less directed at how things are than at how things could be and what we could do (LW2xiv original quote in “Events and the future”):

“Pragmatism... does not insist upon antecedent phenomena but upon consequent phenomena; not upon the precedents but upon the possibilities of action.”

Olson observes that often, “critics accuse Dewey of holding ideas that he was adamantly opposed to. At other times, people who seem to hold views that are strongly Deweyan indict Dewey” (Olson 2002). Snider cautions against a piecemeal approach to understanding and applying pragmatist philosophy and observes that “Peirce, James, and Dewey were not satisfied with proclaiming only a few of pragmatism’s points. Rather, they went to great lengths to develop pragmatism as a comprehensive and integrated theory of thought” (Snider 2000b). However, Dewey explicitly saw himself as laying the groundwork

for a continuing philosophical project and might have even advocated close scrutiny of the interpretation and application of his work in current contexts (Blake 2005).

Many analytically-minded critics misinterpreted Dewey's work because they sought to address weaknesses in individual claims and arguments in isolation from other parts of his work. E.g. it is easy to characterise Dewey as a naïve positivist by looking at his endorsement of the scientific method in resolving social ills and moral puzzles. But this does no justice to Dewey's particular notion of scientific inquiry, which cuts across a cascade of dualisms such as: subjective/objective, ontic/epistemic, causal/teleological, factual/evaluative, mental/material, and individual/social.

Dewey's critics charge from all sides: the religious right, the Marxist left, liberals, positivists, relativists, educators, policy analysts, and philosophers. The conservative think tank "Human Events" has published a list of the most dangerous books of the 19th and 20th century – Dewey's "Democracy and Education" made it into the top 5 (surpassing even Marx' "Das Kapital," Lenin's "What is to be done," and Darwin's "Origin of Species").³

Dewey wasn't without wit in fending off even slightly unfair criticism. In response to Bertrand Russell's observation that the "love of truth [was] obscured in America by commercialization of which pragmatism is the philosophical expression," Dewey remarked that "the statement to me seemed to be of that order of interpretation which would say that English neo-realism is a reflection of the snobbish aristocracy of the English and the tendency of French thought to dualism an expression of an alleged Gallic disposition to keep a mistress in addition to a wife." (Quoted in Dewey: Rejoinder, LW14.13-14 [original publication 527])

³ The reason quoted is that Dewey would have championed a model of "progressive" (or child-centred) education, which weakened the call for discipline in schools. The quote reads, "In *Democracy and Education*, in pompous and opaque prose, he disparaged schooling that focused on traditional character development and endowing children with hard knowledge, and encouraged the teaching of thinking 'skills' instead. His views had great influence on the direction of American education--particularly in public schools--and helped nurture the Clinton generation...".

Scope, Limits and Ambitions

I am aware that my undertaking is highly ambitious; perhaps it exceeds the ideal scope of a PhD-thesis. The aim can therefore not be to devise a string of watertight arguments that deal in detail with all possible objections. Instead the argument has a more strategic layout. It is my intent to show the *feasibility* of a pragmatist reconstruction of rationality in planning in principle. The arch of my discussion has a far stretch, reaching from historical problems in planning theory through a revised notion of human agency theory and inquiry, back to applied contexts of urban planning. It needs the benevolent support of the reader.

Below I name a list of 9 criteria and demands that a reconstructed concept of planning rationality should fulfil. These will be developed and explained at later stages. Here they serve to give a taste of the direction that the current project is about to take:

1. Rational planning should not be understood as a linear progression of stages. It must not prescribe rigid procedures. It should be flexible with regard to rapid changes between behaviour modes (e.g. from implementation to inquiry or conceptualisation phases).
2. A new rationality should do justice to the fact that problems are not given. It must be able to work in messy, confusing, problematic situations, and acknowledge that the definition of problems, ends, and purposes is a process which extends over the entire planning process. Understanding and goal-orientation cannot be preconditions for rational planning and are treated as the product of rational planning agency.
3. A contemporary definition of rationality should model decision-making as a process not as a point or instance in time. Decisions are formed rather than 'drawn' or 'deduced.' Decision-making extends across all phases of the planning process and should ideally involve all participants and group.

4. A contemporary concept of rationality should not insist on a sharp distinction between planning and implementation. It should acknowledge and foster the creative potential of realisation-stages.
5. Rationality should not be elitist and undemocratic. At heart it should be should be a pluralistic concept. Only then rational deliberation can sensibly involve a large variety of participants and groups. If intelligence and excellence can be defined as products of collaboration rather than as experts' privileged knowledge, we can hope to resolve the implicit contradictions between democratic pluralistic demands for participation and the experts' technocratic excellence.
6. On empirical grounds, a revised notion has to reconsider the relationship between means and ends in agency theory. It has to account for the intimate relationship holding between instrumental concerns and the tasks of defining ultimate purposes. It thereby has to precisely locate ends and purposes within unfolding human agency.
7. Also on normative grounds rationality may have to bridge the gap between facts and values in planning, which is closely connected to the dichotomy between means and ends. It has to show that deliberation over purposes cannot and should not be separated from instrumental inquiry.
8. The concept of rationality should accommodate and promote non-deductive forms of reasoning which involve the human capacity to appreciate situations as qualitative wholes. It has to provide a theory of human deliberation that draws on all intellectual and emotional capacities. In particular it has to emancipate these capacities from the hegemony of analytic and deductive reasoning.
9. Rationality should be defined as "learning" rather than as "instrumental achieving." The first step is to overcome the dichotomy between implementing change and learning. It has to integrate the categories of inquiry and planning with those of action and implementation. It should not define learning as a secondary, optional

consequence of information-feedback from implementation stages, but must integrate learning as a constitutive aspect of all planning processes. Rational planning should be organised as inquiry, which should in turn be tailored to a particular problematic situation.

These criteria and demands for a new concept of rational planning will guide and inspire the further discussion, but they will not be taken for granted as laid down here. In the following chapters I will explain the need for these demands and criteria with reference to both, philosophical arguments and recent developments in planning theory.

Chapter 2: Rational Planning – Some Theory and History

There is an old saying that a problem well put is half solved. This much is obvious. What is not so obvious is how to put a problem well
(Churchman, Ackoff et al. 1957)

Introduction

Planning is the practice of looking ahead. It is not a patient process of anticipating or surrendering to the inevitable, but envisions our destiny as something we have the power to shape. Planning is about using our intelligence to coordinate efforts in order to improve the human condition.

Many definitions of deliberative *rationality* have used very similar vocabulary. They refer to notions like forward-looking and action guiding principles that are oriented toward improving our living conditions.

Is the concept of a “rationality of planning” or a “planning rationality” merely a pleonasm? Do the two concepts of “planning” and “rationality” really mean the same thing? We might say that not all planning is rational, but this is merely saying that not all planning efforts conform to some stated criteria of “good planning.” Of course we could object by saying that rational planning means conforming to timeless normative standards (e.g. consistency, efficiency or justification), whereas planning has been an evolving practice. However, if we cast a sharp eye on this unfolding story we find that not only planning practices, but also the normative standards used to evaluate them, have undergone fundamental changes. From the construction of Mediaeval Cathedrals to the erection of Chicago City, from Le Corbusier’s Unité d’Habilitation in Marseilles to Rem Koolhaas’ CCTV Headquarters in Beijing, planning styles and practices have changed together with planning methods, norms and standards.

I interpret the difference between planning and rationality as one between a practice and its methods, norms and standards or between the “what” and the “how” of a developing practice. A history of planning must be a history of planning-rationality or it will be limited to a recounting of anecdotal evidence.

This chapter examines the concept of rationality in several applied planning and policy contexts. I begin by tracing ideas and movements in the history of planning that prepared the formulation of a “received” or “traditionalist” conception, which I call the “Linear Instrumental” model of rationality (LIR).

The LIR model conceives of rational planning as a logical process that starts with a definition of a set of goals, leads to the formulation of efficient strategies, and ends with the implementation of changes that realise given ends. I will discuss the implications and critiques of the LIR model, concluding that rationality is in urgent need of reconstruction where cosmetic changes will not do. Existing critiques of linear instrumental rationality models yield a catalogue of requirements for contemporary conceptions of rational planning. Later in this chapter I discuss certain debates in the field which point at the relevance of my project and give it direction.

This first main chapter of my thesis frames the subsequent parts that explore Dewey’s pragmatist theory in the search for a new model of deliberative rationality. Together with the concluding chapters it frames the conceptual middle part of Dewey-scholarship as a systematic and applied investigation of the concept of rationality in planning.

As an academic discipline, Planning has emerged from the contexts of urban design, architecture, and land-use planning. Today planning theory stretches across fields as diverse as national security planning, social welfare services and transfer payments, water resources management, conservation and heritage protection, education and health services, land use zoning, transport, and environmental protection (cf. Friedman 1987 pp.26-27). Planning has expanded beyond the public domain into business schools, where it is used to

address problems of strategic management, personnel and financial planning, process optimisation (OR) and sustainability strategies.

I treat planning as a generic concept, and my discussion of rationality does not apply exclusively to these contexts and disciplines. The realm of urban planning is used in order to put certain core ideas in context. At the end of this thesis I introduce two case studies from urban land use projects in the German Ruhr region, hence the attention given to the urban roots of planning theory.

Gardens, Blueprints and Utopias

Architects and visions

When Le Corbusier revealed his project “radiant city” (Le Corbusier 1933 p.14), he proved to be more than an aesthetic visionary. This intellectual avant-garde project embodied the planning philosophy of his era. His comprehensive projection of a modernist city embodied a conclusive functional idea of urban life in an optimal physical environment. The radiant city is part of a long tradition of enlightenment urban utopias that stretch from Thomas More’s “Utopia” (1516) or Tommaso Campanella’s “City of the Sun” (1602) to Ebenezer Howard’s “Garden-City” (1902). The common thread of these visionaries was that they designed local and physical space as material environments in which humans could flourish. The promise of scientific progress and technical advance made it seem possible to erect in brick and mortar the solution to people’s most pressing problems. Cities were often described as teeming and clogged places, allowing only for chaotic and uncoordinated movements. This meant an unorganised life for most citizens and poor provision and accessibility of the basic means of life in rapidly and randomly growing metropolitan areas. The ideal was often of a functional society.

Knowledge of basic human needs and anticipation of industrial developments allowed pre-war planning projects to combine the efficient processes provided by a powerful infrastructure with the psychosocial comforts of a quiet, low-stress environment.

“...the form of the modern city was one of plain, geometrical, ‘functional’ buildings standing at regular intervals in a sea of ‘free-flowing’ space.” This modernist vision of a city “was ordered into great blocks or zones of single uses, with fast motorways like great arteries connecting up the different districts.” (Taylor 1980 p.24)

In such places houses were, in the famous words of Le Corbusier, “machines for living.”

What I will later define as the traditional standard model of planning rationality (or the model of *linear instrumental rationality*) is markedly different from this Utopian model. Nevertheless it can be only adequately understood in front of the background of this earlier approach.

Nine characteristics define the Utopian model:

1. Architects are the leading figures in the design process;
2. The description of end-states makes for the chief substance of a plan;
3. Aesthetic aspects take precedence over technical or economic concerns;
4. Envisioned end-states describe a physical or material environment;
5. These visions are spelled out in high resolution and minute detail;
6. Life in such designed environments is imagined as functioning in a static and habitual way;
7. Human needs are imagined as constant and statistically predictable;
8. Plans were made for large areas, which could extend over entire city quarters, or even form the foundation for entirely new cities;
9. Plans were usually made “from scratch” for empty sites, without prior construction or continuing use.

Rationality in utopian planning

Rational end-states

Kumar defines the underlying enlightenment idea of the rationality of a design or end-state by using the example of Campanella's "City of the Sun" (Campanella 1602). He calls it a "...physical embodiment of all the arts and sciences known to man. It is a compendium of all knowledge, all that is needed for the cultivation of the good life." (Kumar 1991)

Le Corbusier's radiant city was also more than a sublime piece of aesthetic megalomania. It incorporated a vision of human destiny in the age of technology, and embodied a measure of human flourishing. We must understand *life* in such rationally conceived environments as a *static* ideal image: a repetitive functional routine, which follows the anticipated paths of daily accomplishments between work, commuting, domestic life, and recreation.

Rationality and implementation

The utopian and modernist idea of rationality was not concerned with the *means*, *procedures* and *methods* for realising grand designs. It widely excluded the anticipation of obstacles in the path of blueprint to realisation. Budget constraints, time-limits, and obstacles were all referred to a technical administrative process that would take place, if ever, *after* the design-process, with its table-sized model, was complete. Practical dimensions of the realisability (financial expedience, political consensus, and socio-economic conditions) were not considered relevant to the intrinsic quality of an architectural scheme. The lack of concern for these challenges might be attributable to a belief in the advancement of technology, which would make such projects possible and affordable. There was also a simplistic model of administrative and political processes according to which the rational quality of a planned design would alone decide which plan was to be realised.

Fischerman (1996) describes the detached nature of these early urban plans in the following way (p.21):

“The cities were never conceived of as blueprints for any actual project. They were ‘ideal types’ of cities for the future, elaborate models rigorously designed to illustrate the general principles that each man advocated. ... The setting where these ideal cities existed was never any real location, but an empty, abstract plane where no contingencies existed.”

Ebenezer Howard’s work is an exception to the trend of his era in which plans were founded on aesthetic or social vision while neglecting concern for practical constraints and economic realities. Howard explicitly premised his idea of a “Garden City” on an economic model. His idea was that the creation of new and superior satellite cities in the vicinity of overcrowded metropolitan areas would yield gains through rising property values, which would in turn offset initial investments. Max Steuer (2000) criticised this as naïve in that it fails to account for income and productivity in the new satellites. He recounts Howard’s failures in financial management when his ideas were put into practice. Nevertheless Howard remains quite unique amongst those visionary urban planners of his period in attempting to ground his model on economic mechanisms.

Rationality in the development of designs

In addition to a general lack of interest in the instrumental means to realise their designs, utopian planners also saw little occasion to justify the origins of their plans according to standards of rational criticism. An architect’s creative inspiration and ability to synthesize aesthetic and practical demands were the sole guarantors of his design’s rational quality.

No specific demands on the systematic gathering of information or prescriptions of a planning procedure governed these designs. Interest groups were not involved in the formulation of plans. Public approval was considered irrelevant in judging the intrinsic rational properties of a design.

To be fair, both Howard and Le Corbusier supported their arguments with some calculations of revenue-streams in the case of the garden-city (Howard 1902 Chapter II)

and statistics on population growth in that of *La Ville Radieuse* (Le Corbusier 1929 p. 113). However, presumably Le Corbusier would have had little patience for requests to subordinate the architect's contribution to the purvey of social and economic planning experts.

Interestingly, it was not alone the pressure of a technocratic age, which demoted architecture to a service within the larger contexts of socio-economic planning projects. For aesthetic reasons, architects began to subordinate their work to the functionality of technical processes. Le Corbusier was an *avant-gardist* in this respect and inspired many Bauhaus architects after him. We can clearly see the tension between his prioritising of an aesthetical ideal and his wholehearted subscription to functionality in view of demographic and logistic problems. The genius of Le Corbusier and other great architects of the Bauhaus period was that they managed to synthesise these imperatives convincingly. Urban planning in later generations often failed not only by giving primacy to technical and economic criteria over aesthetic demands, but rather by disconnecting functional from aesthetic aspects.

Critique of Utopian Rationality

The following static idea of an urban structure is expressed in Le Corbusier's chapter on "Order" (Le Corbusier 1929 Chapter II p. 15):

"The house, the street, the town, are points to which human energy is directed: they should be ordered, otherwise they counteract the fundamental principles round which we revolve."

A defining feature of the utopian planning model is the passive and idealised nature of its designs. The task of planning is more like an *inspired seeing* than a material interaction with life in an urban reality. In pointing out the need to reform this model, Jane Jacobs launched a scathing critique (Jacobs 1961 p. 33):

“Le Corbusier’s dream city has had an immense impact on our cities. It was hailed deliriously by architects, as has gradually been embodied in scores of projects ... His city was like a wonderful mechanical toy. ... It was so orderly, so visible, so easy to understand. It said everything in a flash, like a good advertisement. ... But as to how the city works, it tells ... nothing but lies.”

Le Corbusier’s visions of urban life appear outdated today, when an element of creative mess and dynamic evolution is viewed as essential to urban life. That the utopian model is outdated may be only apparently true. At the end of this thesis I discuss several contemporary urban planning cases, one of which demonstrates that planning comprehensive environments is still very much in fashion: Between 1996 and 2004 plans were made to erect a grand style shopping centre in the heart of the German city of Duisburg. “MulitCasa,” was the name for a project to create an entire world of shopping and leisure experience, from flagship stores to bars, restaurants, sport facilities and recreation areas. The guiding idea was the creation of a seductive environment that would attract customers with more than just shopping. The centre would offer all the aspects of an urban centre by catering to the needs of a population that was leisurely strolling while shopping. This world was designed to efficiently satisfy these demands by providing optimal access to traffic systems, parking places, guidance and orientation systems and a clearly arranged shopping environment with many leisurely spots and non teeming esplanades. “Multi-Casa,” which was overturned at the last minute by a city council resolution, embodied the idea of a comprehensive environment, providing for a pre-calculated urban lifestyle under one roof. The project also made a strong aesthetic claim, (although less appealing than Le Corbusier’s visionary projections): Duisburg town planners clearly intended to use the outreaching and skyward peaking design as a demonstration of its status, modernity and economic dynamism. Although the “Multi-Casa” project ultimately failed, many similar projects of comprehensive, functional and aesthetically unified urban retail environments have been realised or are currently being planned, (e.g. the famous “CentrO” in Oberhausen, or the Ostbahnhof Berlin). Many of them occupy space comparable to city quarters rather than individual buildings. The modernist comprehensive spirit is thus alive and increasingly visible. Later I will discuss

the “Multi-Casa” not primarily as a Utopian, comprehensive, end-state oriented approach, but as a case of “linear instrumental” planning.

The Model of Linear Instrumental Rationality

From aesthetic visions to strategies and solutions

The linear instrumental model of rationality (LIR), as introduced here breaks only partly with the Utopian tradition. It is not principally opposed to comprehensive Blueprint planning, but rather a further development of it. Most importantly LIR adds the dimension of a procedure: LIR planning typically reaches from the definition of a plan to its realisation.

The utopian and architectural planning ideals are “comprehensive” in that they (1) provide fully detailed designs of a physical environment, often right down to the shape of doorknobs, and (2) they comprehensively envisage a way of life, determined by their material environments.

In some respects these early planners were challenged for not being comprehensive enough (Taylor 1998 p.41):

“Because they were bound to an essentially physicalist conception of town planning, planners tended to view towns and their problems only in physical (and aesthetic) terms. Because of this they simply *did not pay attention to social matters*; their theory of planning prevented them from really *seeing* social issues.”

This critique spawned a series of reform ideas, which addressed the theoretical foundations of urban planning.

These new ideas can be grouped into the two provinces of *expertise* and *rational procedures*. On the one hand, the object of planning changed from architectural constructions to solutions for socio-economic problems and infrastructural needs in growing urban areas. On the other hand, in realising projects and solving societal problems,

rationalist enlightenment visions of a grand design had to give way to questions about rational *actions, resources* and *procedures*.

Regional employment, access to healthcare, availability of day-care centres, public transport systems, and educational infrastructure began to receive more attention than the aesthetics of new environments. This coincided with a growing disregard for existing urban contexts. Roads were built according to anticipated traffic figures even if this meant dissecting urban centres and separating communities. Precious sites that would today be protected by cultural heritage laws were often sacrificed. In the German town of Hattingen, half of the historical timber frame centre was replaced by a concrete complex that houses a department store and a parking garage. This trend put a hold on the genre of urban planning that concerns itself with specific locations and contexts rather than general infrastructural policies.

The complexity of problems seemed to demand the separation of offices and competences along the lines of policy sectors (healthcare, schooling, waste-treatment, etc.). These functionally distinguished sectors could employ domain-specific experts, partly explaining the wide replacement of architects with engineers, sociologists, economists and geographers. (Taylor 1998)

Rationality as linear procedure

Yezeckhel Dror defines planning as “the process of preparing a set of decisions for *action* in the future, directed at achieving goals by preferable means” (Dror 1973 emphasis added). This definition summarises an important step toward the LIR model. Physical planners of the earlier utopian brands did not make plans for concerted *intervention*. Only a new generation of expert- engineer planners, (who must at this point be called “traditionalists”), recognised the need for anticipating and coordinating various stages of implementation. Planning became a multi-dimensional coordination task that comprises actions, resources, ends, targets and timeframes.

This meant an important alteration of the rationale of planning. Planners were no longer artists and visionaries, but people who identified efficient means and well timed processes in order to realise a weighted set of goals.

Procedural models are often contrasted with *end-state* oriented models. To avoid confusion, I write about the *linear instrumental model* of rational planning as one that combines elements of both procedural and goal-oriented approaches. The linear instrumental model sees rational planning as a well-ordered progression of steps leading to an end, which can be alternatively defined as improving a situation, obtaining a goal or solving a problem.

Some characteristics and implications of the LIR model are worth considering individually:

- LIR relies on a linear progression of stages.
- It tends to ignore or trivialise deeply perplexing and messy situations.
- It assumes distinct and authoritative decision points.
- LIR introduces a rigid separation between the planning and implementation phases.

These are some critical aspects of the LIR model, that are of particular interest for the here attempted reconstruction of the concept of rationality planning. Each of the following sections consists of a characterisation and a subsequent critique.

Linear progression of stages

Structuring the planning process into a succession of phases or stages is perhaps the most characteristic mark of LIR models. With a few exceptions, these stages read like direct translations of the Humean means-ends-action scheme (see previous chapter Fig. 1.1). Usually they include detailed specifications and a number of feedback relations, yet in substance they describe or prescribe a progression from formulating ends and defining means or alternative strategies to the implementation of actions.

The planning model which Landon Winner calls “straight-line” instrumentalism (Winner 1977; quoted after Hickman 1995 p.28)

“...begins with a preconceived end in mind. Then one decides upon an appropriate instrument or organization of instruments to achieve that end, usually weighing the advantages of two or more alternative instruments. Next comes the actual *use* of the instrument in the way established for its successful exercise. Finally, one achieves certain results which are judged according to the original end.”

Davidoff and Rainer speak of three levels of the planning process (Davidoff and Reiner 1973 pp.11-12):

“... first the selection of ends and criteria; second, the identification of a set of alternatives consistent with these general prescriptives, and the selection of a desired alternative; and, third, guidance of action toward determined ends.”

Much of the body of planning literature is little more than an attempt to differentiate the relevance of new stages in this basic model.

John Friedman extracts a 7-stage scheme to capture much of the received commonsense in planning literature (Friedman 1996 p.22):

“The ideal-typical decision model applied by authors in the policy analysis tradition has the following identifiable ‘stages’:

- Formulation of goals and objectives;
- Identification and design of *major alternatives* for reaching the goals identified within the given decision-making situation;
- Prediction of major sets of *consequences* that would be expected to follow upon adoption of each alternative;

- *Evaluation* of consequences in relation to desired objectives and other important values;
- *Decision* based on information provided in the preceding steps;
- *Implementation* of this decision through appropriate institutions;
- *Feedback* of actual program results and their *assessment* in light of the new decision-situation.”

Chadwick concentrates on the prevalence of complexity in planning contexts and stresses the importance of model building in the planning process. His idea of a rational planning procedure and its sequence of logical steps, however, is fully compatible with the LIR model (Chadwick 1970 p.67):

“Formulation of the problem



Formulation of criteria, which the problem solution must satisfy



Modelling the problem



Testing the model against the criteria



Deriving a solution from the model



Testing the solution against the criteria



Implementing the solution.”

The kinship of all the linear rational stages models with the Humean means-ends-action scheme (c.f. Fig 1.1) is most evident in Davidoff and Reiner’s (1973) version, which reduces the structure of the planning process to three chief stages that read (p.18): “value formulation,” “means identification,” and “effectuation.”

Although there are many such multiple stages models, (cf. Dror 1968; Chadwick 1970; Banfield 1973; Davidoff and Reiner 1973; Lindblom 1973; Camhis 1979; Friedman 1996) no two of these agree exactly on the number of stages or their exact taxonomy.

One important notion in all these models is that stages occur in an order of unilateral dependence (or lexical order). It is assumed that fulfilling early stages is a necessary prerequisite for moving on to subsequent ones, and that we cannot rationally proceed before the previous stage had been successfully concluded. It is fruitless to attempt to define a solution before knowing the precise problem or to rush into the execution of a plan before reaching a formal decision on it.

Together with Shyama Kuruvilla I have developed a standard model of “linear instrumental rationality” as represented in the following scheme (Dorstewitz and Kuruvilla 2007):

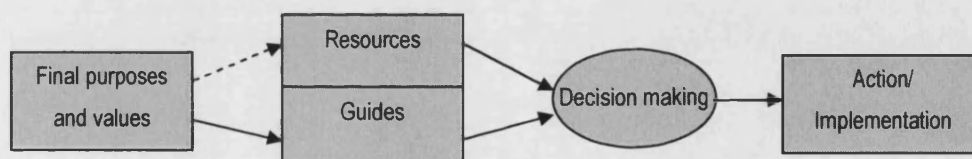


Figure 2.1 The Linear Instrumental Model of Rationality (LIR)

Later references to the LIR (or traditional) model will refer to the idea expressed in this graph.

The graph interprets the logical relations of the basic Humean model of rational agency as a temporal flow chart of stages in a planning process. The *Folk-model* of agency (cf. Fig 1.1) defined ends and means (or in an alternative conception ‘desires’ and ‘cognitions’) as prerequisites of decision-making and action. This model adds the idea that meaningful determination of instrumental strategies (resources and guides) requires *prior* definition of ultimate ends (purposes and values). The internal structure of the “resources and guides”

field follows Hume's requirement that "passions" (desires) should not directly influence "reasons" (cognitions): this particular idea is also signalled by only a dotted line leading from "purposes and values" to "resources." Cognitions that the model represents as "resources" refer to instrumental conditions. "Guides" on the other hand are those active elements in our reasoning that give orientation to our instrumental cognition: rules, norms, methods, evidence, performance measures and criteria are examples of the support our instrumental reasoning requires to proceed and focus on a target. E.g. concrete performance measures (which directly refer to the preceding field of "purposes and values") are necessary for giving direction to instrumental strategies, and so are methods like formulating deductive models of circumstances, or consulting available evidence. If we apply this distinction of our LIR standard model to Chadwick's scheme above, we can see clearly that step 1, "Formulation of the problem" is an instance of defining "final purposes and value." Step 2, "Formulation of criteria, which a problem solution must satisfy" would fall into the category of "guides," whereas step 3, "modelling the problem" would involve instrumental cognitions of the category "resources." The following steps like "testing the model against the criteria" and "testing solutions against criteria" would describe comparison stages involving both resources and guides and lead on to decision-making and implementation in the standard model.

This '*linear instrumental*' model of rationality (LIR) will provide the backdrop for developing a revised '*situational transactive*' model of rationality (STR). 'Instrumental'¹ here means 'action directed toward a predefined end.' The attribute 'linear' refers to the sequential logic of this planning model. These aspects shall be discussed in more detail below.

Practitioners and analysts would agree that linear stages models do not adequately capture the realities of planning and policy-making. However, central aspects of this linear-

¹ Dewey's pragmatism is also referred to as "instrumentalism," which does not correspond to my use of 'instrumental.' Dewey's "instrumentalism" includes concerns and methods of developing ends and purposes. It thereby denotes the exact opposite of 'instrumental,' which assumes purposes and ends to be externally fixed.

instrumental model have great appeal for theorists and practitioners because of their purported heuristic and normative value:

(1) Bureaucrats and politicians tend to like the sense of orderliness that this scheme bestows on the 'messy' realities of policy-making. For policy analysts the stages heuristic provides a simple way of studying and explaining complex policy processes. Additionally, the media looks for discrete policy events. The public demands concrete goal directed policy interventions as promised by the linear stages model (John 1998; Howlett and Ramesh 2003). Although actual planning processes do not usually conform to the order envisioned by the LIR scheme, this model is still empirically a potent device for capturing intentions and mental models of involved planners. At the end of this thesis I introduce a case study of a planning process where involved planners clearly employed a model of rational planning akin to linear instrumental rationality.

(2) Banfield (1973) defends the applicability of linear instrumental rationality while still acknowledging that most empirical situations are marked by complexity and demand quick reactions and improvisation rather than rigid planning stages. He refers to the normative and informative role of rational stages models. The strategy of immunising a linear instrumental rationality against empirical refutation by defining it as a purely normative theory is a common one (Simon 1966; Banfield 1973), and has been partly addressed in the first chapter.

It is difficult to overlook the limitations of such a normative theory of rational planning, which not only ignores but quite flagrantly contradicts experience. Nevertheless, we have to give it the benefit of the doubt and ask whether the empirical inadequacy of the LIR model has any bearing on its normative import. E.g. one could object, the empirical fact that people fail to get regular health-checks has no normative implication to the effect that they *should* not get health checks.² However, this analogy has a limb.

² I am indebted to my supervisor, Richard Bradley, for drawing my attention to this example.

First, the empirical point about the LIR model is not merely that actual planning processes *do* lack procedural organisation. The conclusion of many decades of planning practice is that most actual planning processes *resist* any attempt of superimposing this linear structure. The latter provides a much stronger reason for changing the theory in use. We certainly cannot conclude that people *should* not have check-ups from the fact that they do not have them. But this is far from saying that nothing normative would follow from this empirical point. A national health program would be ill advised to bet on people's voluntary initiative even if this *would* yield the optimal or most rational policy in theory. Using the ideal best as a normative guide easily prevents more practicable or effective solutions. Where we manage to adapt our guiding norms to experience the benefits can be great. The German broadsheet *Die Zeit* has just reported on the success of a healthcare program tailored for the needs and behavioural patterns of male professionals, where doctors visit employees in their companies for checks on skin- and prostate cancer (Albrecht 2008).

Second, the normative conclusion drawn from this empirical point is not that planning projects *should* proceed in a more or less random and disorganised fashion. A legitimate normative conclusion from the empirical insight that LIR does not work is simply that we need another rationality conception that does work for the material at hand. I shall later argue that a more flexible approach which permits freely moving back and forth between stages is a defensible methodological approach. But, of course, this requires further arguments. It may turn out that the bulk of these further arguments in support of a new normative conception are themselves chiefly empirical: e.g. they could claim that a more flexible approach is also more feasible, that it enables the development complex projects, or that it spawns human creativity. However, I do not intend to solve the problem of the entanglement between empirical facts and norms here. Very illuminating arguments on this topic have been forwarded by Charles Taylor (1994) and Hilary Putnam (1981; 2002), and rely on them in many parts of my argument.

Some classical critiques of the linear progression model

In policy science many models reject the linear stages idea. Some suggest instead that social change and policy formation happen greatly by chance, or follow patterns which have little to do with intentionally planned coordination.

The famous “garbage can” metaphor (Cohen, March et al. 1972) claims that participants define problems where they occur, whereas solutions are generated independently and left on stock-pile in “garbage cans” until, more or less by chance, matching pairs of problems and solutions couple up and initiate change processes.

Kingdon (1995) speaks of three policy streams, “Problems,” “Policies,” and “Politics,” that develop quite autonomously and only occasionally interact. “Problems,” such as the cost of goods and services, epidemics, or disturbing results from scientific research, are discussed but do not necessarily lead to immediate political action. “Policies” are proposals, action plans, and technical solutions devised by specialists and political agencies that do not necessarily expend resources and political clout to implement change. “Politics” reflects shifting majorities, public mood and opinion, lobby-pressures and voiced interest. Problems, policies, and politics develop in remarkable independence from one another. Policies are not the direct responses to developments in the “problems” stream, and “political” decisions are not the direct products of those policies. Nevertheless, these streams are not altogether independent from one another, and social change relies on all three. At times “windows” open in which an ongoing activity in one stream influences an initiative in another. Change depends on such “windows of opportunity,” i.e. a particular constellation of political majorities or advocated policy suggestions that make action along defined agendas possible. This model directly contradicts the linear instrumental reading, according to which problem definition, policy design and political decision-making are logically subsequent procedural phases. (cf. John 1998)

Many contemporary critiques indicate that a new rationality conception should avoid defining logical successions of stages as operational standards for rational planning.

Perplexed messy situations

All of the above linear conceptions of planning procedures begin with somewhat similar stages: “formulation of goals and objectives,” “value formulation,” “definition of the problem,” “clarification of needs and demands,” or “definition of performance measures.” In his book *System Thinking System Practice*, Checkland lists another 12 examples of methodological schemes that refer to the clarification of ends, values, goals, problems or visions as initial stages in rational deliberation processes (cf. Checkland 1981 p.140). All of these methodologies, Checkland states, instruct planners to proceed by engineering solutions to given problems.

According to LIR models, planning really begins *after* problems, goals, and ultimate purposes have been clarified, i.e. when planners know what they are designing for.

This linear notion of planning has received much criticism in recent years, not only for isolating substantial ethical questions from rational planning but also on empirical grounds. Many theorists found that the demand for an early stage definition of problems and purposes contradicted basic experiences in most social planning theatres. Planners cannot presuppose that the definition of “a problem” should be a trivial or preliminary matter (Ackoff 1979):

“[They] are not confronted with problems that are independent of each other, but with dynamic situations that consists of system of changing problems that interact with each other. I call such situations messes. Problems are abstractions extracted from messes by analysis...”

The linear instrumental model disregards the fact that the task of finding *solutions* for problems “... constitutes only a small part of managerial decision-making” (Checkland 1981 p.144). The chief challenge to planners is to give definition and structure to an indeterminate, messy, and perplexed problematic situation.

From his experience Checkland relates (Checkland 1981 p.155):

“It became clear that the present research was to be concerned not with problems as such but with *problem-situations* in which there are felt to be *unstructured* problems, ones in which the designation of objectives is itself problematic.”

Linear, or in Checkland’s diction “hard” approaches, see social situations as systems to be engineered and channelled toward the achievement of prior given ends. In contrast, Checkland defines “soft systems thinking” as the attempt to develop problem definitions and goals throughout the process of planning. He speaks of “human activity systems” as different in principle from natural or mechanical systems. Human activity systems cannot be designed and optimised to fit purposes because they are themselves the sources of purposes and visions. It is more than a humanistic commitment to freedom and the autonomy of human agents that leads Checkland to this conclusion. He is concerned with the complex nature of problem situations that makes it impossible to decide in advance what the problem is and what solution would fit. Policy situations involve a plethora of viewpoints, motives and mental models. These make not only prediction and control difficult but defy any antecedent definition of an objective function.

In a similar vein Rosenhead argues that “The clarity of a well-structured problem is simply unavailable, and [that] an ... approach which asserts otherwise does violence to the nature of the situation” (Rosenhead 1989 p.6). Rosenhead includes several articles that represent “Problem Structuring Methods” in his book. These are designed to meet the challenge that the precise formulation of a problem is the product rather than the antecedent of decision processes. Friend’s strategic choice models and Checkland’s “soft systems methodology” are important contributions in his collection. Both combine the rejection of pre-ordained ends with scepticism against any linear ordering of planning or design stages. These two models provide important inspirations for the ‘decision-cell model’ that I will introduce in a later chapter.

Again, these are mainly empirical reports, yet they are strong enough to show the inadequacy of the linear instrumental model in most planning contexts. And more than that, they also set minimal standards for any concept of rationality that will supersede LIR. A

concept of planning rationality must extend to tasks of structuring messy and insufficiently understood situations; it cannot merely apply to situations with well defined problems.

Decision points

The act of decision-making occupies a focal position in the linear instrumental model (cf. fig 2.1). The point at which a decision is made could be understood as the ideal transition point from planning to implementation. Decision-making can be seen as the culmination of the planning process that involves a synthesis of the results of earlier inquiry and deliberation stages. It is then a small step to construe “rationality of planning” as a rationality of choice and decision making.

Many theorists have argued that a focus on decision-points would imply the rejection of comprehensive, end-state-oriented planning models. The IOR School³ for example claimed that good planning should be measured by the rationality of the decisions generated and not by the quality of a design or by comprehensive visions (Faludi 1985 p.38):

“Defining the planning situation must be done with a view to its translation into operational decisions.”

Members of the IOR School understood this premise as a first step toward an incrementalist understanding of planning situations. They saw as decisive for the rational quality of a planning project the ability of a planner to reach the right decisions at any moment of this process. They believed that focusing on rational decision-making would guarantee flexibility in the light of changing situations and new information.

However, two reasons could undermine this faith in flexibility and in an anti-authoritarian commitment of the incrementalist approach: 1. Decision-centred and end-state oriented planning models are not naturally opposed conceptions. Faludi identifies his decision-centred model with a rejection of comprehensive planning by means of relying on a

³ Originating at the Tavistock Institute of Operations Research.

Popperian epistemology and social theory (Faludi 1985). This commitment demands that decision situations should be continuously re-evaluated and decision-making constantly repeated. Otherwise, a decision centred view can very well be compatible with a more comprehensive planning model: the LIR model itself pivots around *a single* central decision-point (cf. fig. 2.1). 2. Any model that focuses on decision-points easily lends itself to the view that rationality rests with the relatively highest hierarchical level of administrative authority involved in the planning process. Traditionally, decisions are prepared and executed by lower ranking technical and administrative staff. The final ratification, i.e. the crucial moment of decision-making, rests with boards of directors, general assemblies, minister cabinets, city councils or headmasters. The decision-centred view can thus easily be turned against the incrementalist commitment of those who first championed it: it can be used to justify any more centralist model of planning.

When compared with its predecessors of utopian and blue-print planning, the LIR model makes decisive progress by acknowledging the centrality of rational decision-making, and is thereby less detached from the instrumental conditions than its predecessor. Nevertheless the narrow focus on moments of rational decision-making has been criticised, both on normative and on empirical grounds. Some have complained that LIR fails to connect with the actual demands of planning situations. Decision-making can be schematic and decision-criteria abstract to the point that criteria for ideally optimal decisions fail to do justice to actions that take place in problematic contexts. Friedman therefore objected (Friedman 1969 p.311):

“The problem is no longer to make decisions ‘more rational,’ but to improve the *quality of action.*”

Friedman’s concern is that the normative commitment to a pure rationality of choice might not suffice to inform the messy reality of action.

Moreover, the decision-centred notion of the LIR model was criticised by policy theorists on empirical grounds. Many claimed that chance or political opportunity determine the

adoption of a strategy, not the rational calculus of a best possible strategy. In his model of policy streams, Kingdon explores the idea that policies move from conception stages into the arena of political action through “windows of opportunity” which often open spontaneously and in unpredictable places. Even where such “windows” depend on institutional routines, they appear to be widely beyond rational control.

This notion of contingency is even stronger in Cohen, March and Olsen’s “garbage can model,” where decisions on strategies depend on the chance meeting of a pair of problems and solutions that are previously and independently defined (Cohen, March et al. 1972). Lai adds that decision-making relies on the random meeting of five elements, (rather than Cohen, March and Olsen’s two): “decision-makers, choice opportunities, problems, solutions and locations” (Lai 2006).

The idea that decision-making should be a matter of a distinct instance or an emphatic moment in the policy process was questioned by Carol Weiss, who pointed out that decisions are not made by individuals or organisations at distinct moments, but grow over an extended period and through the participation of many individuals and groups. Weiss uses the metaphor of a pearl that grows in an oyster, layer by layer. Decisions thus grow slowly and sometimes unnoticed, so that participants cannot always tell that a debated idea has already been established as a plan (Weiss 1980).

All these contributions reject the idea that policy and planning processes pivot around a rational decision point, preceded by a stage of inquiry and followed by a phase of implementation. Carol Weiss’ “pearl” metaphor further suggests that it may be hard to separate the categories of policy formulation, policy implementation and decision-making.

A revised rationality model of planning has to account for the gradual process of decision formation within unfolding situations. It must treat decision-making as an emergent phenomenon and cannot rely on a given category of “decision-making” as separate from inquiry and implementation processes.

Separation between planning and implementation

In the linear instrumental model planning is an intellectual process, i.e. 'planning in the strict sense' is taken separately from later implementation phases. This implies an implicit (Taylor 1998 p.113)

“...dichotomy between rationality and action ... [P]lan-making [is] shown as a separate stage of the process, and one which came *before* that of implementation. Planners ... therefore attend first to the task of making plans and only later and separately to the problem of how to put those plans into effect.”

This separation between planning and implementation, and the underlying division between intellectual and practical phases, has not remained unchallenged.

Pressman and Wildavsky (1984) tried to disprove this notion of a linear instrumental model on formal grounds. They claimed that in complex environments with many interacting implementation-agencies and numerous subsequent decision-points, the chances for successful implementation and coordination would be very low – so low, in fact, that top down implementation of strategic plans would be next to impossible. In order to account for successful implementation one would have to introduce a bottom up approach (John 1998 p.29):

“Policy decisions can move ‘backwards’ from implementing organizations, such as local authorities and government agencies, to the policy formulators, the politicians and top bureaucrats. The latter often make decisions just to legitimize policy choices that have already been made or to acknowledge the fact of administrative discretion.”

According to this model, implementation agents on the ground communicate the need for policies upward, thereby becoming co-authors and owners of their strategies.

What Pressman and Wildavsky reached by means of a formal argument was widely echoed by practitioners. From experience with implementation agencies, theorists pointed out that

much of policy design had to be done “on the ground,” or at the “street-level,” (Lipsky 1976) where practitioners possess sufficient knowledge and experience to make educated design decisions. These often go far beyond the mere specification of abstract directives.

In this reversal of the logical order between planning and implementation stages, some saw the turn from a “sequence of intended actions, that is followed by success or failure, ... [to] decision-making [as] learning, adaptation and reformulation” (John 1998 p.30). In any case it no longer seemed possible “to separate the stages of policy formulation and policy implementation” (John 1998 p.30).

The upshot of these formal and empirical arguments is that it appears infeasible to insist on a sharp separation between a cognitive planning process and a subsequent practical implementation as LIR envisages. This certainly holds in a descriptive reading of LIR as a *typical* planning process. When we make the step to a normative reading we must be more careful, though. Separating between earlier intellectual planning efforts and later executive phases may still prove a helpful method or a success-promoting normative demand. As a normative demand the successive ordering of planning and implementation may be little more than the reasonable request to “look before you leap.” On the other hand, a normative rationality concept cannot ignore the equally strong normative demand implicit in above arguments. The claim is that a *bottom up* direction (from implementation to the conceptualisation of plans) *should* remain open. For one thing, this claim can be rested on a democratic commitment to invite participation in the planning process by those directly involved and affected, and at the time when they are affected.

Lipsky’s (1976) argument may prove even stronger because it reveals the insufficiency of LIR as an instrumental norm. Contrary to LIR’s direction arrows it claims that street-level experience yields better plans.

Hence there are strong normative reasons both in favour and against the LIR’s temporal ordering of planning and implementation phases. All we can say at this point is that we should start watching out for an alternative to the LIR model; one that would resolve this

contradiction and reap the benefits from both sides. A more adequate normative understanding of rationality should require from planners both to plan ahead carefully and to make use of the experience and creativity of implementation stages in formulating a plan.

I shall devote a large part of my thesis to this question. The answer will take me to address the epistemic relation between planning and implementation and between cognition and action in general. I will further address Dewey's notion of imagination as a naturalist notion of employing foresight in deliberation.

At this point we can only draw two conclusions regarding LIR and its instance of a temporal order of plan formulation and implementation: 1. As an empirical theory LIR seems to fail. Both theoretical arguments and practical reports contradict it. 2. As a normative model we have good reason to feel discomfort. If not outright disproved, LIR still contradicts important normative demands.

Instrumentalism as technocracy

Planning and positive science

Common usage attributes "rationality" either to beliefs and reasons or to decisions and actions. This is no mere coincidence. It is commonly understood that the rationality of a decision depends directly on the quality of the beliefs that inform it. Some have searched for this relation in a direct link between rational planning and the scientific formation of knowledge. Faludi for example saw rationality as "the application of scientific methods ... to policy making" (Faludi 1973a p.1).

Van Houten summarises a positivistic conception of rational planning in the following way (Houten 1992 p.210):

"Rationality means a scientific foundation for action and better action through more knowledge..."

Nigel Taylor establishes the relationship between the method of scientific research and the technocratic model of experts' rationality in planning as follows (Taylor 1998 p.16):

“The École Polytechnique may be seen as the prototypical institution of the new Industrial Age and the source of its managerial ideology. Engineering applied the knowledge of natural science to the construction of bridges, tunnels, and canals. By the same logic, why should not a new breed of ‘social engineers’ apply their knowledge to the task of reconstructing society?”

Accordingly, an “expert” planner is one who has technical knowledge of what consequences will follow after which interventions. Planners do not necessarily engage in primary scientific research, but they are seen as a bridge between empirical science and situated decision-making (Yewlett 1985):

“The essential professional task is that of synthesis in the production of plans...”

The notion of “Synthesis” can be translated as a “practical inference” (cf. Wright 1971; Camhis 1979 p.24ff):

Knowledge of circumstances and antecedent conditions

+

Knowledge of relevant regularities

Allows: defining of possible action alternatives or strategies

+

A defined set of weighed ends and purposes

Yields: Decision between strategies

Decisions, according to this ideal-typical model, are the result of logical deduction. Van Houten concludes that on this account “tradition, intuition, beliefs, [would be] useless as guides to collective action” (Houten 1992 p.210).

For a number of reasons, planners have rejected this definition of their role as experts:

- Unlike the practice of scientific research, planning is marked by a relatively high degree of urgency (Yewlett 1985 quoting Simmonds). Decision-makers are forced to make quick decisions which involve different abilities than those taught at the “École Polytechnique.”
- Many of a planner’s competencies rely on experience, routines, detailed knowledge of specific contexts. Planning should do justice to the qualitative dimension of situations and professional planners must be allowed to make ‘educated guesses’ rather than water tight deductions.
- A planning expert will always be measured by his or her ability to estimate political interests, social dynamics and human relations. Such *soft data* can rarely be formalised.
- Strategies and solutions involve creativity.

So far these thoughts do not directly contradict the Linear Instrumental Model. It is not implied that LIR is the application of an instrumental algorithm (Schipper 2001) that would leave no room for a planner’s “soft-skills” and experience. However, the linear instrumental approach would hold that experience, routine, and educated guesses are only second best methods to be used where exact, scientific and deductive methods of decision-making are not feasible.

Recent movements in Management Science and Operational Research more radically take human capacities such as emotions or imagination seriously (Goldberg 1985; Weaver, Jessop et al. 1985; Yewlett 1985; Schipper 1996). This goes beyond the acknowledgment that imagination and intuition can improve, correct or supplement deductive forms of reasoning. It was felt that the basic model of deliberation had to change, in so far that

analytic and deductive methods, such as computer based optimising algorithms, should be used as only one tool in the tool box (Yewlett 1985).⁴

The very idea of what deliberation means, how it proceeds and what its aim should be has begun to change significantly. Theorists have found that the complexity of planning situations is not made up solely of a large number of influences and causes that make optimisation difficult. Social situations depend on multiple perspectives and viewpoints that can diverge significantly (Teitz 1985, Weaver et al. 1985).

The faith in expert planners' privileged scientific or technological knowledge dwindled as more theorists absorbed streams of post-positivist philosophical and social scientific thought. Phenomenological, hermeneutic, and constructivist ideas convinced many that objective truth, beyond the subjective (or inter-subjective) perspectives of the participants, would be unattainable. The aim of management and planning became more defined as mediating between conflicting perspectives (Teitz 1985), and to facilitate discourse with the aim of "sharing mental models" (Checkland 1981; Vennix 1996). The task of deliberation came to be defined as a collective search for orientation and a shared learning process instead of achieving given goals in given circumstances. It is now popular to define planners as mediators, facilitators, or as advocates (Davidoff 1965; Checkland 1981; Shields 2003).

Some constructivists insisted that it was not merely an epistemic problem of knowledge or access to reality that makes it impossible to go beyond the multiple perspectives of participants. What a given policy intervention in a particular context can achieve in reality would also depend significantly on the beliefs and understanding of the individuals involved, and on their attitudes and emotional dispositions. Social reality itself changes and reacts to the narrative we use in order to describe and explain it. It has been argued that

⁴ I will devote an entire chapter to the concept of "imagination," in which I shall argue that this multifaceted concept captures the core abilities of human intelligence that should be included in any definition of deliberative rational.

thought and description do not represent what exists, but often “make it so” (Hacking 2000).

This line of critique of the positivist and technocratic model of planning as applied science was strengthened by scholars who invoked critical, post-modern or deconstructivist modes of thought. These accounts not only rejected the attainability of positive and privileged knowledge (Weaver, Jessop et al. 1985), they saw in the proclamation of technical expertise and in the postulation of “inherent necessities” (“Sachzwang”) the expression of power-relations and their historical proliferation. Only power structures could yield dominant discourses in which unitary versions of an objective reality could be presented as given. Theorists in this camp defined planning as exploring, criticising and unmasking un-reflected power relations to emancipate participant groups from seemingly inescapable certainties.

Scepticism about objective knowledge and general suspicion of the abuse of power led some to reject planning as a means of social coordination: Anarchic Schools enjoyed some popularity in the 1970s and '80s (cf. Klosterman 1978).

LIR has a sequential and hierarchical structure which interprets the definition of resources and guides as logical preconditions for decision-making and implementation. This structure resembles the deductive model (above) to some degree. Good decisions are prepared (even implied) by a well researched definition of “resources” and a correct employment of “guides.” Decisions are authoritative and determine further courses of implementation (cf. Shields 2003). We can see why this model is incompatible with demands for more participative processes in which world views are negotiated and where planning means mediation between divergent perspectives. Decision-makers in LIR have to assume the position of a highest judge on the right framing of problems and goals and the adequate definition of alternative instrumental strategies.

I have not delved deep into recent critiques of the hierarchical technocratic planning model, nor have I explored underlying philosophical reasons for endorsing epistemic and political

pluralism. This prevents me from drawing sweeping conclusions on the LIR model and its underlying assumptions. However, it appears that LIR is in no way cut out to answer the demands for a polycentric and participative planning style. Since these concerns have occupied planning theorists over the last 40 years, it is safe to say that any contemporary conception of planning rationality should provide some convincing answers.

Prima facie a pluralist definition of rational deliberation which does not rely on the availability of a single privileged perspective and a unified authoritative decision-process seems attractive. It appears better compatible with democratic commitments and it promises the chance of benefiting from a diversity of ideas and points of view. However, first it must be shown that a pluralist model can still be a conception of *rational* planning and is not merely a mode of apathy and ad hoc improvisation.

These questions I shall address in chapter 7 when I discuss how Dewey's inquiry-centred view of rational deliberation translates into a pluralist model of collective deliberation.

Means and ends

The linear instrumental model requires isolating instrumental considerations from the determination of substantial purposes. This follows a division of labour as laid out by the Humean model of rational agency (cf. Fig. 1.1), in which the two legs ("passions" and "reasons") make independent contributions to the deliberation process. Hume claims that reason could only serve our ends if it were left to operate unhampered by the push and pull of our passions. This notion has yielded a definition of rationality as a purely instrumental concept (cf. Elster 1991; 1996; 2006).

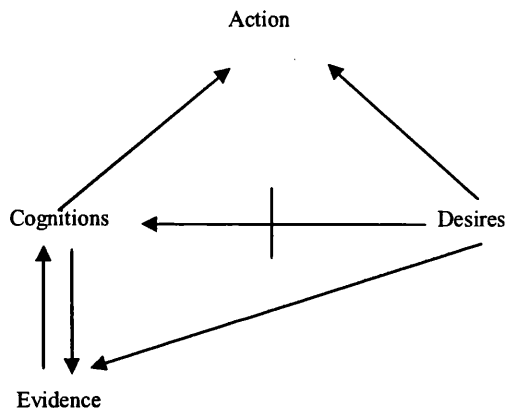


Figure 2.2 Humean rationality according to Elster

The idea of rationality as a neutral template for decision making which functions independently of any particular definition of ends is best captured by the notion of efficiency (Davidoff and Reiner 1973 p.14-15):

“In a world of scarcity there is a need to conserve resources and also to allocate them in an efficient manner. Planning is seen as a means of reducing waste or producing the greatest return from employment of resources...”

Classical models of rational planning demand that ultimate purposes and instrumental deliberations remain *mutually* independent. This demand goes somewhat beyond Elster’s model (cf. Fig. 2.2), which only rules out *one* direction of interference: it prohibits our purposes from influencing our judgement on instruments. However, traditional planning theorists also emphasised that instrumental considerations should play no role in the definition of our ultimate purposes (Davidoff and Reiner 1973 p.14):

“Ultimate purposes cannot be appraised from within a system: there is need to rely on outside criteria to evaluate [concrete] ends.”

These authors declared it an outright defect for instrumental or circumstantial considerations to influence ultimate purposes (Davidoff and Reiner 1973 p.21):

“Constraints should be imposed only after choices are expressed. All too often planners first predict the nature of the future, then help set in motion programs that fulfil this prophecy, and thus limit men’s aspirations. Planners should not let such predictions about the future limit the range of choice...”

Purposes become curiously removed from the actual planning and deliberation process. They are established prior to the design process from sources beyond the planner’s reach; and they refer to an idealised future that can become a reality only once a plan has been realised. This is a direct consequence of applying the Humean model to rational planning. The present thesis will interrogate this consequence with the help of Dewey’s philosophy (see chapter 4 in particular).

Some may see this model as a useful device for justifying expert planners’ reluctance to engage in tasks of substantial ethical reflection. However, it does not explain who, in their place, has the capacity and authority to establish fundamental moral orientations. Theorists have tried to define groups and offices that would logically correspond to the divisions expressed in the stages of LIR. Friedman (1973) distinguishes between three main stages or tasks in his account of the “allocative” planning model: 1. “diagnosis & study of alternatives and consequence”, 2. “decision”, and 3. “implementation.” He indicates how these are traditionally attributed to three respective institutionalised agencies: 1. “Planning”, 2. “Politics”, and 3. “Administration” (Friedman 1973 p.68). “Planners” have to rely on purpose-statements revealed in acts of decision-making provided by “political” agents. In this model expert planners can appeal to established democratic institutions and are thereby to a large extent exonerated from the duty of deliberating over the content of their missions. Sources that reveal the *ultima ratio* of the clients’ interests to a planner include direct referendums, decisions by elected representatives, or, in corporate planning contexts customer, behaviour.

Alexander Otto is the CEO of ECE (a company that has planned and erected more than 90 shopping centres in a number of different countries). When confronted with the challenge by architects and urban planners that these malls would disfigure the face of the city centres and destroy their urban flair, his answer usually is: “Two million customers visit our houses each day - they vote with their feet. The people love us” (Alexander Otto, quoted by Die Zeit, 26.April 2007, my translation).

It remains questionable whether planners can rely on election results or market data for answers to questions like: Who are the clients that planning should serve? How are the interests of individual clients to be aggregated? How should conflicts be dealt with? What should be the relationship between individual rights and social good?

Moreover, to set priorities in budgeting and social planning, planners with a detailed knowledge of their fields are needed just as much as elected representatives of the public. In prioritising their projects, planners are expected to make use of “market analyses, public opinion polls, anthropological surveys, public hearings, interviews with informed leaders, press-content analyses, and studies of current and past laws...” (Davidoff and Reiner 1973 p.29).

The neat separation between “politics” and “planning” also breaks down where the political process does more than weigh public good and order social preferences. Strong popular feelings regarding technologies (i.e. ‘means’ or ‘instruments’) often occupy the political arena (e.g. nuclear power, GM-food or stem-cell research). If the separated stages in the LIR scheme were read in terms of a separation between political and planning offices, the public should be allowed to vote only on issues concerning public ends (e.g. clean environment and defined limits to socially tolerable risk levels). It should have no say on the desirability of a specific technology within these limits. However, planners cannot expect political power to be “disciplined” and to fit into its assigned role. After entrusting planning-departments with the task of realising a set of ends, LIR requires political influence to adjourn until end-results of planning projects materialise. Yet, political interests exert influence throughout the process of planning and the execution of plans.

Planners often see that “best” strategies for the realisation of agreed social ends are thwarted because of changes in the political mood (compare the case study “Multi-Casa” in Chapter 8).

By LIR’s standards, political agency is a source of irrationality and a potentially disruptive influence. Reade states this belief ironically: “...planning is rational...”, and “...politicians are ‘irrational’...” (Reade 1985 pp.82/81). In the same spirit Klosterman characterises “...planning as an independent ‘fourth power’” (Klosterman 1978 p.93) to promote public interest against conflicting political interests.

All these concerns only hint at the difficulties of disentangling instrumental and value questions in planning. But at this point we can see clearly only how LIR fails on *empirical* grounds (Chadwick 1970 p.120-1):

“The clients of planners have never given the professionals in their employ any but the vaguest kind of goals... This throws a considerable responsibility upon the planner: he largely has to determine the goals of planning because his clients do not give them to him... [O]ne of the most forceful arguments for placing primary responsibility for goal formulation on the planner ... [is] ... the assumption ... that ... they ‘know more’ about the situations on which they advise than do their clients.”

In recent history many planning theorists have made the claim that evaluation cannot be divorced from the planning process. Many added that rational design processes *should* actively and continuously engage with value questions (Hill 1985).

Again, here we can somewhat safely conclude only that the clean separation of instrumental reasoning from normative and political value considerations contradicts experience. However, saying that a rationality conception *should* not insist on this separation and that it should instead encourage substantial value-consideration to play an active role in instrumental reasoning requires further arguments. In particular we need to offer an elaborated philosophical conception of the relation between instruments and values and

between categories of means and ends in planning. In order to reject LIR we must conclusively argue that value concerns cannot be separated from instrumental deliberations. This has two aspects: we must show that instrumental reasoning is not neutral to evaluations, i.e. that instrumental reasoning directly impacts final purposes. We must also show how our purposes, motivations and value commitments play a constitutive role in any process of (instrumental) deliberation. Chapter 4 will tackle the first aspect by showing how instrumental reflections play a formative role in evaluative projects. Chapter 5, in turn, argues that our substantial motivations cannot be reduced to a hypothetical premise, and that they always play an active material part in (instrumental) deliberation.

These arguments seem to be required before we conclude that LIR poses an impossible demand. We can say that LIR fails on normative grounds only when we have worked out how an alternative rationality conception can avoid the separation between purposes and instruments.

When developing a new rationality conception we must reconsider the role that value-intuitions and commitments have in our deliberative reasoning; and also we must address the role instrumental deliberations on the formation of our purposes and values.

Rediscovering pragmatism

Harold Laswell, the founding father of policy analysis, states that Dewey greatly influenced his conception of the new discipline (Laswell after Farr 1999):

“The policy sciences are a contemporary adaptation of the general approach to public policy that was recommended by John Dewey and his colleagues in the development of American pragmatism.”

According to James Farr, seminal theorists like Simon, Braybrooke and Lindblom, who concerned themselves with questions about rational, social and collective deliberation, paid

tribute to Dewey's work without appreciating the central claims of his contribution (James Farr 1999). The influence of Pragmatism as a philosophical and methodological movement arguably eclipsed over several decades following Dewey's death. Dewey was mainly identified with progressive education. His theory of social deliberation was reduced to a romanticising notion under the label of "experiential holism" (Weaver, Jessop et al. 1985). Dewey's political thought was regarded the futile attempt to transpose the model of small scale, face to face communities to the level of complex societies.

In recent years classical pragmatism has enjoyed a renaissance, which extends to fields like planning and policy theory.

Transactive planning: a new interest in pragmatism

Since the late 90's a whole body of literature has cropped up that shows a keen interest in John Dewey's philosophy from the sides of policy- and public administration scholars. Classical American Pragmatism has been amply discussed in journals like *Administration and Society* and *Administrative Theory & Practice* (Shields 1996; Morris 1999; Garrison 2000; Snider 2000; Stever 2000; Zanetti and Carr 2000; Evans 2000a; 2000b; Miller 2002a; 2002b; Shields 2003; Hickman 2004; Miller 2004; Shields 2004; Stolcis 2004).

These articles outline a programme to import Dewey's thought into their disciplines (Stever 2000; Evans 2000a; Evans 2000b). Many of the above named articles discuss important aspects of Dewey's philosophy and their relevance. However, they rarely say specifically *how* Dewey's theory should be employed in casting out a new theory of policy processes or give a detailed account of the inner structure of a new rationality conception for policy and planning. My own contribution intends to help closing this gap. For this I shall construct my own reading of Dewey's project, and therefore I shall refrain from discussing this body of literature in great detail. I will only recall a few themes that the above articles from *Administration and Society* and *Administrative Theory & Practice* address in order to demonstrate the current interest in the field and show the of direction current trends.

- *Situated inquiry vs. universal procedure*: Many of these contributions complain that traditional policy theory relied too heavily on theoretical fix points, such as stages in the planning process, ready made definition of ultimate purposes or fixed categories of participant groups. Moreover, received policy theory has tried too hard to construct universal and ‘true’ models of the policy process. These critical authors welcomed Dewey as an antidote. Focussing on “problems,” “consequences,” “experience,” and “contexts” (Shields 1996), Dewey’s method does not rely on fixed agendas and rigid methodologies. Instead it invites evolving sets of rules, formed through ongoing inquiry and practical experience. Dewey provides a detailed account of the logic of problem solving inquiry, but this framework is not associated with any particular procedural logic. It serves as a warrant against relying on *a priori* standards and permanent procedural methods (Evans 2000a p.314):

“...inquiry is not a means to find the truth; it is the means or method to reduce doubt and to restore balance to a problematic situation...”

I will explore this conception of rationality as situated inquiry in chapter 6, below.

Similar to the discussion in my introductory chapter, Garrison and Mousavi (2003) understand rationality not as an abstract and formal concept but as a *methodology* that must be allowed to evolve in the light of practical experience.

- *Bridging dichotomies*: Garrison (2000) claims that, traditionally, public administration is burdened with implicit dichotomies between theory and practice, intellect and emotion, belief and action, and fact and value. These need to be overcome in order to find entirely new methods and solutions to bridge the gap between experts and practitioners, planners and clients, and general methods and situational particularities. Several authors see Dewey’s foremost contribution to their field in bridging the gap between theory and practice (Shields 2004; Stolcis 2004).

Dewey's idea of linking instrumental considerations with substantial evaluations of goals and ends appealed to this group of theorists, who also tried to overcome a technocratic and compartmentalised image of policy processes. Some envisaged a stronger participation from client groups and for that reason welcomed Dewey's attempt at reconciling instrumental and substantial forms of reasoning (Evans 2000a p.482):

“Although the field of public administration has built itself on the foundation of perfecting means, it has largely forgotten that means and ends are inextricably entwined.”

- *Planning as participative community of inquirers:* In her article “community of inquiry”, Shields (2003) advertises the great value of Dewey's participative inquiry for public administration. Dewey claims we should foster the “scientific attitude,” yet not as a personal property of technocratic experts; it must be as the mode of inquiry of a deliberating community. Experts and technicians should contribute their knowledge and skills, but this does not licence their claim for leadership. Quoting Paul Appleby, Shields states that “experts should be on tap and not on top.” Also Garrison sees the model of “expertise” as one of the great ills in public administration that pragmatism can cure (Garrison 2000). He advocates pragmatism as being able to foster democracy without falling prey to the problems of critical schools that would call for participation regardless the nature of debate.

Critical Pragmatism

Other authors saw in pragmatist thought foremost the spark of social critique. Dewey's work lends itself to a reading that interprets democratic pluralism as a warrant against oppressive power-relations (Friedman 1973; Forester 1985; Friedman 1987; Forester 1993; Friedman 1996; Hoch 1996a; Hoch 1996b). In this role some saw Dewey as more potent than the popular post-modern schools (Rorty after Hoch 1996a p.36):

“Planners as public servants would do well to leave Foucault at home and to carry Dewey with them.”

Knowledge Management and Organisational Learning

Pragmatism had a great impact on Organisational Learning (OL), with wide ramifications for fields like new public management, soft OR, and contemporary streams in planning theory and management studies. Some central questions that occupied scholars of OL and Knowledge Management were:

1. Can we actively organise “learning” in organisational (and planning) environments?
2. What exactly do learning processes look like?

1 Inquiry systems or the idea that learning can be designed

Churchman has provided a philosophical foundation for answering the first question in his book, “The Design of Inquiring Systems” (Churchman 1971). Its main crux is to make inquiry and learning integral parts of the planning processes. Churchman insists planning could be designed as an inquiry process. He understands planning (design) itself as a process of inquiry. In traditional planning models inquiry is reduced to a prior function of collecting information that can be utilised in a subsequent design process. Churchman cautions against the common mistake of separating design and inquiry processes. According to him, design is not merely concerned with products or solutions but it is design of inquiry, and these two dimensions often coincide in his work.

The proximity of Churchman’s position to classical American pragmatism is no coincidence. Many of his ideas have a traceable pedigree: his teacher was the pragmatist philosopher E. A. Singer, Jr., himself a student of William James. His positions regarding the practical import of inquiry, the rejection of the fact-value dichotomy and his attempts to resolve these philosophical problems within a holistic systems-approach are reminiscent of classical pragmatism. Churchman’s perspective from which he analyses Libnizean, Lockean, Hegelian and other styles of philosophising bears a strong resemblance to

William James' approach: he treats all these philosophical projects not as competing but as complementary systems inquiry. Instead of being "right" or "wrong" Churchman takes these philosophical systems to represent methods that can be employed, depending on the situation at hand. James himself used the metaphor of a hotel corridor to describe pragmatism as a platform that lies between historical philosophical systems and connects them, making them available subject to the demands of a given situation.

The centre piece of Churchman's work is an "inquiry-system" that he deems most apt for complex or "wicked" problem situations (the type that planners face most frequently). What he calls "Singerian inquiry" allows "the direction and style of management [to] change rapidly and dramatically." This is to be achieved by simultaneously attending to the tasks of designing, measuring performance, and refining the involved standards of measurement. A planner should not be chiefly concerned with how well his design performs with respect to given criteria. As a Singerian inquirer, a planner is asked to reconsider, throughout the entire planning process, the boundaries between what matters and what remains beyond practical and ethical concern (Churchman 1979).

Churchman's critique hits traditional (linear instrumental) rationality models in a two ways. First, he opposes their assumption that knowledge would be an external resource and that we could separate inquiry from design tasks. Second, the "Singerian inquiry" model directly contradicts the linear notion of 'starting with problems and ending with solutions.' My own project will address both of these complex issues. Chapter 3 challenges the idea that we could separate between cognition and coordination of behaviour. This provides grounds for confronting the distinction between inquiry-, design- and implementation stages (Chapters 6&8). I will also address questions related to the second aspect of Churchman's work that I had singled out above. In chapter 6 I will develop an inquiry based conception of rationality for dealing with messy and insufficiently understood situations. This intends to counterbalance the linear instrumental notion which reduced rationality to an efficient path, leading from well-understood problems to their solutions.

Again, my ambition here is not to prove a case of Churchman's model against the traditional LIR model. This would require a much more thorough investigation into Churchman's philosophical management theory. Here I intend to show that my later project does not fall on unprepared ground. The core-questions that I will raise have been discussed in planning and related disciplines.

2 Learning as changing theory-in-use

Many Organisational Learning (OL) theorists have called for a revision of our concept of learning. They tried to overcome the old *cognitive* model, which defines learning collecting and storing information. Instead they developed an alternative learning model that involves deep-seated structural changes within agents' orientations, dispositions and values. Many conceptual distinctions resulted from this line of questioning, among these: "Second-order Learning" (Fiol 1985), "Unlearning and Relearning" (Nystrom 1984), "Generative Learning" (Senge 1990), "Turnover and Turnaround learning" (Hedberg 1981).

Chris Argyris and Donald Schön, who often cited Dewey as their chief influence, made some of the most seminal contributions in this field (Argyris and Schön 1978; Argyris and Schön 1996). They introduced the distinction between two learning types or "loops." In both "single" and "double loop learning," the agent receives information which requires her to adjust her behaviour. "Single loop learning" can be interpreted as a mere change in parameter-values that allows the agent to leave her basic action guiding principles unperturbed, "double loop learning," in contrast, involves experience that alters the structure of agency on a deeper level. E.g. if a driver suddenly brakes because the traffic light has turned red, all behavioural changes remain within the parametric limits of the practice of driving. This could be interpreted as a single loop learning process. A person who gives up driving after reflecting upon the consequences of climate change alters her values; she thereby enters a process of double-loop learning.

Double-loop learning affects the "theories-in-use" and ultimately amounts to changes in the agent's character. Alterations that affect "theory-in-use" will often demand some anticipation of the future rather than a mere reaction to given stimuli. This suggests that

double-loop learning is most urgently required when faced with an uncertain and changing future.

An ethical dimension of double-loop learning episodes is explicitly acknowledged by the authors in the following passage (Argyris and Schön 1996 p.22):

“... [I]t is through double-loop learning alone that individuals and organizations can address the desirability of the values and norms that govern their theories-in-use.”

Difficulties in telling whether a particular behavioural adaptation is a case of first- or second order learning makes us suspect that this distinction could be one of degree rather than kind. The next chapter will show how Dewey defines processes akin to double-loop learning as the basic model of all experience-generating knowledge.

Argyris' and Schön's theory of learning is highly compatible with the pragmatist departure from spectator theories of knowledge. They embraced the idea that learning represents an “inherently open-ended ... transaction between inquirer and situation” (Argyris and Schön 1996 p.31) through which the agent not only changes her strategy within a situation, but alters constitutive practical orientations.

If we apply these ideas to the project of revising our concept of rationality we first have to say that LIR does not admit room for such subtle differences as between reacting with given means to changes in a situation and alteration to the structure of planning methods and values. LIR identifies information as a “resource” (cf. Fig. 2.1) that we acquire and employ as required. The category I defined as “guides” comprises values, action-principles and methods of the kind that Argyris and Schön saw involved in “double loop learning.” However, the learning aspect has not systematic place in this model. Arrows point in one direction, from resources and guides to decision-making and implementation. The planning process makes use of value orientations, methods and information, but the planning process as a whole is not in any way designed so as to improve the theories in use and value

intuitions. On the contrary, value-premises as defined used in “guides” are explicitly furnished by an external premise (“ultimate purposes and values”).

Some classical models introduced information feedback loops, leading from experiences made during implementation stages back to the information resources (Chadwick 1970; Dror 1973), but these normally appear contingent and optional. Also they can facilitate systematically rather “single loop learning” than more structural adaptations. If we took Argyris & Schön’s theory seriously we would have to reconsider the direction of arrows; and more we might change the entire internal structure of the LIR model. If we try to represent planning as a learning enterprise that includes “second loop learning” then it becomes a process of self-forming agency. A linear sequential structure will have great problems in showing that the entire process is constantly concerned with its own premises. In chapter 8 I will present an alternative model that intends to capture the planning process as a creative and self-forming process of learning.

Taking the tradition of organizational learning seriously, would mean that we have to revise our traditional linear instrumental conception of rational planning to the effect that it will be a ‘rationality of learning’ rather than a ‘rationality of achieving.’ For this it is crucial to overcome the dichotomy between the notions of realising change (implementation) and learning by means of philosophical arguments. In the context of my revision of agency theory and the discussion Dewey’s contribution, I will ask whether it makes sense to separate sharply between the *execution* of intentional actions and processes of *learning*⁵ (the latter understood as changing the “transactive” pattern of an agent within her situation).

⁵ Understood as changing the “transactive” pattern of an agent within her situation. This idea will be explained in the following chapters.

Conclusion

The aim of this chapter was threefold: 1. to introduce a received model of Linear Instrumental Rationality by tracing its roots in planning history, 2. to discuss the logical and practical implications of this LIR model critically, and 3. to introduce more recent streams of theory which provide key ingredients for a conceptual reconstruction of planning rationality.

I constructed LIR as the ideal type of traditional rationality model that can serve as a comparison to my “*situational transactive*” model of rational planning (STR). By introducing a number of contemporary approaches, I meant to demonstrate my critique and reconstruction of concept of planning rationality falls on prepared grounds and is supported by ample resources.

I do not say that the LIR model was defeated by above discussions, but a long list of complaints and high profile critiques have cast their shadow over it, so that it is time to reconsider this planning model and its underlying concepts. My strategy will be to reflect on the agency theoretic roots of LIR. A fundamental critique of the Folk-model will not only weaken the LIR approach further, it also helps developing the crystallising point of an alternative rationality conception which, I believe, is better equipped to answer demands of recent planning theorists and practitioners.

There are two lines of retreat for the embattled concept of linear instrumental rationality, after admitting that it is likely to fail on empirical grounds as a descriptive model of planning processes. For one, supporters can claim that LIR’s normative value lies in its ability to give sound advice and provide qualified orientation in messy real world contexts. My discussion above intended to show that LIR cannot hold this promise. I introduced a number of recent planning approaches which demand thorough revisions of basic concepts, including ‘decision-making,’ ‘evaluation,’ ‘inquiry’ and ‘learning’. These new concepts are often incompatible with those used by LIR. The guidance that some new approaches

provide directly contradicts advice that we derive from the LIR model. If we take only a few of these new planning theories and approaches seriously, we must question the fundamentals of LIR as a normative guide.

The last line of retreat for the LIR model would be the insistence that it still represents the best model from a logical point of view. This would amount to saying that it is the optimal model for an ideal world. I do not claim that LIR would cease to be interesting or useful in this position. However, it would no longer be a model of *planning-rationality*. LIR should consequently dispense with its procedural form in terms of planning stages and assume its original form of the Humean rationality model. As a purely logical theory of rational deliberation the Humean model has been highly successful in recent years, considering e.g. advances in Rational Choice- and Game Theory. In this form the Humean model remains largely beyond the scope of my present critique. The following chapters contain a critique of the Humean model as a philosophical psychology, i.e. as a conception of the fundamental categories of human conduct and the nature of our deliberation processes. I believe this route is necessary for reconstructing a rationality concept that is able to understand and guide planning processes.

A note to the reader:

Before embarking on a long journey through Dewey's philosophy and a conceptual revision of rational planning, I recommend taking a sneak preview at chapter 9. There I illustrate the difference between the LIR and STR models of rational planning in two case studies. This may provide a useful background for understanding the project and the practical relevance of my theoretical explorations.

Part II

Agency: Dewey's Critique of the *Folk-Model*

Chapter 3: Knowledge, Belief and the Primacy of Action

*Perception or knowledge of particular things is not
a passive operation of impression, but involves
the active integration of various experiences.*

*It is a process of reaching out after
the fullest and richest experience possible.*

John Dewey¹

Knowing is one kind of interaction which goes on within the world.

John Dewey²

Introduction

Many critiques of the linear-instrumental model of rational planning (LIR) were discussed in the previous chapter. I also introduced a number of new approaches which sought to avoid some of LIR's weaknesses. At this point it would be tempting to present a new, integrated model of rational planning that avoids all the shortcomings of linear-instrumental approaches. I will indeed follow up on this idea in later parts (particularly in chapter 8), but here it would fall on unprepared ground. I have already laid out the intimate connection between the idea of linear-instrumental rationality and a Humean agency model (folk-theory), and now with the help of Dewey's pragmatist philosophy I set out to revise this folk-model of agency.

Traditional agency models, based on the means-ends scheme, have a proclivity to prioritise epistemic and deliberative processes over action itself. Taken as a psychological account

¹ Psychology EW2.138

² Quest for Certainty LW4.63

and not merely an explanatory or justificatory scheme, the folk-model presents action as the product of beliefs, valuative attitudes and deliberation processes.

Dewey's criticism of this linear relation between cognition and action is the focus of this chapter. In a nutshell, my argument will show how belief or knowledge of a situation cannot be understood as antecedents of rational deliberation processes, as declared by the Humean model (cf. Fig. 1.1 and Fig. 2.1). This will follow from Dewey's notion that beliefs and cognitions are irreducible parts of an unfolding agency process and not its antecedents. Beliefs and cognitions are ways of structuring transactions in a situation.

If we succeed in arguing that beliefs, cognitions and knowledge are part of the very fabric of agency, we would have one good reason for rejecting the Folk-Model as a psychological or procedural account of the structure of our agency: beliefs and cognitions should no longer be seen as input but rather as the products of deliberative agency.

Sources

I base my argument on Dewey's primary text, as well as on a number of Dewey-interpretations. In redefining the relation between perceptive and (re-) active phases in organic behaviour, and critiquing behaviourism as a way of escaping from metaphysical and epistemological dilemmas, I use Dewey's seminal article on the "Unit of behaviour" (or "the reflex arc concept of philosophy," EW5), and his work on the concept of will in his "Psychology" (EW2). The epistemological and metaphysical dimensions of what I seek to analyse as Dewey's reconstruction of agency theory are most systematically treated in his works "Experience and Nature" (LW1), "Quest for Certainty" (LW4), "Reconstruction in Philosophy" (MW12) and his last major work, "Knowing and the Known" (in collaboration with Bentley, LW16). "Experience, Knowledge and Value: A Rejoinder," (LW14) originally in Schilpp's (1939) compendium on Dewey's Philosophy, also provides some useful overview of Dewey's philosophical programme.

Amongst secondary readings and Dewey interpretations, there are two that can be highlighted. Richard Bernstein (1961; 1965; 1971; 1986; 2004) provides several explanatory and interpretative accounts of Dewey's framework and concepts, in particular on the immediacy of experience and quality as transactive concepts. I also worked with John Shook's (2000) outstanding work on "Dewey's Empirical Theory of Knowledge and Reality." In a chronological walk through Dewey's writings, Shook traces the development of Dewey's thinking and clarifies the relation between his metaphysics and epistemology in his work.

Background

The agency model that Folk psychology suggests is deeply interwoven with modern epistemology and metaphysics. The classical British empiricists John Locke (1989 [1690]) and David Hume (2007) introduce a sharp separation between epistemic processes and intentional activity. Modern empiricism, refined by some Kantian concepts, can be described as a linear process, as in the scheme below.

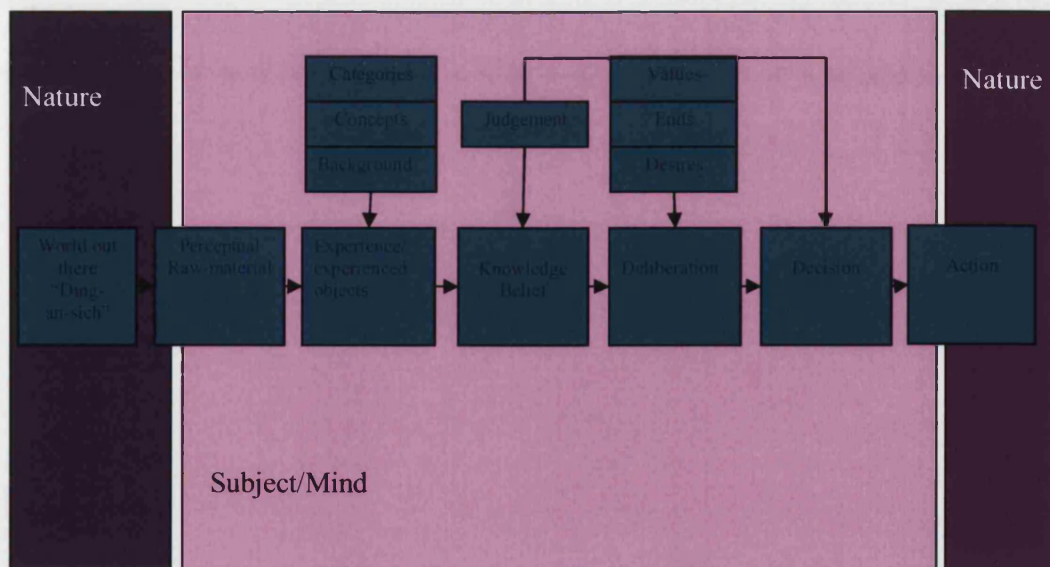


Fig. 3.1: Linear model of epistemic processes and action

This linear process model incorporates six hypotheses:

1. The world (nature) makes impressions upon our senses that are perceived subjectively. These sense impressions are qualitative states within consciousness. John Locke (1989 [1690]) added that there is a strict division between “primary qualities” (qualities pertaining to natural existences and independent of experience – like extension, mass, surface structure) and “secondary qualities” (which are constituted by experience, such as colour, smell). Sense impressions are mental phenomena. The objects in our perception (phenomena) are distinct from the objects perceived (“thing itself”).³
2. Experience is a cognitive product that involves organising individual episodes of sensational attention (perceptions) into concrete objects and processes of recognition. We have perceptions *simpliciter*, consisting of mere sensual impressions. These cannot be called “experiences” or “experienced objects.” They are at best unorganised perceptions (e.g. shapes or shades of light, darkness or colour). The principles and resources that help to organise such perceptual raw material into experiences (e.g. of objects) have been variously identified as “categories,” “concepts,” “hermeneutic horizons” and “background theories.” The question of the origin of such concepts and the ordering of principles parted early modern empiricists from their rationalist antagonists. However, most early empiricists and rationalists agreed that such “synthetic” epistemic processes take place within the cognitive realm of a *mind* and are therefore separated from nature. They also agreed that these epistemic processes must be well separated from intentional human agency.
3. Beliefs are states of mind that we form from experience and judgement.

³ The relationship between objects of nature and sense perceptions has often been described as a causal one in which (nature causes sense perceptions). However, Hume and Kant have confronted this model with the idea that the category of causality must be regarded as contributed by the epistemic subject rather than the object.

4. Deliberation employs our knowledge/beliefs and statements of purpose in order to arrive at decisions.
5. Decisions mark the conclusion of deliberation and the beginning of an initiative that manifests itself in subsequent overt action. Thus a decision is ideally a point-like occurrence.
6. Whereas deliberation is conceived of as an intellectual or mental process, actions involve observable behaviour.

Five postulates about the nature of *epistemic processes* underlie these procedural ideas:

1. Epistemic processes are of an intellectual nature and take place within the realm of the mind or subject. A subject's mind is ontologically separated from its natural environment.
2. Epistemic processes are preconditions for the formation of plans and decisions. This means that they take place prior to the subject's execution of intentional deliberated acts (i.e. the practical involvement with one's environment).
3. The same applies to deliberation processes, where strategies and plans are formulated and explored before they are exercised.
4. Epistemic and value judgements are separate intellectual exercises.
5. Decisions are emphatic junction points.

Underlying each of these five epistemological hypotheses are two pairs of dualistic distinctions, which Dewey criticises as fundamental flaws of the modern (empiricist) epistemology:

1. The model relies on a separation between *mind* and *nature*.
2. It proposes a sequential separation of earlier *passive* (epistemic) and later *active* (productive) phases.

The intellectual efforts involved in stages of understanding and deliberating have a hybrid existence between these active and passive categories. The entire model can therefore be summarised by a linear sequence of three phases:

1. a passive/receptive stage (experienced sense perturbations),
2. intellectual (internal) activities (synthesis, deliberation, and judgements), and
3. executive (external) action.

We can see how the linear instrumental model in its most simple formulation of a three step progression scheme incorporates this idea:

1. research stages,
2. deliberation/decision making, and
3. implementation.

However, the description as “research” and “decision-making” gives the impression that these stages are also *active*. Defining each of these stages as *occupations* where paid specialists *work* does little to mend the epistemic separation between “research” as the collection of information and the more formative or productive act of “implementation.” The above categories of *active* and *passive* distinguish between the direction of the intended effects in respective stages and not the state of the agency system. I.e. research is done in order to improve the planner’s information (or ‘in-formation’) base, whereas implementation changes the environment and might therefore be called ‘ex-formation.’

The two dichotomies of nature-mind and passive-active are the first in Dewey’s crosshair, together with a number of subsequent or related dualisms (e.g. meaning-symbol, fact-value, and subject-object). According to Dewey, these are the root causes of the larger part of traditional philosophical problems, such as the problem of mind-body, freedom of will, knowledge and our epistemic access to the world.

Structure of the Argument

This chapter investigates the epistemic branch in the Folk-Model (the one leading from beliefs to action). It asks what relation holds between epistemic categories (perception, experience, belief, cognition and knowledge) and action. I will trace Dewey's arguments in order to reverse the linear relation model described above. I intend to show that all epistemic processes are part of formative or productive courses of agency. Moreover, epistemic categories like knowledge, information, or belief refer to products rather than antecedents of action. The argument will take two steps:

1. In the section titled "Primacy of Action," I will discuss two related claims that Dewey developed in his seminal article "The Reflex- Arch Concept in Psychology" (EW5):
 - a. The nature of basic epistemic material (stimuli/preceptions) is irreducibly active.
 - b. Our epistemic processes are integrated into our efforts at coordinating behaviour.

This first step only sets up the inversion of the traditional linear relationship between epistemic processes and agency. It does not affect the Folk-Model directly in that it does not permit a conclusion regarding the relationship between *beliefs* and *action*. This is because until the the second part, the arguments will not directly address *action* as a category distinct from *behaviour*. Action is intentional and needs to be defined in its relative position to intentional concepts like knowledge, belief, purpose and cognition.

2. The part entitled "Cognition, Belief and Knowledge" deals with Dewey's account of the origin and role of these *agency*-categories (belief/cognition/ knowledge) and their role in action. This part provides a pragmatist account of the epistemic components of an agency theory and their respective relations.

The Unity of Behaviour

The passive-active separation: a root problem

I believe that Dewey found the separation between passive and active (or epistemic and formative) phases in human conduct even more bothersome than the much discussed dichotomy between subject and object. Certainly on this question he made the most decisive advance beyond the German idealist philosophers who had been a leading influence on his thinking (Shook 2000).

Dewey argued that the relation of an epistemic subject to its object is already active when processes of perceiving and collecting information dominate. In his first major work on “Psychology,” Dewey pointed at the active nature of even our most basic sense impressions (P, EW 2.47):

“No special organ can be purely passive, even physically speaking, in sensation. It must adjust itself to the stimulus. ... We must sniff with our nostrils. The tympanum of the ear must be stretched, the eye-lenses must be accommodated, and the two eyes converged, and each must have muscular connections. ... Thus the activities of our own body and those of external bodies are indissolubly associated from the first.”

Dewey’s argument does not follow the path of traditional epistemological marvelling about our limited ability to gain objective acquaintance with reality, a limit supposedly set by the shape and functioning of our sense organs. His naturalist programme tries to remedy epistemological problems of the right access to reality by denying the initial separation of mind and nature. At the same time he is aware that a naturalist monism does not solve all problems associated with the objectivity of our experiences and beliefs. Dewey senses a deeper-seated problem in separating passive (perceptive) and active (reactive) episodes within a process that should be seen as a single epistemic, cognitive-behavioural continuum. Dewey identifies this continuum with an organism’s course of coordination.

The trouble with behaviourism

The language of “stimulus – response” and “organism – medium” follows a project of naturalising the relationship between epistemic subject and object. During Dewey’s time behaviourist theories became increasingly fashionable alternatives to Cartesian models of separate substances. Behaviourism was embraced as a form of a naturalistic monism committed to overcoming epistemological and agency theoretical problems by denying the hiatus between mental and physical processes. Behaviourists deny the separation between mental processes and causal events. They hold that the categories of *stimulus* and *response*⁴ can fully account for all interactions of life forms with their environments.

Dewey saw this declaration as an inadmissible shortcut solution to the epistemological problems resulting from separating the subject from nature. The problem is that behaviourist approaches still firmly rely on the passive-active divide. A stimulus affects the passive organism and first initiates the need for an adaptive behavioural reaction. The organism remains passive until the stimulus provokes a reaction, which is for a behaviourist determined by hard-wired neuro-muscular pathways. The knee reflex is a paradigm example: nerve endings receive the impulse from the slight hit of a reflex-hammer. This signal is processed along defined nerve-channels and triggers a behavioural pattern in response.

In his article “The Unit of Behaviour” (which later appeared under the title “The Reflex Arc Concept of Behaviour,” EW 5), Dewey discusses various problems with this behaviourist model; (RA, EW5.99-100):

“... [F]ailing to see the unity of activity, no matter how much it may prate of unity, still leaves us with sensation or peripheral stimulus; idea, or central process (the equivalent of attention)^[5]; and motor response, or act, as three disconnected existences, having to

⁴ B.F. Skinner later extended this by the notion of “*operant behaviour*.”

⁵ Perhaps Dewey anticipates something like the idea of operant behaviour here.

be somehow adjusted to each other, whether through the intervention of an extra experimental soul, or by mechanical push and pull.”

He argues that the separation of receptive (stimulus) and reactive (response) phases is by no means a stringent one. The implied divide between passive-active phases re-introduces precisely what behaviourists set out to overcome: a teleological perspective on behavioural coordination. Such a perspective is necessary in order to distinguish between stimulus and response as two fundamentally different categories. The behaviourist model is therefore bound to reintroduce some version of a Cartesian subject-object dualism by the backdoor, which is a claim I will explain below.

It seems that behaviourists ignore the fact that stimulus and response are two aspects of a single behavioural “cycle.” This cycle describes how an organism coordinates its behaviour within its medium. In contrast to conventional impulse- or desire-based psychology, Dewey takes “activity rather than rest as the default state of human beings” (Anderson 2005). What we call “stimulus,” or “perception,” is not an excitement that incites a passively awaiting organism to react. “Stimulus” is itself a highly active productive process. The organism participates as an equitable partner in the production of the stimulus. A perception is not merely *had*, but actively *made*; (RA, EW5:97):

“We find that we *begin*, not with a sensory stimulus, but with a sensory-motor coordination ... the sensation ... is secondary, the movement of body, head, and eye muscles [determine] the quality of what is experienced.”

The role of an active contribution to the creation of what may be distinguished as a stimulus not only reverses the relation between the poles of “passive” and “active” or “perceptive” and “behavioural,” it also prepares an integrated and holistic picture of an epistemic-behavioural continuum; (RA, EW5:98):

“Both sensation and movement lie inside, not outside the act.”

Dewey further explicates (RA, EW.5.105, my italics):

“It is an *act*, a sensory-motor coordination, which stimulates the response, itself in turn sensory-motor, not a sensation which stimulates a movement.”

Here we have arrived at a decisive, albeit problematic, conclusion: it suggests that activity is prior to all epistemic processes. Perceptions and experience thus become phases or distinctions *within* courses of action (NRP, MW10.9):

“The most patient patient is more than a receptor. He is also an agent--a reactor, one trying experiments, one concerned with undergoing in a way which may influence what is still to happen. ... Even if we shut ourselves up in the most clam-like fashion, we are doing something; our passivity is an active attitude, not an extinction of response. Experience, in other words, is a matter of simultaneous doings and sufferings. Our undergoings are experiments.”

Doing and undergoing

The claim that every phase of coordination has its place *within* action does not mean that Dewey embraces a philosophy of uninterrupted activism. He insists on the distinction between “doing” and “undergoing” as two poles that define interaction of an organism and its medium. However, Dewey’s distinction between undergoing and doing cannot be paralleled with stimulus and response. Doing and undergoing are present in all phases of experience and action. This also means that no chronological separation is possible between events that Dewey calls “doings” and “undergoings.” They function more like pressure and counter-pressure in a mechanical transaction than like two subsequent episodes where the first initiates the second.

For Dewey all *experience* is the product of an interaction between “doings” and “undergoings.” The concept of experience shall be more thoroughly discussed in later

sections. At this point it is important to see the constitutive role of activity in experience. We experience things not merely by being exposed to them; (RP, MW 12.128):

“The living creature undergoes, suffers, the consequences of its own behavior. This close connection between doing and suffering or undergoing forms what we call experience. Disconnected doing and disconnected suffering are neither of them experiences.”

Behaviourism’s inherent teleology

The behaviourist cannot translate ‘stimulus’ and ‘response’ as ‘cause’ and ‘effect,’ at least not as long as he is speaking about *types* of stimuli causing *types* of responses. Rosenberg (1995) demonstrates how behaviourist scientific programmes rely on intentional and teleological notions in their experiments and descriptions. For a rat, the ringing of a bell may be a stimulus for a learned behavioural pattern leading to a series of reactions (e.g. pushing a ball through a maze) that will be gratified with a nutrition pill. The three elements, ‘stimulus,’ ‘ballgame’ and ‘gratification,’ are by no means purely behavioural categories. None of these terms can be defined strictly in an extensional language. What scientists would classify as “a stimulus” can have many minutely different physical realisations. In a *successfully* repeated experiment no two realisations will be physically identical. The bell will emit different wave-patterns, the ball will follow a different path into the goal, and the gratification may vary. Experiments with monkeys have shown that treats as different as food, grooming, or the permission to look out of the window for a while are all powerful behavioural enforcers, yet they are collectively called “gratification.” A rat is expected to *interpret* different manifestations of a ringing sound as stimuli. For a strict behaviourist this is a problem, because the interpretation of token events as types (stimulus, response and gratification) involves an intentional (and hence teleological) perspective. Of course one can exchange intentional words like “aim” or “gratification” for concepts like positive or negative “reinforcement,” but this will not exorcise the “ghost in behaviourism’s machine” (Rosenberg 1995). This Cartesian phantom separates an internal, subjective dimension of intentionality from a naturalistic causal account of behavioural phenomena, and it enters

precisely at the moment when the behaviourist divorces the stimulus as a receptive phase from the response as an active behavioural manifestation.

At this point the two problems of 'subject-object-dualism' (A) and 'passive-active-divide' (B) appear connected. The behaviourist project shows that we cannot endorse B without falling back into some version of A.

Integrated coordination

Dewey intends to overcome both dualisms by integrating stimulus and response within a continuum of coordinating behaviour. Epistemic raw materials, such as stimuli or perceptions, are not, however, the only things best defined as active processes. This idea must be extended to all epistemic phases and dimensions. We will investigate the roles that experience, beliefs, and knowledge play in the formation of agency.

Establishing the active nature of all epistemic processes is not sufficient to break with linear model of agency. We could simply assume a linear succession of two types of activities: 1. epistemic/perceptual activity, and 2. adaptive or executive behaviour. These could be seen as two separate events with the former causing the latter.

How then does Dewey establish "that sensory stimulus, central connections and motor responses shall be viewed, not as separate and complete entities in themselves, but as divisions of labor, functioning factors, within *a single concrete whole*"(RA, EW5.97, emphasis added)?

The answer can be found in Dewey's organic conception of the transaction, which encompasses agent and environment. Dewey is careful to avoid the mechanical language of 'cause' and 'effect' in the context of environmental stimuli and behavioural coordination. Instead he uses "cause" and "consequence." Dewey qualifies *effects* as "*consequences*" in order to embed causes in an *instrumental* context. *Consequences* are matters of interest and they are events that can be anticipated and to some degree influenced. A living organism is

not subject to causes in that the same a car engine is subject to an ignition because a stimulus cannot be said to necessitate the uniform response. Most organisms have the capacity to adjust the pattern of their behavioural reactions to a stimulus at least to a degree, i.e. they can change the causal efficacy of a stimulus. This means that the cause or stimulus, in its power to trigger behavioural reactions, is itself a *product* of functional adjustments and organic coordination (this may be called learning). A stimulus, in organic contexts, has no independent determining power. Its power to stimulate is a function of organic behavioural coordination. John Stuart Mill had developed the idea that causes must not be understood as *necessitating* a consequence, but only as *influencing* a system. He also introduced the subsequent idea that human beings can actively take charge of the effects produced by stimuli and causes through forming a character. This served J.S. Mill as the base for his metaphysical conception of human freedom and as the foundation of his social theory (Mill and Robson 1974).

William James discussed the role that response behaviour plays in the formation of a stimulus in his "Principles of Psychology." A child, lured by the light of a candle, reaches with its hand into the flame and gets burned. We may interpret the perception of light as a stimulus to the curiosity of the child, and the reaching out as a response. The quality of perception however, i.e. the attraction to the light, rapidly changes after the burning occurs. What behavioural psychologists call negative enforcement, could also be described as giving stimuli such as a flickering candle a different place *within* organic coordination. Dewey comments (RA, EW5.98):

"... [T]he so called response is not merely *to* the stimulus, it is *into* it. The burn is the original seeing, the original optical-ocular experience enlarged and transformed in its value. It is no longer mere seeing, it is seeing-of a light-that-means-pain-when-contact-occurs."

Metaphorically speaking, the relation between stimulus and response is like a key and a keyhole in the act of opening a door. Keys and keyholes are designed to fit together and allow a complete course of action (the opening of a door). The causal metaphor of a billiard

ball communicating its impulse to another ball seems inadequate in this case of stimulus and response. The agent or organism *produces* a stimulus. The causal power of a stimulus to affect a response is not native to the stimulus/cause; it is the product of a learning process. The causal power of a stimulus is therefore an organic life function not a mere trigger for behaviour (cf. Shook 2003).

Intermediate summary of results and problems

Dewey makes a convincing argument for acknowledging the active nature of all epistemic material, right down to the reception of stimuli and sense-perceptions. He also integrates episodes of epistemic attention and phases of behavioural expression into a full *cycle* of coordination, rather than a reflex "*arc*" that reaches only in one direction from stimulus to response.

Dewey states that (RA, EW5.109)

“...the stimulus is that phase of the forming coordination which represents the conditions which have to be met in bringing it to a successful issue; the response is that phase of one and the same forming coordination which gives the key to meeting these conditions, which serves as instrument in effecting the successful coordination. They are therefore strictly correlative and contemporaneous.”

However, this result still speaks the (extensional) language of stimulus and *behaviour*. These cannot simply be translated into an intensional language of knowledge/beliefs/cognitions and action, which would be necessary in order to criticise the Humean Folk-model.

Cognition, Belief and Knowledge

The previous debate successfully challenged the active-passive divide between epistemic episodes and behavioural reactions, and integrated both within the single concept of coordination, which also confronted any sharp separation between organism and environment as subject and object.

To understand the role of beliefs and knowledge with regard to action, we must ask some basic epistemological questions from a pragmatist perspective:

What is our relationship as “agent-patients” (HT, MW6.120) with the world? By what means and to what extent can we be acquainted with nature? And what exactly is the relationship between our knowledge/beliefs and reality?

I will argue that Dewey’s view as to the relationship between epistemic subject and nature falls within agency theory rather than in the fields of epistemology or ontology. His answer implies a reversal of the Humean Folk-Model.

Dewey spent much of his life arguing that epistemic categories such as beliefs and knowledge have meaning only by virtue of the functional role they play as organising factors in the formation of our human action.

In order to tailor these questions to the present context, we will ask whether knowledge and belief can ever be understood as antecedents to our deliberation processes and action. This seems like a necessary condition for the Folk-Model in which beliefs and knowledge inform or even cause our action. In other words, is knowledge something we have, and is belief something we hold *before* we start acting or deliberating over our actions?

If we came to a negative answer to these questions, i.e. if knowledge and belief could only be understood as the products of transaction and deliberation, then the Humean model might still be defended. The model does not claim that the historic process of gaining our

knowledge and beliefs must be independent from action and coordination. It only insists that once adopted, beliefs can serve as antecedents for (rational) deliberation processes and actions.

Only if we successfully establish that knowledge and beliefs can never be brought into a form that could serve as antecedents for Humean rationality can we successfully challenge the Folk-Model of agency.

In the following sections I will therefore argue that in deliberation contexts, knowledge is always a goal within inquiry, and belief is the end, never the beginning, of deliberation.

The nature of experience

Dewey and empiricism

Despite making experience the central concept in all his naturalist philosophy, Dewey has little in common with modern empiricism and positivism. In a few instances Dewey uses “empiricism” to label his own work, but his leanings towards Hegelian objective idealism are stronger than his communalities with Locke or Hume. For Locke, and largely also for Hume, “empiricism” means a philosophical commitment to sensual impressions as the source of all knowledge, beliefs and judgement. Dewey describes an implicit alliance between early modern empiricists and rationalists on the grounds that both separate the realm of perception, experience and cognition from an external world of matter and causes.

Empiricists often proclaim nature as the ultimate source of all our cognitive images or ideas, however our access to nature seems strangely reduced to the two dimensional surface of sense organs. Thus our sense organs do not only give us *access* to nature, they more effectively *separate* us from the world. Dewey’s concept of experience, on the other hand, is three-dimensional. It comprises interactions beyond the surface of sense organs. Hence, experience is not a private or mental event, but a process of interaction which equally engulfs the “agent-patient” and the objects of her perception. Dewey sees the epistemic subject embedded within a continuum of natural processes.

The transactive nature of experience

The central feat of Dewey's philosophy is that there is no ontological gap between experience and nature. Experience is not nature's imprint in another medium; it is the process of interaction between the two poles of subject and object, or organism and environment. However, for Dewey the term "interaction" was still too dualistic because it presupposed two given elements (subject and object), entering an intercourse as predefined entities. If Dewey had ever developed an ontology, it would be one of *process* rather than *substance*⁶. He calls nature an "affair of affairs" in which (Bernstein 1961 p.83)

"...transaction does not occur with an aggregate or combination of elements that have an independent existence. On the contrary, what counts as an 'element' is dependent on its function within a transaction."

Immediacy

This transactive view of experience enables Dewey to bridge the gap between the experiencing subject and the world of experienced objects. Experience as "transaction," makes no difference between subjects and objects. In a transactive perspective on experience our access to nature and our environment is immediate. (EN, LW1.12-13):

"[E]xperience is of as well as in nature. It is not experience which is experienced, but nature – stones, plants diseases, health, temperature, electricity, and so on. Things interacting in certain ways are experience; they are what is experienced. Linked in certain other ways with another natural object – the human object – they are how things are experienced as well. Experience thus reaches down into nature, it has depth. It also has breadth and indefinitely elastic extent. It stretches. That stretch constitutes inference."

⁶ I am using the conditional form to support my thesis that even Dewey's metaphysical work should be understood as a contribution to agency theory.

This quote entails a number of important ideas. It speaks about the qualitative immediacy of our experience, saying that our acquaintance with the world is direct through interaction and not indirect via sense perceptions. Contradicting Hume, it says we have direct access not only to things as objects but also to some of their relations (or connections). The quote introduces Dewey's particular concept of meaning as a property in experience that extends ("stretches") beyond the immediacy of perception. Experience reaches out toward future transactions – it is not exhausted by momentary sensual awareness. Finally, in stating "that stretch constitutes inference," Dewey indicates that deliberation is not separate from experience.

Connections and qualities

In response to Hume and Locke, Dewey jettisons the proposition that experience needs the synthetic power of *ideas* (whether won from induction or from transcendental meditation) in order to produce objects, qualities, and connections from the raw material of accumulated atomic sense impressions. Hume had argued that our knowledge of causal relations remains restricted to the (mental) association of intrinsically unconnected observation points (sensory data). If connections are irreducibly part of our experiential transactions, we do not rely on the presence of atomistic sense affections in constructing a complex and coherent understanding of our world. This idea will be discussed in chapter 6.

Experience and meaning

"Immediacy" does not confine experience to a *state* or a singular *moment*. The distinctions and discriminations that we make in our experiences are related to other experiences, future objects and consequences. Connections, relations, and meanings point toward subsequent transactions.

"Meaning" is for Dewey "... an experience of a thing which refers to another thing" (Shook 2000 p.69). In fact, meaning is defined as an element in experience (transaction) that leads or refers to further actions and co-ordinations. The meaning of a symbol like "emergency

exit,” for example, refers to measures taken in a disaster scenario. The word “refer” can be read quite like the quasi causal relation between stimulus and response, as discussed above. A meaningful object (or symbol) in experience can evoke certain actions. How and when it exercises such causal powers depends on the meaning it has been given in previous courses of coordination. In this vein Dewey seeks to overcome the dualism between “symbol” and “meaning.”

Ideas play a constitutive part in extending experience to further objects and transactions. An idea is a “...mentally active inference or suggestion relating one experience to others” (Shook 2000 p.69).

Why should one occupy oneself with such slightly esoteric internalist conceptions of meaning? Why can we not stay with an account of meaning as representations or propositional attitudes? The answer is that the tight connection of meaning and experience is necessary in order to show the intimate relationship between beliefs, knowledge and action. But this requires some further steps.

Belief and knowledge

The above arguments about the immediacy of experience, which includes meanings, connections and ideas, suggest that nature would directly reveal itself to us in any experienced situation. Knowing would then be a matter of attending to the immediacy of experience. This is not what Dewey intended, and Bernstein (1966) gives us the following slogan (p.92):

“Qualitative immediacy – Yes! Immediate knowledge – No!”

He adds (Bernstein 1966 p.6):

“To know we must go beyond what is immediately present, and classify and discriminate it.”

Knowledge then is for Dewey the act of extending the boundaries of experience beyond those meanings and connections that are already part of its immediate quality. It means learning about the causes and consequences of further possible courses of action.

Why can these meanings and insights into causal relations not serve as relatively stable epistemic antecedents in a Humean action model?

The answer is, in brief, that knowledge is never merely the end-product of a previously successful inquiry. Knowledge cannot act as a stable premise in a practical inference. This has two reasons which I will discuss below:

Knowledge does not *represent* its object. Its object is not indifferent to the process of knowing. Knowing is part of a transactive process in which its object is constituted. I.e. the object known and the process of knowing are not two independent things.

New relations and connections that are discovered (in knowledge) become incorporated in experiential transactions: these are new meanings that become part of the qualitative immediacy of experience. Since Dewey had claimed that we have no immediate knowledge (only immediate experience), knowledge ceases to be what it is as soon as it becomes an established product. I.e. knowing is never a product. I will explain this argument in some more detail below.

Knowing and transforming

The view that knowledge takes part in natural transactions (of inquiry and knowing) leads Dewey to the notion that reality is not “without loose ends” (MW4 p.127). A nature without loose ends would be complete and self-sufficient. Knowing such a world would not add or subtract anything to its objects.

Against this epistemic model Dewey insists that (QC, LW4.160)

“... known objects exist as consequences of directed operations, not because of conformity of thought or observation with something antecedent.”

Understanding something must always be translated as entering a new form of interaction with the world. As per the definitions of *doing* and *undergoing*, any object we could ever know can only be understood as an aspect within interactions. If knowing were translated as *doing* then the object would be *undergoing*. We have seen earlier that neither of these two aspects has any meaning in isolation – as little as there can be pressure without counter pressure; (HNC, MW14.33):

“... [T]he object is that which objects.”

However, Dewey remains a naturalist and does not succumb to the temptation of regarding reality as a mere construction of human epistemic and scientific practices. He concedes that natural transactions took place before humans began experiencing or inquiring into them. However, he swiftly adds (Rejoinder, LW14.31):

“What things were like before the time in which ... inquiry was undertaken ... I can only say that this sort of telling is the specific business of the inquiries themselves.”

Reality that can ever be the material of inquiry and knowledge is constituted and co-authored by our knowing and inquiring transactions. Knowledge itself is defined as a way of changing and enriching the transactions that produce experience and constitute nature.

Shook sees the solution to this dilemma between Dewey’s naturalist ontology and his constructivist epistemology in his turning away from any definite answer (ontological or epistemological). He views Dewey’s third alternative route as a form of functionalism wherein (QC, LW4.160):

“... the worth of any object that lays claim to being an object of knowledge is dependent upon the intelligence employed in reaching it.”

At this point it becomes clearer that Dewey’s epistemological and metaphysical reflections yield a new agency theory rather than new ontology. Seen in the right light, Dewey bids farewell to both metaphysics and epistemology as autonomous philosophical enterprises. What replaces these are functional distinctions within an account of how human agents structure and coordinate their transactions, in other words: agency theory.

Knowing as learning

We may be persuaded that knowledge is not a representation of a ready-made inquiry but the outcome of inquiry which transforms both knowing and its object. Nevertheless, we may hold that this process of mutual adaptation of knowing and object may come to some resting point, or to a cognitive-transactive equilibrium. At this point we would have obtained some temporarily stable orientation – some reliable knowledge of relations. Why can such a trusted outcome not serve as the antecedent to a Humean agency model?

The aim here is to show how Dewey would ascertain that knowledge can never serve in the role assigned to it by the Humean model, because it can never be treated as an established outcome of inquiry.

Dewey quite purposefully avoids the word “knowledge” as a reified result of inquiry. He speaks instead about “knowing,” as a verb-derived-noun. Where he still employs the word “knowledge” he gives it a procedural interpretation (KK LW16.4):

“The transactional... installs openness and flexibility in the very process of knowing. It treats knowledge as itself inquiry -- as a goal within inquiry, not as a terminus outside or beyond inquiry.”

This definition finally yields the answer to why knowledge cannot serve as an antecedent in the formation of a course of deliberate action as the Folk-Model suggests: knowledge is always necessarily *in* deliberation and never simply a result of it. (Rejoinder, LW14.559):

“Knowledge as attained in distinction from knowing in process, is a flat contradiction...”

But how does Dewey arrive at this notion of “knowing as inquiry in progress” (Rejoinder, LW14.562)? How does he establish that “knowledge” is really “learning”? These questions will occupy us in the remaining sections and also in several subsequent chapters. Chapter 6 in particular will take a closer look at Dewey’s concept of inquiry.

Belief

Dewey holds that knowledge as “attained” is a contradiction, but why? What happens to knowledge when we leave the context of learning and inquiry?

Inquiry for Dewey is the systematic attempt at settling a problematic situation. A situation becomes problematic if the equilibrium of “habitual” transactions is challenged or upset. Like Peirce, Dewey defines “belief” as a habitual state of equilibrium, and “doubt” as a challenged “problematic situation.” Inquiry is by definition restricted to states of doubt. If knowledge is a “goal within inquiry” and not “a terminus outside and beyond inquiry” (see above quote), then knowledge can never be part of a settled situation (belief).

Our main aim here is not to trace Dewey’s specific definition of knowing as learning, but to ask whether the outcome of inquiry is not some result that could be used as a logical or causal antecedent in the Folk-Model of agency. If “knowledge” remains irredeemably restricted to contexts of inquiry, “belief” could still be seen as a *result* of successful inquiry, and may serve as an antecedent for deliberations in the Folk-Model. Formulations of the Folk-Model usually refer to “belief” or “cognition” rather than “knowledge” (perhaps to emphasise the private and subjective character of deliberation).

However, “belief” cannot occupy the position of an antecedent in deliberation either, at least not in Dewey’s definition.

What exactly is belief if called an *outcome* or “terminus” of inquiry?

If inquiry successfully obtains its goal, it resolves a problematic situation by *augmenting understanding*. This is equivalent to saying that inquiry integrates *new connections and meanings within experience*, and as a consequence a new equilibrium in our transactions becomes possible; i.e. we have learned to deal with a problematic situation. The result of successful inquiry (“belief”) amounts to a new form of *habitual equilibrium*. Dewey rejects any cognitive interpretation of beliefs as storable information that could be summarised or stated in the form of *results* and that would have propositional content independent of embodiments in our habits and dispositions. “Meanings” and “connections” *are* dispositions and forms of transaction for Dewey. By this definition beliefs, as results from successful inquiry, would be “obtained” only in the form of a transactive equilibrium or “habit.” This idea will be clearer after reading chapter 6 on Dewey’s concept of inquiry.

Consequences for the Folk-Model

The Humean model addresses situations in which belief is employed in forming deliberate agency. However, these are not situations of an un-challenged “habitual equilibrium.” Deliberate action, i.e. the active reorganisation of coordination is necessary in “indeterminate” or “problematic” situations. And these are situations where “belief” had to give way to “doubt.”

Habitual transactions are not those where deliberate action in view of means and ends (Folk-Model) applies. Habits proceed without deliberate decision-making and without being instrumentally motivated to achieve a goal. It follows that if we have a situation of stable beliefs we do not need to deliberate: The Folk-Model of agency has no application because habitual co-ordinations suffice to maintain our transactive equilibrium. If, on the

other hand, our situation demands explicit and deliberate *action* such as the Folk-Model envisages, it is characterised by a loss of a habitual equilibrium of “belief.”

In cases where we have stable belief, Humean agency is not an apposite way of conduct, and in cases where the Folk-Model should be applicable, we cannot rely on “belief” as a given premise.

In contrast, Dewey’s category of “knowing” as defined above *is* applicable in contexts of deliberation. However, knowing does not have a character that would allow it to be used as a premise in the Folk-Model. Since knowledge is always a product in the making, it *is* meaningful only within processes of learning. Thus, a new theory of agency would have to integrate learning and inquiry *within* the processes of deliberation and the formation of agency.

Conclusion

The argument, here presented, indicates why the Folk-model cannot stand on its epistemic ‘leg.’ The relation between belief/knowledge decision-making and action can be understood neither logically nor causally as a linear sequence (cf. the first and the second part of this chapter respectively). In consequence, a new model of agency must integrate the search for knowledge and orientation within an unfolding process of agency.

Two important steps have been taken thus far:

Firstly, I have discussed on what ground Dewey rejects the strict separation between epistemic processes and active behavioural coordination. This suggests that the relation between studying circumstances and actively engaging and changing them might not be best described as a succession of stages. I.e. any agency model, fit to account for the intentional human behaviour, should try to integrate epistemic processes and action. An optimal theory would define all epistemic processes as functions within unfolding human agency.

Secondly, I have used Dewey to challenge directly the Folk-Model's presupposition that beliefs or knowledge are input factors for deliberate, rational action. The Folk-Model holds that we form action in view of our beliefs and desires, or that our action employs our knowledge to achieve certain ends. For this purpose beliefs or knowledge should be reasonably stable in the context of deliberation: They can, according to the Folk-Model, not be themselves subject to deliberation. As I have discussed, neither belief nor knowledge, in the Deweyan understanding, can serve in this capacity. Contexts of deliberate action are always epistemic contexts of forming our knowledge and changing beliefs.

Chapter 4: Purposes in View of Instruments – Defining and Using Ends

*I despise everything that merely instructs me without increasing or immediately enlivening
my activity.*

Johann W. v. Goethe¹

*When a man finds himself in movement, he always invents a goal of that movement. In
order to walk 1,000 versts he must believe that there is a good beyond those 1,000 versts.*

He needs a vision of a promised land in order to have the strength to go on moving...

Leo Tolstoy²

Introduction

We are the heirs of an ambivalent philosophical fortune. Our legacy is a sophisticated conception of two segregated realms of rational inquiry. These trade under names like *substantial, practical* or *value-rationality* on one side, and *formal, instrumental* or “*Zweck*” *rationality* on the other.

The analytic parsimony in the idea of a *purely instrumental rationality*, stripped of all conflicts and vagueness in the justification of goods and purposes, is often irresistible to both theorists and practitioners.

Previous chapters have dealt with a model that I described earlier as “linear instrumental rationality.” This LIR model had been pointedly summarised by Landron Winner as “straight-line instrumentalism” (Winner 1977 p.28), which

¹ From a letter to Schiller (19/12/1798). Quoted in the introduction of Nietzsche (1874).

² War and Peace, Beginning Ch.19

“...begins with a preconceived end in mind. Then one decides upon an appropriate instrument or organization of instruments to achieve that end, usually weighing the advantages of two or more alternative instruments. Next comes the actual *use* of the instrument in the way established for its successful exercise. Finally, one achieves certain results which are judged according to the original end.”

This model describes a neat separation and a temporal ordering of instrumental deliberation *after* the determination of ends.

How good is the idea of having two rationalities instead of one – of dividing the labour between technical and ethical questions, or between administration and life choices?

In both his ethical and his epistemological work, John Dewey seeks to overcome the divorce of rationality into two different projects. He claims that defining purposes and devising instruments are in fact two aspects of the same practice of inquiry. I will explore some promising aspects of Dewey’s ethical theory that help to overcome the segregation between means and ends, a dualism that is related though not identical with the *fact-value divide*.³

In my current agency theory project I am particularly interested in the role of purposes and ultimate moral orientations in the formation of human agency. In particular I look at the relation between instrumental forms of reasoning and the formation of our ends and value orientations. I will also try to determine the exact position of ends and purposes in deliberate courses of action.

Traditional Humean theories of rational deliberation have purged instrumental forms of deliberation of moral quests for substantial purposes. The sole purpose of instrumental reasoning was seen in defining feasible strategies for independently set ends and purposes.

³ One could think of both means and ends as factual premises. This however would not be compatible with an agency theory that includes the perspective of the agent herself. For the Humean agent, “ends” must always refer to some subjective or objective value premise.

The search for ultimate ends and values has been referred to private, philosophical or religious forms of deliberation or in western liberal politics to democratic procedures, market laws or customer behaviour.

Three postulates characterise the Humean *linear instrumental* model of rational agency with regard to the dimension of ultimate ends and purposes:

- Instrumental rationality operates independently from a commitment to substantial ends and value-orientations;
- Instrumental reason does not help us in determining our ends; it only tells us how to achieve given ends under instrumental constraints. It provides only hypothetical imperatives which rely on an external input of motives and purposes;
- The definition of purposes and ends logically predates instrumental forms of deliberation and the execution of deliberate acts.

The first of these conditions follows a normative intuition: it reflects Hume's "ancilla" argument, according to which our instrumental reason can serve our ends only if it is allowed to operate independently from the direct impact of our passions. Criticising this proposition by showing how our motivations directly partake in all forms of instrumental deliberation will not be the main focus of this chapter, but will be explored in the following chapter on "imagination in deliberation."

The second point follows a more descriptive intuition: Hume claims that "reason" has no power to stir our passions. Mere reason (and *a fortiori* mere instrumental reason) does not influence our preferences or moral commitments. This second condition may seem too strong. A defender of a traditional rationality theory could argue that the Humean model works only if reason remains indifferent to the influence of passions, but it would be indifferent to how or where our passions, ends or purposes originate. We therefore do not need a proviso that excludes a direct link between instrumental considerations and the formation of ends. However, it is quite clear that the second condition is equally vital to the functioning of a purely instrumental Humean rationality. If we relaxed the second

condition, there would no longer be a strictly formal instrumental rationality because any reflection on means and instruments would immediately turn into a deliberation on purposes and value-orientation. This would make the notion of a dispassionate formal reason impossible: it claims that instrumental considerations only determine how to attain a given end – not what end is worth pursuing (Simon 1983 pp.7-8).

“Reason is wholly instrumental. It cannot tell us where to go; at best it can tell us how to get there. It is a gun for hire that can be employed in the service of any goals we have, good or bad.”

Showing that instrumental rationality is not a “gun for hire,” but that instrumental deliberation is always also a value quest is one purpose of the present argument. By looking at the origins of preferences and our rational means of their moral appraisal, it tries to overcome the view that instrumental reasoning would be a morally neutral exercise. By the same token it argues that “guides” (ends, purposes, values, norms) are not separate or external categories from “resources” (means, instruments, cognitions, information).

The second part of this chapter (“Ends in Action”) takes a fresh look at the role that ends and purposes play within unfolding processes of action. It will challenge the view expressed in the third condition above. As if replying to Simon’s “gun for hire,” Dewey writes (HNC MW14.159)

“...men did not begin to shoot because there were ready-made targets to aim at. They made thing into targets by shooting at them...”

In this part I will show ends as evolving functional elements within coordinated activity.

On the whole, this chapter argues that value quests and deliberation over purposes must not be externalised from technical instrumental questions. By extension, defining and refining ends and purposes is part of the job description of any technician, executive and planner.

Morals and ethics are more than a garnish. They are the bread and butter of all who professionally employ instrumental rationality.

Instruments and Purposes

This section will explore two questions:

1. Must we rely on sources external to instrumental reasoning in determining substantial ends and purposes?
2. Is instrumental rationality purely formal? Can it be sharply separated from substantial ethical reflection?

The Folk-Model distinguishes “means” and “ends” (or “cognitions” and “purposes”) as separate categories. The two questions above imply that this separation might not be as sharp as is often assumed.

Means and ends – a blurred distinction?

However unambiguous the divide between objects of moral and instrumental reasoning may appear in theory, concrete contexts have the tendency to blur the distinction. A new car, the delivery of a long expected and urgently needed module in a construction project, and the qualification for the next round in a sports tournament are all cases where the line between an intermediary means and a final end becomes fuzzy. In the wee hours of the morning it may be difficult to answer whether finishing a research proposal on time constitutes only a means or a separate final end.

Surely in some of these cases we could speak about a mixture of instrumental and final *components* of the same outcome – opportunities for further action and self sufficient purposes like enjoyment, excitement or relief.

There are however obvious limits to just how lenient traditional Humean theories of rational action can be about the direct intercourse between the categories of means and ends.

Permissible anomalies in traditional theory and their remedies

Empirically we do observe a substantial number of cases that challenge the strict independence of means and ends. Often the knowledge of means or acquaintance with instrumental conditions (resources and constraints) directly influences our pursued goals. Not all of these cases imply violations of the Humean rationality model, however. What anomalies can the Humean model cope with without abandoning the premise that means and ends remain matters of two distinct and independent domains of deliberation?

Strategic compromise

When we choose “a bird in the hand over two in the bush,” e.g. when we walk the long and easy path instead of the vaguely remembered shortcut, it does not mean that the better knowledge of the former made us *like* the detour more. Our knowledge of circumstances changes our pursued goals, but not necessarily the structure of our real preferences. We strategically adapt goals in order to maximise our preferences in view of instrumental constraints and uncertainties. What we value as goods and their relative weights seems independent from such instrumental calculations.

Concretisation

Cases in which our wants and desires directly respond to perceived circumstances are more difficult. ‘I must have *this* pair of shoes,’ states a sudden rise of desire for an object that has not been known before. The advertising industry has a professional interest in the suggestive power of presentation on our interests and desires.

However, one must not necessarily interpret this case as ‘instrumental conditions *creating* ends,’ or as ultimate ends being the *products* of instrumental reflections. One may instead say that instrumental opportunities only *shape* and *concretise* desires that were latently given beforehand. It is often claimed that advertisement only adds a brand-image to already existing, diffuse desires for health, youth, beauty, popularity etc.

Sequential hierarchy

The logical independence of means and ends has often been challenged because ends shift in their status and appear as intermediary stages or “means” when we widen our perspective. A university degree is an *end* only for the student. It becomes a *means* for a better career as soon as she has graduated and entered the job market. A number of planning theorists have addressed the sensitivity of our classifications of “means” (intermediary) and “ends” (final) to changing perspectives. Some doubt that it will ever be possible to define a final purpose in planning because “the system of means and ends is always expanding as the planner examines the second at subsequent stages” (Churchman 1971 p.63). Werner Ulrich argues that in the reality of planning the notion of a “final purpose” appears spurious. There may always be a change of perspective by which a goal that seemed like an “end from below” may appear as a “means from above.” (Ulrich 1975 p.74)

Proponents of a pure instrumental rationality will not accept this as a challenge to their position. They admit that (Simon 1945 p.62, emphasis added)

“[e]nds themselves ... are often merely instrumental to more final objectives. We are thus led to the conception of a series, or *hierarchy*, of ends. Rationality has to do with the construction of means-ends *chains* of this kind.”

This could be dubbed a “hierarchical chain model” of instrumental reasoning. It warrants that ends can be interpreted as “instruments” only if they serve higher or “ultimate” purposes which go beyond instrumental determinations. Rational reasons may lead us to adapt ends strategically in view of instrumental possibilities. But instrumental concerns

pose no rational necessity for changing the weighed hierarchy of our ultimate purposes or preferences. The fiction of this model is that even long chains of intermediary means and ends relations hinge upon some ultimate value premises, from which each link can be rationally deduced: e.g. we shave in order to look good, in order to make a smart impression in an interview, in order to get a job, in order to make money, in order to pay for things, in order to realise our idea of a good life. Without the last link to this ultimate purpose of a good life, it is believed that any instrumental chain of activity would collapse into meaninglessness.

On this account instrumental reasoning only influences how we strategically set lower ranking intermediary ends but it does not affect the weighted structure of ultimate preferences and values.

Two Fallacies

Dewey opposes the idea that we could ever find, or that we should even search for, an independent value-premise that would underlie all our instrumental deliberations. His critique follows a two-pronged approach. He claims that this model must rely on either of two fallacies: one he names the “philosophical fallacy;” the other I interpret as a version of the “naturalistic fallacy.” The two fallacies are committed by moral rationalists or transcendentalists and by modern empiricists, respectively.

Dewey characterises these fallacies by speaking about a moral tension “...between a theory that, in order to save the objectivity of judgements of values, isolates them from experience and nature [philosophical fallacy], and theory that, in order to save their concrete and human significance, reduces them to mere statements about our own feelings [naturalistic fallacy].” (QC, LW4:210)

The philosophical fallacy

For Dewey, practical reasoning is inquiry. All its products (values, norms and purposes) should never be taken for granted outside the contexts of the inquiry process that led to their formulation.

He debunks all attempts to reify the results of ethical investigation. By the “philosophical fallacy” Dewey means any hypostatisation of mere functions of agency into independent entities. An example would be turning our capacity to think and engage with problems through *reasoning* into “Reason” as an independent authority (nowadays often indicated by a capital “R”).

Analogously the philosophical fallacy turns the products of moral reasoning (ends values and norms) into unconditional imperatives. It overemphasises the *outcome* of practical inquiry and forgets its particular problematic context.

Results of inquiry often become theoretical fix-points. They leave their original context of inquiry. Philosophers produce tables of categories, erect ontological systems that juxtapose subjects and objects, define rules for truth-preserving inferences, and identify warrants for our moral judgements. We often observe that these results of inquiry take on a life of their own. Dewey claims that philosophers themselves did all they could to cement their conceptions and install them as lasting authorities. Kant formulated valuable ethical insights in the form of categorical imperatives, Descartes made the distinction between knower and the known a matter of metaphysical rift between substances, and Leibniz saw in our ability to think and reason the “*intellectus ipse.*”

Dewey is very cautious about rejecting frameworks of ethical thinking that his predecessors have developed. He never uses his sharp criticism against the architectonic sketch of their philosophical edifices. He targets only the wrong building sites for their erection or attempts at universalising claims in a “one size fits all” fashion. The charge against the philosophical fallacy is not that we rely on concepts, norms and distinctions as reference points in our thinking. Dewey admonishes that we forget how these came about through

inquiry, and how they function in practice. He criticises us for throwing the ladder away after climbing the roof: we tend to disregard the process of inquiry that we used for reaching our conclusions. In particular we forget that this process was bound up with a situational context. As a result we tend to set an end to inquiry where in fact more inquiry would be needed. Once creative achievements of moral imagination become institutionalised and ossified, they sometimes stand in the way of finding solutions to new ills.

Let us consider the value of *academic freedom* as one example. The common understanding of this value follows a Humboldtian ideal of “Einsamkeit und Freiheit” (solitude and freedom), which is to some degree the product of an active struggle for intellectual emancipation from a Prussian bureaucratic absolutism (“Obrigkeitsstaat”). I.e. in its original formulation it was an instrument meant to liberate scientists from the grip of Prussian princes and their bureaucracies. Unfortunately this ideal has not been consciously adapted to new contexts where there are no longer absolute rulers in Europe. In contemporary contexts the threats to the independence of science are much more diffuse. Political lobbies manipulate the scientific community as a whole by artificially manufacturing dissent on issues like anthropogenic climate change or the harmful consequences of secondary smoking in order to undermine the political power of a unified scientific commonsense (cf. Oreskes 2004; Oreskes and Conway 2008). Creationists abuse critical epistemic standards of scientific caution against final judgements to promote ideological agendas proclaiming that “the jury is still out” (G.W. Bush) on whether the world was created at a time well after the domestication of the dog (Dawkins 2006). In conditions like these the value of academic freedom is more relevant than ever, but in its traditional formulation as the ‘solitary freedom’ of an isolated academic in an ivory tower, it could be ill-adapted to the current world. The academic community might consider new institutions that interpret and actively protect academic freedom as a multi-tiered system that comprises the autonomy of individual researchers as much as that of groups, departments, educational institutions and the academic community as a whole. The Humboldtian link to “solitude” may be abandoned in contemporary settings.

For Dewey, norms and values and all meta-ethical distinctions are *possibilities*, not *necessities*. They are to be treated as highly elaborated instruments or resources that we must employ *and adapt* to particular problematic situations.

A kind of naturalistic fallacy

Utilitarianism

In the beginning of “*An Introduction to the Principles of Morals and Legislation*,” Bentham (1996 [1780]) makes the famous claim:

“Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do.”

Nietzsche laconically answered him in “*Twilight of Idols*”:

“Man does not strive for pleasure; only the Englishman does.”

Utilitarians take individual desires or preferences to be original and given premises in any public deliberation over value-judgements. In contradiction to Kant, they claim that reason itself cannot establish the ultimate grounds for any moral judgement. Public reasoning on value-judgements must always refer to directly witnessed private intuitions and preferences as their final arbiter. With regard to individual agency, decisionists hold that “values or norms guiding practical action cannot be justified with reason, i.e. through rational discourse and reflection, they represent, rather, subjective ‘decisions’ *prior* to rational activity” (Ulrich 1983 p.29, emphasis added).

Hume

In an often quoted passage from his *Treatise*, Hume reasons that the subject matter of ethical judgements cannot be found in matters of fact. The wickedness of a deed is always a property attached to a sentiment of the observer (Hume 2000 [1739/40]). Hume claims that “actions do not derive their merit from a conformity to reason, nor their blame from a contrariety to it” (Hume 2000 [1739/40] p.458). He thereby erects a high fence between moral premises and rational inquiry – an obstacle Hume himself has difficulty overcoming in several later attempts.

Hume declares that reason cannot excrete imperatives or motivations to compete with our desires and passions. As far as this goes, Dewey agrees with him.

Hume goes further and says that passions will change in view of better judgement, by which he means that insight into the expected consequences of an activity redirects our passions. This sounds unexpectedly Deweyan, but misleadingly so. Hume is far from claiming that in reflecting upon the consequences of our actions, we would intelligently adapt our deepest dispositions or tastes. A rational critique of our passions remains futile and impossible for Hume and the claim that judgement influences passion is limited to operative ends. It is merely another way of saying that “who wants an end will also want the efficacious means to it” (Cohon 2004). Hume maintains that we can decide in favour of the destruction of the world in order to avoid the scratching of a finger (Hume 2000 [1739/40] section 2.3.3.6). The faculty of reason will stand by and watch without intervening.

“Hume’s law” prohibits inferring an imperative “ought” from a factual observational “is,” an inference that G.E. Moore later called the “naturalist fallacy.” In spite of that, Hume is an important precursor to naturalistic theories of value. When Hume declared our experienced sentiments the sole evidential bases of value-judgements, he was but a small step away from locating the root of all value in observable natural phenomena. Only his subjectivist interpretation of experienced sentiments as *mental* separates him from a naturalist conception of value. “Passions” are directly present in the inner senses of each

sentient agent. They are at least as real as the impressions we receive from the world around us in the form of perceptual raw material. By denying passions the status of “ideas” or representations, which we could use as material for reasonable arguments, Hume says we must think of passion as an “original existence.” I.e. passions are “original facts and realities” (T3.1.1.9). Several of above interpretations of Hume’s ideas can be found in Cohon (2004).

The fallacy of naturalism

Rationalists and transcendentalists tend to hypostasise the *results* or *outcomes* of ethical inquiry. Utilitarians, on the other hand, give too much weight to the *raw material* of moral inquiry: sensations of desire, value-intuitions or the expressed prevalence of preferences. They prematurely declare sensations and attitudes as the rock bottom of moral reasoning. (QC, Construction of Good, LW4.206):

“The objection is that [utilitarianism] holds down value to objects *antecedently* enjoyed, apart from reference to the method by which they come into existence, it takes enjoyments which are causal because unregulated by intelligent operations to be values in and of themselves.”

What I call Dewey’s ‘kind of naturalistic fallacy’ argument says that the mere presence of a desire for an object allows no judgement as to the “desirability” of the object; the mere experience of satisfaction does not itself imply the “satisfactory” nature of a state (QC LW4.207):

“To say that something is enjoyed is to make a statement about a fact, something already in existence; it is not to judge the value of the fact.”

Dewey is far from re-erecting a fact-value dualism. The above quote does not present judgement as attributing value to independent realm of facts, or facts as inherently value-neutral in the absence of such value judgements. Judgement is indeed constitutive for value, but the raw material of “fact” is not value-neutral prior to an explicit value judgement; and,

more importantly, a value judgement is not an external attribution that leaves matters of fact aside. Value judgements are reflections on facts.

Dewey does not even leave it there: value judgements directly affect facts. We must remember Dewey's transactional understanding of nature to see how a value judgement establishes new meanings and constitutive relations within natural objects by altering experience. From a transactional perspective it would make no sense to distinguish between objects in experience and natural objects (see chapter 3). Therefore, adding meaning to a fact (as a value judgement does) means changing the fact because value judgements are not only *about* facts but are themselves transactions of nature.

How exactly we arrive at value judgements and what they mean within the context of our transactions will be discussed in the following sections.

Dewey critiques Bentham on the premise that pleasure and pain do not provide a strong enough basis *on their own* to support final moral judgements (Outlines of a Critical Theory of Ethics, EW3.251). Installed as "sovereigns" over our actions these hedonistic categories would yield only uneducated, impulsive, and ultimately detrimental behaviour.

In a modified way this criticism also applies to more contemporary micro-economic value theories that proclaim to rely on "revealed preferences" instead of hedonistic categories like pleasure and pain. Also there preferences are treated as independent data. They are revealed through *rational* choice behaviour, but not understood as subject to the very same deliberative rationality that is supposed to reveal them.

Bernstein summarises Dewey's critique of a misguided moral empiricism as follows (Bernstein 1966 p.72):

"We don't discover what we ought to do by merely gazing at things [intuitions or revealed preferences]. But critical examination of experience is precisely the basis for

articulating and justifying our obligations and intelligently deciding what we ought to do in specific situations.”

In fact, Dewey credits those very same rationalists that he had accused of committing the “philosophical fallacy” with engaging in the necessary and painstaking task of *moral inquiry*. Our practical reasoning needs to secure the possibility of discriminating between praiseworthy and deplorable desires, pleasures and preferences. We need to be able to take a critical attitude towards our employed ends and purposes.

Value and “Valuation”

The distinction between the “enjoyed” and the “enjoyable,” the “desired” and the “desirable,” or the “satisfying” and the “satisfactory” seems to commit Dewey to a rationalist notion of value judgements because it requires some criteria beyond immediately experienced affection (cf. Joas 2000). How does Dewey harmonise this with his declared naturalist instrumentalism?

Dewey answers that we have no criteria for discriminating between “desired” and “desirable” which have their origin *beyond* experience, and more precisely beyond our instrumental efforts within problematic transactions. In the following section I will characterise how Dewey envisages an intelligent critique of immediately present value intuitions without falling prey to those rationalist dreams that he disowned as “philosophical fallacies.”

How can we rationally define ends and purposes? Dewey seems to argue that all we need for forming value-judgements are the means provided by instrumental reason. How is this possible?

The sensitivity of ends to instruments – from prizing to appraisal

Enjoyment and value

Even though we cannot reduce value questions to maximising enjoyment or pleasure, Dewey takes the utilitarian view that enjoyment and fulfilment are indispensable reference points for all judgements of value (QC LW 4.213-14):

“There is no value except where there is satisfaction, but there have to be certain conditions fulfilled to transform a satisfaction into a value.”

He uses an analogy to explain why value does not equal felt enjoyment (QC, LW4.213-214):

“...[T]he notion that every object that happens to satisfy has an equal claim with every other to be a value is like supposing that every object of perception has the same cognitive force as every other. There is no knowledge without perception; but objects perceived are known only when they are determined as consequences of connective operations.”

The decision whether a stick in water is straight or bent must be placed in the context of general principles of light transmission in media of varying density. The decision whether an end is worth pursuing should be seen in the context of ramified consequences, budget constraints and moral principles. Directly witnessed appetites, desires or preferences cannot serve as a bottom line for instrumental reasoning, just as direct perception cannot serve as a warrant for theoretical judgement.

Dewey claims that the critical process of evaluating whether a desire is worth pursuing (value-judgement) is equivalent to estimating the consequences of acting upon it (instrumental-judgement).

Utilitarians have rarely doubted that it is possible to establish subjectively how much we appreciate a good or a state of affairs quite independently from instrumental costs and the side-effects of their realisation. The very idea of a “utility calculus” suggests that that our decisions depend on some expected balance of pleasure and pain, which we establish by adding benefits and subtracting costs. Dewey opposes treating our original desires or “basic” inclinations as “lump forces, like the combustion or gravity of old fashioned physical science...” (HNC MW14.104). For him, establishing the value of an option is not a matter of a vector addition, but involves an intelligent transformation of the basic material (costs and benefits) that utilitarians want to sum up.

From impulses to desires

The first mistake utilitarians make is to identify the content of *desire* with some immediately given *appetite*, thereby neglecting the fact that forming a basic desire is a complicated process involving some degree of instrumental intelligence. We are born, according to Dewey, with vital impulses. When a toddler screams or stretches out for an object in its field of vision it expresses an impulse, a feeling of lack or an organic imbalance, but not a *desire*. To form a desire the child must have some notion of the object as a means of reaching satisfaction. This translates as having a grasp of the consequences that follow from obtaining and using the object.

Desires and beliefs as distinguished in the Folk-Model are not two disparate categories: even in its most primitive form a desire embodies instrumental beliefs.

From basic desires to mature preferences

Mature agents do not act immediately upon desires or impulses. They form ends or preferences over *action strategies* that may even frustrate some of their immediate appetites. The formation of such mature desires or preferences takes account of three facts:

1. The agent meets resistance and *inhibitions* when she directly pursues her desires;
2. *Conflicting dispositions* and budget constraints restrict the agent’s possibilities;
3. The realisation of desired states may cause significant *side-effects*.

Informed and matured ends may not be strategic concessions made in the light of constraints. When forming desires and purposes of our action we can internalise these limitations. Only this idea is capable of linking instrumental rationality to comprehensive forms of practical reasoning; (Theory of Valuation p. 213):

“The object finally valued as an end to be reached is determined in its concrete makeup by appraisal of existing conditions as means.”

By extension, the costs, sacrifices and the negative side-effects that occur when we pursue our ends do not remain external or juxtaposed to the expected value of reaching those ends. We cannot separate the content of our desires from the instrumental costs of their realisation. (Anderson 2005):

“Practical reasoning does not merely generate new appraisals [judgements on what *should* be valued]; it transforms our prizings [our immediately experienced value-intuitions].”

However, instrumental considerations do not automatically lead to re-evaluations of our ends or desires. E.g. if a waiter tells us that our favourite steak has run out we may order a pie instead, but may do so rather grudgingly, and without adapting our preferences to the new situation.

This observation normally holds only in the short run. Traditional decision-theory can neglect the impact of instrumental conditions on the formation of our purposes only as long as it deals with reasonably small scale and short term decisions of individuals. However, before attempting to disprove this objection, we should ask whether it really casts any doubt on the position defended here. For this we must state more clearly what the purpose of this instrumental theory of valuation is in the present context.

I would first like to state two caveats:

1. I do not argue that we necessarily or always adapt our preferences in the light of instrumental conditions. Indeed, we often make compromises and adapt our instrumental strategies without significantly changing our preference structure.
2. As yet, the discussion says little about *how* we incorporate instrumental constraints into the formation of our preferences. In particular it does not imply that we would necessarily *reduce* our desire for things that are more costly or hard to reach. Instead, my argument claims that preferences are formed in the context of instrumental constraints, and that “[e]ffort, instead of something that comes after desire, is seen to be of the very essence of the tension involved in desire” (TV LW13.205).

The purpose of the discussion so far is the following: I intended to show that instrumental rationality functions as a form of substantial reason because it has the power to produce value judgements. By implication the notion of a purely formal instrumental rationality appears quite untenable. I make the modest claim that instrumental constraints and experience *can* provide material for the intelligent adaptations of our preferences. Instrumental reason plays the role of pointing at ramified consequences of possible conduct, thereby providing a measure for judging our ambitions in a particular context as good or poor.

Value

How can we be sure that instrumental considerations not only *influence* but also *improve* our preferences? And, subsequently, what makes us sure that an improvement in instrumental terms is equivalent to a *moral* achievement?

Dewey’s Theory of Valuation suggests that instrumental considerations of costs and consequences are the measure for the value of our ends. How could Dewey be defended against the challenge that practical judgements based on instrumental reason are either immorally opportunistic or at best haphazard? If the only foundation for an intelligent adaptation of ends is the reflection on possible consequences, what will prevent us from changing our ends and values according to the apparent possibilities of making a gain or

simply avoiding resistance? Evaluation of preferences in terms of costs and consequences could soon become a matter of convenience. Dewey's own writings seem to suggest the latter possibility at times (p.212):

“... [E]nds are appraised in the same evaluations in which things as means are weighed. ... But, when things are weighed as means toward that end, it is found that it will take too much time or too great expenditure of energy to achieve it, or that, if it were attained, it would bring with it certain accompanying inconveniences and the promise of future troubles. It is then appraised and rejected as ‘bad’ end.”

A direct dependence of value-judgements on instrumental possibilities could make an agent vulnerable to a particular form of defeatism. In his famous work “The Fifth Discipline,” Peter Senge (1990) introduces an “archetype” entitled “eroding goals:” an agent, facing resistance to her plans and under-performing on her ambitions, starts setting more modest goals, which, in turn, has a corrosive impact on her performance. “Eroding goals” describes a downward spiral resulting from adjusting goals to the actual performance of our instrumental efforts. Dewey certainly did not have anything like this in mind when he made the process of setting and adjusting ends a function of instrumental considerations. Instead he understood the adaptation of ends with respect to instrumental conditions as an *intelligent* process. Thought experiments, like the one introduced by Senge, would play an important part in prudential instrumental reflections on our strategies and their consequences. Senge's very contribution can function to guard a Deweyan inquirer against reducing ambitions in cases of underperformance.

The question of *how* exactly Dewey envisages employing instrumental reasoning intelligently cannot satisfactorily be answered here: the following two chapters on Dewey's concepts of “imagination” and “inquiry” will clarify how instrumental reasoning allows incorporating the possibilities and expected consequences into present orientations, and how this method promises to improve our orientations and actions.

A note on ends and instrumental reasons in planning

In traditional planning theory incrementalist schools came closest to acknowledging the plasticity and adaptiveness of social preferences and common goals in view of instrumental conditions. However, they refused to challenge the traditional understanding of instrumental rationality as a purely formal and insufficiently practical (substantial) method (Ulrich 1983). Instead of demanding that a new conception of rationality should integrate instrumental *and* normative inquiries, they interpreted the planning process as sequences of small-scale instrumental deliberations with *subsequent* phases of re-evaluation of purposes. This poses two problems:

1. Incrementalists do not satisfactorily explain on what rational grounds we should make adaptations of purposes that will inform the next round of incremental deliberation (or they reject any rational basis for value judgements).
2. The incrementalist model leaves no room for more comprehensive public deliberations on common goods and on complex long term projects. Besides piece-meal adaptations it permits no form of public rationality to establish shared value orientations and common goods. Incrementalists replace the *hierarchical chain model*⁴ with a one-link-at-a-time instrumental rationality, which (intentionally) prevents the formulation of higher ranking goods and the formation of projects to tackle social problems in a comprehensive manner.

Dewey rejects only the *top-down* structure of the hierarchical chain model that takes high ranking ends as starting points and from there deduces intermediary ends and instrumental strategies. According to Dewey the formulation of higher ranking value conceptions follows a bottom-up inquiry process. This process is not a separate value inquiry but a product of intelligent instrumental attempts to deal with a problematic situation.

⁴ See above in this chapter under the heading “Sequential hierarchy”.

This approach resonates well with the frequently expressed intuition that planning starts with messy and insufficiently understood problematic situations rather than with clearly defined problems (cf. discussions of Checkland, Rosenhead and others in chapter 2).

Joas recounts Dewey understanding of "... a reciprocal relationship between an action's end and the means involved" (Joas 1996 p.154):

"In other words, [Dewey] does not presuppose that the actor generally has a clear goal, and that it only remains to make the appropriate choice of means. On the contrary, the goals of actions are usually relatively undefined, and only become more specific as a consequence of the decision to use particular means. Reciprocity of goals and means therefore signifies the interaction of the choice of means and the definition of goals."

Normative principles and faithful pursuit

Instrumental morality

The reference to instrumental intelligence alone does not answer how Dewey copes with the challenge that suspects he opens the floodgates to moral arbitrariness, opportunism, and the degenerative tendencies of instrumental values and ambitions.

Dewey's position regarding these challenges is complex: we do not have authoritative sources of moral laws or practical reason outside our practical experiences and instrumental efforts to solve problematic situations. However, we do not need such moral authorities in order to stop acting as egoists and adopt a socially conscious morality.

Two considerations suggest that moral and un-selfish dispositions can come to us quite naturally:

1. None of our preferences are originally given but instead require a formation process (e.g. through education or instrumental exploration of our possibilities). Hence we cannot assume that we are egoists by default. In fact Dewey holds education, not

natural human inclination, responsible for the level of social and moral commitment we are willing to take. Dewey argues that our identity as individual selves is itself a function of a social formation process. In chapter 7, then, I will clarify that Deweyan rationality (intelligent inquiry into instrumental conditions) should be understood as a collective and communicative method of deliberation. This will help to rebut the common suspicion that pragmatist ethics would promote egoistic tendencies of a capitalistic age, because they subordinate truth and moral values to instrumental and opportunistic possibilities (cf. Russell 1939; Ryan 1995 p.175; see also critics discussed in Saito 2002)

2. Dewey understands moral principles not as constraints but as resources. Exploring the ramified consequences of our actions, and the principles we use to inform them, leads us to a deeper insight into the risks and benefits of responsible conduct. Transforming a narrow self-centred perspective into a disciplined and compassionate civic attitude can be the result of instrumental reflections. The individual knows that it depends on society for a context and condition for its self-realisation (“growth”). It therefore has a strong reason to *consent* to moral norms. How this consent actually translates into rational commitment will be discussed in the next two points.

Consequentialism and commitment

Even though the justification of moral imperatives gains considerable robustness through instrumental reflection, the application of moral imperatives to concrete problematic situations remains always a matter of interpretation (cf. Ethics MW 5, and HNC MW14). The very gist of Dewey’s critique of the “philosophical fallacy” was that no moral rule or imperative can be so general or categorical as to replace the need for a situated judgement of its applicability.

Does pragmatism advise to *reconsider compliance* to once accepted obligations and commitments whenever situations change? Why should agents stay faithful to moral norms and honour commitments? Take classical cooperation problems like contracts with subsequent compliance (cf. Hume 2000 [1739/40]). It is instrumentally expedient to agree

that each party *ought* to contribute their share when their turn has come. But compliance after the other party had done their share is another question altogether. How paradoxical it seems to ground a norm on instrumental reasons alone and still demand compliance where this means violating instrumental intuitions. E.F. McClennen (2004) discussed this problem in his article “The rationality of being guided by rules.” If we accepted the mere existence of a rule or a previous commitment to it as a sufficiently strong reason for our compliance, we may do little better than the famous Baron von Münchhausen, who claimed that he had pulled himself out of the mud by his own shock of hair. (Bratman 1999 calls this fallacy “bootstrapping”).

McClennen rejects such attempts in which the normative appeal of a rule rests on the mere *fact* of a once taken commitment. He follows a strategy to secure the binding power of norms and commitments that is highly compatible with my own project of a pragmatist revision of rationality (McClennen 2004 p.232 italics added):

“... the rule counsels one to choose in a manner that will not always ensure that one chooses in accordance with the balance of [instrumental] reasons that arise within the context of a particular act of choice. Thus accepting such a rule cannot be rationalized within the framework of a compatibilist position.... What drives the argument, then, is not the mere fact of making a commitment to the rule of non-reconsideration, but the *cost-saving consideration behind the making of that commitment.*”

This is a claim in favour of a revised and holistic concept of rationality: The moment we understand how normative decision-theory of individual act maximisation systematically leads us into strategic choice dilemmas that prevent us from reaping certain attainable fruits of cooperation, we do not simply change our strategy but our concept of rational agency itself. Implicit in McClennen’s conclusion is the commitment that whatever definition we may find for instrumental rationality, it cannot compromise the idea that rationality is, at its best, a success promoting norm. In the case of resolute compliance, the “cost-saving consideration” suggests that people who have the ability to cooperate based on mutual trust and reciprocal compliance will systematically realise benefits that single act maximisers

forfeit. This consideration on its own should be reason enough to attribute a higher level of rationality to rule-guided decision-procedures. McClennen would not go as far as Dewey did and claim that the body of norms that define rationality is itself a set of methods or instruments that may be adapted as human environments and practices change. But for now his conclusion will suffice: Instrumental reason does not contradict the commitment to principles and resolute rule-guided choice. *A fortiori*, Dewey's commitment to instrumentalism does not make him a solicitor of opportunism or moral myopia.

Norms and instruments

The cognitive scientist Francesco Varela (1999) claims that "...we acquire our ethical behaviour in much the same way we acquire all other modes of behaviour" (p.24); a view also endorsed in Gigerenzer's (2007) book "Gut Feelings."

Dewey's instrumental ethics does not yield a morality of cold calculations and it abhors rigid instrumental rules and procedures. Varela's book, "Ethical Knowledge," develops a concept of "ethical expertise" that clarifies much of Dewey's thinking without ever referring to his work. Commenting on the classical Chinese philosopher Mencius instead, he explains (p.31):

"... intelligence should guide our actions, but in harmony with the texture of the situation at hand, not in accordance with a set of rules or procedures."

This much I explained above in my discussion of the "philosophical fallacy" already. Varela adds that a truly moral agent will not apply moral rules after calculating the total consequences of acting according to them. Moral rules and norms do not remain external options. Ethical learning involves internalising moral precepts into our dispositions and habits (Varela 1999 p.30):

"...[L]ike an expert embodies his knowledge; the wise man *is* ethical ... his actions arise from inclinations that his disposition produces in response to specific situations."

Dewey sees the end of ethical inquiry as the formation of moral habits and dispositions, and not merely as finding instrumental fixes to individual situations (cf. HNC, MW14).

One dilemma arises from this notion in conjunction with Dewey's idea that the application of a norm is never a matter of course, but always demands a situated judgement. Either we apply normative rules habitually, in which case we do not inquire into the particular instrumental conditions of a situation, or we deliberate consciously on the pros and cons and consequences of applying a rule, without following internalised habits.

Again Varela offers the best explanation of the Deweyan position. It follows from calling the moral agent an "ethical expert" rather than a creature of habit. He sees the "middle way between spontaneity and rational calculation" (p.31) as the ability to act spontaneously upon *recognising* or *identifying* a situation. Here identifying means more than judging its conformance with a list of criteria that make a rule applicable. We must grasp the particular quality and character of a situation and its "correspondences and affinities" (Varela 1999 p.28) in order to act spontaneously in the *right* way. Varela concludes (p.29):

"For the truly virtuous then, moral judgement that results in immediate and spontaneous moral action is not different from true description."

This convergence between epistemic and ethical forms of orientation is an essential conclusion in my thesis. It first emerged in the previous chapter while discussing the practical character of all epistemic categories. I have pursued it throughout the present review of the idea that instrumental reasoning has an irreducibly ethical character.

How can we distinguish spontaneous acts that spring from moral dispositions and ethical expertise from a mechanical following of ossified rules? Varela answers that we are able to analyse and explain the instrumental point of our decisions *ex post actu*, i.e. we can "reconstruct the intelligent awareness that justifies the action" (Varela 1999 p.32).

Dewey does not spend much time arguing in favour of particular items of individual moral conduct or dispositions. Instead he emphasises the importance of improving the social organisation of moral inquiry. Crucial for this is the design of education- and civil society institutions (Anderson 2005), which will be addressed in later chapters.

Ends in Action

The question of whether Dewey's reciprocal means-ends model allows for a committed pursuit of strategies must not only concern ethicists. If ends are under constant revision, practitioners and planners face enormous problems, particularly in the realisation of very complicated technical projects.

The Scottish Parliament Building was inaugurated in October 2004, after seven years of planning and construction. Its costs amounted to the famous sum of £430 million, still excluding an estimated £40 million to resolve subsequent problems. With this figure the Scottish Parliament exceeded its original budget of £55 million (from July 1998) by approximately 415 million pounds.

The Guardian quotes David Lewis, an engineer and expert witness, as saying that “delays and price rises...were caused by a lack of control over the design, late delivery of drawings by the architects, the sheer complexity of the building and ever-increasing anti-terrorist measures.” Lewis said that “it was not clear who was responsible for controlling the design process.” Enric Miralles, the architect in charge of the project, died during construction, but it is said that he added changes to the design right until his death (Glancey 2004). The contractors, the Scottish Parliament and the governing bodies in charge also requested changes in the original design. For example, the size of the building was increased by 47% and expensive security measures were added. If we believe the Wikipedia entry from 28 April 2006 entitled “Scottish Parliament Building,” then “by May 2004 the architects had issued around 18,000 orders for changes in the design.”

This public construction project may give a taste for just how awry planning can go if the definition of an end is kept free floating and adjustable during the planning process. Nevertheless it would be wrong to use this example against Dewey's theory which allows ends to evolve during planning processes. It is evident that a very important precept of John Dewey's theory on the revision of ends had been flagrantly violated, namely that ends

should be adapted *in the light of instrumental conditions*. The flaw was precisely that consideration of the means had either no or too little influence on adaptations of the plan-design.

Moreover, according to Lord Fraser's report, one of the main shortcomings in the planning process was "the insistence on a rigid programme. Officials decided that rapid delivery of the new building was to be the priority, but that quality should be maintained. It was therefore inevitable that the cost would suffer" (Wikipedia 2006, as just quoted). This "rigid programme" is what Dewey specifically objects to because it fixes goal-dimensions, and thereby makes it impossible to make reasonable adjustments to a project in light of spiralling costs.

On the other hand there is surely a point to be made in favour of some stamina in the persecution of once adopted goals. Particularly in complicated long term planning enterprises like construction projects, many modular contributions have to be assembled and a large number of processes coordinated. If we think of the example of building a bridge, all these processes and contributions can only be coordinated with reference to an envisaged and precisely defined end state. The goal (a serviceable suspension bridge) must be kept exactly the same in its design if we want the ordered components and materials to fit together.

How then are ends affirmed and what role do they play in action other than rendering themselves flexible and adaptable to changing conditions?

Ends and ending points

Separating instrumental rationality from the ethical problem of defining ends is an anathema for Dewey because it isolates one ultimate value premise from the creative process of valuation that takes place within action and deliberation. For Dewey this idea makes sense neither as an empirical-explanatory tool nor as a logical demand. However, we do need a point at which to bring our deliberation to an end. Without this we would be

trapped in infinite regresses, like children who rebel against a parental decree by requesting ever more teleological justifications: ‘Why must I go to school? Why do I have to learn something? Why do I have to cater for myself when I grow up?’

As Mitchell states, commenting on Dewey, “We bring deliberation to a stop by an impulsive, but enlightened, choice” (Mitchell 1945 p. 293). The question is therefore what role and status should we give those emphatic ending points of means-ends chains in our justifications?

Dewey himself states (TV LW13.231):

“... there is no end which is not in turn a means, foresight has no place at which it can stop, and no end-in-view can be formed except by the most arbitrary of acts...”

He then explains (TV LW13.231):

“A value is *final* in the sense that it presents the conclusion of a process of analytic appraisals of conditions operating in a concrete case, the conditions including impulses and desires on one side and external conditions on the other...value that is correlated with the *last* desire formed in the process of valuation is, tautologically, ultimate for that particular situation... There is a fundamental difference between a final property or a quality of finality.”

What Dewey offers is more than an arbitrary commitment to break the regress of ever possible ends re-evaluation: we neither adopt nor adapt ends merely because it is possible to do so. As discussed earlier, deliberating over ends and purposes is embedded in the context of particular problematic situations. Ends that we formulate are always meant to be steps toward the resolution of such problematic situations. Ends are only good in so far as they help to coordinate action. The criterion is therefore not whether an end will lead toward a defined state of satisfaction, but whether the end is formed so as to deal with some imbalance or dissonance in our habitual coordination; (TV LW13.232):

“The ‘value’ of different ends that suggest themselves is estimated or measured by the capacity they exhibit to guide action in making good, *satisfying*, in its literal sense, existing lacks.”

It is therefore of great importance that Dewey’s categories of “lack,” “inhibition,” “indeterminate” or “problematic situation” *cannot* be translated into the positive formulation of an end. This follows from the idea that ends are only the creative *products* of deliberation and valuation processes. I will explore this idea more thoroughly in the chapter entitled “Situation and Inquiry.” We can say that defining a problem or an end is the same as “creating a problem,” which is far from “creating a problematic situation”! Ends are means that help define a predicament and coordinate steps toward its resolution by creating problems that can be dealt with out of “indeterminate situations.” The setting of ends thereby receive a distinctly functional interpretation.

Needs, growth and functions

Such a functional interpretation of ends is quite problematic. A function is a trait that seems to presuppose a system with certain needs or requirements that the function serves to maintain. The question is therefore what are these system “purposes” or “needs” which ends are there to serve? N.B. we have just defended the claim that reflection on the way our ends and dispositions perform within the context of a situation is all we have as a foundation for their normative appeal. This led to the conclusion that ends cannot have their normative appeal from goods or moral principles beyond their functioning in concrete situations. However, if ends function in some way as enabling conditions, what exactly do they enable? (RP MW 12.181):

“The end is no longer a terminus or limit to be reached. It is the active process of transforming the existent situation. Not perfection as a final goal, but the ever-enduring process of perfection, maturing refining is the aim of living. Honesty, industry, temperance, justice, like health, wealth, and learning, are not goods to be possessed as

they would be if they expressed fixed ends to be attained. They are directions of change in the quality of experience. *Growth itself is the only moral 'end.'*”

Dewey's concept of “growth” may sound like a placeholder for an ultimate purpose that allows us to distinguish good functional ends and purposes from bad ends and malfunctions. But it would be a mistake to use growth as a makeshift highest value principle compatible with a first premise in the hierarchical chain model of deductive instrumental reasoning. “Growth” for Dewey is not a purpose *behind* function of ends. What defines “growth” as a purpose is itself the ability to adapt and adjust and coordinate “functionings”⁵ within changing situations. I.e. growth is not a purpose behind functions but is defined in terms of those functions themselves. (Psychology, EW 2.318):

“Each end is referable to a higher end, which, stated in most general form, is self-realisation [a term that Dewey later drops in favour of “growth”]. All acts are means to [the] self for its own realization; yet it must be remembered that this self-realization is not a last term over and beyond the means, but is only the organized harmonious system of means. It is means taken in their wholeness.”

Joas likens Dewey's disavowal of a means-ends scheme that leads up to ultimate purposes to a conceptual distinction that Heidegger introduced in his analysis of our relationship to death (Joas 1996 p.156):

“Heidegger argues that we do not rush from one action to the next in order to reach the goal we have been striving for at the end of our lives. If we wish to understand our relationship to ourselves and to our lives as a whole we need to invoke categories of a totally different nature, categories which Heidegger defines as ‘for the sake of’, as opposed to ‘in order to’^[6]...”

⁵ A Deweyan concept which A.K. Sen later uses and which already in Dewey's work bears great similarity with Sen's “capabilities.”

⁶ “*Um-willen*” rather than “*um-zu*...”

This, however, does not answer a number of questions: what exactly is the position of ends in action? Does Dewey's theory not allow us to see ends as reached, fulfilled, achieved, or enjoyed end-states of our actions? People work assiduously hard to reach their goals, and it would be patronising to say that their goals have no meaning anymore once they are achieved. This would imply that the end states of people's aspirations are illusory. A less patronising version of this idea may be found in East Asian wisdom that "the way is the goal."

At this point it is helpful to look at a conceptual distinction that Dewey introduces within our talk about ends. When we say "end" we can mean either of two things:

1. *Ends as termini* of our action are states achieved and enjoyed.
2. *Ends-in-view*, in contrast, are aims and goals as we adopt them within the course of our actions.

This distinction is fundamental for understanding Dewey's agency theory.

Ends as termini

"Consummatory experiences" are those phases of action where we experience "direct appreciative enjoyment" (EN LW1.73). Dewey identifies these as the successfully achieved ends of labour and effort. Of course this does not leave him in the proximity of utilitarians, who he accuses of depreciating the means for reaching the state of enjoyment and thereby betraying the value of the end as well (cf. "Means and Ends" and QC LW4.215).

Dewey's agency theory allows for no separation of employed means and enjoyed consummatory experience. The latter are sufficiently defined as the coordinated use of instruments. What distinguishes work from leisure and effort from achievement is not that the former employ instruments to cause some self-sufficient states in consequence (as Utilitarians would hold). We have already discussed the transactive nature of all experience (cf. chapter 3), and we will continue to do so in the chapter 6: Consummatory experience is not a private mental state but a form of transaction in which agent and environment are

effortlessly unified and means and instruments are free from tensions and inhibitions; (TV LW13.234):

“The attained end or consequence is always an organization of activities...The form or an attained end is always the same: an adequate coordination.”

Consummatory experience, the end of all labour and effort, is itself a harmonious, enjoyed, and instrumental activity.

However, realised ends (“ends as termini”) are not exhausted by the immediacy of consummatory experiences. Our labour produces objects and conditions that we call the products of our efforts. Dewey frequently uses the example of building a house: the end as the terminus of effort and construction is not merely enjoyment, but an edifice.

The building itself is an enabling condition for further activities, such as dwelling, cooking, and raising children (HNC MW14.184). As an object it never leaves the context of instrumental activity. What defines a house as an end is the same thing that defines it as an enabling condition or a means for further activity. The object as an end must be reinterpreted as a factor to facilitate further transactions. In this respect, instrumental and terminal categories also coincide with each other in Dewey’s work.

Ends-in-view

Ends that guide our planning, deliberating, and acting are very different from ends as the achieved “termini.” Dewey gives the name “ends-in-view” to those guiding ideas that are present in our actions.

One of the most pervasive failings of traditional agency theory is that it does not make this distinction, or that it reduces the distinction between ends attained and ends-in-view to the difference between a future state *anticipated* and its *realisation* after successful instrumental action. For Dewey the difference between ends attained and ends-in-view is not the one between an *idea about the future* and the *realisation of this idea*.

Ends-in-view, goals, and plans have their entire existence in the present. It is trivial to say that a plan is only an idea that we have well before we realise any part of it. Dewey contends that the *object* of a plan, end or goal is a thing of the present, or better yet of a current context of activity. This means that the content of a plan is not adequately characterised as a vision of the future. Although the anticipation of a future state may be the way that a goal becomes intelligible to us, Dewey maintains that (EN LW1.280)

“[t]he end-in-view is a plan which is contemporaneously *operative* in selecting and arranging materials.”

He defines the meaning of an event or object as something that reaches beyond the immediacy of qualitative experience (present in senses or current transactions). Meanings point to the future in an “*operative*” sense. If current objects have meaning, they refer to subsequent acts and coordinations.⁷ The *meaning* of an aspired end or plan refers to a coordination of subsequent action. The idea of an end-state gives coherence to such coordination efforts in the present, or in Dewey’s own words, “[t]he content of an end as an object *held in view* is ... *methodological*” (TV234, my italics). In this precise sense ends-in-view have their object (meaning) not in future ideal-states: they do not reach out for realised end-states, but only use ideals to coordinate much more immediate action; (Means and Ends, LW13.351):

“The end in view is thus itself a means for directing action.”

To understand the role of ends in our actions we must therefore see how ends-in-view function, and not succumb to the temptation of identifying their meaning for the agent with distant scenarios or castles in the clouds.

⁷ I discussed Dewey’s concept of meaning in more detail in Chapter 3.

Ends and their functions

How, then, do ends-in-view function? I suggest distinguishing between four types of contributions that ends-in-view make to the success of our action. This list is not meant to be exhaustive and is only partly based on Dewey's own thought.

Selection and reduction of complexity

As I argued earlier, we cannot presuppose defined ends at the outset of our action and deliberation processes. We often begin our actions before we know what we want to do. Situations do not come neatly ordered into 'things to do' and 'means with which to do them.' We have to create these labels ourselves by and through our agency. As said earlier, "...men did not begin to shoot because there were ready-made targets to aim at. They made thing into targets by shooting at them..." (HNC MW14.159).

'Unified' situations are settled and marked by a high degree of complexity: They accommodate all possible influences and favour or reject none. The introduction of a difference between means and ends reduces this complexity. Out of the vast number of consequences that each motion has, it singles out those that are of interest and creates one salient perspective that focuses on a goal. In his dissertation on Dewey's concept of experience, Bernd Goetz writes that the agent has to (Goetz 1970 p.192, my translation)

"...develop means-ends relations out of an infinite space of possibilities that help him to relate and mediate past and future, memory and purposes..."

This selection- or complexity-reduction function of Dewey's ends-in-view overlaps with some aspects of Nicklas Luhmann's theory (Luhmann 1968 p.21, my translation, emphasis added):

"If we interpret agency as causal process, we must understand the point at which we make a choice as a reduction of the infinity of possibilities to one single option or outcome... also the setting of ends and the formulation of values may be explained in

this functional perspective. They serve to selectively stabilise a narrow definition of *relevant* causes and effects.”

Luhmann claims that organisations and administrations cannot be explained or understood by stating purposes as their *raison d'être*. Organisations do not exist in order to serve purposes. In his *structural-functionalist* framework Luhmann seeks to understand the “coding” of administrative processes in means-ends chains as a function of self-maintenance that organised systems produce in order to create and reproduce their “auto-poetic” organisation. Luhmann’s disembodied social systems, which exist only as self-referential structures of communication to which even brains and minds count as “environment,” may appear esoteric to a pragmatic naturalist. His insight about the function of ends and purposes in organisations, however, is valuable. It helps us understand and de-mask the self-perpetuating tendencies of bureaucratic realities. It also provides a very dense theoretical groundwork for a functional understanding of ends in action.⁸

Interpretation and intelligibility

In the above-referenced contribution, Joas claims that accounts of action do not *per se* proceed along the lines of the means-ends scheme. Means and ends are ways in which we interpret our situations and explain our own actions to ourselves and to others. These interpretations are not without alternatives (cf. Joas 1996 p.148).

Ends can confer intelligibility to our actions, which is a property that closely relates to their organising function (see below). Ends create coherence in a series of interrelated acts. We can then understand these often diverse acts as a consistent system guided by one purpose. Actions as different as washing carrots, boiling potatoes, applying lipstick and laying the table make sense when seen in the light of preparing for a dinner party.

⁸ See also Joas (1996, pp. 149-153) for a discussion of Luhmann in the context of Dewey’ theory of ends and purposes.

Organising function

The change of perspective from ends as idealised future states to ends-in-view as working, operating factors within an action has permeated this entire chapter. It will therefore be enough at this point to characterise this eminently important *organising function* in a short quote from Dewey's Theory of Valuation (TV LW13.234):

“The *end-in-view* is that particular activity [sic!] which operates as a coordinating factor of all other sub-activities involved. Recognition of the end as a coordination or unified organization of activities, and of the end-in-view as the special activity which is the means of effecting this coordination, does away with any appearance of [the] paradox that seems to be attached to the idea of a temporal continuum of activities in which each successive stage is equally end and means.”

Stabilising function and flexibility

An end-in-view is a function, not a precondition, of action. Revising an end does not necessarily mean giving up on one's course of action or starting another one. It can be the logical continuation of one agency process.

For an adequate organisation of coordination it is important to strike the right balance between goal-pursuit and goal-adjustment. Understanding ends in their functional role within agency makes it easier to strike this balance; ends are only as good as the functions they fulfil, and reasonable adjustment is necessary if ends are not able to organise and coordinate agency. Pursuit of an end or vision against all odds can lead to the most astonishing human achievements. Werner Herzog's film “Fitzcarraldo” tells the story of carrying an entire opera house into the Amazon jungle. And the story of the making of this film is just as impressive as the story that the film itself tells. There are, however, other cases where the inflexibility of adapting goals to possibilities led to catastrophe. Mao's great leap to reach the end-state of communism within five years, or the English-French joint venture of building the Concord (Hall 1981) are examples of situations where ends remained fixed despite their inability to organise and coordinate human behaviour.

Conclusion

This chapter challenges the view that we can separate our concern about ultimate ends and final purposes from technical or instrumental considerations. It counters the thesis that instrumental rationality can be understood as a moral-free zone, or as an algorithmic template that defines an efficient strategy for any pair of ends and available means. Here I challenged the understanding of a morally blind instrumental rationality by asking questions like where do final ends come from, and how do the origins of final purposes relate to their instrumental conditions.

Following Dewey, I argued that ultimate purposes are pretentious or meaningless if understood separately from concrete situational and instrumental conditions. I discussed Dewey's view of the formation of ends, in which final purposes are more than contingently related to instrumental considerations. Ultimate purposes and the ends we embrace to reach them do not descend from a Mount Sinai (TV LW13.219), nor are they given by direct intuition. Instead they rely on judgements made in the view of instrumental experience.

This insight was the touchstone that broke down the separation between means and ends as distinct and unbridgeable categories (P EW2.318)

“It is evident that the end is not something intrinsically different from the means; it is the means taken as a harmoniously manifested whole. The means, on the other hand, are something more than precedents to an end. The first means, the plans, are only the end in its simplest, most immediate form, and the next means are an expansion of this, while the final means are identical with the end. When we look at the act as a realized whole, we call it end, when we look at it in process of realization, partially made out, we call it *means*. But the action of the intellect is requisite to analyze the end, the whole, into its means, the component factors.”

Is it enough to show ends as sensitive to instrumental considerations and to determine the exact position of ends and evaluations as constitutive parts of unfolding courses of agency

to reject the idea of a pure instrumental rationality? Can we conclude that no mode of reasoning that operates independently of the moral content of its input variables is possible? This conclusion seems likely at the present point, but we will have to wait for the following chapter to understand it fully.

Part III

Intelligence: Developing Deweyan Concept of Rationality

Chapter 5: Imagination in the Deliberation Process

*...[O]nly imaginative vision elicits the possibilities
that are interwoven within the texture of the actual*

John Dewey¹

Introduction

The history of occidental philosophy has left the human soul deeply cut and bruised, if not forever parted. In the beginnings of our common record Plato severed the soul from the body and sliced it into three domains. He did so with the intent of erecting a stable hierarchy between all resulting pieces, whereby the soulless body had to take potluck with the lowest rank. Faculties that were often translated as “reason,” “courage,” and “appetites” described the remaining domains of the soul. As Plato himself proposed, his incisions had momentous consequences beyond our understanding of the human psyche. These affected the way economic and political life was construed as suspended in permanent “natural” hierarchies. It also left a lasting imprint on our understanding of rational deliberation in both individual and political decision processes. Aristotle tried to remedy Plato’s separation of soul and body (with little success when judged by the influence on the subsequent commonsense), yet he remained loyal to Plato’s tripartite division between an appetitive (vegetative/nutritional), a spirited/attitudinal, and a reflective rational faculty of the soul.

This separation of human mental and psychological faculties into emotive and rational/cognitive segments was exacerbated by modern day philosophers. Kant distinguished human rational autonomy from all volitional impulses and appetitive factors. Hume (2000 [1739/40]) denied passions access to higher forms of (instrumental)

¹ AE, LW10.348

deliberation, with the consequence that even his artifice of reason being “the slave of passions” did nothing to overturn the hierarchy between rational and emotional capacities. Under Hume’s hand, rationality finally received its definition as “instrumental” and “hypothetical” reasoning, which to the present day provides the most widespread understanding of what constitutes excellence in professional strategy building and decision-making.

As Dewey emphasised, all distinctions we make are distinctions we *make*: they represent possibilities, not necessities which ‘carve the human nature at its joints’ (using Plato’s metaphor); being *tools* for structuring experience and facilitating deliberation and action processes (not representations of psychological facts), these distinctions must be adapted to the particular contexts and tasks at hand, or can, if the circumstances demand, be overturned altogether.

Dewey devoted much of his earliest published work (“Psychology”) to the question of what constitutes the will and how best to account for active deliberation processes. He argued that

“The will (as far as physical control is concerned) is the body, so far as this is organized so as to be capable of performing certain specific and complex acts.” (P, EW 2.328)

One of his great influences at that point of his career was the philosopher T.H. Green, who wrote (Green 1883 p. 158):

“Will is ... equally and indistinguishable desire and thought – not however mere desire or mere thought. ... but desire and thought as they are involved in the direction of a self-distinguishing and self-seeking subject to the realization of an idea... The will is simply the man, Any act of will is the expression of the man as he at the time is.”

However, turning categories that were only *invented* as tools for organising experience and coordinating action into rigid schisms seems like the smaller of two sacrileges. The

‘original sin’ was committed by an uncompromising super-ordination of analytic, deductive or calculating forms of rationality over other psychological capacities (like intuition, aesthetic comprehension, empathy or lateral modes of thinking). This has left us with a stunted image of deliberation, and with a definition of the standards of excellence in decision-making that fails to do justice to the whole spectrum of human faculties. Traditional accounts of rationality often fail to foster human creativity and potentials, particularly when faced with complex problem situations, of which the current world holds plenty. Historically the concepts of ‘rationality’ and ‘creativity’ were often used as antonyms (cf. Joas 1996; Schipper 2001).

Perhaps it is time to re-think the distinctions between rational-analytic and other forms of deliberative intelligence. In the present contribution I aim to show what a revision of intelligent deliberation would look like if it were to integrate other psychological capacities. This is not equivalent to asking about the intelligence of emotions, passions or intuitions. I do not investigate how emotions can contribute to rational deliberation as an intelligent resource. The purpose here is to cast out a pragmatist notion or framework of deliberation which is able to accommodate the category of emotion as a constitutive aspect. It aims, in short, to create room for emotion and other neglected categories *within* the core definition of deliberative rational intelligence.

This transformation is born out of necessity rather than choice. The possibility of making a deductive and purely formal instrumental rationality the final arbiter of intelligent deliberation has been shattered by John Dewey. But his critique of Humean instrumental rationality and agency has created a gap, which the concept of “imagination” is meant to close. If ‘ends’ and ‘means’ were really the products rather than pre-conditions of (creative) agency, what can we then mean by choosing rationally? I.e. what is left to deliberate with?

This chapter begins by outlining a revised notion of a creative, self-forming, and self-legislating intelligence that draws upon the entire spectrum of human psychological capacities, whereby it uses John Dewey as its key witness. In a second part the concept of “imagination” will be discussed in its *projective, temporally complex, aesthetic, intuitive*

legislative, narrative, affective and *creative* dimensions, as a foundation for a new account of deliberative excellence.

A Question

The previous two chapters investigated Dewey's invaluable contribution to agency theory, which can be read as a direct critique or even a reversal of the Humean Folk-Model. While the latter assumes "resources" and "guides" (or *means* and *ends*) as causal or logical antecedents in the formation of agency, Dewey understand such distinctions as purely instrumental operations the agent performs *during* her course of agency. The logic of deliberate agency for Dewey follows a pattern of inquiry (cf. chapter 6) rather than a deduction from such a pair of premises. In reversal of the Folk-Model, the positions of "resources" and "guides" within Dewey's agency model would have to be visualised as below.

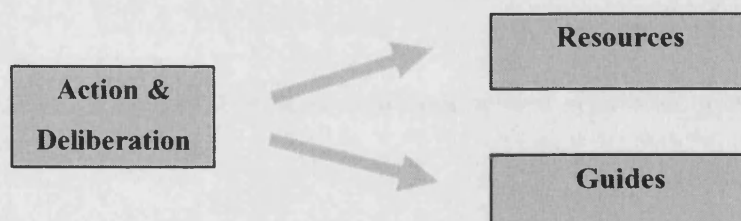


Figure 5.1 Dewey's reversal of the Folk-Model

This conclusion was prepared and explained during the previous two chapters. Dewey's theory helps us to understand better the formation of our instrumental cognitions and value-orientations. It also accounts for the position of means and ends within unfolding human agency. In particular it identifies the functional character of all ends and value propositions. For Dewey, rational deliberation is a self-forming creative process of inquiry rather than a mechanical form of deduction from premises. Yet, what will distinguish deliberation as

rational or *intelligent*, if we can neither rely on instrumental calculations from means and ends premises, nor on other given normative fix-points? Is deliberation doomed to be arbitrary or are there *other resources* that an intelligent process could draw upon in the absence of clearly defined preference- and constraint sets?

Dewey's conception of evolving purposes poses new problems which appear even more virulent than those of a reductive instrumental ideal of rationality. *How* do we evaluate our ends? What distinguishes a good adaptation from a bad one? Dewey claims that even moral rules and normative principles have no authoritative claim on their own, save that agents understand and *judge* concrete situations as cases where such norms and principles find application (cf. E rev §5, LW 7). If we are at liberty to employ or reject normative philosophical frameworks according to the needs and demands of a situation, what means do we have for judging whether or not a particular principle finds application? The previous chapter suggested that we evaluate ends in view of instrumental possibilities and constraints.

The danger is that our reasoning loses contours where we allow for too many reciprocal relationships and dependencies between *means* and *ends*, *norms* and *situations*, or *agents* and *transactions*.

It is not a blind trial and error procedure that Dewey advocates, but the "*method of intelligence*" – a method capable of understanding the *consequences* and ramifications of our conduct, and incorporating these insights into the organisation of our activity. This capacity is insufficiently defined as long as it remains mysterious just how the understanding of consequences is to be reached and how it is incorporated into our actions.

The problem can be narrowed down to the question: how can deliberation rationally and intelligently proceed where *means* and *ends* are no longer strictly divided categories, where instead inquiry into means is the method of developing ends? What is rational or *intelligent* deliberation if its measure is not reaching a preordained goal under conditions of given means and budgetary constraints?

The rest of this chapter will be divided into two parts. First, I will introduce Dewey's project of defining a form of deliberative intelligence which is markedly different from Humean or "calculating" models of instrumental rationality. This serves to trace systematically what position "imagination" should occupy within rational deliberation. I will then attempt a comprehensive faceted definition of this notion of "imagination."

Dewey's Argument

The "calculating" model

Jon Elster, one of the most notable contemporary writers on deliberative rationality in the Humean tradition, characterises the structure of rational agency with the following scheme (Elster 1991; 1996; 2006):

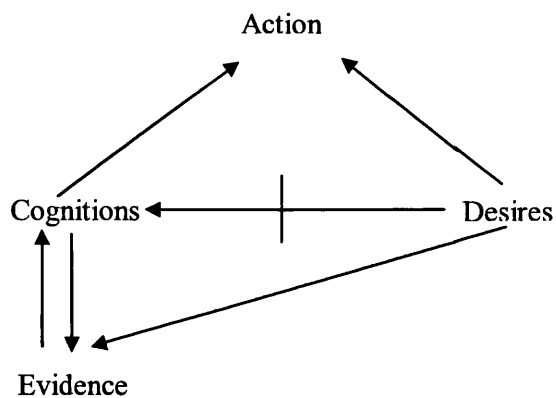


Figure 5.2: Elster's model of deliberative rationality

A pair of cognitions and desires allows instrumental judgements about courses of action (as in Figure 1.1). The severed link between desires and cognitions reflects Hume's argument that reason can only be "the servant of passions" if is allowed to work uninhibited by emotions, passions or desires. We would otherwise risk committing fallacies like "wishful thinking," "excess of will," hasty action by feelings of "urgency," or "impatient" decisions in favour of immediate rather than deferred gratification.² Elster outlines the *rational* model as one which remains undistorted by direct emotional causation on beliefs, reasoning or action (Elster 2006). Frits Schipper calls this the "algorithmic" view of rationality (Schipper 2001), which Dewey coined the "calculating" model.

In the Humean model the link between "cognition" and "desire" should be severed in both directions. This holds as long as we insist that an instrumental deliberation should conclude with an unambiguous rational *judgement*. The model relies on relatively stable desires or ends as a standard for an instrumentally rational judgement. If we relaxed this demand then instrumental rationality would potentially fall into a regress: instrumental deliberation would have to be repeated continuously, considering its own effect on its premises.

Dewey's concern

Ironically Dewey begins his critique of the Humean model with a distinctly Humean claim (cf. Hume 2000 [1739/40] particularly p.413). He says that only passions have the power to motivate our actions (Ethics revised LW 7.269):

"cold blooded' thought may reach a correct conclusion, but if a person remains anti-pathetic or indifferent to the consideration presented to him in a rational way, they will not stir him to act in accord with them."

He specifies that only *present* impulses have the power to motivate action, and therefore deliberation cannot concern itself only with "remote, inaccessible and indeterminate

² However, desires will legitimately initiate and motivate inquiry (the search for "evidence" to support our beliefs).

results” (HNC MW 14.141). “The present, not the future, is ours” (MW 14.144). However, the “calculating model” seems to assume that arithmetic calculation of some future amount of gratification could constitute a motivational cause in the present by means of reasoned anticipation. This clearly contradicts the insight that the presently merely *anticipated quantity* of a future *quality* never has the power to motivate us *now*, unless it translates itself into a *present quality*. One may interpret this as the idea that the *act* of anticipating not the anticipated future *object* alone is of present quality.

For Dewey anticipation is not what gives rise to present impulses, because the latter are already present and active, even though they may be undirected, partly conflicting, and often misguided (HNC MW 14.134):³

“Choice is not the emergence of preference out of indifference. It is the emergence of a unified preference out of competing preferences.”

The consequence of this idea is not necessarily a form of hedonism that yields only to immediate appetites. Deliberation is therefore not limited to determining which of our appetites is currently the strongest, in order to go for it. We can and should ponder the future consequences of present action in our deliberation. This, however, happens in a different vein than in the Humean “calculating” model (HNC, MW 14.143):

“...the object of foresight of consequences is not to predict the future. It is to ascertain the meaning of present activities and to secure, so far as possible, a present activity with a unified meaning.”

This formulation needs explanation:

³ This does not contradict the fact that we also have phases of rest, or that sometimes a sudden stimulus will initiate a course of rapid activity. In his seminal contribution on the reflex arc concept in psychology Dewey shows that we are always co-authors of what we call a “stimulus” because “hearing” or “seeing” are perceptual *activities*. Perceiving the stimulus is indeed part of our response action. Dewey also emphasises that even rest is a form of activity which becomes only transformed through the stimulus.

1. Deliberation tests out the “meanings” of our present impulses and intentions: Dewey says that by deliberating, we attempt to understand how a hypothetical situation would *unfold* if we acted upon one of the conflicting sets of intentions. Dewey characterises this understanding of deliberation as “imagination.”

2. Activity is “unified” for Dewey when our various impulses and intentions, directly and without conflict, give way to one coherent course of action, i.e. when all our intentions build a working harmony. Often, however, we find that several of our impulses and intentions contradict each other. For Dewey, this is the occasion to begin deliberation.

Deliberation as a continuous exercise

Deliberation is not about the comparison of two points in time, one in the present and the other in a hypothetically better future. It is therefore also not an attempt to describe a feasible path from the former to the latter, which a single judgement could fix and prescribe. For Dewey deliberation creates continuity from the present to the future. Deliberation reaches out by hypothetically following present tendencies and impulses and observes their capacities to change our situation. In one word, present activities are not deduced *from* the future, but the future will be (imaginatively) explored by investigating the present and its inherent meanings. Imagination is the human capacity to “give way, *in our mind*, to some impulse” (Ethics MW 5.293), and watch a hypothetical situation unfold.

Dewey embraces the consequence that we may never reach a *point* of decision, where given ends and instrumental considerations allow a judgement on what must be done to reach a prescribed future state (HNC MW14.144).

“Even the most comprehensive deliberation leading to the most momentous choice only fixes a disposition which has to be continuously applied in new and unforeseen conditions, re-adapted by future deliberations.”

Imagination, even if it explores tendencies and future scenarios, remains concerned with the task of harmonising (adapting, transforming, coordinating) “confusions and uncertainty in present activity.” (HNC MW14.144)

Imagination and emotion in reason

What is imagination? I will spend most of the remaining chapter attempting to define and explore this complex concept. Often Dewey *identifies* deliberation with imagination; I prefer to treat imagination a central aspect of deliberation.⁴ We go beyond our initial impulses by making active thought experiments. We continue their potential trajectories, imagining what scenarios would occur if they could unfold their paths. And we do so by imaginatively living through the qualitative changes that our situation would undergo. This notion has a significant impact on our concept of reasoning (E, MW 5.292):

“Deliberation is dramatic and active, not mathematical and impersonal; and hence it has the intuitive, the direct factor in it.”

Distinctive of Dewey’s notion of practical reasoning, when compared with the deductive “calculating” model, is that emotions play a constitutive role in *conducting* deliberation, because the imaginative exploration is imbued with feelings and other qualities.

At this point we see just how radically Dewey breaks with the Humean “calculating” model. Remember that Dewey claimed (like Hume) that only present impulses have the power to motivate action. If we insist that reason has any bearing on our actions, i.e. that we are guided by an intelligent faculty which reaches beyond present experience, then we first have to reconcile reason with passion (HNC MW14.135):

⁴ Other aspects of reasoning, even though they may never be sharply separated from imagination, deserve discussion in their own right. Examples could be abstract ethical argumentation or formal and deductive reasoning.

“... reasonableness is in fact a quality of an effective relationship among desires rather than a thing opposed to desire.”

Half a page later he adds (p.136, italics added):

“Rationality ... is not a force to evoke against impulse and habit. It *is* the attainment of a working harmony among diverse desires.”

Emotional categories like impulses and passions therefore provide the very fabric out of which reason and rationality are tailored.

Dewey summarises this argument in the following quote from “Ethics” (E, MW5.292/3):

“[We are reasonable when we] estimate the import or significance of any present desire or impulse by forecasting what it would come or amount to if carried out.... Every foreseen result at once stirs our present affections, our likes and dislikes, our desires and aversions. But if ... their picturing did not at once arouse a present sense of ... fulfilment, or of dissatisfaction ... the process of thinking out these consequences would be barren of influence upon behaviour... [to] every foreseen result ... [t]here is developed a running commentary that stamps values at once...”

This idea intends to mend the broken link between instrumental “cognition” and “desires” in the Humean rationality model.

Reason and value

Imagination transforms impulses which then form our practical dispositions and habits. By way of dramatic imaginative rehearsal we gain a living picture of complex and looming consequences inherent in our present intentions; we live through sequences of action in dynamic situations, and we thereby ponder the value of our initial desires. Our desires and initial preferences are, Dewey claims, susceptible to the outcomes of our imaginative

thought experience. This insight is directly opposed to the Benthamite idea that pleasure and pain are “supreme masters,” also expressed in the proverb “tastes cannot be debated.” Imagination thus leads us from mere “*appetites*” to “*appreciation*,” a distinction Dewey introduces in order to make a distinction between initial “brute” volitional impulses and informed and adapted preferences, which reflect how *worthy* an option is of being pursued.

Reason itself a variable

If it is the office of deliberation to scrutinise and thereby transform present impulses until a viable working harmony is created, then “[r]eason’ is not an antecedent force which serves as a panacea” (HNC MW14.137). It is not a template that we use regardless of the content of our aims or the emotional quality of our situation (HNC MW14.137):

“It is a laborious achievement of habit needing to be continually worked over. A balanced arrangement of propulsive activities manifested in deliberation – namely reason – depends upon a sensitive and proportionate emotional sensitiveness.”

Above I discussed the idea that decision-making, is not well characterised as a point at which we draw conclusions from our knowledge and preferences about the future, but that it is instead a continuous process of adjusting, or training our intentions and impulses. Reason itself takes the form of a continuous process of *reasoning*, a practice that underlies changes just as our situations do (HNC MW14.136/7):

“Reason, the rational attitude, is the resulting disposition, not a ready-made antecedent which can be invoked at will and set into movement.”

If it therefore follows that “...reasonableness is in fact a quality of an effective relationship among desires rather than a thing opposed to desire...” (HNC MW14.135), then Dewey seems justified in saying that (HNC MW14.135/6):

“The conclusion is not that the emotional, passionate phase of action can be or should be eliminated in behalf of a bloodless reason. More ‘passions,’ not fewer is the answer. ... The man who would ... cultivate intelligence will widen, not narrow, his life of strong impulses while aiming at their happy coincidence in operation.”

This is of course in stark contradiction to Hume.

The Concept of Imagination

Here I will look at the concept of “imagination,” at its multifarious aspects and dimensions. I will also ask how imagination can defend its attributed position right in the centre of rational or intelligent deliberation. My investigation profits much from Steven Fesmire’s (2003) excellent interpretation of Dewey’s ethical thought. I also refer to Thomas Alexander (1990; 1993; 2002) and to Patricia Werhane’s (1999) studies of the concept of imagination and its application.

Is imagination an inferior form of reasoning?

Some claim that imagination steps in as a makeshift methodological approach where reliable fix- points for deductive instrumental reasoning (means and ends) are unavailable. For example Reinhard Selten, in his famous article on *the chain store paradox* (Selten 1978), introduces three hierarchical levels of decision-making that read as “routine”, “imagination”, and “reasoning,” which occupies a position superior to the other two.

For Selten imagination is able to “*visualise*” alternatives, which ranks it over routine. Yet it lacks the analytic clarity of the reasoning level. In the absence of any data that would make decision-alternatives comparable in a quantified way, imagination can still produce a qualitative judgement. However, it will always be second best to the calculation-based methods of reason.

My previous investigation discussed the problems with prioritising deductive forms of reasoning over imaginative resources of deliberation, as Selten seems to suggest. The following exploration shall indicate what this level of imagination has to offer on its own, particularly when deliberation takes place in complex indeterminate and socially interactive situations. Analytic and deductive forms of “calculating” reasoning may turn out to be simply techniques for specifically framed circumstances. Their meaningful application, however, will always depend on a legislative judgement that requires an element of

imagination (e.g. to frame a problem so that it is analytically solvable, or to select the right mathematical tools for its solution). This does not mean that deductive computation is itself a special case of imaginative reasoning; I only maintain that the tools of “calculating” rationality require imagination for their meaningful employment, and I would regard it as quite a success of the present discussion if it could establish imagination as an equal and not inferior to other modes of deliberation.

A taxonomy of imagination

A common prejudice against imagination is its air of aloofness, fancy and caprice. When our thoughts wander we are said to be *imagining*. Novels and also lies are called products of imagination, and it is easy to confuse the words “*imaginary*” and “*imaginative*.” Whereas the former might very well be a form of mental meandering or fantasy, the latter is a highly productive form of explorative and projective thinking. It is this difference that distinguishes great novels from lies or made-up stories.

Below I will introduce eight dimensions to further spell out the meaning of “imagination” in the context of intelligent deliberation. These shall vindicate the claim that imaginative thinking is in no way inferior to other forms of reasoning (even if these could be sustained as independent from imaginative faculties). The suggested taxonomy of Deweyan imagination comprises the following dimensions:

- Projective aspect
- Significance & situational horizon
- Aesthetic aspect & self-control
- Intuition
- Legislation & transfer
- Dramatic rehearsal & thick social narrative
- Affective perception
- Creative Play

Projective dimension

Dewey champions “imagination” as part of his experimental method (HNC, MW 14.132):

“Deliberation is an experiment in finding out what the various lines of possible action are really like. It is an experiment in making various combinations of selected elements of habits and impulses, to see what resultant action would be like if it were entered upon. But the trial is in imagination, not in overt fact.”

It is an experiment of the mind. Yet as an experiment it is not merely about an outcome, but about (possible) “experience.” It is a complex and qualitative notion, just as Dewey’s concept of experience is complex, qualitative and transactive (cf. “Experience and Nature,” LW.1, and “Knowing and the Known,” LW 16).

As Thomas Alexander puts it, Deweyan imagination demands from us “to see the actual in the light of the possible” (Alexander 1993 p.384, cf. Dewey, AE LW10.348). Imaginative forethought is not merely prediction of outcomes that seem determined by known causal antecedents. It incorporates the ability to synthesise certain possible and anticipated outcomes, and to produce a complex interpretation of a looming situation or potential. Imagination could be defined as the power to think forward and grasp the consequences of a presently developing situation *in its complexity* with sensitivity for *qualitative changes*. More modestly imagination is sensitivity for the potential of vague possibilities and tendencies.

Imagination projects images or pictures, and it may be only secondary whether these are precise or particularly realistic. Often it is about over-emphasising aspects or tendencies a scenario. Dystopias depicted in Huxley’s *Brave New World* or Orwell’s *1984*, give a vivid taste of ideas and tendencies that were operant in the systems of the two cold war contenders.

Imaginative forethought can also take more concrete deliberative forms. Where managers or planners use metaphors, rough cast causal loop diagrams, images or simplified business

models, they do not aim at giving precise estimations of anticipated future developments in form of point to point predictions. Instead they create an understanding of behavioural modes and dynamics inherent in a situation.

To understand the distinctive character of *projective* imagination in comparison to *prediction* and *calculation* of consequences in the classical model we may compare the two following examples:

Building and calculating a model of how fast our oil-resources will deplete, given the effect of continued consumption on both prices and profitability of previously uneconomic oil sands as potential supply sources, demands a high level of technical skill and expert knowledge. Something more than this was required when scientists started issuing warnings on the threats of anthropogenic climate-change and the melting of the polar ice-caps around the 1970's and before (Manabe and Bryan 1969; Manabe 1970; 1971; Vinnikov, Gruza et al. 1980; Hansen, Johnson et al. 1981). Another prominent example of imaginative thinking is Lovelock's "Gaia Hypothesis" (Lovelock and Margulis 1974; Lovelock 1979; 1991). Such thinking does not arrive deductively from knowledge of the properties of gases in the atmosphere alone. It demands a perspective judgement on what kind of data, what kinds of methods, models and algorithms *could* be relevant. It moreover needs the capacity to think in long-term, complex and dynamic perspectives that include multi-causal and exponential feedback behaviour. Apart from scientific education it requires a vague sense of a rising catastrophe, or at least an intuitive sense of imbalances in aggregated human behaviour and similar qualitative notions.

Imagination so understood envisages the future not as an anticipated change of parameters, but as a space of possibility where different scenarios are explored as qualitatively different situations, sometimes beyond all presently known circumstances and almost inconceivable.

The dimension of significance and situational horizon

A second dimension of imagination, which is closely related to the first, regards our ability to widen our perspective on the present. Dewey rejects any stark meaning/object, or meaning/symbol separation. He understands meanings as constitutive aspects of experience and thereby integrated in organic processes of coordination (Shook 2003). Meaning always refers from one object or symbol in one context of transaction to further possible actions and transactions. A symbol or object contains meaning by virtue of being a potential stimulus for embarking on these further activities (e.g. of perception, recognition, verbal expression, appreciation, employment as tools for practical tasks etc.). For Dewey, as later elaborated by his student Mead and the symbolic interactionists, meaning begins with incorporating some envisaged consequences of one's possible action into the organisation of experience. Objects are not merely experienced but their experience is organised – and thus constituted by meanings. When we use a stick as a yard stick, it becomes a measure, i.e. it gains meaning through our measuring and comparing practice. This meaning may extend to possible trade and bargaining practices. Meanings are best addressed as relations between forms of experience or forms of transaction, e.g. a line in the mud may mean a partition of property. As a meaningful symbol it refers to a host of possible practices like trespassing, respectful conduct, inviting and hosting, or disputing and suing. For Dewey, these relations constitute the nature of what is experienced, they establish the very objects of our recognition. Objects of *our* world, i.e. objects that we can understand and recognise are products of our actions within the world; they are not given conditions that exist independently of transactions of which we are part. In Dewey's metaphysics, relations are prior to elements, and objects are therefore defined by their relative positions and roles within transactions. This means that meaning cannot be treated like an add-on; it is not merely an attributed description. The relations of meaning that assign a position to an object within our transactions are therefore "internal relations" (KI, EW1:178-9):

"If we take out of an experience all that it means, as distinguished from what it is – a particular occurrence at a certain time, there is no psychical experience. The barest fragment of consciousness that can be hit upon has meaning as well as being."

Experience is thus never exhausted in the particular instance of its occurrence here and now, but it incorporates meanings and thereby reaches out to future conduct. It is the office of imagination to extend the present continuously into the future. For this purpose experience also has to incorporate the past. In this way we extend the horizon of the present from a moving point on a time scale into an extended whole (a situation or practice). This dimension of imagination as extending the meaning and horizon of a situation bears great resemblance with Nietzsche's (1873) concept of "plastic power" (*plastische Kraft*).

To bring this thought a little bit down to earth think of an employee who feels under paid and plans to broach the topic in a conversation with her boss. She will imagine the daunting situation in her superior's office, then her embarrassment for a question that may make her look greedy or worse may over state her modest contribution to the company's success. She will practice several approaches in front of a mirror answering to herself why her previous performance entitles her to a pay-rise. Then, she will imagine the reaction of her boss, and she will exercise a host of different conversation scenarios. These incorporate her counterpart's possible reactions. She will prepare herself for all contingencies that she can think of, gather counter-arguments against all objections that the executive manager may bring up. In this way she bolsters her present position and slowly builds up the confidence that eventually leads her to take the courageous step. She has extended the meaning of her present situation so far that she will almost certainly feel disappointed if the conversation ends without any negotiation but with an instant and generous rise instead.

Aesthetic dimension and self control

Imagination creates an "image" and is thereby a formative act. The German word "*Anschauung*" has many translations: "*outlook*," "*visualisation*," "*perspective*," "*sensual receptive awareness*," and "*vivid picture*." It can also mean "*a holistic grasp of a context*" or even "*an ideological understanding of an issue or context*." The aesthetic dimension of imagination is closely related to the wealth of meaning of "*Anschauung*." Imagination creates living and sensual pictures of situations as complex and coherent wholes. Imaginative understanding does not remain outside of the beheld situation.

In developing his concepts situational experience Dewey shows great affinity to phenomenological approaches and *Gestalt* ideas in psychology. Experience understood as material for aesthetic imagination has “a beginning, a direction, potentiality [and it is] extending out ... and into the world” (Burke 1997). According to Gestalt psychology, space around us is not a neutral coordinate system but it has salient directions of very different qualities like “up” and “down” or “in front.”

Dewey’s concept of “qualitative immediacy” (cf. chapter 3) is essential here. We have said that experience is neither something that happens inside (the mind) of a subject, nor is it part of an objective world outside the perceiving agent. Both subject and object are actively involved in a process (“transaction”) that we call experience. Even emotional qualities like “frightening” or “cheerful” are part of natural transactive processes (in which the categories of “subject” and “object” are constituted first of all and out of a unified concept of transaction). This transactive understanding of quality makes Locke’s dualism of primary and secondary qualities redundant. All qualities are immediate in experience.

If the aesthetic dimension employs this notion of “immediacy” is imagination then a romantic notion? Is it “*Schau*,” i.e. a revelation of nature itself by direct exposure or immersion? This conclusion would be misleading. Dewey is not a romantic. Such an ideal would involve a passive receptive form of access to nature, and not a deliberative and formative one. Instead taking a “transaction” perspective it would produce the image of a subject approximating nature as a given totality to immerse in it. The aesthetic dimension of imagination, however, is one of co-authoring an understanding of a situation and it has a distinctly critical dimension.

This critical notion within the aesthetics of imagination has been succinctly expressed by Peirce, who saw progressive forms of self-reflection (“self-control”) working behind the

scenes in deliberation and higher forms of reasoning (Peirce 1867-1914 5.3 Chapter 2, Paragraph 4)⁵:

“When a man trains himself, thus controlling control, he must have some moral rule in view, however special and irrational it may be. But next he may undertake to improve this rule; that is, to exercise a control over his control of control. To do this he must have in view something higher than an irrational rule. He must have some sort of moral principle. This, in turn, may be controlled by reference to an [a]esthetic ideal of what is fine.”

In this quote Peirce does not establish a hierarchy of norms, similar to the hierarchy of final and intermediary purposes that the “calculating” model relies on. It is not the search for a final normative-aesthetic meta-principle in some foggy heights, but hierarchy is about levels of *self-control*. Therefore the aesthetic idea of what is *fine* is a mode of functioning, not a given legislative principle.

However, only Dewey makes it unambiguously clear that self-control works bottom up and not top down, by showing how each level yields experience that allows generalisation on the next level (c.f. TV, LW13 or QC LW4).⁶

Intuitive dimension

Returning to Peirce’s quote above, one can also misinterpret this aesthetic idea of imagination as a reduction to feelings or emotions. Dewey addresses the relation between (aesthetic) quality and feeling as follows (Dewey: “Peirce’s Theory of Quality” LW 11.94):

⁵ Unless otherwise indicated, all further references to C.S. Peirce will refer to the Harvard edition of collected works in the conventional way.

⁶ This idea of levels of self-control harmonises well with Dewey’s more organic evolutionary idea of “growth.” Growth is the product of self-reflective inquiry, i.e. inquiry that questions and develops methods of inquiry itself.

“...we do not define or identify quality in terms of feeling. The reverse is the case. Anything that can be called a feeling is objectively defined by reference to immediate quality: anything that is a feeling ... is of some immediate quality when that is present as *experience*.”

This is an important step toward seeing emotions in their functional position within our practices and transactions. We must not deem emotions to occur randomly at whim, at least not normally. Emotions are not merely given and they do not spontaneously erupt for no reason (at least not in the normal case). They are embedded in transactive processes, and they play a functional role in organising experience and action. Emotions are trained and learned dispositions on which we can in the normal case rely as a primary resource of intelligence (Damasio 1994; Gigerenzer 2007). A neurologist, Damasio showed that subjects with brain injuries that affected only their capacity to experience emotions but not their ability to perform analytic tasks were severely limited in making reasonable practical decisions. The economist Robert Frank (1988) pointed at an important functional role of emotions in decision-making. Emotionally influenced decisions can be intelligent even if they appear irrational on first sight.

Received theories of rational deliberation look with great suspicion at action that is directly instructed by emotions. “Wishful thinking” or “excess of will” are only a few terms of the trade that discredit feeling as guides to the achievement of purposes. Dewey comments this ironically as the belief that “the intellect is a pure light and the emotions are a disturbing heat...” (DE MW 9.345). His objection to the idea that reason, better than emotions, should steer our deliberation-processes, is discussed above.

In a more optimistic light, emotions and intuition are often characterised as *gut feeling* (Gigerenzer 2007). Such intestinal sensations are said to account for gainful and frugal decision-making, without elaborated calculation, but instead with an immediate sense for what is right and wrong. Here admiration is mixed with astonishment that emotional responses can embody far-sighted qualities that were originally deemed properties reserved for the domain of reason.

Already in his *Psychology* Dewey had distanced himself from reliance on distinctions like *intellect* and *feelings* as separate psychological faculties or segments in our deliberating will. For Dewey intellect and emotions are functional and heuristic distinctions within wilful activity (P, EW 2.328):

“The will is the concrete unity of feeling and intellect. ... The intellectual operation of representing the means and the end, and the feeling which impels us to the end, have no separate existence.”

In fact, conscious reasoning and emotive responses are only different modes of reacting to varying situational demands, and are both more or less adequate. Through reflection and training we form our character and *habits*, of which our emotional capacity builds an important part. A well-trained character is capable of sophisticated and morally sensible emotional reactions. These may sometimes impel us to take direct action (e.g. helping where help is required, or developing a healthy level of suspicion in a “fishy” situation). Reflection, in contrast, is a mode of deliberation demanded in situations where our well-rehearsed habitual and emotional responses face challenges, i.e. where explicit conscious inquiry is needed. This happens for example when we enter a moral dilemma where two emotional imperatives contradict each other (cf. chapter 6, below).

Legislative and transfer dimension

Gigerenzer and the ABC Research Group have forwarded empirical arguments indicating that we are not only willing but also well advised to violate fundamental norms of deliberative and epistemic rationality, in some situations. Even canonical rules of logic should and will be violated in some choice situations in order to promote practical success. In situations concerning social justice or in tasks of “cheating-detection” we would make good use of classical fallacies like *affirming the consequent* or *commutation of conditionals* (Gigerenzer 1996).

How do we find out if the rule ‘if you work extra-hours you get a day off’ holds?’ His answer: ‘by checking if the one who got the day off actually worked extra-hours,’ which amounts to an attempt to disprove $A \rightarrow B$ by producing a precedent of $B \& \neg A$. This constellation, however, would only contradict $B \rightarrow A$, not $A \rightarrow B$! It would disprove the idea that everyone who gets a day off worked for it, rather than disproving the original sentence that everyone who worked gets the day off. It remains a question whether subjects so tested really believe in the validity of this faulty inference or if they rather intuitively change the semantics of the original question into the case of “disprove $B \rightarrow A$.”

Other examples of ecological rationality may be more convincing, e.g. when we observe rats in a T-maze that offers a 0.8 chance of food in the left option and a 0.2 chance of a reward in the right option. Rats do not always choose the “rational” maximising choice, but go instead for the mixed strategy of “probability matching” (choosing correctly in 20% of the cases). Gigerenzer (2007) argues that this strategy pays in situations of severe competition with conspecifics.

Examples like these pose questions about what defines man as a ‘rational animal.’ At the very least it is no longer credible to assume that the application of a given set of *a priori* norms that makes no allowance for situational conditions is sufficient to make us *rational*. In *Logic: Theory of Inquiry* (LW12), Dewey contends to show that logical forms are not eternal laws of thought but are rather methods of inquiry. Inquiry (or better inquiry into methods of inquiry) produces logical forms and principles. If this were true, we would need to define some level of thought or reasoning that is able to *mediate* between candidate normative claims. Three criteria are important here:

1. It must be a mode of reasoning that allows us to grasp a situation as a whole in order to see *how* a norm would be applicable to the current context.
2. It needs to be a capacity that goes beyond a particular situation and allows us to compare several situations.

3. It must be able to understand the consequences that are likely to follow from adopting a rule or norm.

We have explored the concept of imagination enough by now to see that it is at least a strong candidate for this job. Imagination grasps a situation as a whole, reaches beyond it by comparing other real or hypothetical situations to the present, and examines present tendencies by evaluating their potential future consequences.

This does not mean that imagination would not itself rely on normative principles. Dewey introduces an interesting distinction between “rules” and “principles”: whereas a *rule* prescribes a “readymade and fixed” procedure,⁷ a *principle* is a generalised statement that needs translation into practices by a judgement. By the example of a moral judgement Dewey explains (E, MW5.280):

“A moral principle ... is not a command to act or forbear acting in a given way, it is a tool for analysing a special situation, the right or wrong being determined by the situation in its entirety, and not by the rule as such.”

Deductive or “calculating” forms of rational deliberation follow *rules* by definition. Imaginative thinking has the capacity to evaluate and mediate between competing rules and norms.

Whereas Hare sees in imagination no more than a supplementary “sentimental education” that only fosters a more sophisticated ability to apply rules (Hare after Alexander 1993 p.376), Thomas Alexander envisages a more constitutional role for imagination in our reasoning (Alexander, 1990, 339):

⁷ Sure enough, this definition has little in common with the post-Wittgensteinian understanding of “rule,” cf. Winch, P. (1990). The Idea of a Social Science and its Relation to Philosophy. London, Routledge.

“...This aesthetic and imaginative mode of understanding is a precondition for any cognitive or analytic one.”

This insight, if correct, poses a serious challenge to Selten’s idea of ordering “reason” above “imagination.”

Dramatic dimension and thick social narrative

Dewey uses “*dramatic rehearsal*” as a metaphor for *imagination in action*. Interestingly the German word “*Vorstellung*” has two meanings: (1.) imagination and (2.) theatre performance.

Dramatic rehearsal represents to us “what experience [one] ... would get if [one] were to follow out a given tendency or act upon a particular desire” (Dewey after Fesmire 2003 p.74).

This must be understood as an improvisational rather than a scripted rehearsal. Patricia Werhane claims that “... nothing short of active free-playing imagination will enable us to distance ourselves from our scripts, roles, or narratives to envision new possible scripts. To be truly imaginative, we have to be disengaged, yet even ‘at a distance’ we will be operating within a scheme” (p.113).

The dramatic component is one of the most defining characteristics that distinguish imagination from “calculating” models of deliberation. Yet, we find some formal similarity between imagination and standard models of decision theory: William Caspary illustrates the force that moral perplexities and practical dilemmas have on the way we deliberate: by engaging in thought experiments we act out different scenarios and courses of action. Each time we arrive at a painful decision point we mentally rehearse both options, until we come to a conclusion. This reasoning in scenarios, in its “branching set of alternative lines of development and moves and countermoves” (Caspary 2000 p.113), somewhat resembles decision trees as used by decision- and game theorists. However, in dramatic modes of

imagination we engage by playing through whole processes instead of anticipating only quantified outcomes of alternative decisions. As the above example of the employee requesting a salary rise demonstrated, we think in whole lines of action and possible reactions from other players. We live through conversational and emotional exchanges with other peers. This engaged approach is for Caspary both “lens and mirror ... an occasion for exploring the reactions of others, as well as discovering our own tendencies” (Caspary 2000 p.115). Even in cases where the emotional component may be reduced, e.g. where a team of analysts discusses the possible strategies of partners and opponents in a hostile takeover bid, they will use descriptions of characters, and roles given by the positions of other players, their knowledge, ideas and their characteristic ways of dealing, in order to assess the space of possibilities. In this respect dramatic rehearsal bears little resemblance to outcome oriented point-to-point predictions of decision-trees. “Dewey’s dramatic rehearsal, then, is complex and contextual, involving ‘thick description,’ not simple, general, and ‘thin’” (Caspary 2000 p.117).

Affective perceptive dimension

One aspect that has coloured the understanding of imagination as a moral term is *sensitivity* and *sympathy* toward the feelings and needs of other people. Adam Smith identified imagination with “... a faculty that enables us to understand the sentiments of others” (Adam Smith after Werhane 1999 p.90).

However, affections are not imperatives *per se*. Empathy is a complex faculty of imagination. As a form of functioning empathy must itself be trained and matured in order to influence practical judgements in an intelligent manner. Other faculties and dimensions of imagination play an important role in forming and informing our affective responses. Children may originally have the same affective reactions toward dolls, dogs, and siblings. It demands a lot of “dramatic rehearsal” to train emotional responses and reactions so that a child knows correctly in which cases to apply practices like “cleaning,” “feeding,” or “respectfully addressing in language” appropriately. In this process, learning about the possibilities in interaction, if-then relations, and phenomenological categories (like looking

like a person, or having expressions of pleasure and pain), are as important as sparring with abstract learned norms and parental imperatives.⁸

Creative playful dimension

Dewey's metaphor of dramatic rehearsal for imagination at work, and the previous example from child development, hints at the possibility of seeing deliberation as a form of *play*. Dewey often uses the examples of children and artists to illustrate the idea of imaginative, creative and experiential practices. Hans Joas sees the key to creativity in Dewey's distinction between *work* and *arts* or *play* (Dewey, DE MW 9.214):

“Work is psychologically simply an activity which consciously includes regard for consequences as a part of itself; it becomes constrained labor when the consequences are outside of the activity as an end to which activity is merely a means. Work which remains permeated with the play attitude is art—in quality if not in conventional designation.”

For Joas creative activities are those in which the agents are at the same time players and authors of the game they are playing. Art stops being art and becomes craft where the standards and ends of its production are fixed, e.g., children playing hide and seek use learnt rules but are likely to turn their game into something else: they find a wild garden and become explorers; they find a staircase leading to the basement of an abandoned house and their play becomes a test of courage etc.

Imaginative creativity can be addressed as the power to integrate the formulations of goals into the context of action.

⁸ This holds irrespective of the fact that playing with dolls or animals is itself a means of training emotional responses to human interlocutors in different situations.

Conclusion

So far I have argued that imagination and rational deliberation must not be understood as competing strategies. Imagination is not the name for a host of implicit and intuitive makeshift methods by which we gain orientation when “truly rational” (i.e. instrumental deductive) strategising fails. On the contrary our imaginative capabilities are the backbone of any comprehensive definition of intelligent or “rational” human agency. Moreover, I have developed a taxonomy of features and aspects which characterise imagination as a method of deliberation. However, some objections against overemphasising the importance of imagination in deliberation seem possible. Perhaps the method of imagination limits our cognitive capacities to conservative estimates of future developments. Is imagination only good for relatively ‘normal’ situations? After all we need the horizon of previous experience to ‘live through’ imagined scenarios in our dramatic rehearsals. Does the call for imagination not limit our readiness to anticipate changes of ‘unimaginable’ proportions, i.e. changes that go beyond what we can relate to by our previous experience? Winston Churchill’s fierce opposition to the Munich Agreement gained him the reputation of understanding early what most leaders of liberal western powers failed to ‘imagine’ in the beginning: The true potential of terror and malignance that Hitler and his ideologically overcharged Germany posed, which remains ‘*unimaginable*’ to the present day.

Such examples do not serve to show the limits of imagination. By the definition given during this chapter, imagination reaches beyond what is widely held or ‘imagined.’ Churchill’s perceptiveness for the looming danger is precisely of the kind that I discussed as the “projective dimension” of imagination where we afford the capacity of anticipating *qualitative* transformations of a situation instead of merely extrapolating parameter changes. “Unimaginable” in this context can either express a moral sentiment or else it means what most people failed to imagine at that time; this is very different from saying that education and training of our imaginative faculties could not raise our sensitivity to such abnormal scales of development.

There is another related worry about placing imagination at the centre of all rational deliberation: Empirically the human ability to estimate future development fails systematically in typical situations. It has often been demonstrated that the human mind performs poorly in predicting exponential growth. Moreover, we suffer from an innate weaknesses in grasping the behaviour of complex, multi-causal systems, particularly when they involve feedback relations and delays (cf. Forrester 1971b; Richardson 1991). Also we are quite inept at making reliable long term estimations of any moderately complex system's behaviour. For this reason we make use of mathematical modelling tools (such as system dynamics programs like "Vensim") that allow us to formulate our basic intuitions in the form of mathematical equations (or stock and flow diagrams), and then to deduce behaviour resulting from our assumptions or to simulate possible courses of intervention. These calculations don't use imagination while crunching the data. I have never claimed that imagination should be the only method of intelligent deliberation. Deductive forms of reasoning and computing are essential tools in complex decision environments, but such methods crucially depend on human imaginative abilities: The formulation of any model, the judgements where boundaries are to be drawn between endogenous and exogenous variables, the definition of different scenarios for simulation-runs, and the choice of mathematical tools, all fit the description of imaginative thinking. Imagination is only aided by symbolic mathematical transformations.

It is no imposition to say that dealing with the world's complexity and taking a long term perspective are the particular strengths of imaginative deliberation.

I hope that this analysis has yielded some clarity about the notion of imagination and its role in decision-processes. In particular I meant to propose a notion of intelligence that does not define *reason* as an antecedent category, i.e. a given set of norms and rules. I explored Dewey's reconstruction of reason as an elaborated creative resource that draws on all human psychological faculties. It *explores* rather than *predicts*, and it *experiments* rather than *deducts*.

Chapter 6: Situation and Inquiry – From Agency Theory to Rationality

Deliberation is a work of discovery.

John Dewey

A pragmatic intelligence is a creative intelligence, not a routine mechanic.

John Dewey

Introduction

If this dissertation were an arc, we would now have arrived at its zenith. Looking back at previous chapters, we have achieved three main things. The first two chapters established the need for a reform of our conception of rationality in planning. Chapters 3-5 introduced some fundamental aspects of Dewey's reform of agency theory, and chapter 5 developed an alternative account of rational deliberation and decision-making.

The aim of this exercise was to criticise the Humean Folk-Model of agency (“means-ends-action scheme”) that underlies traditional models of rationality in planning (LIR model); though devastating to the model, this was a constructive critique because it pointed out a new way of understanding creative human agency. Dewey's notions of “imagination” and “dramatic rehearsal” were systematically introduced and discussed as alternative notions of rational strategising and reasoning.

Until now the discussion falls short of providing a systematic conception of rationality. The previous chapter on “Imaginative in Deliberation” gives insights into the modes and methods of reasoning, but it does not provide a satisfactory theory of rational agency. The present chapter will finally provide a systematic account of the physiognomy and logic of a pragmatist concept of rationality.

I begin by introducing Dewey's concept of "situation" as the foundation for a new agency theory. I then explore how common patterns of problem solving efforts allow for a new understanding of inquiry processes. Dewey's notion of intelligent inquiry is then introduced and discussed as the basic model for rational action and planning.

At this point we face a twofold task: first we must elaborate upon an alternative conception of rationality as a theoretical *possibility*, and second we must clarify how such a revision would offer great *advantages* in understanding and dealing with problems of deliberation in contemporary contexts.

The Quest for a Foundational Category of Agency

Joas referred to the basic structural elements and concepts that an agency theory rests on as "foundational categories of agency." "Reason" and "passion" would for example be the foundational categories in Hume's agency model; modern economic decision theory might prefer "degrees of beliefs" (or "probabilities") and (revealed-) "preferences"; Humanistic schools that emphasise the symbolic character of agency would distinguish "meaning" and "expression" as foundational categories of agency (c.f. Joas). Depending on the agency theory, foundational categories have been understood as basic logical components (v.Wright, MacIntyre), causal antecedents (Davidson, Hempel), or basic symbolic structures (Levi Strauss, Charles Taylor) of agency.

The concept of "*situation*" is fundamental in Dewey's philosophy and particularly in his agency theory. Joas suggests (Joas 1996 p.160):

"...the concept of situation is a suitable replacement for the means-ends schema as the primary basic category of a theory of action..."

Two questions follow suit. What exactly is the meaning of situation as a "primary basic category of a theory of action" rather than simply the field of means, opportunities,

obstacles, resources, and facts of low relevance or impact? And how can a theory of agency, building upon “situations” instead of on means-ends logic, provide the material for a *normative* theory of intelligent or rational agency?

The former question is the issue in this section, and the latter will be discussed in the following two subchapters.

A concept of situation as foundation of agency theory

Dewey does not think of agent and situation as two juxtaposed realms of being. He objects to the notion that the agent would passively rest in herself until a motive incites her to interact with her environment. For Dewey the agent is not an “unmoved mover” who pre-exists her activity (“transactive” relations). Of course agents do often spontaneously begin a course of coordinated activity after being incited to it (by impulse, by a sudden rising desire, or by the realisation that a certain activity would serve her ends). But his basic model of agency does not rely on such primary excitation because activity and interaction between agent and environment pre-exist the formation of distinct and directed impulses, motives, preferences, or plans. Dewey claims that the interaction between agent and environment is primary; it is essential to maintaining the distinction between agent and environment (cf. also Maturana and Varela 1992). Agent and environment are always suspended in processes of “transaction.” This field of transaction is what Dewey calls a “situation.”

On this transactive account of agency, neither the distinction between agent and environment nor the determination of means and ends (or preferences and cognitions) can serve as foundational categories of action. How can the concept of situation take their place? And what exactly is the nature of this category?

Three characteristics are central to understanding this complex concept:

1. Situations are unique qualitative wholes.
2. Situations are not neutral sceneries of events and unfolding activities – they create a need for action and contain requirements for action.
3. Situations follow alternating patterns of habitual activity and phases of disturbance.

1. Quality and coherence

Developing the concept of situation gave Dewey's philosophy a distinctively pragmatist or "experientialist" outlook, taking it a step beyond the Hegelian idealism he had absorbed while studying under George Morris.

Indeed, there remained strong Hegelian leanings in Dewey's philosophy right until his last major work ("Knowledge and the Known"), e.g. the claim that epistemic processes are constitutive for the objects of knowledge, or the defence of an organic relation between the parts that make up a situation (e.g. defined as "subject" and "object"). Dewey explicitly talks about experience as a philosophical "absolute." He also made a strong turn toward claiming primacy of social experience (culture) over individual experience. In developing his concept of Situation, however, Dewey turns Hegel's holism into a functional rather than abstract philosophical category.

James had already directed his concept of a *stream of thought* against both the modern empiricists' and Hegel's understanding of the relation between ideas, consciousness and reality. James rejected the empiricist belief in atomic and inherently meaningless sense impressions that the mind has to synthesise and organise in order to produce complex ideas and meaningful connections between elements (e.g. cause and effect). Like Hegel, James believed in a primary unity between experience and what is experienced. He concluded that relations between experienced elements were not established by a separate synthetic function of understanding but belonged to the fabric of experience itself. Against Hegel's "block universe holism," in which all elements are, by the principle of internal relations,

fully intelligible only through their relation to *everything* else in the universe, James introduced a dynamic psychological concept of actually experienced conscious processes. His alternative, the “stream of thought,” refuses to model conscious processes as a *sequence, train* or *chain* of distinct and separate ideas. The metaphor of *stream* (or *river*) avoids stark separation of discrete and discontinuous elements. James sees all impressions and elements of experience as fused together, thus having experiential quality and significance not as elements, but by reference to their relative contexts. He even tried to integrate sharp interruptions and disturbances within his idea of synchronic and diachronic continuity of experience: a clap of thunder fuses an already existent quality of which it becomes a part. (James: Principles of Psychology, abridged in Thayer, p.142-150)

Dewey retains some of James’ psychological points,¹ in particular his critique of early Empiricism, by identifying experience “with a life function [that] is temporally and spatially more extensive and more internally complex than ... a single thing like a stone, or a single quality.” (Rejoinder, LW 14.29) By limiting the horizon Hegel’s internal relations to actual transactive contexts of an organism’s functioning, he also discards Hegel’s indefinite holism: “... On the other hand it is impossible to imagine a living creature coping with the entire universe at once” (Rejoinder, LW 14.29).

Dewey differs from James in one important respect: he insists that situations are unique and whole, and that “a situation is a whole in virtue of its immediately pervasive quality” (LW15.39).

For Dewey quality pervades a situation, i.e. quality is the experiential transactions which comprise the agent/organism and her environment. Experienced quality is therefore not subjective or purely mental (PIE MW3.160):

¹ It may be mentioned here that according to Shook (2000), Dewey takes his main influence for his Psychology from William Wundt rather than from James.

“I start and am flustered by a noise heard. Empirically, that noise is fearsome, it really is, not merely phenomenally or subjectively so. That is what it is experienced as being. But, when I experience the noise as a known thing, I find it to be innocent of harm. It is the tapping of a shade against the window, owing to movements of the wind. The experience has changed, that is, the thing experienced has changed – not that an unreality has given place to a reality, nor that some transcendental (unexperienced) reality has changed, but just the concrete reality experienced has changed.”

Hence, qualities like “fearful” or “problematic” cannot be reduced to mental states or attitudes.

2. Situations are practical – they demand action

My previous chapter on valuation has yielded that the “guides” of our actions (desires, purposes, norms and values) are not external to our transactions. I discussed how we refine our impulses into objectified desires in response to the possibilities and *impasses* given by our surrounding. We formulate precise purposes and commit to values and norms after reflecting upon our situation and upon experiences that we or others have had in the past. Finally, the application of more general norms and values in particular circumstances is primarily a matter of judging them suitable and appropriate for a specific context. This simplified account does not do justice to the differentiated capacities of our ethical reflection, but even in this form it implies a strong argument against reducing the concept of situation to an ethically neutral surrounding of potential means and obstacles. Dewey’s category of situation is not external or neutral to our plans, desires and purposes, but is intrinsically practical. As Joas (1996 p.161) says:

“Situations do not trigger our action, but nor do they merely provide the terrain on which we carry out our intentions. Our apperception of the situation is predefined in our capacities for action and our current disposition for action.”

Joas discusses Boehler's notion of a "quasi dialogical" relationship between action and situation by saying that "situations are not mute, they demand that we take action" (Joas 1996 p.160).

3. Pattern of situations

If we consider adopting "situations" instead of "means" and "ends" as the foundational category of agency, this concept should be at least as good, if not better, at accounting for the way agents form intentional and coordinated courses of action.

James' "stream of thought," in which qualities continuously fuse and merge in a flow, is not entirely capable of doing so. James' stream fails to account for structured, coordinated and planned agency aspiring to reach beyond the qualitative context of one (problematic situation) and reach a unified quality. The stream does not offer many orientation points which could help to form concrete intentions. Hence we may fear that James' "stream of consciousness" will ultimately remain in a state of "blooming buzzing confusion" (James, principles vol1. p.488).

Dewey holds that a situation is a complex and unique whole that is bound together by a "pervasive quality." This concept allows for distinct transitions from one situation to another. However, more than the mere progression of unique situations is needed to introduce a concept that could inform and orient agency. Dewey's suggestion of a "rhythmic pattern" in the succession of situations offers exactly this.

Although every situation is for Dewey a dynamic qualitative whole, there are two different types of situations or transactions. All situations are defined by a unique pervasive quality, but only in some situations are transactions in a settled state of equilibrium ("unified quality"). In such situations transactions take a habitual form. In other situations, however, such habitual ways are threatened, troubled, interrupted or inhibited. Such situations are not unified because the concert of all impulse and efforts does not give way to a coherent form

of coordination but some of our impulses meet external opposition or come into conflict with one another.

Our experiential transactions oscillate between settled phases of equilibrium and challenged situations in which habitual ways are threatened (or pose themselves a threat) and where the predominant quality is problematic.

Human agency, like all organic behaviour, is directed at transforming problematic situations into settled and well-coordinated experiences. Once such a state has been achieved it will be only temporarily sustained.

How this oscillation (or “rhythm”) between situations of habitual and problematic quality creates the platform for a theory of inquiry, and how this theory of inquiry implies a novel conception of rational agency, shall be discussed in the following subchapter.

Inquiry

A definition

Dewey gives the following definition (Logic, LW12.108):

“Inquiry is the controlled and directed transformation of an indeterminate situation into one that is so determined in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole.”

Dewey spells out this definition in his “Logic.” He explains that inquiry is always directed toward creating a situation of transactional equilibrium out of an indeterminate situation where coordination had been interrupted or imperilled. “Unified” in the above quote refers to “qualitative unity,” or in Peirce’s terms “firstness” – the quality of an uninterrupted habitual flow of transaction where elements coordinate rather than conflict with each other.

In this definition the programme is laid out to reinterpret inquiry as an active quest for settling problematic (or “indeterminate”) situations. This interpretation explicitly includes scientific inquiry.

Dewey and Charles Sanders Peirce

The notion of science as inquiry which settles problematic situations is one that Dewey and C.S. Peirce widely agree on.

It is difficult to establish exactly how much influence Peirce had on Dewey. Although Dewey was a student in Peirce’s department at Johns Hopkins University, these two beacons of American philosophy had neither a personal relationship nor an inspired philosophical exchange. Indeed, if we believe Alan Ryan, Peirce hardly took Dewey seriously as a philosophical heavyweight. Dewey on the other hand failed to appreciate fully the potential importance of Peirce’s thought for his own work. Instead, during his student days, he filed an official complaint against his teacher, scorning the over-formalised style in which Peirce taught the subject of Logic (Ryan 1995).

There are indisputable differences between Dewey and Peirce in their styles, methods, and intentions, but Dewey surely absorbed many of Peirce’s ideas into the fabric of his own thinking. Whatever the biographical details, it seems worthwhile discussing Peirce’s concepts of inquiry as a foundation for understanding Dewey’s notion of inquiry.

Truth and inquiry

It was Peirce’s declared aim to develop a logic of scientific research that identified *inquiry* as an involved practical effort in problem solving. The intended result of all inquiry is to settle “doubt” and to arrive at “belief” (Peirce 1958). What makes a belief adequate is not its conforming to a standard of “truth,” thought of as independent of any particular inquiry context. Belief is justified on account of its ability to surpass doubt in the context of inquiry.

Was Peirce therefore a relativist regarding the notions of truth and falsity? Quite the contrary – he trusts that continued inquiry has an inbuilt dynamic and direction toward agreement and convergence. This concrete faith led him to introduce the ideal of truth as regulative idea, which intended the ultimate agreement of the community of all inquirers - following an unlimited continuation of unconstrained inquiry. Habermas later interpreted this regulative idea as a transcendental condition for all science and argumentative speech. For Peirce, however, the idea of ultimate convergence of theory is a very concrete means for conducting and orienting research. This idea of convergence is not a device to argue for the transcendental necessity to assume that any actual proposition would come with a definite truth value (Depew 1995). Habermas would exclude James' point that truth or falsity is something that happens to propositions, not something propositions would come with. Peirce's position on this point is certainly less straight forward.

For Dewey the notions of "truth" and falsity are not free floating signifiers. They do not depend on free selectable discursive contexts or language games. Dewey agrees that renewed scientific inquiry increases the chance of a definite *improvement* of our theories. Inquiry progressively clarifies ideas and their relations so that the resulting beliefs become better at meeting the challenges of dynamically changing situations. However, Dewey's reference point for inquiry is not the eventual agreement by all inquirers after indefinite unconstrained inquiry, although agreement plays an important part in his logic of inquiry. The measure and warrant for any epistemic judgement is how well a belief settles and "unifies" a particular troubled situation or similar situations of its kind.

Showing that this is far from saying what is true is what works, what satisfies, or what is expedient would require a lengthy argument on Dewey's notions of truth as "warranted assertibility." In brief, Dewey claims that conflicting ideas can produce indeterminacies in our reasoning ("cognitive dissonances"). This means that a quick fix to an immediately perceived problem will not necessarily settle the problematic character of a situation which, because of its quality, is partly made up of such cognitive dissonances.

Dewey manages to avoid the relativistic tendencies of some of his successors without succumbing to a unitarian foundationalism (Dorstewitz and Kuruvilla 2007). This presupposes a better acquaintance with the concept of “problematic situation” and its role in determining our inquiry.

Doubt as a quality

Peirce sought to define the meaning of ideas as formulae for possible action, i.e. as dispositions to meet the contingencies of life. Belief is for Peirce an active stance toward actual or possible interaction; it is a way of acting or a disposition to act, not a cognitive representational state of information stored in a memory. Beliefs are stabilised or “fixated” in our habits. Peirce’s argument against scepticism and against the Cartesian method of radical doubt is that we need far more than the theoretical possibility of placing a question mark after a statement to have material for an inquiry. Beliefs cannot be challenged by a mere sceptical hunch of doubt. Doubting a belief requires as much justification as committing to it in the first place. What really starts the process of inquiry is not the mere possibility of the falseness of a belief, but the fact that an already acquired set of beliefs (habits) becomes existentially problematic and unsatisfactory, i.e. the (cognitive) habits in which belief is embodied become troublesome.²

These ideas are crucial for understanding Dewey’s notion of a pattern of inquiry. The change from belief to doubt is, for Peirce, a practical matter. It is quite akin to Dewey’s notion of an “indeterminate quality” of a situation. Peirce develops three categories that may be called *universal* categories in the sense that they cannot be categorised as either epistemological or ontological categories. They are both at the same time and they are fundamental in establishing the very distinction between epistemological and ontological concepts. E.g. these categories constitute the possibility of distinguishing between epistemic subject and object.

² This notion must be taken with care, as Peirce is less committed than Dewey to a view that integrates inquiry and beliefs as sequences within a continuum of organic life-coordinations.

The category Peirce calls “firstness” is perhaps identical to Dewey’s idea of a unified situation or a harmonious habitual transaction. It is “the unanalysed total impression made by any manifold not thought of as actual fact, but simply as a quality, as simple positive possibility of appearance” (Peirce 8.329).

“Secondness,” in contrast, is the occurrence of shock or resistance within a situation of firstness.³ Doubt as the initiation of inquiry is the experience of such resistance of “secondness” which objects to our habitual co-ordinations in a situation where the transactional unity between subject and object ruptures. For a thorough discussion of all categories including “thirdness,” see Bernstein (1971).

The concept of habit

In Dewey’s and Peirce’s conception of agency, “habit” plays a crucial role and is immediately linked to the idea of a “pattern of inquiry.” There are three reasons for this:

1. Primacy of action: Habit steps in as warrant for what previous chapters established as the “primacy of action.” It is the key to understanding how agency theory can accommodate the idea that basic distinctions (such as means/ends or subject/object) are produced from within agency processes. For Dewey action is primary and is in the form of habitual transactions, and therefore not dependent on motivation through desires and beliefs. Deliberate agency springs from a lack of successful coordination rather than an excess of motivation.

2 Unity of agent and situation: Dewey defines his concept of habit as *transactional*, by which he means to reserve the “right to see together” what philosophers distinguished as agent and environment and similar subject-object separations (Ryan 2004, Dewey LW16.67). Dewey uses the picture of the well-rehearsed violin player. According to

³ It is perhaps not Plato’s idea of a universal oneness (“*hen*”) that logically precedes the splits into “unlimited/indefinite duality” (“*ahoristos dyas*”). It seems to have more affinities with the Heraklitian notion of duality as opposing forces (or “fires”).

Dewey, “interaction” between person and instrument may not be the way to understand the interplay between instrument and artist. Both are so well coordinated that phenomenologically and functionally they build a unity. If we wanted to introduce structuring distinctions and juxtapositions in this concert situation, we would try with one between the violinist (as a unity of instrument and player) and a tired audience, whose resistance the performer experiences. The concept of habit as a transactional unity of subject and object in situations suspended in an equilibrium of habitual co-ordination allows us to understand how Dewey saw the distinction between agent and environment as a creative product of agency rather than an *a priori* given distinction.

3 Normative orientations: Dewey’s concept of habit is distinctly normative. It is true that we deliberate over norms only where problematic situations demand reorganisation of activity, i.e. when our habitual co-ordinations are interrupted. On the other hand, habitual situations are expressions of previous practical deliberation and embody earlier normative commitments in lived practice (HNC, MW14). Dewey and Peirce often identify the character of a person with his or her habits (HNC, MW14.33). If so, habits are, like characters, neither mechanically repetitive nor void of value judgements. Dispositions to make value judgements in everyday situations form our character. Habit is the product of practical (or explicitly moral) inquiry and is itself the source of practical judgement. Our habits embody practical wisdom and experience, along with our ability to conform to social customs and cultural norms. Christopher Hookway speaks about “habitual evaluative practices” that involve “an acute sensitivity to the fine details of our environment” (Hookway 2000 p.261).

Inquiry as problem solving

Why is inquiry equivalent to problem solving? How does inquiry work? What is the connection between inquiry and intelligence? For Dewey inquiry is a systematic way of dealing with problematic situations. But what exactly does this mean?

Apart from pockets of resistance from those who insist on a stark separation between science and practice or between contexts of discovery and contexts of justification, the trend is to acknowledge that we cannot sharply separate our scientific results from our epistemic *practices*. From physics to anthropology scientific disciplines have begun to locate the observer inside the field of her investigation, and to interpret observation as an involved participating activity. Yet it is one thing to point to the practical character of our beliefs and to emphasise the mechanisms we use to generate knowledge as (scientific) *practices*. It is quite another to say that all scientific research is about solving problems of action. Classical Pragmatists are prepared to argue this contentious claim, and Dewey even goes a step further. He claims that the broad pattern of problem solving activity is essentially the same when a single cell organism reacts to a chemical change in its medium, when a boy-scout hunts for a treasure, or when a scientist formulates a migration model of birds infected with avian flu. Dewey holds that there is a logical and methodological continuum reaching from the behaviour of primitive organic life-processes to the workings of scientific institutions, proverbially from the amoebae to Einstein (cf. Logic LW12.30ff).

The method of intelligence

Dewey argues that science is but the product of ever more sophisticated applications of the “method of intelligence” in solving predicaments of everyday life.

In a significant transition, taking place sometime between 1917 and 1919, Dewey begins to replace the terms “reason” and “rationality” with “intelligence” in his terminology (HNC MW14.136-7, see also Vysnowsky 2004 p.159):

“There is thus involved more than a verbal shift if we say that the new scientific development effects an exchange of reason for intelligence. ... [Intelligence is] associated with judgement, that is, with selection and arrangement of means to effect consequences and with choice of what we take as our ends. A man is intelligent not in virtue of having reason which grasps first and indemonstrable truth about fixed principles, in order to reason deductively from them to the particulars which they

govern, but in virtue of his capacity to estimate the possibilities of a situation and to act in accordance with his estimate. In the large sense of the term, intelligence is as practical as reason is theoretical. Wherever intelligence operates, things are judged in their capacity of signs of other things.”

The upshot of this thesis could be to delete “rationality” from its title; yet in the introduction I pointed out that ‘reason’ and ‘rationality’ are still such strong and authoritative orientation points in planning that it seems more practical to reconstruct almost all that substantiates these concepts rather than replace them with a new word.

Inquiry for Dewey is a broad concept that covers all vital efforts and life-expressions directed at building and sustaining successful coordination. Trial and error, natural and sexual selection, and the method of intelligence are different types of inquiry, and so are forms of religious quests and aesthetic explorations. “Intelligence,” in contrast, is a more restrictive notion. The method of intelligence is one in which the anticipation of the consequences of agency systematically enters both the inquiry process and the formation of our beliefs, dispositions and habits. As spelled in “Logic – Theory of Inquiry” (LW12) the method of intelligence is common to all scientific projects.

Dewey does not reduce the value and purpose of scientific research to its application in solving every-day problems (as claimed by the often cited vulgar-pragmatist straw-man). But the method of intelligence, applied in everyday contexts, creates beliefs and methods that have the potential to become issues of scientific inquiry: The application of the method of intelligence does not only solve problems, it creates new problems inherent to the concepts and solutions it produces. Science is but a follow-up to such higher order problems; (Logic LW12.41):

“Inquiry, in settling the disturbed relation of organism-environment (which defines doubt) does not merely remove doubt by recurrence to a prior adaptive integration. It institutes new enviroing conditions that occasion new problems. What the organism

learns during this process produces new powers that make new demands upon the environment. In short, as special problems are resolved, new ones tend to emerge.”

Planning as inquiry

Defining inquiry as an active process for resolving existential problematic situations makes it easy to see an affinity between scientific research and the methods of planning and policy making. Not only are both efforts in problem solving, but they also embrace the method of intelligence. For this reason Dewey concludes that science and public deliberation must not be seen as two different projects. The common pattern of inquiry shall be elaborated below (cf. also chapter 8).

My project here may be challenged as simply reversing what Dewey did: Dewey showed how scientific inquiry is based on logic for intelligent problem-solving, whereas I am going to use this logic or method of inquiry to show that it has application in the practical contexts of planning and decision-making. This would be equivalent to claiming that a logic of problem-solving could also be applied as a logic for the solution of problems. I would happily accept such a charge if I could convince the reader of some progress made on the way. My aim is actually to integrate this pragmatist conception of inquiry into a revised notion of rationality in planning. The result would then be a rationality model that is better able to deal with complex, problematic, and insufficiently understood situations.

The Pattern of Inquiry

Dewey chooses to introduce his definition of intelligent (and in particular scientific) inquiry as a procedural sequence of steps:

1. Indeterminate Situation
2. Attention, institution of a problem (“problematic situation”)
3. Determination of “problem-solutions”
4. Reasoning/practical judgement
5. Consummatory Experience: Restoration of a habitual equilibrium state

This model has been described and commented on in many places (cf. Logic: Theory of Inquiry LW.12: The Pattern of Inquiry, Studies in Logical Theory MW2.307, How we Think MW 6:236-7, Bernstein 1966 pp.101-13; Shook 2000 p.185).

Frank X. Ryan (2004 p.18) notes:

“[I]nquiry is a pattern, not a prescription – nothing is gained quibbling about five, or seven, or nine distinct stages. Sometimes we start in the middle, or with a solution to which there is not clear problem.”

I will argue that this “logic of inquiry” provides the basic material for a reconstruction of rationality, ready to challenge and supplant the LIR model.

At first glance, the five-step-sequence resembles any other linear progression scheme (cf. Chapter 2). In response to critiques, Dewey agreed that these stages could be read in a linear fashion, but pointed out that “the subject ... was written for pedagogical purposes rather than for strictly logical ends” (Experience and Education MW 13: 61). He clarified that the ‘steps’ of inquiry were explicated separately just as one would separately consider the respiratory and circulatory systems when teaching biology. These five points would therefore be a logical format of different activity *modes* that constitute a system of inquiry rather than a linear progression scheme.

Underlying these activities is Peirce’s “doubt-belief” scheme, which Dewey translates as “rhythm of situation.” This scheme only provides direction with regard to the framing of inquiry. It leads from settled to indeterminate/problematic back to settled transactions. Since the actual process of inquiry (as captured by steps 2-4 above) does not follow a fixed procedural order, these modes of activity could be represented in the following way, slightly diverging from Dewey’s original list by adding a centre of methods and norms:

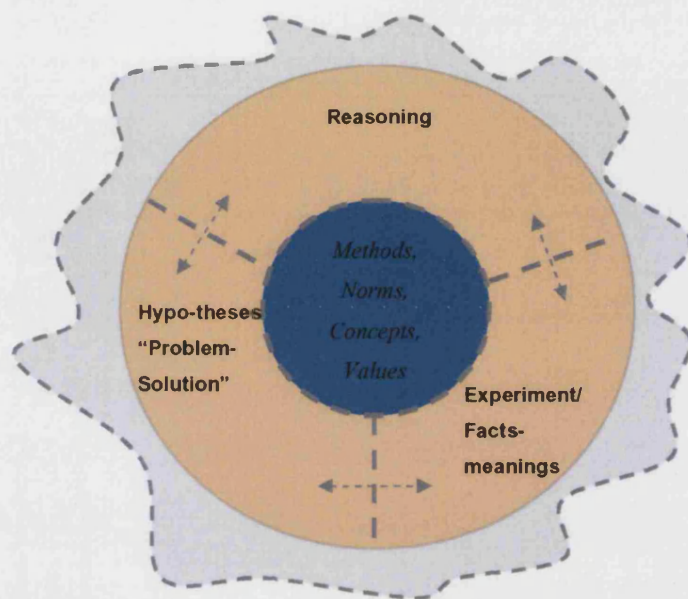


Figure 6.2: A graphical model of the intelligent inquiry

Later I will introduce a model of rational policy making that strongly resembles this graph.⁴

I will now explain and comment upon these modes of inquiry in further detail:

i. Antecedent condition: indeterminate situation. As previously stated, a situation becomes indeterminate when a habitual flow of transaction becomes inhibited or jeopardised. Dewey's category of an "indeterminate situation" must be distinguished from a "problematic situation." "Indeterminate" refers to the immediate change of quality in transaction, not to a reflected perception of disturbing factors: my situation is indeterminate when I find myself in an unfamiliar place but before I realise I am lost or what it means to be lost at such a late hour. It is a situation that provokes us to wonder whether we are still on the right track. This step is a significant contribution to the logic of inquiry. An indeterminate situation invites many different characterisations, framings and reactions. Such reactions include attempts to ignore imminent problems, a fiercer pursuit of the

⁴ This resemblance, however, is not an identity with regard to the categories then discussed.

already chosen path, or an examination of the situation in its new light and the initiation of a more systematic inquiry.

Introducing this category of an “indeterminate situation” captures experience where managers and planners realise that previously successful ways might not be sufficient in future. Planning theory has often referred to the gradual process of formulating a position as a problematic situation (Rosenhead 1989; Checkland 1999). In a more normative interpretation of inquiry as the foundation for rationality in planning the concept of “indeterminate situation” can promote an attitude of proactively looking out for challenges instead of waiting until problems appear: an equilibrium state may seem solid but can be challenged in the next moment.

ii. Attention, institution of a problem: Explicit attention and awareness of an interrupted transactive equilibrium turns an indeterminate situation into a “problematic” one; (Logic LW 12.111):

“To see that a situation requires inquiry is the initial step in inquiry.”

Such attention is *not* equivalent to having a *definition* of a problem. It is only the beginning of a challenging and creative process in which a viable problem-definition represents an advanced state of the inquiry process.

Amongst the challenges to the LIR model is the often expressed worry of recent theorists that planners can rarely rely on the availability of well-defined problems. Instead their main challenge is to achieve orientation in “messy” and insufficiently understood situations and to produce shared visions and goals (cf. Checkland 1981; Rosenhead and Mingers 2002).

Dewey had similar worries at least half a century earlier:

“... [A]mong persons directly occupied with management of practical affairs, it is commonly assumed that the problems which exist are already definite in their main

features. When this assumption is made, it follows that the business of inquiry is but to ascertain the best method of solving them...The inevitable result that methods for resolving problematic situations are proposed without any clear conception of the material in which projects and plans are to be applied and to take effect” (Logic, LW12.487).

iii. The determination of problem-solutions:

Dewey gives new meaning to the expression ‘a well-defined problem is on its way to a solution.’ The formulation and definition of a problem is itself a *means* for settling a problematic situation – it is not merely a precondition for a more systematic search for a solution. He talks about a “fully reciprocal character of means and end” (The Logic of Judgement of Practice, MW8.37), in that they are two aspects of the same process; (How we Think, LW8.201):

“... [W]e know what the problem exactly is simultaneously with finding a way out and getting it resolved. Problem and solution stand out completely at the same time. Up to that point, our grasp of the problem has been more or less vague and tentative.”

Dewey claims that problems and solutions are but “changing, functional distinctions.” (Bernstein 106). In fact, the definition of the problem is only the outcome of inquiry, not its starting-point. Correspondingly we may contend that planning ends rather than starts with a well-defined problem or purpose.

This line of thought prompts Dewey to choose the hyphenated notion of “*problem-solution*.” Of particular interest here is that the temporal order of having a problem and possessing a remedy or solution can be almost discretionarily overturned. We may start with a set of solutions, (resources or theories), and in studying them and testing their employment in a problematic situation we generate a definition of our ends and aims, i.e. an organised and structured idea of how to employ our means for the resolution of the present problematic situation. This brings to mind the *Garbage Can Model* (Cohen, March et al. 1972), according to which solutions are often developed independent of problems and then

stored in “garbage cans” from which they can be retrieved if a suitable problem arises (cf. Chapter 2). However, the emphasis in this model is that given the opportunity, problems and solutions couple up more or less randomly, whereas for Dewey, processes of problem definition and research into means of solutions are logically interdependent to the extent that they build a conceptual unity. This does not mean that research into methods and technology could not take place outside of situations that make their application helpful or necessary.

iv. Reasoning/practical judgement

Whereas section iii dealt with the way inquiry leads to the creative structuring of problematic situations and to *possible* definitions of problem-solutions, section iv searches for definite (though tentative) judgements to harmonise various possible definitions, conceptions of the situations and methods for settling its problematic quality within the complex network of existing beliefs and conceptions.

Dewey holds that in the context of scientific inquiry this means defining and shaping *hypotheses* that determine further experimental activities and give criteria for their success or failure.

Translated to planning and policy contexts this means that inquiry processes are not exhausted by finding a number of possible or even sensible descriptions and strategies. Building confidence, commitment to models and action strategies are tasks that rely greatly on exploring the consequences and ramifications of action in a situation. Reasoning here makes use of imagination as a tool for generating hypothetical experiments (cf. chapter 5). These explorations, if shared amongst many stakeholder groups may create ownership of problem-definitions and solution strategies amongst participants. Where groups explore a situation together, where they successfully share models and perspectives, also an agreement on shared policies and ends will follow quite naturally (Taylor 1994).

v. *Restoration of harmonious experience: implementation and learning*

Dewey introduces this phase or mode of inquiry as “the operational character of facts-meaning” (Logic, LW12.116). For Dewey ideas have no meaning save in their capacity to produce facts and transform experience. William James succinctly expressed the idea that hypotheses are not true or false *per se*. Instead, practical contexts bestow truth-values to propositions (James 1907 p. 201; quoted after Shields 1996):

“True ideas are those that we can assimilate, validate, corroborate and verify. ... The truth of an idea is not a stagnant property inherent in it. Truth *happens* to an idea. It *becomes* true, is *made* true by events. Its verity *is* in fact an event, a process.”

Below I will argue that consequently, the categories of planning (conceptual) and implementation (factual) are not separate, and that learning is not a contingent consequence but a necessary component of implementation.

Before applying his ideas to the relation between planning and implementation, I will discuss how Dewey develops this point in the context of *scientific*⁵ inquiry, his main focus in “Logic – Theory of Inquiry” (LW 12).

In discussing the relation between ideas (hypotheses) and observational facts (experiments), Dewey states that hypotheses are “operational” in their character, i.e. they guide the production of experience, and get their meaning from their capacity to inform experimental activity (LW12.116):

“Ideas are operational in that they instigate and direct further operations of observation; they are proposals and plans for acting upon existing conditions to bring new facts to light and to organize all the selected facts into a coherent whole.”

⁵ His paradigm case appears to be that of natural science and physics.

This idea can be summarised with the proverbial wisdom that there is nothing more practical than a good theory. The complementary idea, that there is nothing as theoretical as a good practice, is the gist of his following argument. Only after establishing both sides did Dewey feel entitled to conclude that ideas and facts (hypotheses and observations) work together as two aspects of the same process.

Also facts are “operational,” which Dewey explains in the following way (Logic LW12.117):

“[facts are] not self-sufficient and complete in themselves ... They are not merely *results* of observation ... Their function is to serve as evidence and their evidential quality is judged on the basis of their capacity to form an ordered whole in response to operations prescribed by the ideas they occasion and support.”

These facts are not merely events but are produced by theory-guided experiments and are therefore manifestations of the meaning of our theories. I discussed earlier (chapter 3) how the “stimulus” in the “stimulus-response” model is not a mere causal antecedent but an actively produced or designed phase of an organism’s coordination. In a similar vein we should think of the result of an experiment not as a mere causal effect of some manipulation but as a product of the theories it is testing. An experiment substantiates the meaning of a hypothesis theory in just as much as it provides a corrective measure. If observational facts diverge even slightly from their expected values, they will change the meaning of some of our theories (even if this normally means changes in auxiliary assumptions rather than alterations to the Lakatosian core of theories). Hence, saying that “facts are operational” means they are active players which manifest, modulate, and manoeuvre the meanings of our ideas.

The relation between ideas and facts (and between hypothesis and experiment) is reciprocal and intimate (Logic LW12.117):

“Some observed facts point to an idea that stands for a possible solution. This idea evokes more observations ... The new order of facts suggests a modified idea (or hypothesis) which occasions new observations whose result again determines a new order of facts, and so on until the existing order is both unified and complete. In the course of this serial process, the ideas that represent possible solutions are tested or ‘proved’.”

Observation and learning coincide if facts are not passive results but actively (“operationally”) contribute to the production of theories.

This conclusion attracts attention only when translated from the context of scientific research to that of social planning. To this end I suggest two conceptual replacements that easily accord with Dewey’s intentions:

1. Hypothesis (idea/theory) = Plan
2. Experiment (fact) = Implementation

If this is so, the following argument pertains: Plans guide the implementation of change (they are operative). Change is not a (self-sufficient) modification of circumstances, but an (operative) change of experience: it alters the meaning of those very plans that it manifests, and directly stimulates their alteration or the production of new designs. The planning process is not linear, i.e. plans are not merely implemented (with positive or negative results), but implementation itself belongs to the learning circle that is essential in formulating a plan and in giving meaning to a design. If the production of changes through implantation is *itself* part of the operative meaning of a design, then the result is a constitutive step of the plan-formulation stage.

Planning (i.e. the design-process) comes to an end only when this learning circle has led to a new equilibrium of a “unified situation.” This is a state in which a plan and its practical demands harmonise with the coordinated activities in experience.

The LIR model conceptualises planning as a process that leads from design (idea) to implementation (practice/fact), which are two distinct and subsequent stages. Learning is an optional third stage – a feedback loop leading from observed results back to earlier stages (e.g. to the definition of “resources” and “guides,” (cf. Figure 2.1), from where they influence future planning enterprises).

The upshot of above argument is that learning cannot be separated from implementation or reduced to an optional feedback link. If implemented changes (facts) are *operational* in their character, i.e. give new meaning and definition to plans, then any implemented change will in itself amount to an act of plan-adjustment.

Upon close reading, Dewey’s definition of inquiry aims not merely at re-establishing *any* settled equilibrium in place of a problematic situation, but demands us to “determine a situation in its constituent distinctions and relations” (see definition above). Inquiry with the aim of settling and unifying a situation is hence both the *study of distinctions and relations* (elements and meanings), and the way we *revise and upgrade our practical orientations*. To understand how these two definitions coincide we must remember Dewey’s definition of belief as habitual coordination and his definition of meaning. This result is equally important for any theory of planning and for the common understanding of the pragmatist philosophy and Dewey’s definition of the “method of intelligence.” Resolving problem situations through intelligent inquiry means more than getting rid of troubles, it means changing beliefs and habits by studying the meanings and relations of things. It means creating a deeper understanding, which is the same as achieving a more well-informed form of coordination. This could serve as a definition of learning.

Rational Planning as Intelligent Inquiry

This concludes my discussion of Dewey's "pattern of inquiry" as the key for a new model of rational planning.

I have pointed out how Dewey's situational approach, by introducing "indeterminate" and "problematic" situations (i&ii), allows for a more adequate account of typically encountered planning contexts, thereby providing conceptual means for a better orientation in actual circumstances.

The same holds true for Dewey's notion of "problem-situation" (iii) which, together with the results of Chapter 4 (valuation), settles thorny questions about the origin of problem-definitions in rational deliberation. It allows rational planners to develop their missions step by step and in coherence with investigations into the possibilities, risks, and chances inherent in a situation.

Dewey's pattern of inquiry creates space for the exercise of intellectual capacities or "reasoning" in rational deliberation (iv). This can comprise deductive forms of reasoning and symbolic transformations, yet as chapter 5 argued reasoning is a wider concept which invites a variety of imaginative capacities for exploring the meaning of hypotheses and propositions in the 'safe mode' of thought experiments. Dewey's conception further encourages synthetic forms of reasoning such as scenario building and model formulation, and allows a wide variety of human psychological capacities ("imagination") to figure as equitable resources.

This pattern of inquiry that embodies Dewey's "method of intelligence" provides the key to understanding rational planning primarily as a learning exercise (point v). Moreover, it circumscribes a criterion for a successful outcome of rational planning that is neither vacuous nor trivial: it points toward the creative transformation of our activities and dispositions so that we settle a conflicting situation by generating a more thorough understanding of its determinants.

For Dewey, scientific inquiry as characterised by this “pattern of inquiry” is the role model of any rational action that follows the “method of intelligence.” Intelligence demands more than following pre-approved recipes for the solution of problematic situations. It demands an active lookout for causal relations and the unprejudiced testing of hypotheses, so as to expose even fundamental beliefs to revision.

Dewey concludes that the method of intelligence for social planning must be equivalent to an anti-authoritarian, critical stance, and that intelligent inquiry is essentially a public and collective task (cf. LSA LW11.58).

The following section will make the transition from this conception of rational “intelligent” inquiry to explicitly collective agency contexts of social and urban planning.

Chapter 7: Social Planning and Collective Intelligence

Evolution is a change from a no-howish untalkaboutable all-alikeness to a some-howish and in-general talkaboutable not-all-alikeness by continuous sticktogetherations and somethingelseifications.

William James

Introduction

The previous discussion of Dewey's philosophy (Chapters 3-5) has led us from a critical revision of agency theory to a new concept of rationality defined as "intelligent inquiry."

The detailed exploration of Dewey's critique of the Humean agency and rationality model (Chapters 3-5) was framed as a methodological step within a larger project. This project set out to develop a new conception of rational planning and policy making that could supplant the outdated linear instrumental model. Chapter 6 made the step from an agency-centred perspective toward a theory of rationality based on Dewey's notions of "method of intelligence" and "pattern of inquiry."

The current chapter aims at linking these general reflections on rational agency to the context of collective social planning. I shall address some concerns about understanding rationality as a property of *collective* deliberation processes. Some scholars have explicitly warned against transferring any rationality model which can be applied to the purposeful, intentional behaviour of *individuals* to contexts of *social* planning. I shall discuss how Dewey's theory could quell these sceptical voices, and I will investigate how the pragmatist concept of inquiry, which serves as the *modus operandi* of our reconstructed notion of rationality, can be interpreted quite naturally as a *social* method of intelligent action planning. I will further discuss Dewey's notions of "effective-" and "social intelligence" as ways of solving the classic dilemma between technocratic expertise and democratic participation.

Three Indictments against Rational Planning

In his essay, “The Possibility of Rational Politics,” Jon Elster (1991) rejects the idea that policy-making should conform to a standard of rationality defined by the same model that applies to *individual* rational choice. He voices three objections against any attempt at treating collective deliberation and individual forms of decision-making alike. His arguments rely strongly on the Humean model of rational action, and hence his lines of critique can be matched up with the three basic elements in the (Humean) Folk model (Fig.1.1): beliefs, desires, and action.

Elster (1991) maintains that:

1. **Information and intelligence** are dispersed amongst the members of a community, where they remain ultimately beyond the reach of any central planning agency.
2. The notion of **preference** finds no acceptable equivalent on the level of political decision-making (or social choice).
3. Political or collective coordination could never be understood as the analogue of individual agency because the former lacks the **centred integration** of the latter.

It is easy to understand how these objections affect the *linear instrumental* notion of rationality, which is made after the image of Humean rational agency, and therefore presupposes the antecedent definition of means (information and intelligence), ends (social preference ordering) and the agent as a centre of coordination and decision making.

The following discussion has three main parts that will address Elster’s challenges in turn. I will indicate why a Deweyan *situational transactive* model of rational agency could remain unaffected by them. Doing so, I will introduce some important aspects of Dewey’s social theory which point at the democratic and participatory character of the STR model.

1 Democracy and Collective Intelligence

Deliberate Planning and Dispersed Intelligence – A Liberal Worry

The first of Elster's indictments against rational social planning is a point that has been made by a number of liberal philosophers and political theorists (Hayek 1945; Popper 1961). The claim is that the information, knowledge and intelligence required for social planning cannot be made available to any central planning bureau. Most of the relevant knowledge and information is dispersed among the members of a society. If rationality were defined as making the best use of all available knowledge in guiding action and strategies, the very idea of rational social planning would be spurious. Some libertarian anarchists and incrementalists argue that centralised planning would fall far behind those decentralised social deliberation mechanisms like markets and private life choices which are better able to employ prevalent intelligence and knowledge. The rest they tend to entrust to invisible hands or to incremental patchwork policies that improvise *ad hoc* solutions to problems in a trial and error fashion (Popper 1961; Lindblom 1973).

A committed liberal, Dewey rejects all centralised forms of social control (cf. Ryan 1995 for an extended discussion of Dewey's dispute with Walter Lippman). "Intelligence" cannot be monopolised by a ruling elite. He further acknowledges that many aspects of intelligent social coordination do not require central planning or explicit public deliberation. That is, not all forms of *social* intelligence (i.e. intelligent forms of collective coordination) are necessarily the product of *public* deliberation. Deliberate public intelligence requires participants to understand and plan their collective action. The history of human interaction has yielded rules and institutions that are shaped by experience and embody the intelligence of generations to maintain economic and social life. Many of these rules and institutions are not the product of conscious collective deliberation, and their functioning does not depend on participants understanding their mechanisms. But Dewey avoids talking about "invisible hands" because he holds that none of their working must remain *invisible*. The social benefits of decentralised and individual management of affairs need not be contrasted with public efforts at achieving social coordination. Since we are able to understand their

working and anticipate their benefits, they may be integrated into any strategy of public administration.

Dewey rejects the idea that centralised authoritative planning would be the best method for solving the problems of society, but he also opposes those liberals who infer from the decentralised nature of skills and crucial information bases the need to eschew any form of deliberate collective planning (LSA LW 11.32):

“When conditions had changed [transition from authoritarian to early liberal societies] and the problem was one of constructing social organization from individual units that had been released from old social ties, liberalism fell upon evil times. The conception of intelligence as something that arose from the association of isolated elements, sensations and feelings, left no room for far-reaching experiments in construction of a new social order. It was definitely hostile to everything like collective social planning.”

He fiercely contradicted those who privilege *private* decision-making over the social and collective forms of deliberation because the argument of dispersed knowledge and intelligence does not imply the advantage of private decision-making. In fact even most decentralised forms of intelligence are social rather than private (LSA LW11).

To understand Dewey’s conception of intelligent collective deliberation we must remember the intimate relationship between “knowledge” and “coordination” established in earlier chapters¹; moreover, coordination is a transactional notion that sees agency as a set of processes and relations within a whole situation. According to Dewey, even the most personal belief cannot be fully understood as located in a private mind. It comprises a relationship between an agent and her (social) environment. The knowledge and skill of a shop owner, for example, does not reside in her mind; it lies in the way she chooses,

¹ These two are not identical of course, since coordination can be achieved accidentally. Knowledge incorporates the anticipated consequences of our action into our coordination. It is defined as a disposition or a readiness to uphold coordination in a way that is able to “unify” a situation, cf. Chapter 3.

arranges and sells her products *to* customers, and thereby incorporates transactions with other persons.

Dewey speaks of “the intelligence, the knowledge, ideas and purposes that have been integrated in the medium in which individuals live” (LSA LW11.49), and he continues (p.49-50):

“Each of us knows, for example, some mechanic of ordinary native capacity who is intelligent within the matters of his calling. He has lived in an environment in which the cumulative intelligence of a multitude of cooperating individuals is embodied, and by the use of his native capacities he makes some phase of this intelligence his own. Given a social medium in whose institutions the available knowledge, ideas and art of humanity were incarnate, and the average individual would rise to undreamed heights of social and political intelligence.”

An IT consultant is dependent on the context of a highly developed technical surrounding and an infrastructure of business processes to which he must continuously adapt. Without this context his training, knowledge and abilities would not only be useless, they would also be meaningless.

This insight is enough to refute the claim that decentralised coordination must primarily rest on *private* beliefs or choice. We may sense that decision-making, however decentralised, is always a social process. But it does not indicate how we can rehabilitate the idea of deliberate and intelligent social planning on any significant collective scale.

The Public

Before discussing the possibility of a truly collective form of intelligence as a foundation for rational planning, I will take a brief look at Dewey’s concept of the *public*.

This concept can easily be misunderstood as a way of separating the realm of private management (negative freedom) from that of legitimate societal intervention.

Here I suggest a slightly different reading. A sharp separation between the *private* and the *public* as two domains of sovereignty contradicts both Dewey's concept of the individual and his concept of a public sphere. According to Dewey, participation is constitutive for individual freedom. This is a stronger claim than saying that the individual is socially embedded or that community relations and a sense of belonging are constitutive for an individual's freedom to choose meaningful actions. For Dewey, participation in collective deliberation processes is necessary for the individual to reach their full potential. On this account the "public" is not merely a domain of policy intervention, separate from individual freedom of choice; it is rather a platform for determining a genuinely shared way of life (PP LW 2).

Dewey's definition of the public is based on the idea that small and local decision-making has potential externalities that deserve explicit attention and deliberate planning (PP LW 2.252). But also in this definition, it is not the separation between domains of management and influence (state and private), but the distinction between two different aspects of the very same practices that defines the public sphere. Dewey's philosophy is particularly relevant in contemporary contexts where we are often reminded that most private decisions have not anticipated long term and remote consequences.

Unmediated individual behaviour has unintended consequences that are often problematic. Beyond private decision-making and the laws of the market, we need a level of explicit planning, because, by definition, we cannot leave these problems up to the chance of self-organisation, since that is where they originated. What exactly falls into the remit of the public and its explicit efforts to plan and design is a complicated question for political philosophy. Here we should ask whether deliberate and intelligent social planning is possible and by what means it should be done. The question is how should we think about collective planning so as to make our designs more intelligent. How can we do justice to the insight that intelligence is potentially a decentralised human faculty without falling back

on the sceptical position of *laissez faire* liberalism or the *post hoc* and *ad hoc* repair workshop of incremental “piecemeal social engineering” (Popper 1961).

If we believe that invisible hands must not remain invisible and that people should use their intelligence and projective imagination to foresee ramified and long term consequences of their actions; if we, like Dewey, believe that people have a say in their destinies and can improve their situations with foresight and effort, we still have to ask *how*. How can there be collective rational or “intelligent” *deliberation*? How can we as collectives employ capacities like projective imagination, conscious coordination of complex actions, the estimation of side effects, externalities and long term consequences, and sensible employment of resources? And how, Dewey would add, can we make sure that all these tools and instruments serve us to grow both individually and as a community?

In order to answer these questions Dewey recommends the “scientific attitude,” meaning the method of intelligence discussed in the previous chapter.

Science and Democracy

The scientific attitude is not a ‘positivistic attitude’ because it does not rely on a predefined scientific methodology or a fixed deductive explanatory scheme. Dewey’s scientific attitude refers to the search for new creative methods and solutions in concrete problematic contexts.

Deweyan political rationality is not only concerned with avoiding the sceptical positions of libertarian *laissez faire* economics and incrementalism. It also strives to avoid other extremes where technocratic planning experts, endowed with superior intelligence and knowledge, would be set to solve societal problems in central planning offices. The idea that knowledge, reason and intelligence are endowed to a privileged class of experts directly contradicts Dewey’s scientific attitude. In contrast, he defines scientific inquiry as a community-based and an ultimately democratic enterprise.

I will look briefly at the importance of community in the definition of science and scientific knowledge according to Charles Sanders Peirce and John Dewey.

Scientific community for Peirce

The idea that knowledge is inconceivable when understood as private property was one of the defining tenets of Charles Sanders Peirce's philosophy (Peirce 1831-1958)². For Peirce, science takes place in a universe that is partly indeterminate – a universe that is abidingly suspended in the process of its creation. In such a universe laws are neither exact nor immutable – at best they are probabilistic. Observation is part of the unfolding story, and it is realised by many conflicting perspectives. The process of conciliation or convergence of an inquiring community is constitutive for the truth of a matter. “The opinion which is fated to be ultimately agreed to by all who investigate is what we mean by the truth, and the object represented in this opinion is the real” (Peirce 5.407).

The suspicion of relativism that has haunted the entire pragmatist tradition is fuelled by suggestions that even reality should be the product, rather than the independent premise, of collective research (Peirce 4.61):

“...the real is the idea in which the community ultimately settles down.”

However, relativism is a mistaken label for Peirce's position because it insinuates that a community arbitrarily decides to establish what is real and true. The universe itself provides opposition and resistance, i.e. Peirce's category of “secondness” is irreducibly part of our epistemic enterprises.³ Further, the purpose of science is a practical one. Human efforts to understand take place in a complex and evolving universe in which “[t]he mind moves between the poles of doubt and belief” (Smith 1965 p.105). “Doubt” is existential, i.e. more

² Unless otherwise indicated, all references to Peirce refer to this collection and are referred to in the usual way.

³ In other words, “secondness” cannot be reduced to “thirdness” (rules, intentions, concepts, meanings) and *vice versa*. I.e. the resistance that we face in our attempts to fix beliefs cannot be reduced to meanings, definitions or conceptions (cf. Smith 1965).

than a theoretical option to formulate a sentence in the inquisitive form. Doubt is the inability of maintaining a habit (“belief”). For Peirce the aim of science in an undetermined universe is to overcome states of “doubt” (existential hesitation, unease, or restlessness) and obtain “belief,” “confidence, resolution, and that sort of adjustment ... in behaviour ... that we recognise as habitual action” (Smith 1965 p.105).⁴

It is not, however, the individual mind that will establish “truth” or define “the real.” Reality is defined precisely as the point of convergence that a community may eventually or ideally reach through its research efforts (Peirce 5.311, quoted after Bernstein 1966 p.132):

“... [T]he real, then, is that which, sooner or later, information and reasoning would finally result in, and which is therefore independent of the vagaries of me and you ... the very origin of the conception of reality shows that this conception essentially involves the notion of a COMMUNITY.”

Under this definition of the “real” as decided by collective agreement, individual possession of truth about reality is a meaningless concept. The very nature of the universe does not lend itself to the notion that a subjective (individual) epistemic process could discover its structure in a stable, monolithic, independent existence. Since the universe is indeterminate, and since the multitude of inquiries and perspectives is an irreducible part of its evolution, each individual scientific investigation and result can only partially or temporally resolve doubt – science is fallible.

The primary intention of this argument is not to point out that “truth” is an inter-subjective term but rather that, according to Peirce, the structure of inquiry is communal and communicative. From this, and given the result of the previous chapter in which “rationality” and “intelligent inquiry” were equivocated, we can conclude that rational deliberation is an essentially social process.

⁴ Cf. chapter 6.

One may refuse Peirce's optimism that communal investigation will, in the long run and under ideal conditions, converge and "ultimately settle down." But this is no reason to discard wholesale Peirce's notion of scientific progress in general. Peirce uses Hume's metaphor of stepping "on the shoulders of giants" to indicate how a scientific community *as a whole* can benefit from ongoing scientific inquiry as a self-correcting and self-improving process (7.51, quoted after Smith 1965 p.110):

"In storming the stronghold of truth, one mounts upon the shoulders of another who has to ordinary apprehension failed, but has in truth succeeded by virtue of the lessons of his failure."

Scientific community for Dewey

This same idea appears again in Dewey's writings, except that for him the success of scientific intelligence is not 'cumulative' in the sense of eventually "fixing beliefs." He instead points at 'communicated' or 'collective' success with respect to existing problematic conditions. Dewey has little use for the idea of a gradual approximation to *the* truth or even for a gradual "fixing of beliefs." One problem for Peirce is how should the aim of science, ('eventual convergence on one single truth'), ever be achieved by an ideal scientific community if the universe itself is unstable, i.e. if the world remains a creation in progress? Dewey solves this problem by defining scientific progress as a continuous adaptation⁵ to ever-changing circumstances. Thus scientific inquiry is not dedicated to reaching an ultimate commonsense; it is concerned with problematic inquiry contexts at hand, instead. This is why Dewey urges philosophers to develop adequate instruments of inquiry to meet the challenges of their own age instead of inventing immutable answers on eternal questions (cf. the essays "The need for a recovery of philosophy," MW 10 & "The quest for certainty," LW 4).

⁵ I am not using 'adaptation' in the sense of Dewey's restrictive definition here.

Dewey agrees with Peirce that beliefs and ideas can be knowledge in the full sense only when they are shared and owned by a community (PP LW2.371):

“Ideas which are not communicated, shared, and reborn in expression are but soliloquy, and soliloquy is but broken and imperfect thought.”

For Dewey, as for Peirce, scientific inquiry is a practical matter through and through regarding both its occasion (“doubt”) and its results (“belief”). But Dewey goes further than Peirce. Peirce never saw mundane problems like the everyday challenges of living in a community as the ultimate source *scientific* doubts. His notions of scientific “doubt” and “believe” remain *immanent* and restricted to contexts of scientific research. In short, Peirce’s “pragmatism,” as a theory of science, does not seamlessly connect with life-practical contexts outside science. Dewey’s theory of inquiry is a theory of life as a whole, not of a domain of science. Therefore “doubt,” or questions which occupy scientists, are not scientific problems *sui generis* but problems of life⁶ (Logic LW12.76):

“...science takes its departure of necessity from the qualitative objects, processes, and instruments of the common sense world of use and concrete enjoyments and sufferings.”

It is for this reason that the *scientific* community inquires into problems of the scientific *community* rather than merely into *scientific* problems. Science is not only about resolving doubt as an isolated crisis of belief. It is by definition a communal enterprise directed toward inquiring into the problems of the community. It is only in this way that Dewey’s idea of a scientific inquiry can become a model for social intelligence and planning.

⁶ Chapter 6 already addressed the continuity of scientific inquiry with organic coordination in problematic environments.

Science as Democracy

One thing that sets Dewey's pragmatism apart from scientific positivism according to Shields (2003) is that "...pragmatism links the scientific attitude with a rich participatory community."

Dewey's great innovation is not that he understands the importance of the scientific community in the inquiry process, but that he also understands this inquiry process as democratic in nature. This suggests that there must not necessarily be a trade-off between scientific expertise and democratic participation in planning processes. If Dewey is right, we might very well foster democratic participation in the planning process for cognitive rather than only ethical reasons.

Alan Ryan explains how the ideal of democracy resembles that of science, as "it excluded the fewest alternatives, allowed all ideas a fair shot at being tried out, encouraged progress, and did not rely on authority. [Moreover] democracy offered no guarantees, any more than science..." (Ryan 1995 p.43).

Others add (Talisie 2000 p.76):

"In democratic discourse, ideas are advanced and examined according solely to the evidence that can be marshalled in their support; conclusions and decisions are taken to be tentative hypotheses, proposals for action, subject to the test of future experience and hence to revision, social status and privilege are as irrelevant as is rhetorical skill."

Dewey's argument about the complementary nature of democracy and scientific inquiry was summarised by Putnam as resting on three premises. (Putnam after Westbrook 1998):

1. In both science and democracy, we gain "warranted assertible" belief only "by means of methods, practices, and values of a community of competent inquirers."
2. Inquiry, like democracy, extends to "judgements of practice and moral judgements."

3. There are “cognitive” in addition to ethical grounds as to why “a community of inquiry should be democratic.”

Reasons for the last point will be discussed in the following section.

Putnam concludes that for Dewey (Westbrook 1998 p.131, commenting on Putnam)

“...the quality of inquiry is affected by the degree to which that community is inclusive or exclusive of all the potential, competent participants in that inquiry and by the democratic or undemocratic character of the norms that guide its practice.”

Moreover, both science and democracy internalise their understanding as *fallible* institutions (cf. Garrison 2000), and it is their unique ability to face up to this fact – to address failure and to improve– that gives them an advantage over known alternatives. In his commitment to *fallibilism* as a source of both scientific and political improvement, Dewey agrees with Popper (1945; 1959). Popper and Dewey differ, however, on account of Dewey’s epistemic and political communitarianism (Ryan 1995 pp.100-101). In contrast to Popper’s fragmented piece-meal engineering, Dewey offers a vision of the public as a “great community” in which people dare to engage in large-scale social reform projects, so long as these fulfil three conditions:

- Deliberation must be inclusive and engage all affected participants;
- The methods and norms applied in deliberation must be compatible with a democratic commitment;
- The deliberation process must be flexible and open-ended. It should neither start by establishing incontrovertible premises nor end with irreversible judgements.

The third point reflects the *situational transactive* notion of planning as developed in the previous chapter.

Avoiding two extremes

Dewey explicitly encouraged social experiments and did not, like Popper, restrict them to incremental adjustments. Of course Dewey abhorred large-scale social experiments of the kind he witnessed during his own lifetime. However, we cannot avoid all large-scale social experiments. The formation of states and democracy itself is for Dewey an “experiment-in-the-making” (Boisvert 78).

The following quote could be read as a direct rebuttal of both comprehensive utopian social planning and unguided trial and error incrementalism (PP, LW2.257):

“It is not the business of political philosophy and science to determine what the state in general should or must be. What they may do is to aid in creation of methods such that experimentation may go on less blindly, less at the mercy of accident, more intelligently, so that men may learn from their errors and profit by their successes.”

In deliberative democracy Dewey sees part of a solution to the dilemma between grand utopian visions and blind trial and error procedures. As we have seen, democratic institutions are for Dewey not merely a guarantee against abusive and dehumanising social experiments, they also incorporate the spirit of free and un-coerced scientific inquiry. Hence democracy promises to be a most effective tool in employing our knowledge, intelligence and foresight to achieve improvements.

For Dewey, intelligence is a social property because it incorporates individual achievements as well as individual failures into a collective method of inquiry and learning. But effective social intelligence does not take the form of blind trial and error. Dewey charges some liberals with confusing complacency with social intelligence and thereby wasting the potential of a scientific attitude (LSA LW 11.32-3):

“The doctrine of *laissez faire* was applied to intelligence as well as to economic action, although the conception of experimental method in science demands a control by comprehensive ideas, projected in possibilities to be realized by action. Scientific

method is as much opposed to go-as-you-please in intellectual matters as it is to reliance upon habits of mind whose sanction is that they were formed by 'experience' in the past. The theory of mind held by early liberals advanced beyond dependence upon the past but it did not arrive at the idea of experimental and constructive intelligence."

Democracy and effective social intelligence

The idea that knowledge and truth can be communicated and shared makes Dewey positively optimistic about deliberative democracy as a form of scientific inquiry. Dewey makes the important claim that "social-" or "effective intelligence" can be democratic in its very nature. His notion of "effective intelligence" is opposed to the enlightenment understanding of a "fixed and given reason" (Gouinlock in John Dewey's *Collected Works* LW2.xxxiii). This distinction can be compared with the definition of "intelligence" as either a specific *individually* possessed *talent* to perform complex analytical tasks, or as any effective social *condition* that enables people to apply adequate solutions to their complex problems. The latter depends much on social, technical and infrastructural conditions and less on individual talent. However, sceptics may worry that democratic forms of collective deliberation would suffer severely if the average member of a community has only a modest grasp of the principles of reason. They would suspect any form of participative democracy of manifesting collective folly and impudence just as much as collective reason.

Dewey's "social intelligence" or "intelligence in operation," in contrast, exists in culturally transmitted learned habits and practices. It draws from the stock of available knowledge in a society and it uses instruments of communication and education for their transmission. Moreover, it uses differences in beliefs and opinions as resources in a creative search for viable conceptions of associated life.

Dewey believes in the human powers of reflection, anticipation, and communication as tools of intelligent collective deliberation. In a slightly different vein than Peirce, Dewey also uses Hume's metaphor of stepping 'on the shoulders of giants.' Dewey claims that our

individual intelligence will be greatly enhanced if we live an associated life that enables collective access to sources of knowledge (PP LW 11.38):

“There are few individuals who have the native capacity that was required to invent the stationary steam-engine, locomotive, dynamo or telephone. But there are none so mean that they cannot intelligently utilize these embodiments of intelligence once they are a part of the organized means of associated living. The indictments that are drawn against the intelligence of individuals are in truth indictments of a social order that does not permit the average individual to have access to the rich store of the accumulated wealth of mankind in knowledge, ideas and purposes.”

For Dewey this implies a powerful argument against the elitist claim that social planning should rest on experts' superior intelligence (PP LW 2.366):

“A more intelligent state of social affairs, one more informed with knowledge, more directed by intelligence, would not improve original endowments one whit, but it would raise the level upon which the intelligence of all operates. The height of this level is much more important for judgement of public concerns than are differences in intelligence quotients.”

However, what are we advised to do if we, as planners, find ourselves confronted with a reality that consists of many poorly educated and disinterested clients and a few expensive and well-informed planners? Should we encourage more participation and hope that measures to improve education and communication work? Should we start by engaging large numbers in defining new “public symbols,” as Dewey suggests, or is this too hopeful and naïve?

As a pragmatist, Dewey would surely reject such a detached interpretation of his work. His ideas actually yield more concrete and helpful advice.

For one, we can conclude that intelligent planning is never only a matter of getting from A to B with a minimum expenditure of resources and time. If planners want to benefit from the potentials of effective social intelligence, they should indeed work on the framework-conditions of the planning *process* as well as on the achievements of their ends. Building up the right channels of communication, enabling all actual and potential participants to access debates, and not excluding legitimate critical voices are vital in drawing upon this resource. These measures can be realistically achieved in any planning context.

Dewey takes his faith in democracy not merely from the fairness of numerical equality in balloting procedures, but from the potential high quality of democratic deliberation. This potential, however, cannot be taken for granted but depends on much more than equal suffrage. He strongly agrees with Walter Lippman that democracy can fail, but he draws more optimistic conclusions (LSA LW 11.39):

“It is useless to talk about the failure of democracy until the source of its failure has been grasped and steps are taken to bring about that type of social organization that will encourage the socialized extension of intelligence.”

If social intelligence is to be found in the organisation of associated life rather than in the superior minds of experts or leaders, what sort of organisation should this be? Dewey refuses to give a definite answer as to what an intelligence-promoting social organisation should look like. Institutional arrangements must always remain the outcome of specific democratic inquiry in concrete contexts. However, Dewey discusses in detail the meaning of democracy as a form of associated life that employs intelligence as its method and standard.

Dewey rejects defining democracy as merely government by majority rule. He rests his notion of democracy upon the idea of equality, but this, he claims, cannot be cashed out in terms of numerical vote-counts. Equally important as suffrage is the acknowledgement and invitation of differences as opposed to an “egali-fication” or “homogenisation” of society (Boisvert 1998 p.66). Dewey explains (Reconstruction in Philosophy MW12.329-30):

“Equality does not signify that kind of mathematical or physical equivalence in virtue of which any one element may be substituted for another. It denotes affective regard for whatever is distinctive and unique in each, irrespective of physical and psychological inequalities. It is not a natural possession but a fruit of the community when its action is directed by its character as a community.”

I have already gathered some practical advice for planning that follows from the Deweyan “scientific” understanding of democracy as collective intelligence. It must be added that we need not necessarily discount democratic participation as inferior to experts’ rationality from a cognitive point of view. In fact we might reject the strong opposition between participation and expertise, and rather search for a new role of experts’ competences within democratic deliberation processes and as constitutive part of social intelligence. A community that would discount the contribution of learned experts or scientific evidence would violate the understanding of democracy as an internalised scientific attitude just as much as a Lippman-style technocratic society. We may go back to Paul Appleby as quoted by Shields (2003) to understand the role of experts in a Deweyan democracy: “Experts should be on tap and not on top.”

2 Common Ends and Shared Purposes

The second of Elster’s indictments against using the same concept of rationality for individual choice and public policy (or planning) was concerned with the absence of a convincing method for defining social preference orderings. Some liberals worried that defining a social preference ordering (or a definition of the common good) would involve an illegitimate imposition on at least some individuals. Kenneth Arrow’s (1963) “impossibility theorem” demonstrates the difficulties in defining a reliable and convincing method for aggregating individual preferences into a unified social ordering.

We can deal reasonably swiftly with this challenge, as it is evident that it only threatens the LIR model, which needs to rely on a prior given definition of ends and purposes.

However, the issue of social preferences the determination of common goods is connected with some important aspects of Dewey's theory, which may help to gain a better understanding of the *situational transactive rationality* model.

Democracy and Human Purpose

Chapter 4 established that in a Deweyan rationality model ends and purposes are not given as social goods or as an aggregation of individual preferences. They are functional or "instrumental" products of a creative planning process. Planning was identified as an inquiry process which is always also a moral quest. But how can we hope to arrive at good and agreed upon definitions of social ends if many individuals are involved and affected?

What surprises is not that Dewey points at democratic deliberation to solve this problem, but what he actually understands by this suggestion. Many would see in democracy a means of identifying the wishes of a majority and a fair procedure that pays equal respect even to a minority that is bound to lose.

However, for Dewey democracy is more than a way of aggregating and legitimising social ends. He sees democratic deliberation as a means of creating common sense or "like-mindedness" (DE MW9.7).

This idea must surely alarm or even terrify some modern liberals. How can we allow any form of government not only to represent, serve and cherish individual wishes, but to influence, mould or assimilate them?

Dewey acknowledges that agreement on social ends must not be presupposed, at least not in large, diversified societies. He does, however, believe in the necessity of achieving *some* agreement on substantial purposes. The path to such "like-mindedness" is neither *via* a numeric aggregation of individual preference data, nor by mere democratic compromise. For Dewey "... democracy is more than a form of government; it is primarily a mode of

associated living, of conjoint communicated experience...” (DE MW 9.93) and it is in this associated mode of living that participating members coordinate their lives and plans. Some liberals interpret any quest for substantial agreement or ‘shared experience’ as a harbinger of a coercive society that gives its members insufficient room to differ substantially in their experiences, ways of life or pursued ends. For Dewey this conclusion does not follow. Individual flourishing and participation in a community, including serving common plans and goods, are not by nature opposed; and this does not make Dewey a conservative with a taste for the normalising power of inherited ways of life. Social agreement cannot be taken for granted as handed down or as something assured by the quality of received institutions. “Associated living” and “like-mindedness” are volatile traits that must be constantly renewed and creatively invented. Dewey understands democracy itself as an invitation to differ and resolve disputes by working out an agreement rather than merely finding a compromise between pre-determined interests of involved parties. Dewey rejects the assumption that there would be no way of rationally mediating between conflicting interests. For him neither individual preferences nor beliefs are given data. They are shaped in the context of social interaction and are therefore malleable. Public debate is a means of sharing and transforming views and purposes through examining the best available arguments.

It is important to understand that Dewey’s notion of “like-mindedness” does not conflict with his avowed pluralism. Like-mindedness is not a call for assimilation. It means something altogether different from doing or wanting the same things. The Deweyan version of an associated life does not lack cultural, aesthetic, or even religious or value diversity. However, a serious lack of “like-mindedness” would mean living either indifferently apart or in state of intolerable conflict, where ways of life contradict one another irreconcilably. Like-mindedness involves sharing the common ground of a community. Religious segregation, terrorism and cultural ostracism are examples of a lack of like-mindedness. Fundamental disagreement about how society mediates between conflicting interests can amount to such a lack if it prevents dialogue and the creation of new arrangements.

Dissent beyond remedy is dangerous; dissent *per se* is not. Any dissent is of course a lack of like-mindedness, but in a functioning community it provides fuel for creativity. Like-mindedness is not something that should be presumed by policy, nor something that can be forced on people, but it is a meaningful aim for open debate and public communication.

Liberal Worries and the Public

The plasticity of preferences and their sensitivity to interpersonal dialogue, education and institutional frameworks considerably blurs the distinction between social and private goods. Not merely with respect to their formation process, but also regarding their content, preferences have a natural social proclivity. Human flourishing or “growth” depends on associated forms of life, which require the transformation of individual into shared ends. Of course this poses a demand to make some personal sacrifices in order to achieve the benefits of cooperation in communal life. It also requires us to develop “...that type of character which identifies itself with common ends, and which is happy in these ends just because it has made them its own” (E, MW5.275).

To many liberals this must sound like a slippery slope towards imposing social authority over individual autonomy, and Dewey seems to give some occasion for this worry by claiming (RP MW12.191):

“Now it is true that social arrangements, laws, institutions are not means for obtaining something for individuals, not even happiness. They are means of *creating* individuals.”

His qualification that “...institutions are made for man, rather than that man is made for them” (RP MW12.191) does little to appease these critics.

Dewey’s notion of socially shared purposes must not be misunderstood as the appeal that different individuals should assimilate their views, preferences or tastes (E, MW5.276):

“...the chief thing is the discovery and promotion of those activities and active relationships in which the capacities of all concerned are effectively evoked, exercised, and put to test.”

Social ends and purposes are also functions within the coordination of activity; and he calls it the “law of common happiness” that “must reside in the congruous exercise of the voluntary activities of all concerned” (E, MW5.227).

In his strong communitarian leaning Dewey actively rejects attempts to make individual ends conform to pre-established common goods (E MW5.276-7):

“...a common end which is not made such by common, free voluntary cooperation in process of achievement is common in name only.”

With the distinction between categories of “the social” (including “the socially useful”) and “the public,” Dewey limits the reach of public administration and state intervention within the entire sphere of associated living. I already discussed that his intention is not to *separate* voluntary forms of association from State administration, whereby the latter would have a mandate to interfere only where free trade and voluntary transactions create costs for third parties. Instead Dewey holds that individual and society are dynamically interrelated. Only together can they create and re-create conditions that are potentially formative for *all* members of society (Syllabus MW11.349):

“When the individual self is treated as isolated and fixed, social arrangements can only be external means to its pleasures or possessions. But in fact institutions, legislation, administration, etc., are necessary to the release and operation of the capacities that form the individual. Society also means not a fixed organization, but reciprocal and growing sharing or communication of experience.”

As discussed, the criterion of significant externalities which limits the scope of public intervention therefore does not serve to define the public as a *domain* separate from private

and voluntarily social transactions. *Any* social interaction re-creates and shapes the social conditions for all and thereby has a public aspect. Interacting in conversation, for example, shapes the public institution of a language and its conceptual instruments, and private consumer decisions shape a marketplace by determining which goods are available at what price.

One might see a direct contradiction between Dewey's communitarian idea that social institutions should aim at "creating individuals" (rather than merely serving them) and his liberal criterion for public intervention, which restricts intervention to cases where individual transactions impact third parties.

I believe that the "public" is not a means of distinguishing *where* or *when* society may intervene. It is rather a device for guiding *how* we should determine political affairs. Individuals contribute to the public in the name of creating conditions for a rich and fertile form of associated living. The 'third party' proviso is simply a way of raising our sensitivity to indirect consequences of our intended actions on the life of a community as a whole. With the right anthropological underpinning, this idea could foster our sense for the social and environmental embeddedness of individual action instead of erecting an individualist bulwark around a "private sphere." The idea of a public precludes political demands in the name of external authorities (e.g. religion, glory of the nation, or loyalty to the king). In my reading, Dewey defines autonomy as a shared responsibility in the deliberation of the conditions of associated life. This explicitly includes those institutions that influence human reasoning, habits, values, and the character of its participants, which Dewey singles out as *public symbols, channels of information and education* (PP LW2). However, it is not the aim of the current thesis to spell out how a Deweyan public would go about building an institutional framework that enables individual "growth" and strengthens the political community at the same time.

Here I intended to show that it is not necessary either to presume or to impose a common purpose when speaking about rational planning as a *collective* enterprise. Elster's complaint about the unavailability of a social preference function required addressing an aspect of

“valuation” that had not yet been taken up in chapter 4. There I introduced Dewey’s instrumental theory of value and the functional interpretation of purposes as enabling successful coordination. This theory is central for understanding the production of purposes in contexts of collective deliberation. In chapter 4 I introduced values and purposes as product of inquiry. Here I spelled out how Dewey understands inquiry as a collective enterprise, and the public as a community of inquiry. “Instrumental” (or consequentialist) considerations determine the valuation process in contexts of collective planning just as they do in personal decision-making. Particular to collective planning contexts is the question of the legitimacy of value judgements. Dewey provides a political philosophy that is remarkable in how it combines normative concerns for individual freedom with insights into human nature. Again democracy is more than a warrant for a fair procedure. Participation is essential for human flourishing if individual “growth” cannot strictly be separated from the realisation of a social self, i.e. growing as a member of a community.

Defining a social good or a collective end is every bit as difficult as any process of valuation (cf. chapter 4). But if Dewey is right on account of his anthropological notions and his political theory, it is not impossible to talk of planning as an intelligent collective inquiry where the formation of ends and purposes is part of a shared activity.

Common Ends and Power

A pessimistic notion holds that *power* is exerted through coercion, that it creates barriers to inclusion, and that it influences or distorts deliberations on knowledge and needs. *Paternalism* and *manipulation* are two negative connotations of ‘power.’ Contemporary theories focus on power as a primary force in shaping public discourse and actions (Foucault 1980; Habermas, Bürger et al. 1992; Dowding 1996). Steven Lukes’ (1974) famous definition points beyond a confrontational understanding. Power can be more than the ability to affect or inhibit social change by overriding the natural inclinations of other players. More pervasive forms of power can influence other parties’ *thought* and *value systems*, and even their perceptions of their *own interests*. In this definition visible conflict

and competition can no longer serve as indicators for the exercise of power relations (Lukes 1974 p.24):

“[T]he more effective and insidious use of power is to prevent ... conflicts from arising in the first place.”

Dewey recognised that some factors shape agency and inquiry more than others. He also noted the ambivalent nature of power, which has both creative and destructive occurrences (Dewey 2002/1922):

“We attribute a will to power to others but not to ourselves, except in the complimentary sense that being strong we naturally wish to exercise our strength ... the will to power is imputed only to a comparatively small number of ambitious and ruthless men... So far we have no generalized will to power, but only the inherent pressure of every activity for an adequate manifestation. It is not so much a demand for power as a search for an opportunity to use power already existing. If opportunities corresponded to the need, a desire for power would hardly arise: power would be used and satisfaction would accrue...when social conditions are such that the path of least resistance lies through subjugation of the energies of others, the will to power bursts into flower.”

It follows that power can be experienced only where natural inclinations are inhibited, i.e. when forces or intentions oppose one another. Where this element of counter-pressure is missing, the exercise of power seems equivalent to a “unified” or “harmonious experience.” Does Dewey lack sensitivity to the covert and nonetheless oppressive power-relations that Lukes and also philosophers of the Frankfurt School bring to attention?

This interpretation would be inadequate. Power for Dewey becomes a problem where some individuals or groups make use of aptitudes to inhibit the potential “growth” of others. For Habermas coercive power-relationships are manifest in distortions of communication. Emancipated members of a deliberating community will have equal access to public

debates in which the best arguments decide on institutional arrangements. Emancipation begins with uncovering asymmetric relationships that prevent participants from engaging in dialogue as equals. Social relations and institutions can only be justified if they adhere to the standards of reasonable public debate as laid out in the “ideal speech situation” (Bohman and Rehg 2007):

“(i) No one capable of making a relevant contribution has been excluded, (ii) participants have equal voice, (iii) they are internally free to speak their honest opinion without deception or self-deception, and (iv) there are no sources of coercion built into the process and procedures of discourse.”

Dewey would agree much with this (Talisie 2000 p.76):

“In democratic discourse, ideas are advanced and examined according solely to the evidence that can be marshalled in their support; conclusions and decisions are taken to be tentative hypotheses, proposals for action, subject to the test of future experience and hence to revision, social status and privilege are as irrelevant as is rhetorical skill.”

However, Dewey would be likely to object to Habermas’ (1987a) separation between the *a priori* of experience and the *a priori* of communication. Habermas made the distinction between “objectivity” as “intersubjectively meaningful experience” (cf. Ulrich 1983 p.115) and “truth,” which points at the “discursive redemption of validity claims.” His theory of “knowledge constitutive interests” (Habermas 1987b) addresses the *a priori* of experience. It establishes the constitutive role of practical orientations in having any meaningful experience. Our recognition of objects directly corresponds to at least one of three pursuits: use as an instrument, recognition as a meaningful symbol in communication, or recognition as an item of interest for emancipation from social power-relations. From a classical pragmatist perspective these distinctions seem like a valuable addition to the general notion that experience is an active and intentionally directed process (cf. chapter 3). We may, however, wonder whether Dewey would leave the demarcation between these particular

interests unchallenged and what he would say about interpreting interests as “*a priori*” of experience.

Turning to Habermas’ “*a priori* of argumentation,” which are sharply distinguished from the “knowledge constitutive interests” (or “*a priori* of experience”), we can sense some incompatibility between Habermas and Dewey. Habermas separates conditions for the *meaning* of expressions from conditions for their *validity*. Whereas Dewey’s criterion of “warranted assertibility” strictly observes the unity between truth and situated inquiry, Habermas constructs a (“quasi-”) transcendental⁷ theory of discursive rationality, which is pragmatic only insofar as it understands the redemption of validity claims as a dialogical *practice* that involves speech *acts*. The principles of argumentative reason are not introduced as outcomes of an empirical inquiry process, but are presupposed to function as transcendental *a priori*, i.e. as inalienable (and normative) presuppositions for any meaningful human dialogue and the criteria for qualifying a factual consensus as “rational.” Only if speakers conform to these principles can their arguments be seen as contributions to a rational dialogue. In order to make the distinction between a merely factual and a *rational* commonsense, Habermas invokes four validity claims that participants must implicitly accept before engaging in dialogical argumentation. These include the speaker’s choice of a “comprehensible expression;” the speaker’s intention to “communicate a true proposition” (and thereby the implicit acceptance that there is a ‘Truth’ to be told); the speaker’s intention to be *truthful* (“wahrhaftig”) or trustworthy; and “[F]inally the speaker must choose an utterance that is right [“richtig”] so that the hearer can accept the utterance and speaker and hearer can agree with one another in the utterance with respect to a recognized normative background” (Habermas quoted after Ulrich 1983 p.123).

Habermas’ claim is that these commitments are given *a priori* in the structure of all meaningful discourse, i.e. their acceptance must be presupposed from any participant in public discourse simply by virtue of the performative structure of their statements. Even

⁷ Habermas’ own qualification as “quasi-transcendental” means only a slight modification which intends to limit “transcendental” to the function of arguments rather than to categorical laws of all possible reason.

though most of these commitments do not seem too controversial, they serve as a foundation for Habermas' definition of the "ideal speech situation," and thereby form the normative base of his political theory. Thus some implicit commitments which are said to build the transcendental condition of discursive statements become the chief resting points of a theory of human emancipation.

Also for Dewey the form of interpersonal communication plays a central role in human growth and emancipation. Democracy as a method of intelligent cooperative inquiry requires "the improvement of the methods and conditions of debate, discussion and persuasion" (LW2.365).

However, he would object to Habermas' resting the justification of standards for "improvement of the methods... of debate" on "quasi-transcendental" reflections on the formal structure of meaningful argumentation. The normative demand for an unrestricted and symmetric access of all participants to public debates does not arrive as a conclusion from logical reflections on discursive praxis and their necessary presuppositions.

Inclusiveness of debates and symmetry between participants are essential ingredients to intelligent inquiry, because they are won from *experience* and supported by empirical and instrumental reflection. What would happen (or, indeed, what has happened) where these norms have been dispensed with is a stronger argument for their validity than reflecting on the necessary presuppositions underlying argumentative practice. The emancipating power of communication and public debate is a consequence of the experimental method it embodies. The potency of this *method* in solving problems, resolving social conflict and creating "growth" gives dialogical communication its special status. The room for alternatives to democratic and inclusive political procedures is further restricted by the fact that the very notions of "growth" and human flourishing are linked to participation in communal deliberation. But these are empirical rather than transcendental necessities.

Critical theory after Habermas has often had a tendency to rely on debate, and in particular on meta-argumentation, about the structure of the current discourse as a means for

emancipation. Exposing the power relations in the unspoken presumptions and distortions underlying our linguistic practices proved an effective instrument in raising peoples' awareness (e.g. of the unequal relation between the sexes). A proclivity to use the critical faculties of debate against forms of argumentation and the insistence that social problems should be tackled by such critical discourse has given the tradition of critical theory in planning the reputation of 'talk-shops.'

The following passage seems like a tailored answer that Dewey would have given to those champions of discursive deliberation who seek the remedy of all social ills in debates on the rules of debating (LSA LW11.50):

"Discussion, as the manifestation of intelligence in political life, stimulates publicity; by its means sore spots are brought to light that would otherwise remain hidden ... But discussion and dialectic ... are weak reeds to depend upon for systematic origination of comprehensive plans, the plans that are required if the problem of social organization is to be met. There was a time when discussion, the comparison of ideas already current so as to purify and clarify them, was thought to be sufficient in discovery of the structure and laws of physical nature. In the latter field, the method was displaced by that of experimental observation guided by comprehensive working hypotheses, and using all the resources made available by mathematics."

Dewey later continues (LSA LW11.51):

"The idea that the conflict of parties will, by means of public discussion, bring out necessary public truths is a kind of political watered-down version of the Hegelian dialectic ... The method has nothing in common with the procedure of organized cooperative inquiry ... Intelligence in politics when it is identified with discussion means reliance upon symbols ... But symbols are significant only in connection with realities behind them."

In the effort to realise the full potential of democratic and scientific inquiry and to facilitate the constructive rather than destructive exercise of power, Dewey points at an ongoing problem that the public needs to resolve. He claims that the appreciation of pluralism is critical to this endeavour, as are moral and democratic education and the employment of tested methods of inquiry (PP, LW2).

Dewey is undeniably sensitive to more subtle forms of influence and power such as false consciousness or “pseudo public opinion” (FC, LW13.168). He trusts democracy as a means for overcoming such distortions. At the same time he sees democracy as a concrete historical experiment that employs scientific methods that are the products of previous human experience and imaginative intelligence. The standards he applies against the illegitimate use of power are not those warranted by transcendental reflections, but those measured by their effects on human growth and flourishing. Dewey suggests the following critical standard of ‘democratic’ deliberation (PP LW 2.327-328):

“From the point of the individual, it consists in having a responsible share according to capacity in forming and directing the activities of the groups to which one belongs ... From the standpoint of the groups, it demands liberation of the potentialities of members of a group in harmony with the interests and goods which are common.”

3 Formation of Agency

The previous discussions about a reconstruction of agency and rationality bypassed one question: how is the category of the *agent* constituted?

The last of Elster’s (1991) indictments against rationality as a standard for politics says that:

“... [I]ndividuals, unlike polities, have an organizing center – variously referred to as will or ego ... Societies, by contrast, have no centre.”

It is unclear what Elster means by “organizing center.” Is it a Cartesian “ego” or an authoring agent that logically pre-exists all actions and deliberation processes? In the received Humean tradition an agent would be distinguished as one who holds beliefs and is stimulated by passions or desires. Thus the agent could be defined as an independent centre of motivation with a unique perspective on the world and a complete and consistent ordering of preferences. Given this starting point, any *collective* agency theory has to do one of two things: 1. argue that some social or collective agent could be defined after the same model of individual agency so that a collective rationality model can proceed *as if* there were a unified collective agent; or 2. provide a plausible way of aggregating the agency of individuals so that collective rationality can be treated as a second order phenomenon of social agency. Above we have addressed some arguments as to why neither strategy is promising.

The discussion of all previous chapters has envisaged agency as a creative, self-defining process that produces fundamental distinctions like means and ends or “resources” and “guides” as part of an unfolding agency process. How, in such a model, can we understand the category of the agent or actor? Can we presuppose the actor as a given unit? Does the agent logically pre-exist the unfolding of the processes of agency? The answer is no: a transactive approach, by definition, scrambles sharp distinctions between agents and their environments.

In the Deweyan picture of inquiry (Festenstein 2002),

“... no component is fixed in the sense of [being] beyond revision: the unit of agency (the individual, some corporate or collective agent), the agent’s goals, surroundings, criteria for a good solution to a problem, relevant methods, etc... the pragmatist conception of inquiry dislodges the assumption that any particular unit of agency should be taken as fixed.”

As a “transactional” category, the centred, coordinated, and motivated perspective that is taken to be the author of a course of action is itself the product of a self-forming process of agency.

William James’ witticism from the heading of this chapter meant to mock Herbert Spencer’s (1862) definition of evolution as “...a change from an indefinite, incoherent, homogeneity to a definite, coherent, heterogeneity, through continuous differentiations and integrations.” It captures a fundamental insight that does not sit easy with the standard “substance” model of metaphysics in which object and elements must pre-exist relations and transactions in nature. Particularly in evolutionary contexts we see the limits of substance metaphysics and the attractiveness of a process metaphysics in which entities are the products of self-organising processes.

Individual or personal agents do, of course, enter such transactive situations as coherent and individuated actors. Still, arguments portraying individual agents as formed (“individuated”) through their transactions are of particular interest in Biology (Maturana and Varela 1980), Developmental Psychology (Jung 1946) or in philosophical reflections on concepts like “identity” and the “self” (Simondon 1964; Mead 1967 [1934]; Taylor 1989).

Treating the agent as a product rather than an antecedent of an unfolding agency process is particularly relevant when looking at planning contexts: Problematic planning situations normally comprise a plurality of individuals and organisations with widely differing ideas, interests, and viewpoints. Coordination is accomplished in the form of *habitual* interactions (e.g. the routine links between working processes in a company) or *creative responses* to the challenges and tensions within a problematic situation. What I call ‘the formation of agency’ will be attained through creative efforts aimed at achieving coordination in problematic contexts.

Dewey is in the avant-garde of a 20th century philosophical movement which has often been dubbed the “social turn” and has dealt with a revision of the relation between

individual social categories. Traditional liberals understood the social as an aggregate product, which presupposes the existence of interacting, communicating and contracting individuals. Philosophers of the social turn, in contrast, searched for the source of the autonomous, individual self in its primary social embeddedness (Taylor 1985). Dewey would further argue that an “organising” centre, as Elster demands at the outset of rational deliberation, is only an achievement of organising activity that must be continually re-established. He calls the category of the “actor” (KK LW16.260)

“[A] confused and confusing word; offering a primitive and usually deceptive organization for the complex behavioral transaction the organism is engaged in. Under present postulation Actor should always be taken as postulationally transactional, and thus as a trans-actor.”

For Dewey every organism is a product of organising and differentiating activity within nature. Maturana and Varela (1980) add that being an organism (i.e. belonging to a certain class of organised beings) depends on continuous action: organisms distinguish themselves from their environment by activities of “autopoiesis” (literally “self-creation,” including self-maintenance, producing conditions for survival, and the continuous re-creation of boundaries).

Dewey’s critique of the stimulus response model in biology and psychology maintains that the self is not a passive receptor of stimuli – stimuli become incorporated into dispositions (habits) and thereby form part of the coordinating activity of the organism (cf. chapter 3). Mead uses this idea to argue that the self is the product of habits formed within such coordination efforts, in which perception and reaction build a continuum. The model for these transactions that form habits, the character, and thereby the individual “self” is that of communication in a conversation. Mead is anxious to redeem this notion of conversational communication in naturalist terms.

Mead points out that in the beginning of its development a human organism follows impulses and perceives reactions from others; by learning to anticipate reactions a person

incorporates them into her own coordinations. Her actions become intentionally directed toward an expected reaction, i.e. she incorporates the anticipated reactions into her own impulses. In social contexts this means that her expressions become “gestures.” A gesture is a symbol, i.e. it is no longer merely the expression of an impulse but it intends to produce a certain reaction. A gesture reaches out into the future and signifies reactions and forms of coordination that are possible but not actual. The agent further refines her own gesturing in view of received and anticipated gestures of others, which is for Mead the analytical point when consciousness appears. Thinking is the process of internal gesturing and thereby refining one’s beliefs and habits. Mead intends to reveal that individual categories like the self, the character, and “me” are results rather than preconditions of social forms of interaction. From there he concludes that *the other* is logically prior to the self, i.e. the gesturing partner, the interlocutor, is a practical and analytic prerequisite for the constitution of individuality (cf. Mead 1967 [1934]; Joas 1980; 1997).

Political philosophy, since Hobbes, has been infatuated with deducing the rise of societies and states from the assumption of interacting, associating and covenanting individuals. Dewey, arriving from a similar angle to Mead, concludes that the self is secondary to the category of the social interaction (PP LW2.250):

“There is no sense in asking how individuals come to be associated. They exist and operate in association.”

If the above explanations hold, then a Deweyan model of rational planning has little to fear from Elster’s indictment that social planning cannot rely on the pre-existence of a ‘centred’ agent. However, a *situational transactive rationality* model will have to pay particular attention to the formation process of coordinated agency in dealing with problematic situations. This must be done with special regard for the requirements of “effective social intelligence” and its demand for participation. I shall come back to this question in the following two chapters.

Conclusion

It has often been argued that concepts of “intentional agency,” “decision-making” or “rationality” have meaning only when used to describe the actions of individuals. Plural, collective or social agents have no intentions and cannot deliberate. Collective rationality should therefore be used, if at all, only in a metaphorical sense. Some said that the organisation of collective behaviour can be called ‘*rational*’ only when it represents the outcome of a qualified *aggregate* of individual decision-making, or if its outcomes can be cashed out in terms of individual interests (Popper 1960; Arrow 1963; Elster 1991; Watkins 1996).

The three main sections of this chapter were matched with three indictments that Jon Elster offered against applying the same concept of rationality to both political and individual deliberation processes. My aim in this chapter was to show how the concept of rationality as *intelligent inquiry* can be applied to problem situations that are constituted by plural agents. I thus intended to demonstrate that a Deweyan rationality does not need to separate between two different rationality concepts: one for rational personal conduct and another for rational political deliberation.

Planning, as a collective form of inquiry, can be rational (or “intelligent”) in its own right. I do not view the transition from developing a pragmatic concept of rational agency as intelligent inquiry to the context of social and urban planning as a step *from micro to macro*, or as a move from an individual to a collective agency theory. Dewey’s pattern of inquiry is not primarily a model of intelligent *individual* agency in the first place. His theory is in no need of a translation-function to contexts of plural coordination efforts. Our framing of Dewey’s project as a *philosophical psychology* and a critique of the Humean agency model may have caused the impression that it centres on individual human conduct. But there is no evidence that Dewey’s understanding of agency gives epistemic or ontological priority to individual agents. On the contrary, his concept of intelligent inquiry is originally a social concept.

The idea of a forward-looking, deliberative planning rationality as an “effective democratic intelligence” had to be defended against objections from two sides: one is the view that intelligence remains decentralised or distributed amongst individual members of a community and therefore cannot be aggregated and used for explicit coordinated planning. The other opposing claim suggests that only the intelligence of a few educated experts could yield the best possible decisions for the community as a whole – a claim that forfeits the possibility of a rationality of deliberative social participation. Dewey’s concept of effective social intelligence mediates between these poles by redefining social rationality as a communal rather than an individual method of deliberation.

The aim here was restricted to clearing the ground for any viable notion of social or collective intelligence. I have therefore avoided detailed discussions of Dewey’s “public” and the problem of establishing the legitimacy of State intervention. Instead I discussed the idea of intelligent inquiry as a model for collective rational planning.

This concludes my argument which establishes the *possibility* of a rationality of social planning. It also concludes that part of my thesis that examines Dewey’s work in order to define a new concept of *situational transactive rationality*. In the following I will apply the results to planning theory and practice.

Part IV

Application: A Planning Model,
Case Studies and a Concluding Remark

Chapter 8: The Decision-Cell – A Planning Model

Time does not run in one direction, I guess; like so: 'A-B-C-D...'

She simply jumps as she wants.

Haruki Murakami¹

Introduction

The title of this thesis promises a revision of an *applied* concept of rationality, and in particular a concept of rationality applicable to social and urban *planning*. In the previous four chapters I expounded John Dewey's philosophy as a source for reconstructing the theory of agency, and discussed his notion of inquiry as a modus of a new and more comprehensive concept of rationality. Dewey does not offer new 'nuts and bolts' for applied theories of human agency, meaning a set of principles or premises that lend themselves to axiomatic formalisation and mathematical deductive argumentation. I know of only one detailed attempt to formalise Dewey's logic, (Burke 2002) which is itself proof of how recalcitrant Dewey's theory is to formalisation. This is due to the rejection of sharp categorical breaks in his project, its flexible and floating distinctions with its qualitative notions of situation and transaction, its aversion to *a priori* resting points, and its "rhythmic" rather than rigid patterns of change (cf. chapter 6). However, this difficulty is not an argument against using the revised Deweyan notion of rational deliberation in applied contexts like planning and policy making, and even building a differentiated model of planning and policy processes. The long journey through Dewey's pragmatist project has yielded a revised concept of rationality that can be called "*Situational Transactive Rationality*" (STR). 'Situational' refers to Dewey's notion as explored in chapter 6. It provides the foundational measure for rational or "intelligent" agency. 'Transactive' emphasises the idea that all activity, including research, planning and implementation, are *formative* in the process of policy making. The attribute 'transactive' further implies that all

¹ The Wind-up Bird Chronicle

concepts and distinctions that a theory of rational planning introduces are heuristic possibilities, not categorical necessities.

My ambition until this point was to develop STR as a new conception of rationality. Now it is time to apply this conception in a model of rational planning. The “Decision-Cell” (DC) model is the product of a long standing collaboration between Shyama Kuruvilla and myself (Dorstewitz and Kuruvilla 2007; Kuruvilla and Dorstewitz forthcoming). The following discussion is in great part a report of this collaboration.

The Decision-Cell Model

The decision-cell model is developed in the light of the previous discussion of Dewey's theory of inquiry and his "method of intelligence" (c.f. Chapter 6). It also takes into account some current theoretical understandings and empirical evidence on planning and policy-making processes. Taken as a whole, the model is meant to capture the creative self-organising and self-defining nature of agency that Dewey established.

What Peirce called the "doubt-belief" scheme, which Dewey elaborated into his "pattern of inquiry," is the drumbeat underlying this *situationally* transactive DC model:

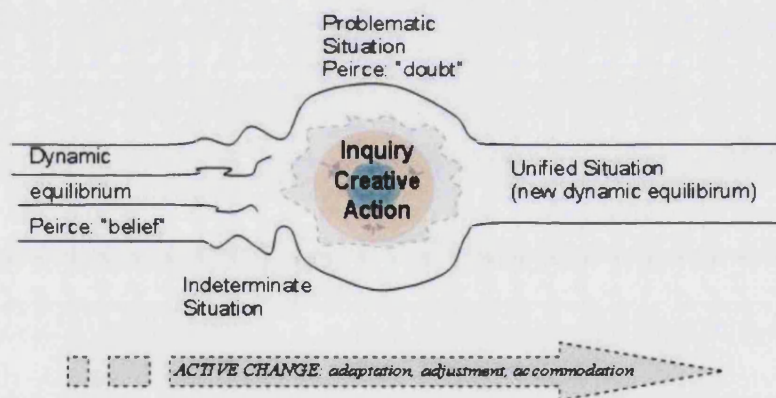


Figure 8.1: Deweyan inquiry embedded in the "rhythm of situations"

Remember that Dewey's pattern of intelligent inquiry (cf. Chapter 6) had been introduced in five (or six) steps (or modes of activity):

- (0. Dynamic equilibrium)
1. Indeterminate Situation
2. Attention, Institution of a Problem ("Problematic Situation")
3. Determination of "Problem-Solutions"
4. Reasoning/Practical Judgement
5. Consummatory Experience ("Unified Experience")

The "cell" shaped centre of this graph ("creative inquiring action") encompasses the detailed intelligent inquiry processes that Dewey develops with regard to steps 2-4.

No one-to-one translation between the five stages model and the Decision-Cell Model can be provided, since the boundaries in the present model are slightly different from those in above scheme. While discussing the elements of the DC model I will however refer to the relation between it and the pattern described above.

The cell

The decision-cell proposes a set of typical activity modes that are meant to capture the various types and phases of activity that participants in a planning process will engage in, following the idea that planning is best understood as a pragmatic inquiry.

A detailed discussion of the elements and structure of this model will follow after explicating how our discussion of Dewey's theory provides key-intuitions for its formulation.

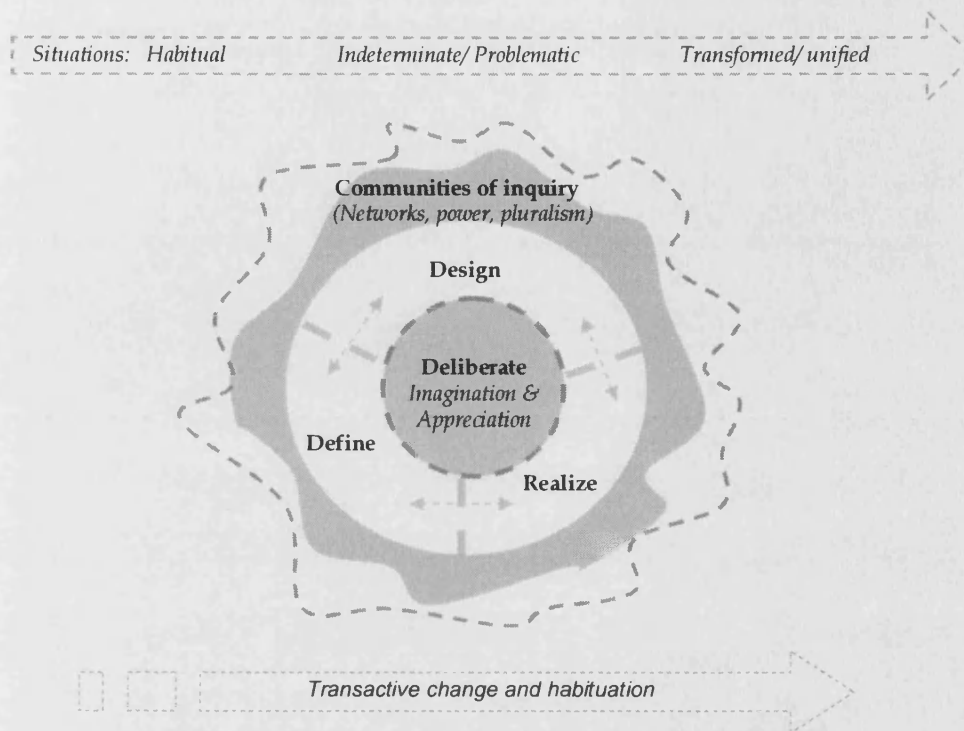


Figure 8.2: The Decision-Cell Model

The decision-cell model embodies much of Dewey's monistic commitment that eschews dichotomous divisions and sharp categorical breaks. This approach finds expression in the graphical appearance: demarcations and boundaries are dotted or softened to indicate that the suggested distinctions are tentative and evolving. The categorisations themselves are best understood as conceptual *resources* that can be used to bring order into processes of policy making. If this model is chosen as an analytic tool for understanding and organising activity in a problematic surrounding, observed activities will not always fit neatly into this scheme. In concrete contexts segments will overlap or be absent. Dewey's monism finds further expression in the presentation of agency as an organic process, i.e. the model does not rely on an *a priori* given distinction between agent and environment but makes this difference a product of creative human agency (see "formation of agency", below). Moreover, the decision-cell disowns attempts to separate final purposes from deliberation over means and instruments (cf. the "deliberate" – the core of the model).

Graph 8.2 shows the decision-cell model with three activity modes ('define,' 'design,' and 'realise') centring on a core labelled "Deliberate - Imagination & Appreciation." These elements are embedded in an amorphous field ('formation of agency'), which is enclosed by a dotted boundary labelled 'problematic situation – punctuated equilibrium.'

I will discuss these elements and distinctions, proceeding from the periphery to the centre.

Situations

Chapter 6 concluded an investigation into how Dewey's notion of "situation" may function as a foundational category of agency and thereby replace the means-ends dichotomy as the final ground for explanation and normative judgements of action. The outermost dotted line in the model symbolises the transition into what Dewey called an "indeterminate situation." This framing of the decision- or deliberation model captures three intuitions:

- The occurrence of explicit efforts in planning and policy making must be understood in *continuity* with activity that occurred beforehand. Planning is a transformation of ongoing (transaction-) processes and should always be understood as belonging to its context.
- The continuity, however, is marked by a break, where habitual transactions become "indeterminate" and, once consciously addressed, "problematic." What drives planning and policy making is not a goal or an end, but an inhibition of an already existing flow of activity, a *punctuated equilibrium*.
- This starting point is normally characterised by a *lack of definition*, and only in rare cases by a set of defined problems and mission-statements.

In the arena of social planning and policy making the equilibrium of a habitual transaction can be disturbed or "punctuated" in a variety of ways. Some examples are:

- The changing of political majorities;
- New players entering the field or new personnel taking over;

- Existing policy arrangements being unfavourably evaluated or new benchmarks for policy processes being developed;
- Economic or social mobilisation, e.g. a new investor appearing or a political movement gaining momentum;
- The occurrence of natural or socio-political crises;
- The loss of faith in a current practice or its sustainability;
- The violation of important values and norms, such as human rights standards;
- The increase of knowledge or information;
- The redefinition or reframing of policy issues

Communities of inquiry

Boundaries and the formation of agency

Where planning involves and affects several individuals or groups, it is marked by disunity. In the public arena, roles, rights and powers are normally a matter of ongoing negotiation and therefore change over time. Such changes affect the relations between agents with respect to each other and their influence on the planning process.

In chapter 6 I discussed why Dewey's agency-theory does not presuppose an agent as a well defined or pre-existing centre of motivation and coordination. The category of agent was defined as a gravitational centre of activities that seeks coordination. In a transactive perspective the 'agent' is an outcome of organising and planning activity. The formation of a coordinated form of agency is the product of inquiry, not a precondition. Hence for Dewey the "community of inquiry" is formed in response to the nature and character of an indeterminate and problematic situation. "The agent" is not a static reference in inquiry processes, particularly in contexts of social planning (cf. Festenstein 2004 p.293, see also chapter 7 above). The grey shaded periphery named "communities of inquiry" reflects much that has been discussed above in the sections on the formation of agency.

The idea of the agent as an entity that changes and evolves throughout the deliberation process rather than a fixed centred and defined unit is coherent with empirical analyses of the volatile nature of groups as stakeholders participating in policy processes. It also reflects the varying degrees to which stakeholder interests and roles are explicit or may change during the process (Brugha and Varvasovsky 2000; Buse, Mays et al. 2005).

The definition of a situation is a decisive factor in the formation of agency. The aim of creating a boundary or frame is to “*display the situation so that a range of possible and, hopefully RELEVANT choices can be revealed*” (Checkland 1981 p.166). Boundaries are framed by reflection and deliberation on the nature of the problematic situation. Using a metaphor from Policy- and Actor Network Theory, issues and frames (such as those conveyed by watchwords) create “resonances” within activity networks. Such networks comprise individuals and organisations with particular interests and sensitivities to the respective policy issues. Policy subsystems or issue networks may pre-exist or form in response to a specific problematic situation (Friedman 1973; Hecllo 1978). The model also takes into account the fact that the composition of the networks could change during policy-making and that these changes would influence the nature and substance of the process. In policy-making it is important to note that influential policy subsystems and issue networks can control the interpretation of a policy problem and thus determine the manner in which it is conceived and acted upon (Baumgartner and Jones 1991).

Advocacy coalitions are another important contemporary references in explaining the meaning of the cell area called “communities of inquiry” (Kuruvilla and Dorstewitz forthcoming):

“Given the wide range of potential policy actors, Sabatier found that it was useful to analyse policy change from the perspective of ‘advocacy coalitions’ (Sabatier 1988). Advocacy coalitions are groups that share ‘basic values, causal assumptions, and problem perceptions – and who show a non-trivial degree of coordinated activity over time’ (p. 139). Thus changes in networks and coalitions can influence both the process and content of policy-making.”

Both theories of policy networks and of advocacy coalitions affirm that “communities” and issues of inquiry cannot be separated when determining the boundaries of the decision-cell.

The aim of creating a boundary or frame is to “*display the situation so that a range of possible and, hopefully RELEVANT choices can be revealed*” (Checkland 1981 p.166). Boundaries are framed by reflection and deliberation on the nature of a problematic situation. This process takes two directions: first, initially participating groups define issues and agendas, creating a preliminary boundary or a horizon of relevance. Second, different groups are attracted and motivated when certain issues are addressed and declared relevant.

The boundary is important for the model; it is what distinguishes planning efforts from more habitual interactions and events in the wider environment. An advantage of this model is that these boundaries drawn through ongoing interaction keep the definition and scope of the decision-cell flexible.

Dewey’s notion of a “unique” and “pervasive quality” provides the idea of a situational horizon that sets the boundaries to a problematic or indeterminate situation (Rejoinder LW14.29):

“[Experience] is temporally and spatially more extensive and more internally complex than is a single thing like a stone, or a single quality like red. For no living creature could survive, save by sheer accident, if its experiences had no more reach, scope or content, than the traditional particularistic empiricism provided for. On the other hand, it is impossible to imagine a living creature coping with the entire universe at once. In other words, the theory of experiential situations which follows directly from the biological-anthropological approach is by its very nature a *via media* between extreme atomistic pluralisms and block universe monisms.”

This situational horizon, however, is neither given nor static. It is as active and as alterable as Dewey’s concept of experience itself. In the context of policy making and planning the

“pervasive qualitative” which determines the boundaries of the situation cannot be defined by what we experience as a sensual or emotional presence - by what Germans would call the “*Erlebnishorizont*.” A situation also comprises all actors, groups and meaningful elements that are involved and deemed relevant within the process of inquiry. The boundaries of a situation are given by what appears worth taking into account at any given time. System theorists have often pointed out the importance of system boundaries to reduce complexity (Luhmann 1968; Churchman 1979; Maturana and Varela 1992).²

Boundaries and power

Although Dewey does not provide a clear criterion of where to draw the boundary (between “atomism” and “block universe monism”) he clearly indicates the critical means with which we are to do so.

Where our horizon is placed is not arbitrary: the immediacy of a situation comes with a horizon and with boundaries. Inquiry allows us to widen the horizon of a situation by understanding causal ramifications and establishing new meanings of present tendencies.

Many scholars in the field of systems thinking were concerned with the problem of seemingly arbitrary boundary settings (Churchman 1979): our plans have a very different outlook, depending on whether we choose to take a 5, 25, or 250 year perspective, and whether we plan for our clients, our organisation, or all possible stakeholders.

Many have decried Dewey for dodging these difficulties by hiding behind the assumption of a community as a natural reference horizon. Earlier I argued that this is not the case,

² This reference to systems theory must be taken with caution, however, because the decision-cell model speaks a different language than the functional structural type of systems theory. In the latter, boundaries have the function of containing and maintaining self-organising and persisting agency systems or organisations. The decision-cell, in contrast, is a model of inquiry and intelligent agency. It is not a sociological theory of self-organising structures and organisations.

since communities have to be formed in the first place and this formation process is not trivial but is the task of inquiry.

Dewey might be better able to cope with the problem of open-ended system boundaries than some systems-thinking theorists. The pragmatist precepts of equal scepticism against assertions and doubts protect against far fetched or narrow boundary definitions. Why should a local merchant worry about whether his products will please the taste of adolescent customers in 25 years? At the same time boundaries remain infinitely flexible to react to real and urgent demands of inquiring participants. E.g. when a man-made environmental catastrophe becomes a real danger, a time horizon of 50 years may appear too short.

Werner Ulrich (1983) and other authors in the field of critical systems thinking (CST) (Flood and Jackson 1991; Flood and Romm 1996) have been very concerned about the political process of boundary definitions and its moral significance. These authors expressed suspicion that boundary judgements are often the expression of dominant power relations, and called for a more critical approach to defining, framing and delimiting policy contexts.

For Dewey, deliberation is a form of *critical* inquiry (HNC MW14.150, emphasis added):

“Deliberation is a work of discovery. Conflict is acute; one impulse carries us one way into one situation, and another impulse takes us another way to a radically different objective result. *Deliberation ... is an attempt to uncover the conflict in its full scope and bearing.*”

This quote refers to the psychological context “impulses,” but it is also the key to understanding collective or political deliberation, where divergent *interests* take the place of “impulses.” The aim of deliberative democracy as collective inquiry is to promote human flourishing and “growth.” Through collective inquiry we not only gain a better

understanding of underlying conflicts within the context of associated living, we also help transform these underlying interests.

Dewey's own affinity to critical thinking can be demonstrated by two observations:

1. The above quote makes the claim that conflicts and impulses have to be 'uncovered.' I.e. they can be prevalent without being expressed or understood. This could be interpreted as the "false consciousness" referred to by critical theorists.
2. The process of collective inquiry for Dewey is both diagnosis and remedy. Through inquiry we not only understand the direction of individual impulses or interests, but we also have a chance to transform or harmonise them. Understanding the avoidable consequences of a prisoner's dilemma situation will enable a community of inquiry to see the means of avoiding or transforming such situations, either by changing individual strategies or by forming a consensus about collective strategies like third party enforcement.

The second point shows that Dewey sees communities or social systems not merely as "purposeful," i.e. as directed toward ends, but as "purposive," meaning continuously concerned with developing new purposes and orientations (Checkland 1981). Checkland showed how in "purposive" systems the setting of boundaries is a continuous effort.

Within the boundaries of a decision-cell, the main decision activities of *Design, Define and Realise* take place through the transactions of the relevant actors and factors delimiting the process at any given instance. These activity modes are the very places where boundary judgements are negotiated, established and changed.

Define

Doubt, the inhibition of previously unproblematic activity, or what Dewey calls an "indeterminate situation," often implies that different actors and groups operate with contradictory ideas and agendas. As defined in chapter 6, active inquiry becomes necessary

if a previously held consensus becomes disconcerted and an agreed *modus-operandi* loses coherence or become conflictive. The activity mode *define* overlaps with the two phases of Dewey's logic of inquiry, as presented in the previous chapter under the headings of "Attention, Institution of a Problem", and Dewey's hyphenated term "Problem-Solution." It describes a point of transition between the two inquiry modes that John Shook characterised as "attention on the contradictory elements in experience," and "the analysis of experience to select out certain meanings of things (the use of ideas to construe some features of a situation as especially significant)" (Shook 2000 p.185).

As a mode of activity, *define* is an informal, creative and playful way of approaching an insufficiently understood situation. Its purpose is to institute sets of issues, ideas and descriptions that participants may recognise as shared reference points. "*Shared* reference points" must not be restricted to reaching consensus on any comprehensive description. It can also mean setting up a common arena for slugging out conflicts. As discussed above in "formation of agency," polarisation happens as a result of framing and describing situations when groups and individuals "resonate" with certain issues.

I suggest four dimensions in which *define* will find expression:

- Frames
- Boundaries
- Dynamics
- Meaning

Frames

Since Tversky and Kahneman's (1981) critique of classical decision-theory, much has been written about situated decision-making and the importance of frames for agents to recognise meaningful acts and strategies with respect to their circumstances. The centrality of descriptions and frames in planning theory has also been recognised. For example, Kingdon in his analysis of policy agenda setting discusses how the goal of facilitating

disability access in public spaces could be framed as a civil rights issue or as a transport issue, and he points out that these alternatives would be associated with very different policy considerations and implications (Kingdon 1995).

Boundaries

The sensitivity of the decision-cell's boundaries to issues in discussion and to the manner in which they are addressed has already been pointed out in reference to the concept of "resonance" in the Actor Network Theory. The activity mode *define* is active when processes of boundary judgements and questions of participation become explicitly addressed matters of deliberation.

Dynamics

The activity mode *define* also involves attempts to understand active relations that determine the working of a situation. This involves both an understanding of the causal conditions and dynamics and a grasp of the symbolic or 'grammatical' relations of interactions.

Systems approaches in management and operational research have developed sophisticated techniques and modelling tools that are highly apt for investigating complex causal relations. The accounts that such theorists give of model building processes closely match the activity modes presented in the decision-cell (Forrester 1971a; Checkland 1981; Lane 1994; Vennix 1996). All these theorists distinguish techniques of extracting and communicating intuitions ("mental models") about causes and consequences which participants often hold intuitively, from the formulation of quantified models to the deduction of system behaviours implicit in such assumptions. The former would be part of a *define* mode, whereas the latter would count as *design* activities according to the present decision-cell model. Many of the above theorists refer to Peter Senge's (1990) archetypes as a reference point for basic causal intuitions. These archetypes simplify and summarise characteristic feedback-relations in complex causal systems which account for typical and recurrent system behaviours (as e.g. positive or negative feedback, homeostatic balancing

loops etc.), which can be used in defining processes to gain a synoptic grasp of complex dynamic fields.

Structures of meaning

A further important dimension of the *define* mode gives attention to symbolic, linguistic and grammatical relations inherent in rule-guided human behaviour. Social scientists since Max Weber have often emphasised that trying to understand a social situation in purely extensional terms (such as causal relations) falls short of accounting for the intentions of agents and the rules they follow as socio-linguistic agents. These dimensions are not only interesting for a comprehensive interpretation of events that includes the perspective of agents, but are necessary for enabling adequate predictions of events. Dennett (1987) shows that it is practically impossible to predict or explain as purely causal the simple story of a man driving home in his car, avoiding all traffic and obstacles on the way, and buying a bottle of wine at an off-licence after having received instructions from his wife over the phone. Intentions and rules are necessary for understanding the most basic transactions and must be reflected by any definition of the *define* mode.

The activity mode *define* is perhaps best characterised as a creative and communicative process for exploring and proposing ideas about problematic situations. It is a mode where techniques like brainstorming, scenario development, empirical analysis and conceptual development are applied.

Design

Most activities that traditional theories identify as decision-making fall within the ambit of this cell sector. *Design* is probably the most technical phase in the process of policy-making. The use of formal assessment methods and modelling tools is frequent. While all concerned actors may or may not be directly involved in the technical aspects of this activity, they can play a critical role by evaluating different policy approaches and their possible consequences.

The difference between *define* and *design* is to some extent inspired by Checkland's distinction between "root definitions" and "conceptual models" (see above):³

"The step from root definition to conceptual model is the most rigorous in the whole methodology, the nearest to being 'technique'" (Checkland 170).

Design produces detailed models to estimate how certain trends and manipulations may influence the future, e.g. by formalising certain qualitative insights and available data into a quantitative model that allows simulation of developments or various scenarios.

Design is distinguished as an activity mode where different and sometimes conflicting approaches to addressing problems are evaluated and negotiated until one particular approach or strategy is committed to. Agreement has to be reached among the various participants on operational definitions, strategies, allocation of resources and roles or responsibilities in further transactions.

The emphasis on "agreement" in this part is certainly optimistic and refers to the use of this model as a normative guide rather than a descriptive account of policy processes. However, we should keep in mind that *define* describes a mode of *intentional activity* concerned with creating coherence and commitment within a group of participants. It describes an efforts rather than a result.

Realise

The word *realise* is ambiguous in an appealing way: It means '*putting into practice*' (an idea or a plan), and is also used as a term of learning, evaluation, or '*becoming aware of*.'

³ However, for those familiar with Checkland's methodology, the demarcation between "root definitions" and "conceptual models" does not fully capture the difference between 'define' and 'design.' 'Define' incorporates constitutive elements of Checkland's conceptual definitions: "...writing down ... half a dozen verbs which cover the main activities implied in the root definitions," would certainly be at home in the 'define' mode of the decision-cell.

The decision-cell model refuses to separate epistemic (research and planning) from formative (policy implementation) processes (cf. Chapter 4): its structure presents all activities involved in planning as working together on the same level and even operating simultaneously in order to bring about coordinated change. It refuses the hierarchical pattern of linear models according to which research and decision-making phases precede implementation, which they direct, authorise, command or control.

Learning

In addition to the structure of the model, the content of each segment also reflects the idea that inquiry and change-activity are inseparable categories. This idea distinguishes the activity mode of *realise* from the “implementation” stages in traditional planning models. *Realise* comprises “implementation” and “learning;” and more than that it denies any fundamental difference between the two and links them as co-reportive terms. This idea has been explained in detail in Chapter 6.

It may however be put to the test with an objection: if I paint my house lilac, I might afterwards learn that I despise this colour. Still we would like to separate the object “the house is lilac” from our learning. The fact that the house “is” lilac is undoubtedly a fact that transforms any future experience of the house. For Dewey this amounts to a transformation in our habits and dispositions to experience, and hence to some form of learning. However, we would like to make such subtle distinctions in our language as whether the change of experience results mainly from changes in our surroundings, or whether “learning” is best located within the structural changes of our internal dispositions and habits. If our every day experience changes because our house *is* lilac seems like a significantly different type of “learning” than when we *learn* for example to overlook the bad habits of a spouse, or when we “learn” to live with a disability.

Modes of active change

Dewey makes this difference clear in his tripartite distinction between the different modes of active change that he labels “adaptation,” “accommodation” and “adjustment” (ACF, LW9).

“Adaptation” means changing the world to match an anticipated or desired state. Linear instrumental models focus only on this one of the three change-types. They identify planning processes with changes that Dewey would call “adaptation.” The instrumental idea of rationality promotes this “positive decision” concept in as much as means are employed to achieve predetermined goals by effecting external change (Dewey 1934; Joas 1999; Howlett and Ramesh 2003).⁴

Taking this systemic view, the decision-cell model moves beyond “adaptation” to include the two other types of active change.

In “accommodation” the direction of change is reflexive: Agents deal with a problem situation by changing *their own* beliefs, dispositions, habits or attitudes with which they continue to meet its challenges. A paradigm example is an agent learning to live with conditions beyond her control. This mode of change goes beyond the concept of “negative decisions” - i.e. deciding to do nothing externally (Howlett and Ramesh 2003). Accommodation additionally involves an internal process directed at changing the evaluation of circumstances and potentially changes values with respect to that particular situation. Agents learn to accept the conditions rather than persist with a desire to change them (Dewey 1934; Joas 2000). “Accommodation” is by no means a passive attitude or a form of surrender. It is an active and constructive approach to re-organising cognitions and dispositions so as to cope with adverse conditions. The frame or perspective that Dewey would associate with this change in action is that of “self-action” (c.f. KK LW16.71).

⁴ In Dewey’s notation “interaction” would be the best frame or perspective to describe “adaptation-processes” (cf. KK LW16.71).

Example: I learn to accept foibles in the character of my spouse. Or, I learn to accept my future life in a wheelchair.

“Adjustment” is the third of Dewey’s changes modes. It is defined as a more fundamental transformation that implies a change in the character of interactions that define an agent with respect to her environment. This type of thorough systematic change is perhaps closest to Argyris’ and Schön’s “double loop learning.” (Dewey 1934; Argyris and Schön 1978) But it goes further than changes in values and fundamental orientation. Adjustment is a transformation resembling processes of the “formation of agency” (see above). When the outcome of deliberation processes is best described as an “adjustment,” it implies a fundamental change in the way an agent interacts with her environment. It changes the architecture of the ‘decision-cell’ in which the transactions are formed. “Adjustment” revises boundaries between the inside and the outside of the cell. It re-determines the relationships between the constituents of the decision-cell and the problematic situation. Only a “transaction-perspective” can account for this notion of change (KK LW16.71).

Example: I do not merely change my attitude in a constructive way so that I can live with a disability, but I transform my life, e.g. by learning sign language and thus becoming an accepted and acculturated member of the deaf community.

Unified situation

One may ask what happens where implementation amounts to quick fixes that serve to resolve symptoms of a problem without transforming the dispositions of agents, or what about lucky hits, where interventions work out without resulting in a better understanding of a situation. Will we still uphold that these cases, even successful implementation, *equal* learning? These are semantic questions about how far we are willing to stretch the definition of learning and apply it to cases of *ad hoc* changes or even undesirable transformations. Most current learning theories accept that not all learning is good, and some have addressed the vital importance of “unlearning” (Dewey 1934; Nystrom 1984). Learning must not be identified with either success promoting transformations, or with

acquiring what is, in Dewey's terms, "warranted assertible" knowledge. Recently psychologists have suggested that addiction might be a *learned* behaviour, turning against traditional explanations that emphasise disposition, weakness of will, or physiological changes in neuronal chemistry. The formation of a drug habit, with its skewed changes to a person's behaviour pattern and her mechanisms of self-gratification resembles, to some extent, the process of learning to play the piano (Kiefer after Schnabel 2006): Acquiring a drug-habit presupposes that we learn practices like preparing a shot and administering it, and not only this, the theory claims that a junkie must first learn to gratify herself with it, i.e. to translate the performed practices and the experienced states as pleasurable, comforting, satisfying.

Even though a policy may appease the symptoms of a problematic situation, this change does not necessarily settle the situation in the sense Dewey defined as the end of inquiry: A "unified" situation means a problem situation that is transformed so that conflicts are satisfactorily settled.

Executing or forming policy

The present model eschews the very term "implementation" because of its tendency to separate the formulation of plans from the formation and execution of policies. "Implementation" as used in classical linear stages models means the execution of predefined tasks and the furthering of given ends with allocated resources. The creative potential of administrators and technicians entrusted with realisation tasks has been systematically underestimated. In fact however, lower ranks play an important role in forming and reformulating given plans.

Several theorists have pointed out that policy is often only *decided* when it hits the implementation stage at "street-level." At this level, administrators, technicians and stakeholder groups define and debate concrete steps toward abstract ends, thereby often changing the very character of a policy (Lipsky 1976; Pressman and Wildavsky 1984, cf. chapter 6). The label *realise* is forwarded for this activity mode as an alternative that means

recognising that activities of plan realisation are more than acts of execution. Just as any other activity conducted in the decision-cell, *realise* is creative and formative for the entire policy-making process; as much as it means *putting into practice*, it also means *planning*.

To account for the fact that some coordinated policy action does take place, theorists like Sabatier (1986) had to develop “bottom up” approaches, which define lower ranking administrative staff as initiators and co-authors of policy as well as implementers and signal receivers (John 1998 p.29):

“Rather than just frustrating implementation, lower levels of government, agencies, bureaucrats, and interest groups have a role in deciding policy...”

The consequences from this for establishing *realise* as an activity mode within the decision-cell model is also expressed by Peter John (1998 p.30):

“In order to understand how implementation works, the analyst needs to understand the policy-making process in the round. It is not possible to separate the stages of policy formulation and policy implementation.”

In summary the activity mode “*realise*” eschews two liabilities that seem unavoidably connected to implementation categories: it allows the integration and even identification of learning with the very process of effecting change; further, it refuses to see planning as a temporal and hierarchical one-way-road. *Realise* defines planning as continuous with formation and accomplishment.

The Core: Deliberate – imagination and appreciation

Imagination and conflict

Activity in the three modes appears fairly unmediated at this point; especially the way activity in one mode influences other modes and the way we form coordinated activity: which of the mental models and possible root-definitions formulated by ‘definers’ will be

adopted and influence the activity and worldview of participants in other sectors? What will ‘designers’ and ‘realisers’ decide and do, and which of their activities will be regarded as relevant for further runs of policymaking?

In chapter 5 I discussed Dewey’s understanding of ‘deliberation’ as it concerned harmonising various conflicting motivations and impulses.

In opposition to Hume, Dewey claimed that “...reasonableness is in fact a quality of an effective relationship among desires rather than a thing opposed to desire...” (HNC MW14.135).

In political contexts the psychological terms ‘desires’ or ‘impulses’ may be changed into ‘interests’ or ‘initiatives.’ We must assume that activity in the different fields of the decision-cell will often yield disparate motivations and forces, considering that several parties are involved in each activity mode. Hence, a “reasonable” planning process needs a space where such divergent endeavours can be transformed into an “effective relationship” enabling coordination and shared experience.

In the previous chapter I explained why aiming for *compromise* is not ambitious enough if compromise merely means some middle ground between unmediated conflicting interests.

In contrast, Dewey suggests a *transformation* or “sublimation” (HNC MW14.82) of conflicting interests into shared practices as the favourable alternative. I pointed out that Dewey’s theory of democratic deliberation rejects numerical aggregation as the gold standard for political judgement. Democratic deliberation involves a public investigation of the merits and dangers inherent in different parties’ intentions. The aim of such deliberation is not compromise but understanding and arrangements that rest on accord.

Imagination as a “dramatic rehearsal” can help to evaluate individual endeavours and mediate between conflicting parties in a non-confrontational way. An imaginative course of deliberation does not evaluate a partisan interest by measuring it against some public value

standard. Instead it takes all parties down a route of exploring the ramified consequences of different scenarios where this interest would gain the upper hand. Given that our interests and motivations are susceptible to such exploration, there seems to be a real chance of transforming seemingly irreconcilable clashes because such thought experiments have the power to transform both those individual motives *and* the public standards for their evaluation. Done in a creative way, imaginative exploration can help to find new and unexpected ways of reconciling opposing parties and allowing for successful cooperation without coercion.

This form of “like-mindedness” is an ideal and should be allowed to function as an ideal. I.e. the possibility of achieving a genuine unity must not be discounted altogether. However, in confrontational situations where this ideal seems too remote, a pragmatist theory of deliberation must provide further answers.

In any situation of conflict there must remain the possibility for an honest public debate on the sources of conflict and some room for creative solutions as to ways of living with conflict. Encouraging experiences in Northern Ireland have shown how conflicts can be at least contained or channelled to further avoid the most destructive consequences for all parties.

In all cases where divergent interests cannot be easily transformed and harmonised, compromise is a workable option. But even in that case a pragmatist would favour a reasonable over a merely numerical compromise, i.e. one that an educated and impartial mediator could provide.

Appreciation

It would be misleading to portray discord and conflict amongst parties as the standard model of problematic planning situations. Although the existence of some “conflict” is part of Dewey’s own definition of a “problematic situation,” it does not necessarily have to be a conflict between entrenched factions. Dewey’s understanding of a problematic situation

refers to a conflict within practices, i.e. conflicts with regard to habitual ways of conduct and coordination in changed situations. In this sense a problematic situation can be cooperative rather than conflictive. The formation of factions is often the result of mistakes made in some of the above discussed areas of the decision-cell. E.g. where situations have been framed in the vocabulary of already entrenched positions or where some groups have been excluded from participation.

Huckfeldt and Johnson (2004) found that in confrontational situations (such as during election campaigns), political networks have a reduced capacity to move public opinion and are weakened in their ability to generate new ideas, whereas less confrontational situations are conducive to creative change and innovation.

Hence, it would be beneficial to frame the activities in the core of the decision-cell not as “mediating conflict” but as generating understanding.

Sir Geoffrey Vickers’ (1970; 1970; 1983; 1995) philosophy of management and planning is centred on personal and collective sense making (Varey 1998), rejecting the model of top down control in business processes.

A pioneer who broke with the linear instrumental idea in planning, Vickers refused to see social systems, such as companies, as instruments that serve externally set goals. Social systems are *interpretative*: directed at mutual understanding; and they *define purposes* rather than fulfil them (Vickers 1970; 1983).⁵ Vickers summarised both properties by referring to the concept of “appreciation.” His decision-makers would not command change or the fulfilment of targets, but would establish critical and flexible standards that help members of their organisations interpret and evaluate their situations. Vickers defines “appreciation” as a property of communication where members of a group overcome the separations in the sender – transmission – receiver model and form *collective* intentions. In settings with a common culture, human beings can relate to shared meanings.

⁵ Cf. Checkland’s (1981) discussion of “purposeful” vs. “purposive” systems. See also chapter 2 above.

These shared meanings make it possible for groups to better understand their situations. Appreciation is a (Vickers 1970)

“... readiness to notice particular aspects of our situation, to discriminate them in particular ways and to measure them against particular standards of comparison, which have been built up in similar ways.”

Vickers' “appreciation” and Dewey's “prizing” are quite similar. Appreciation is a process of valuation. Checkland interprets the relevance of values and norms in decision-processes by referring to Vickers (Checkland 1981 p.262):

“... [S]tandards, norms and/or values lead to readinesses to notice only certain features of our situations, they determine what ‘facts’ are relevant, the facts noticed are evaluated against the norms, a process which both leads to our taking regulatory action and modifies the norms or standards.”

It is important to show how norms and values can be at the very centre of a planning model that spells out the idea of a *situational transactive rationality*, where they offer guidance for the formation of intelligent action. At the same time a Deweyan rationality model must insist that the re-evaluation of norms and standards is always part of the deliberation process.

In Vickers' concept of “appreciative systems,” norms and standards are parts of the fabric of the processes that facilitate change. They account for which models will be believed, which facts will be recognised, which interests considered legitimate and which suggestions will be realised.

The above quote (Vickers 1970) speaks of appreciation as a “... readiness to notice particular aspects of our situation, to discriminate them in particular ways.” This points to the ‘interpretative’ aspect of this concept (see above), which is also at the heart of the

decision-cell. Appreciation can be understood as giving a voice to a context. Whereas a linear instrumental planner would ask how we can adapt a situation to match anterior defined ends, or how to improve it with regard to certain external performance indicators, an 'appreciative' planner will try to understand a given situation and develop a vision that matches its inherent potentials. This demands a heightened sensitivity to local particularities and an ability to see "the possibilities that are interwoven within the texture of the actual" (AE LW10.348), as in Dewey's definition of "imaginative vision."

This aspect will be of particular importance in one of the two case studies presented in the next chapter.

How to read the model

Looking at linear stages models Churchman confessed (Churchman, quoted in Checkland 1981, p.246):

"I'm often inclined to put the implementation question first..."

However, it is still tempting to read a linear notion into the decision-cell model by ordering the three activity modes in a sequence as *define* → *design* → *realise*. This describes indeed one possible path that a planning process may take, but it is not the only, or even the most salient, ordering. The experience of planners and policy makers confirms that processes normally shift back and forth between these three modes, and that activities typical for different modes often take place concurrently; (John 1998 p.29):

"Policy decisions can move 'backwards' from implementing organizations, such as local authorities and government agencies, to the policy formulators, the politicians and top bureaucrats."

We may think of the process of writing an academic paper to understand how the *situational transactive* model of rationality works. Teachers are sometimes tempted to

render the process in a series of logical steps: 1. Research and reading, 2. formulating a working hypothesis, 3. directed research, and 4. writing in the following order: introduction - main part - conclusion. Yet anyone who has ever undertaken such a task will know that writing is an iterative process, where conceptualisation, research and drafting stages constantly swap places and intermingle. We also know that such a jumpy order in the work-process is not necessarily a sign of inefficiency and can lead to a well-structured and subtle argument.

Evaluation and Results

Harold Laswell introduced a number of criteria by which to measure the quality of any theoretical contribution in the study of policy. The following list, which will be used to evaluate the decision-cell model, is based on these criteria:

1. The model should be designed as a tool to organise a host of typical aspects of recurrent situations and integrate them into one comprehensive framework.
2. It should be the best tool available.
3. The model should be inclusive, i.e. it must not seek to replace other contributions and theories but should integrate and supplement them; this Laswellian request must be made subject to a proviso: a theoretical contribution should not try to accommodate just any theoretical position. This would only serve to make it vacuous or false. Yet it should be generous in appreciating the merits even of those theories that are deemed wrong.
4. It should be flexible in its application rather than being a “one size fits all” conception. The requirement of flexibility increases with the level of abstraction and generality that a model obtains. More precisely, the greater the number and variety of particular contexts of application, the more adaptive a model should be to the particularities of these contexts. This means that a model must, by all means, avoid imposing its own structure on a context.
5. The model should incorporate both explanatory and normative aspects of the policy process.

How well does the decision-cell model perform with regard to these criteria?

Comprehensiveness (1)

The ambition of the decision-cell was clearly stated as systematising typical aspects and modes of planning activity. The context of dealing with insufficiently understood problematic situations was tribute to the accounts of many practitioners and theorists in the field.

Best available (2)

Whether the decision-cell model fulfils the Laswellian requirement of being the best available model shall not be prejudged here. However, I have shown many of its advantages when compared with traditional LIR models. The previous chapter defended the STR approach against other frameworks (like incrementalism, libertarian anarchism or rational choice centred models). Etzioni's (1973) mixed scanning approach provides an interesting point of comparison. This has been explored in (Kuruvilla and Dorstewitz forthcoming):

“Etzioni saw mixed scanning as a process, combining a wide perspective on the field of potential policy solutions with an in-depth analysis of the most compelling options ... While describing rationality as forward-looking inquiry, Dewey additionally recommended the use of ‘imagination’ and ‘dramatic rehearsal,’ which, together with the provision of communication, work as tools for successfully coordinating action through generating a shared ‘thick’ understanding of situations.”

The question whether the decision-cell model is the “best” available model can be reformulated as follows: why should a planner use this model as opposed to some other one? Aside from the arguments I provided until now, the answer would point to three important properties of this model:

1. The decision-cell model reflects the experience of planners in various actual planning contexts (c.f. chapter 2).

2. It embodies a concept of rational agency that more adequately accounts for the real nature of human conduct than many other models and enables participants to use the full spectrum of human deliberative capacities to find creative solutions.
3. This model is able to provide guidance without being prescriptive. It offers a certain perspective on problematic contexts that enables participants to inquire and augment their own social and effective intelligence. At the same time the decision-cell model is flexible and encourages amendments to its structure in view of concrete contexts.

Inclusiveness (3)

Developing the decision-cell model was a joint project of a policy scientist (Shyama Kuruvilla) and me, a philosophy graduate with a business background. Theories and concepts such as sociology, planning and organisational theory, and operational research were frequently introduced. The model is multi-disciplinary in that it allows for an integrated approach across different levels of analysis. These include organisational processes and change or formal and informal relationships in policy formulation, theories of democratic participation, and scientific or evidence based policy making.

Problem focus and situational approach (4)

Dewey's situational approach is expressed in the decision-cell model in the following way: (1) It is framed as a process of re-establishing a unified harmonious situation; (2) its procedural and conceptual distinctions are never rigid but respond to the demands of unfolding situations, and (3) all norms and guides are placed in the centre to symbolise that they are owned and employed by those involved in concrete contexts of inquiry, who also develop and adapt these guides.

Normative orientation (5)

In Chapters 3-6 I explained the intimate relationship between understanding a situation and knowing what to do about it. In the introduction chapter I discussed why a strict separation between normative and descriptive aspects of a policy model is impossible. This claim was substantiated during my critique of the linear instrumental planning model in chapter 2. For this reason I avoid excessive repetition of the idea that descriptive models have to be

normative in so far as they claim to provide orientation for planners and agents, and that normative aspects of a policy model must reflect realities in order to serve as guides in concrete experienced circumstances.

The present model is normative only insofar as it offers guidance. This guidance consists of providing several heuristic orientation marks for planners and participants in the planning process.

The lessons to be learned from the decision-cell model are all premised on the idea that 'good planning' is 'good planning in a specific and unique situation.' Helping to understand a context better is therefore the first and fundamental step in giving any normative guidance. But the counsel that one should use a recipe for which one has the ingredients only partly justifies why this model has a normative character, and why facilitating processes in the way the decision-cell envisages is a *recommendation* and not only an *account* of typical conditions. The decision-cell is not a neutral descriptive model of some self-organising processes; it is introduced as a model of social inquiry, and that inquiry is proactive and makes demands.

Inquiry has been introduced as both an epistemic investigation and a moral quest. Both aspects of inquiry can be summarised by the aim of *gaining orientation* within a problematic situation. Epistemic and ethical aspects of inquiry are complementary also with regard to their methodology (cf. Chapter 4).

But how exactly can STR and the decision-cell model provide normative guidance? The Deweyan inquiry and STR eschew *categorical imperatives* for cogent reasons. If we talk about a 'normative aspect' does it mean that Deweyan rationality would yield *hypothetical imperatives* that allow for situational conditions in their "if" clauses? This would be a great misunderstanding.

Hypothetical imperatives are, indeed, *imperatives*: a hypothetical imperative *instructs* a course of action whenever certain conditions appear to be fulfilled. Thus hypothetical

imperatives exert normative authority over *types* of situations. The application of a hypothetical imperative is no longer in question if all the conditions in the ‘if clause’ are fulfilled.

E.g. Harry Markowitz’s portfolio theory claims that an investor should diversify her portfolio in a certain way if she wishes to obtain an optimal ratio between risk-level and expected income (i.e. if she intends to invest “rationally”). The strategy of an entrepreneurial investor who is willing to “put all his eggs in one basket” violates this hypothetical imperative. Consequently his investment would qualify as “irrational” on account of the demands of the reigning standards of portfolio-theory. Alternatively the investor can only rationalise his decision with reference to ulterior, non monetary payoffs like social status or a gambler’s attitude of favouring risks. An entrepreneur who has no exorbitant profit expectations and admits that risks are significant cannot defend his decision by saying that it seemed like the right investment given the situation. Markowitz’s theory was developed in the context of portfolio management with tradable papers and money deposits. However, this specific context gets lost in the above definition of a hypothetical imperative.⁶ This is why a normative reading of Deweyan rationality cannot be reduced to a “hypothetical imperative.”

All we can hope for from a normative reading of a Deweyan rationality model is guidance without imperatives. The decision-cell as a Deweyan model of planning is a tool in the hands of an inquiring community. But it is not Simon’s “gun for hire.” The decision-cell can serve only those who are willing to understand this model and its underlying reasoning. The recommendations that follow from seeing the planning process through the eyes of the decision-cell model are neither rigid nor categorical, yet once we have understood the reasoning behind this rationality model, we need good grounds for flouting its advice.

Some of these recommendations may be stated as follows:

⁶ I do not claim to report Markowitz’ intentions accurately here. This example is meant purely for expository purposes.

1. If you are a planner, try to organise your perception of seemingly chaotic processes with the conceptual instruments that the decision-model offers. Avoid judging random and seemingly chaotic developments as deviations that need to be remedied by fitting the processes into the mould of a rational procedural model. Instead distinguish which tasks and initiatives can be labelled as 'define,' 'design' or 'realise' type.
2. Allow parallel developments in all these modes as the need arises, and do not force the processes into an order.
3. Try to distinguish potential and actual participant groups, and open deliberation processes to all in a way that treats participants as a community of inquirers. Trust the inquiry process to build structured forms of agency. Participation does not mean giving everyone an equal role or influence in the decision process, but requires allowing everyone to voice their point of view in a place from where he/she can be heard and exert some influence. Hierarchies and governance structures can be allowed to form in response to situational necessities and should be open to constant public revision in view of developing contexts.
4. Treat decision-making as an extended process involving define, design and realisation type activities. Do not think of decision-making as a single authoritative act of a decision-maker.
5. Excellence relies less on the superior intelligence of a few experts than on lived social practice and shared experiences. Give priority to communication and learning in a social system, even if this may appear less focused or goal-oriented at times.
6. Organise close exchange between the different cell segments and facilitate dialogue between participants. Avoid confrontational frames and try to lead participants to an understanding of their own initiatives as part of a collective and creative inquiry process.
7. Expect problematic planning situations to be insufficiently defined and understood for most of the planning process. Do not demand clear and binding mission statements in the beginning of a planning process. Treat initial problem definitions as heuristic tools for guiding further inquiry. Problems, definitions and purposes

must be manufactured throughout the planning process. Hence, treat planning not only as an instrument to achieve a goal but as an ethical quest. Valuation should take place by means of appreciating a concrete context and reflecting on its dormant possibilities.

8. Treat the decision-cell model as a resource that can offer helpful conceptual ways of organising experiences in unique situations that never exactly repeat. Do not merely exchange an old model with a new one.

The ultimate pragmatist test of a conceptual model is its value as a tool that can be employed successfully to resolve the predicaments of concrete circumstances. Whether or not by means of this model or another it remains to be hoped that the policy scientists and planners take up Dewey's challenge and determine whether by their methods and models of inquiry "experimentation may go on less blindly, less at the mercy of accident, more intelligently, so that [individuals and societies] may learn from their errors and profit by their successes" (Dewey, PP LW 2.34).

Chapter 9: Mines and Malls – A Tale of Two Cities

It's a weird city because the uglier the weather, the more beautiful the city. And the uglier the buildings, the more coherent the city.

Rem Koolhaas

Introduction

Early in this dissertation I introduced Le Corbusier's model of a "radiant city" as a starting-point for the development of an idea of rationality in planning. I explained the roots of a planning model that I dubbed the "linear instrumental rationality" (LIR). I then criticised this model and reconstructed it using Dewey's philosophy (in particular his contribution to agency theory and rational collaborative action). After this conceptual reconstruction I turned back to the context of planning, and provided a model of "*Situational Transactive Rationality*" (STR), spelled out in terms of a process model ("decision-cell").

At this point I would like to return to the field of urban planning in order to illustrate the results of my theoretical investigation. I introduce two cases of challenging urban land-use projects from the German Ruhr region, which I will analyse in order to give the juxtaposition of LIR and SIR approaches some tangible reference points.

Duisburg and Essen are two prominent cities in the Ruhr region, which faced similar problems after the collapse of the coal and steel-based industries in the 1970s and 80s. Urged to undergo a structural transformation ("*Strukturwandel*") from labour intensive industries to service-based economies, the region suffered from extraordinarily high unemployment rates. Compared with other urban centres in the region like Düsseldorf,

Cologne, Bonn or Aachen, the Ruhr cities fell behind, and as a result saw a rapid decrease in population. As incomes stagnated, some Ruhr cities lost their purchasing power to more attractive nearby cities. Aside from these economic problems, the Ruhr region faced a full blown identity-crisis. Throughout Germany it is dubbed the “Pot,” and seen as a grey and polluted industrial labour hub where no one in their right mind would spend their holidays. Due to heavy industry and weapons production in this region during WWII, the imprints of the war are deeper on these cities than anywhere else in the country. This can be seen in Essen, for example, where 85% of the city was destroyed, (a degree comparable to the destruction of Warsaw or Dresden, yet without their elaborate reconstruction efforts). For a long time there were few things besides its industrial vitality and the success of its football teams that the Ruhr cities were proud of. Tackling the region’s image problem and improving quality of life and urban flair became important goals for planners in the era of the *Strukturwandel*.

Both cases are set in this context, but as they address very different types of problem-contexts, a direct comparison between them seems unwarranted. I will refrain from judging one case in light of the other. I intend to *illustrate* aspects of the Linear Instrumental Rationality conception and the Situational-Transactive model *in action*. This I do by comparing themes that I have treated on a theoretical level in previous chapters with manifest processes, and with cues about the beliefs and planning models that decision-makers adhered to.

I shall first discuss Duisburg’s “Multi-Casa,” an ultimately failed project to build a huge shopping centre at the site of an abandoned freight depot. I will point out how leading planners were inspired by ideas and methods that correspond to the LIR model.

I will then introduce the case of “Zollverein,” an abandoned colliery and coking plant in Essen, which later became a UNESCO world heritage site and a hub of creative activity. I argue that the planning process in and around Zollverein has been quite compatible with the “Situational-Transactive-Rationality” model.

It goes without saying that neither of these cases perfectly matches the theoretical frameworks of LIR or STR. In fact these case studies should not even be treated as approximate manifestations of either. Both cases diverge so significantly from these ideal types that critics might claim I should have used them in reverse fashion to illustrate the LIR and the STR approaches. This would be an exaggeration, but it calls for a clarification of my purposes: My aim is not to give an adequate account of these two model cases, instead it is to show how decision-makers in charge employed methods and exhibited intuitions that I identify as central to the LIR or STR approaches. Moreover I suggest that the STR approach would offer good services (perhaps better than LIR) in framing the planning situations in the two cases. I suspect that planners and decision-makers might have had an easier way to “find their feet” (Geertz 1994) in their respective contexts had they used a *situational transactive* perspective. In this sense I introduce the two studies as part of a larger project that explores the advantages of using a *situational transactive* model as an over-arching methodological framework for planning and policy making in complex social environments¹.

In spite of its limited scope, I have done a great deal of research on both cases, including 25 interviews, a detailed newspaper survey, on-site visits, archive and literature searches, and the screening of publications from various individuals and institutions.

Throughout the discussion of both cases I will use a transactive perspective of the planning processes. This means that I will look at the complex network of actions and interactions of various individuals and institutions, without framing the planning problem in terms of one party’s perspective (e.g. that of the city administration or the main investor). This allows me to scan the entire process for evidence of my claims, and makes it possible to reconstruct the formation of agency in each case. I treat the activities and decisions of various agents such as party organisations, private investors, heritage foundations, and town councils equally as *planning activities*, allowing me to investigate the ways that the actions,

¹ Venturing from our common project (Dorstewitz Kuruvilla 2007), where we first introduced the decision-cell model, Shyama Kuruvilla has done much work in applying STR to diverse policy contexts, particularly in the health care sector. I look forward to joining her results with my own in future projects.

intentions and approaches of individual actors relate to the entire process, and how they all compare to the discussed rationality models. Only from this transactive perspective can I analyse and compare both the intuitions of decision-makers and the processes within an unfolding situation, and put them into context with the two rationality frameworks.

Planning as Projection and Project-Management: Duisburg's "Multi-Casa"

Ideals are like stars; we steer by them not toward them...

John Dewey

A brief history

During the 1990s Duisburg's neighbouring city of Oberhausen planned and realised Europe's largest shopping complex, "CentrO" or "Neue Mitte" ("new centre"), which drained not only the old centre of Oberhausen but also attracted retail customers and purchasing power from all neighbouring cities, including Essen and Duisburg.

In this period the German Rail company "Die Bahn" decided to sell a 4 hectare estate of an abandoned freight depot near Duisburg. Located next to the main railway station, near two highways, and less than half a mile away from Duisburg's main shopping mall (Koenigs-Strasse), the old freight depot had a strategic advantage for any investor dependent on large numbers of visitors.

The story of this planning process is marked by confusion and rapid changes of plans and projects. The actors and planners involved changed frequently, particularly on the side of interested investors. Several generations of private developers came in, produced elaborate plans, and left without achieving their purposes. The role and involvement of private and semi-public initiatives also shifted significantly. On the part of the City administration, an election in 2004 dramatically changed the majority and thereby the political support for the project. Multi-Casa became a point of discord that divided groups into its strong supporters and a powerful resistance-movement.

The initial plan was to build a multifunctional sports arena that would include cinemas, retail shops and restaurants. As potential investors approached the scene, (initially a

consortium headed by the Phillip Holzmann AG), this concept was soon modified in favour of extending its more lucrative retail aspects. (Kluemper 1998; WAZ 1998a)

The city administration was reluctant to interfere with plans that investors came up with² (Massmann 1999). It feared that private developers would lose interest, and did not want to interfere with the creation of new jobs.

The name “Multi-Casa” came from combining the idea of a sports arena with a funfair, a shopping centre, and a “children’s paradise.” Several such ideas cropped up and fell out of favour again in their early phases. Among these were plans to create an indoor ski-arena, a large-scale discothèque, or a Casino. Ideas about the profile on retail business also changed frequently: there was talk of a 30,000 square metre complex of factory outlets (traditionally a low market segment), and of furniture stores.

The idea of creating a sports arena was abandoned altogether when Trizec Hahn, the Canadian Mall giant, took over from Phillip Holzmann AG (Chudobba and Kluemper 1999). This also marked a turning-point in the formation of a vested opposition mainly from the side of retail shop owners in the nearby centre (DS 1999). Trizec Hahn preferred upmarket shops and brands to furniture stores and factory outlets, exacerbating the clash between new investors and locally settled retail businesses.

When Trizec Hahn withdrew from the project (because of an “internal reorientation of its investment activity in Europe”), the Westdeutsche Immobilienbank joined as new chief-investor with the OMG-Group in forming the GID (Gesellschaft fuer Innenstadtentwicklung Duisburg), with the intent of reviving the idea of a shopping mall.

The GID then commissioned the ECE to develop the project and later manage the Multi-Casa. The ECE had experience of undertakings of this type and scale, and had developed several such projects in Germany, most famously the Potsdamer Platz in Berlin.

² Until a new election in 1994 changed the general policy.

In 2000 the city council approved a master-plan by Albert Speer and Partners (AS&P) that laid out the development of Multi-Casa and its immediate surroundings. Shin Takamatsu and his team of architects, together with the landscape designer Andreas O. Kipar, won the competition for designing the Multi-Casa with their project “City Harp,” a compact three level complex that would have occupied the largest part of the building site. It included a redecoration of the existing space in front of the passenger railway station. An aesthetic highlight of the plan is a tapering and sharply pointed roof that some have nicknamed “jelly bag cap” (Green Major Janicki quoted by FDP), which was to hold a ring with steel ropes attached, faintly reminiscent of a harp.

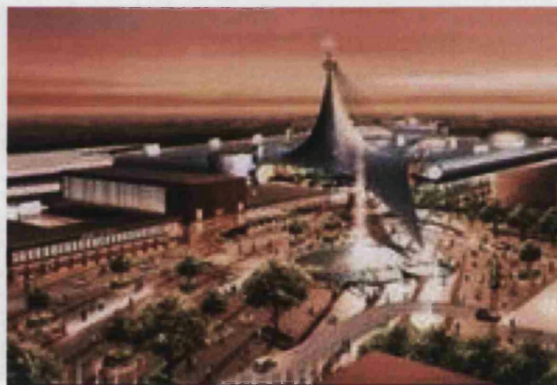


Fig. 9.1: Multi-Casa Duisburg

On an area of about 4 hectare, the design envisaged 70,000 m² of retail space plus another 14,500m² for a travel agency and more shops in the integrated and re-developed railway station.

The economic prospect of large scale investment seemed promising: In the Ruhr region Duisburg has the status of an “Oberzentrum” (main metropolitan centre), due to its population size of more than 500,000 inhabitants. According to normal economic expectations, such an *Oberzentrum* should be able to provide for the surrounding smaller cities and settlements. Retail centrality is the relation of a city’s overall retail sales to the total income spent by its inhabitants. It thereby measures how much of the purchasing

power available to the inhabitants a city receives, and how much purchasing power it is able to attract from the surrounding cities. It is expected that an “Oberzentrum” will have a centrality of more than 100% because of its function as a provider for the surrounding areas. However, Duisburg persistently showed figures of around 90% (Düsseldorf in comparison has a centrality of 140%). This finding suggests that Duisburg suffers from an underinvestment in the retail and service sector – the most powerful argument of the Multi-Casa supporters.

While all this was going on, the local Chamber of Commerce, together with organisations of retail businesses, built up pressure against the Multi-Casa idea because they felt it would tip the balance within the city and damage many established retailers in Duisburg’s core area. Contrary to the proclamations of the investor group GID and the city council, it was felt that the Multi-Casa site was not an integrated part of the city centre, and due to the several hundred metres between it and the Koenigs-Strasse, it could never be made so. It was therefore suspected that the proclaimed advantage that the city centre and the Multi-Casa would attract more customers for each other was not realistic. It was in fact feared that the severe competition between them might bring job losses in the centre that would cancel out a significant proportion of the 2,400 expected new jobs created in the Multi-Casa (WAZ 1998b).

An alternative suggestion was to develop an integrated concept for redeveloping the city centre. As a step in this direction, IHK and BAG commissioned a study (DIA) to investigate the potential of developing the city centre itself, thus attracting new investments and stimuli for the job-market (Reitzig 2003/4). This study envisioned a number of innovations, from a congress centre to new shopping facilities, in the midst of Duisburg’s established retail centre.

Irrespective of the concerns of the IHK and the retailers, Duisburg’s Lord Mayor Baerbel Zieling and Klaus Mueller of the GID signed one contract on the exact timetable for the project, and another defining the duties of each side and the services to be rendered. Spring 2008 was named as the latest date by which the Multi-Casa was to be opened (Putz 2003).

It is now difficult to find material about the Multi-Casa online; and this is understandable considering the shock and frustration of the planners when, on the 27 of June 2005, after 7 years of planning and acquiring all the necessary legal approvals for the project, the city council passed a motion effectively bringing the project to an end. The old railway depot was declared a “special zone” (“Sondergebiet”), which meant that the city could put restrictions on its use. It was expected that the city would preclude subcontracting retail-businesses of all those types which would pose a threat to established city retailers.

The project Multi-Casa was abandoned with immediate effect, and Duisburg now plans to develop the centre according to a new urban master plan by Rem Koolhaas. This is precisely the result intended by the “DIA” study (Duisburg inner city development) commissioned by the IHK & BAG. As part of this plan it has now been decided that a “Duisburger Forum” will be built right in the centre of the city, a project that was seen by many as a competing alternative to the Multi-Casa.

Interpretation of analysis

LIR and its limits

Looking at the history of this project from its beginnings in the late 1990s, the planning process seems to have very little resemblance to the ideal type of linear instrumental procedure:

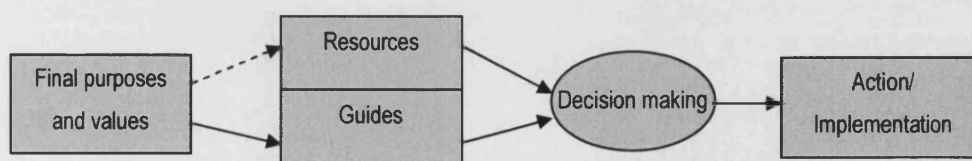


Fig. 9.2: The linear instrumental model (cf. Dorstewitz Kuruvilla 2007)

There are many differences between the Multi-Casa story and the LIR model: The process in the Multi-Casa case was marked by frequent and radical changes to the designs and projects envisaged. An arena, a ski-hall, a casino, a furniture outlet, and eventually the all-round “experience-centred” mall system were discussed.

I discussed in chapter 7 that the LIR model presupposes a coherently organised agent or a planner’s perspective, which stands at the centre of all instrumental activities. This condition cannot be found in the Multi Casa case. Frequent changes of investors, their heterogeneous composition, changing majorities in politics and the reluctance of the city administration to define its own material visions for the site make it even harder to recognise the ‘agent’ within the Multi-Casa planning process. I will, however, argue that most of the involved agents take a Humean perspective on the field by entering it with a fairly set list of priorities and motives.

Finally, decision-making in the case of the Multi-Casa cannot be reduced to a “decision-point” which concludes a research/planning phase and initiates its implementation. The decision that finally ended the project was formed gradually and was levelled on a political playing field. It expressed the existential fear of already established businesses, an encroaching feeling of alienation amongst many citizens, and a changing majority in the city council. (I will discuss these and other reasons below). Multi-Casa was ousted *after* all the formal decision-phases had been followed out according to plan. Hence it surprised the planners of ECE and many city administrators to see the project falter after the plan had matured in all its financial, contractual, legal, and administrative aspects.

All of these reasons show how little the Multi-Casa case conforms to the model described and prescribed by linear instrumental rationality. Why then was it chosen as an example to illustrate the LIR model? The short answer is that I believe LIR does a good job of describing the intuitions and aspirations of important players in the planning process. I will explain this below.

Linear progression

Companies like Philip Holzmann, Trizec Hahn, or the ECE are experts in managing and coordinating large-scale projects. They tend to treat urban construction projects like shopping centres, airports or sports facilities as large-scale engineering projects. The Multi-Casa was planned as a single complex under one roof. The way responsibilities were distributed and diverse organisations employed gives a clear impression of the linear understanding underlying the process.

Once a group of investors led by the Westdeutsche Immobilienbank had taken on the project, the logical first step seemed to be to form an organisation dedicated to the project. The GID was founded as a unified agent representing the side of the investors. This organisation commissioned several market- and feasibility studies from experienced institutes such as the Prisma in Düsseldorf.

The project was then referred to a political process in order to obtain the necessary permission. I will not exhume the lengthy process of public hearings and council decisions at this point, since my aim is not to write a history of the Multi Casa but to demonstrate how aspects of the LIR model may have influenced the planners' conception of the planning process. When several basic permissions had been granted, and general support for the project had been expressed by the local authorities, a master-plan was commissioned. This master-plan was followed by an architectural competition with the end of deciding the physical structure of the project and its surrounding. Further necessary planning permissions were obtained and the GID entrusted the ECE with all subsequent planning and management tasks of an executive nature.

The mandate of the ECE comprised organising and supervising the construction of the project according to the chosen architectural design and defining the profile of contractor companies to be settled in the Multi-Casa in detail. Further the GID entrusted the ECE with managing, running, and maintaining the Multi-Casa after its completion.

The commitment to a linear instrumental model becomes evident in one publication of the GWF (a local development office) which reports on a presentation by Klaus Müller with the purpose of showing “the path from the Idea to the realisation of the Multi-Casa” (GWF-News 04/03/2004).

Decision points vs. hierarchically nested structure

A close look at the process shows that the LIR model is too crude even in accounting for the rationale applied by the involved private sector investors and planners (GID and ECE). This becomes clear when we search for the crucial decision-point which the LIR model postulates, supposedly to conclude research and to initiate implementation phases. Instead of a single pivotal point of decision-making, we find several strategic moments that were communicated and celebrated as milestones in the project’s history. We come across official press releases stating the intent of various bodies, publicly exchanged signatures between representatives of the GID and the lord mayor, and unveiling of plans and designs (GWF 2003; Putz 2003).

The linear instrumental model must be modified into a hierarchically “nested” (cf. Friedman 1987 p.130, referring to Lindblom) model, in which decision processes are re-iterated. These iterations take place on different levels of concretisation. The overall direction of this model is linear, reaching from planning to realisation, but the decision procedures move in a circular manner: earlier stages yield general visions and strategic decisions, while later stages obtain permission and detail plans and designs.

In the current example this nested linear structure may be recognised in several major steps. The foundation of the GID marked a clear commitment to embark on this project on the side of investors – perhaps concluded by internal commitments that followed the presentation of market- feasibility studies. Planning then proceeded on a more concrete footing. The approval of AS&P Albert Speer and Partner’s master plan by the city council in 2000 marks another strategic turning point, leading to more detailed and committed planning phases on the side of the investors. When on September 5th 2002 Shin Takamatsu

and Andreas O. Kipar were announced as the winners of the architects' competition, the design of the Multi-Casa and its surrounding seemed decided (Dressler 2003/2004). Further decision-points were marked by commissioning the ECE with the extensive task of building and managing the centre, and with the ECE's commitment to a detailed marketing strategy, comprising a small number of "flagship-stores" (large department stores and retailers with a broad assortment of products) and a large number of small and popular specialised high-street retailers. This nested planning procedure had arrived at a very detailed level and was just about to enter its implantation stages when it was stopped and abandoned.

Ends ex-ante

Although in the case of the Multi-Casa the concrete projects changed on a regular basis, I have discovered that the high-ranking objectives of the key players remained relatively stable throughout the process. Moreover, these super-ordinate ends had little to do with the specific character of this place and its context. I have summarised below a few strategic aims that were put forward:

The owner of the site, a subsidiary of the **German railway company, Die Bahn**, was interested in securing a high sales price for its real estate (NRZ 1998). According to one of my interviewees, the opportunity to develop a passenger station as a spill-off from the Multi-Casa was pursued only as a subordinate priority by the rail company. This lack of interest was due to the organisational detachment between different sub-divisions in the rail company's organisation: DB Station & Service as organisationally separated from DB Immobilien – Aurelis.

The priority of private **investors** was, unsurprisingly, to put the object to its most lucrative use. This can be seen in the changing profile of the plan from a sports arena to a budget factory outlet and eventually to even more profitable middle and up-market retail shops that could drive out core business in the old centre (Putz 2003). This transition followed directly from what was deemed politically feasible at any given point in time.

The **city officials**, as I mentioned, had a settled agenda to promote the “Strukturwandel” (regional structural transformation) by creating new third sector businesses (retail and services) on a large scale. Its two prime targets were creating new jobs and attracting direct investment to stimulate economic growth. Economic key-data like the city’s retail centrality or its retail sales space per capita were the focus of the council and its planning offices.

Because of their proximity and structural similarity, cities in the Ruhr region are in a constant state of rivalry. Improving Duisburg’s profile through economic success and by means of prestigious or impressive development projects was high up on the agenda. Duisburg’s prime reference point was the “CentrO” in Oberhausen, a highly successful drawing-board project that had turned a large stretch of industrial wasteland into Europe’s largest shopping centre. The attractiveness to city planners of a project similar in style and size is understandable. The desire to build something flashy, even domineering, like Shin Takamatsu’s design, was fuelled by this competitive attitude.

Town planners and officials have admitted to the lack of colour and flair in Ruhr cities, which were built during the 1960s to 1980s.³ However, what constitutes “life quality,” a “welcoming atmosphere,” or an “urban boulevard feeling” was defined in general terms which made no reference to places and contexts. Designers of the Multi-Casa made promises of “Mediterranean flair,” a “world of experience” and “paradises” of various descriptions (GWF-News 04/03/2004; 22/12/2003).

Some further criteria were evidently important to the city council. Private investments are often used by public administrators to further infra-structure projects. For example, the administration expected investors to create access roads and ramps to the local highway system. There was also discussion of building a slab over the highway, which was seen not only as a noise attenuator but as a way of re-connecting quarters on the other side of the

³ Indicative of this perception was the decision to plant an enormous Niki De Saint Phalle sculpture in Duisburg’s centre.

highway with the city centre. The promised creation of 4,300 parking lots was an important argument for a city that suffers from a chronic shortage of parking space. Finally, the re-development of a railway forecourt was a welcome spill-off that the Multi-Casa promised to deliver.⁴

If one compares earlier and later statements on the project and its promises and values, neither the aims and criteria nor their relative weights changed significantly during the planning process (cf. NRZ 1997; WAZ 1998a; GWF 2003; Dressler 2003/2004; GWF 2004).

At the point when the GID had formed and the ECE was commissioned as the project developer, Multi-Casa had quickly become a vision no less comprehensive than Le Corbusier's radiant city. The plan not only defined the architectural features and the structure of flagship stores and smaller retail businesses that were to be settled, it envisaged a precisely defined lifestyle and all-round experience for its visitors (NRZ 1997). "Erlebniswelt" is a terrifying German word-creation: literally translated it means a "world of experience," and is often used by investors and project developers to point to planned qualitative aspects of a project that go beyond shopping opportunities and services. References to the creation of an "Erlebniswelt" insinuated that it was the explicit aim of planners to create a pleasant all-round experience.

Duisburg's *Gesellschaft fuer Wirtschaftsfoerderung* (society for economic development) summarised the Multi-Casa project in the following way (GWF 2003, my translation, my italics):

"Aim of ECE's planning effort: Duisburg's centre should gain a magnet of first rate and first quality. A gastronomic landscape, highly attractive sojourn areas, water-fountain-shows, interactive stages and cultural events are planned... In the metropolitan Multi-

⁴ The whole list is a result of interviews that I conducted with Ralf Krumpholz (Secretary of the "B'90 Die Gruenen Fraction im Duisburger Rat" – 1/3/2007) and Andreas Haack (from the local Chamber of Commerce "IHK" – 8/3/2007).

Casa one will find *everything that the “shopping- heart” desires...* A special highlight is the novel concept of a “food court” [in fact this idea had long before been realised in the ‘CentrO’ Oberhausen] with attractive culinary offers. In sum the generously planned and elegantly designed shopping-mall, which will include several “piazzes,” and light-flooded rotundas, *will create a Mediterranean atmosphere and a high quality to stroll, window-shop and live in.”*

Opposition

This unambiguous avowal of a comprehensive ex-ante approach flies in the face of the *situational transactive* idea that treats planning as a gradual process of unfolding purposes and qualities. Some of the voiced criticisms against this project and its planning procedure have come from a similar direction.

B’90-Gruene (the Green Party) opposed the undertaking from the beginning, but this resistance was by no means limited to alternative segments of Duisburg’s society. Many argued that the city would lose a part of its identity by yielding to a universal tendency of Americanisation. A related complaint was that leaving such a large and prominent area of Duisburg’s city centre in the hands of a private owner and single project developer would significantly reduce the ability of citizens to form, determine and own their city.⁵

⁵ In Berlin, where the ECE has realised its most prestigious project, this planning strategy has led to disquieting consequences. The Potsdammer Platz, once Berlin’s centre point, which had fallen victim to both WWII and the Berlin wall, was redeveloped all at once during the 1990s. This was done in an international style of corporate architecture with some ostentatious cultural monuments (e.g. the main cinema of the Berlinale and a concert hall), whence it became a slick island that remained somewhat disconnected from the rest of the city. The entire estate is privately owned and managed by the ECE. The management of this estate reserves the right to ask visitors who are deemed inappropriate to leave.

Situation and context

With regard to the plans for London's largest development site north of King's Cross Station, Graham Morrison of the joint master-planner office Allies and Morrison said (Goodman 2006):

“It's easy to design something like a business park, it's harder to do a job where you can walk across the site and it still feels like you are in ... London.”

The design of the Multi-Casa is reminiscent of a space station or a futuristic rocket launching pad. The architectural design by Shin Takamatsu is loud, attention-seeking; even exhibitionistic. It is tempting to read this as an exaggerated architectural statement by a city that feels the need to compensate for its complexes.

Aside from such attempts to psychoanalyse architecture, it is plain that this new shopping world would have looked like a foreign body in the humble post-war reconstruction architecture of the city. It would have overpowered the railway station, a plain Bauhaus brick complex and a heritage protected monument. The plan also intended to turn the main square in front of the station into its own front-yard. This intention is most evident by the suggested paving of the square in lines that would run diagonally along the station building toward the entrance of the Multi-Casa, thereby breaking the rigorous and stern rectangular character of the station's front aspect. The roof extension pointing out from the Multi-Casa onto the square asserts its claim of supremacy over the place rather than its integration into the city.

Less from an aesthetic and more from an economic urban planning perspective, this lack of coherence with the rest of the city became a bone of contention. The reason that finally brought Multi-Casa to an end was the fear of many local businesses and employees that, because of its detached and self-enclosed character, it would attract streams of customers away from the centre rather than acting as a gateway and a stimulus to the rest of the city. A similar problem was felt in Oberhausen where, after the creation of the “CentrO,” the city's old centre dried up economically.

A new master plan for developing Duisburg's city centre (post Multi-Casa) now intends to integrate the newly developed Innenhafen⁶ with the city. The Multi-Casa site was located on the opposite side of the centre, and it was therefore feared that it would tip the balance of the city away from the Innenhafen, by building a counter-pole to the newly developing harbour area, possibly reducing it to a fringe of the city.

Situation as problematique

In previous chapters the "situational" aspect was introduced as a *methodological* reference point. It addressed the framing of planning-situations. A situational approach understands action in problematic situations as primarily stimulated by indeterminacy or by conflicting impulses, and not by definite goals or problems.

It is quite evident that important decision-makers in the Multi-Casa project applied this linear instrumental perspective and consequently underestimated the political indeterminacies and conflicting potentials that made this situation what French literary critics might call a *problematique* (a complex meshwork of ambitions, efforts and diverging worldviews).

Early planning documents looked more like an economic and legal feasibility study trying to establish the sense of a Multi-Casa from an investors' perspective. The older of two independent studies by the Prisma-Projekt Beratungs GmbH (1998), which served as an important orientation for both investors and city planners, takes a detailed look at the location and its macro surrounding. It investigates the infrastructural location and the structure and strength of competition in the city centre and in neighbouring centres. It analyses macro data of Duisburg's economy, customer behaviour and other economic data. Yet there is only one sentence about the role and impact that this investment may have on surrounding quarters, in which the study claims that the project would mean an extension of

⁶ An old part of Duisburg's harbour which has been re-developed as a boulevard with restaurants and cultural highlights.

the city centre, which would serve to “complete” its retail and services provision and “revitalise” the entire centre (p.11). Ironically in the very same paragraph the study states that the estate occupies an “isolated position,”⁷ which was precisely the argument used by opponents of the Multi-Casa.

Only after the Chamber of Commerce had become an active player in criticising the project and after Multi-Casa had been challenged by a rival plan (“DIA”) was the planning project successively defined as a political mine-field and an unresolved *problematique*. At this point, however, the Multi-Casa plan had matured to so far the different perspectives of Multi-Casa planners and inner city revival (“DIA”) supporters had become locked in a polarised confrontation that was no longer favourable to forms of collective deliberation where all local agents and groups would search for creative and satisfactory solutions.

I say all this quite tentatively, because it was not easy to gain full access to the studies and materials on this case, particularly from the side of investors and project developers.

Surely conflicts arising from the appearance of a new competitor in a marketplace cannot be resolved merely through communication and participative deliberation. However, the conflict around the Multi-Casa cannot be reduced to the local fear of new competition in an established marketplace. It was rather a specific type of business that was feared to tip a balance in the local economic structure. These were accompanied with questions about both Duisburg’s character as a marketplace and its identity as a city. The effects of increased competition were important, but so were geographical reflections on the coherence of the city (GMA 2004; cf. 2005; [“mitteilungsvorlage” no author] 2005a; 2005b). The great support for the alternative project of the “Forum,” which envisages the settlement of several new large-scale retail businesses in yet more central locations, indicates that the mere threat of competition was not the crucial point leading to the widespread resistance.

⁷ “Insellage.”

It is not my aim to pass judgement on the Multi-Casa project. I only intend to illustrate some features of the LIR approach in practice. The city council and its planning offices will be ready to prove that the public had been informed and invited to participate in each stage of the planning process. They have even provided a laborious moderation procedure in which all the contributions of citizens and institutions were collected, summarised, ordered and made available in an online domain. It is not part of my claim that public decisions were reached in an undemocratic way. Several studies were conducted to prove the economic and social compatibility with public purposes and policies. These regarded not only the impact of the project on the city but also on the region, and were necessary for obtaining official approvals from several North Rhine-Westphalian regulatory authorities. On the other hand several interviews with representatives of the B'90 Gruene Party and the Chamber of Commerce indicate that Multi-Casa was planned, designed, and evaluated by its key planners in relative isolation from its context, and not as part of a comprehensive development concept for the whole city. The master plan by AS&P Albert Speer and Partners from 2000 did not have the scope to integrate the Multi-Casa with the structural needs of the entire city. Such a master plan was only later provided by Rem Koolhaas, after the Multi-Casa had been abandoned.

Neutrality of inquiry

Using feasibility studies as the main planning tool in the beginning of the process is a clear sign of a linear instrumental approach. It follows the assumption that matters of fact (about the economic feasibility of a project) can be decided in a relatively value-neutral fashion. It is therefore interesting how these "objective" and "independent" studies met with great suspicion right from the start. It was felt that they were not neutral but promoted the interests of their initiators. This suspicion was not only uttered in interviews that I conducted but it also led to the commissioning of a further study with the purpose of evaluating two prior studies which respectively favoured the rival projects of Multi-Casa (Prisma 2004) and Duisburger Forum (CIMA-Stadtmarketing). The IFH conducted this

third mediating study and concluded that both prior studies must be regarded as insufficient warrants for the cases they make (Kaapke 2005 pp.6-8, my translations):

“The IFH cannot subscribe to the conclusions drawn by either of the two studies; this is due to the insufficient transparency of establishing numerous determinants, which would have been necessary for their conclusions.”

The evaluation of both studies ends with the conclusion that

“...drawing the opposite conclusion would have been equally justified.”

Only from a qualitative estimation does the IFH lend more support to the “Forum-project.”

These points lend some credit to the pragmatist claim that inquiry into the determinants of a situation can never be neatly separated from evaluating action-strategies and ultimate purposes.

Planning as Appreciation: Colliery and Coking-Plant “Zollverein”

Tradition is passing on the flame, not worshipping the ashes.

Gustav Mahler

A Brief History

After a visit to Zollverein, the architect Claude Vasconi wrote: “Today I saw a miracle...” (Das Magazin Zollverein 2006, my translation).

Franz Haniel (1779-1868), founder of the colliery Zollverein, bought 14 coal fields, and in 1848 began sinking a pit in the northern Ruhr region. The idea of a central extraction plant (Schacht XII) in the north of Essen took shape only during the 1920s, after the pit had been taken over by the steel consortium “Vereinigte Stahlwerke AG.” The architects Schupp and Kremmer were commissioned to plan and design the world’s largest extraction and processing plant of their time. The plant boasted an impressive extraction capacity of 12,000 tons a day until coal production was finally abandoned in 1986.

Zollverein was built the year the famous Bauhaus in Dessau closed. All constructions on shaft XII were designed by Schupp and Kremmer in the style of “Neue Sachlichkeit” (“new objectivity”). Apart from their aesthetic value as pristine and rare surviving examples of their period’s industrial architecture, these constructions were in the avant-garde of technology and structural engineering. Schupp and Kremmer were amongst the first to use suspended steel frame facades, which later became standard in high rise buildings.



Fig. 9.3 Perspective on shaft XII

(source: <http://www.thomas-lehr.de/gallery/ruhrgebiet04/7ZecheZollverein>)

After ending operations at this location, the “Ruhrkohle AG” (later named “RAG”) relinquished an area of 100 hectares, including the pit with its magnificent shaft frame, numerous halls, conveyor belts, workshops, railway lines, stockpiles of coal and rock, and a coal processing-plant. The neighbouring coking plant is part of the ensemble but was taken out of service in 1993.

Conservators today call the period that followed “the time of anarchy.” For about 10 years the site was left more or less unprotected.¹ This invited many idiosyncratic visitors like artists, rail buffs (who occupied a number of retired train carriages), and urban adventurers who explored this bizarre and nostalgic landscape. I myself loved to explore the place. I

¹ Only a small service was continued to protect the mine’s underground systems and remaining coal depositories from water damage.

used to study for my business degree on the rock piles and often climbed to the top of the ramshackle pithead frame to watch the sun set over the Ruhr. These sunsets used to be famous for their colour explosions, which were caused by high levels of industrial air pollution.

Unfortunately these early years of “anarchy” at Zollverein also attracted a great deal of destruction and theft. Many of the old engines were damaged, graffiti appeared, windows were smashed, and almost everything portable of any value vanished from the site.

Zollverein has since been established as a prestigious heritage site and is a thriving centre of culture, design, and education. Last year Essen won the bid for Europe’s cultural capital in 2010 and made Zollverein its centre venue for coordination and events.

A Problematic Situation

When the gates of Zollverein closed in 1986, it marked the end of an era of coal production in the Ruhr valley. This brought economic and social change that the region has only now begun to digest.

Zollverein has become an object of prestige in Essen and the Ruhr region, which explains why it is so difficult to reconstruct the history of the attempts to demolish it in the 1980s and 1990s.

According to Karl Ganser, the Ruhrkohle AG filed an application in 1986 to demolish parts of Zollverein, which was swiftly granted by Essen. The city proposed to buy the site with the intent to “demolish, condition and develop the area and to create jobs – if possible in equal number as had previously worked on the site” (Ganser 2002 p.24, my translation). Ganser summarises the officials’ views as follows: “existing architecture unsightly; preservation unaffordable.”

Ruhrkohle AG (later RAG, today EVONIC) even filed a lawsuit with the administrative court of Gelsenkirchen against the motion to list buildings of Zollverein 6/9 under the Heritage Protection Act because it had plans to erect a new settlement on the site. Shaft 12 (the main complex) was also endangered according to these reports. Ruhrkohle AG resisted attempts at preservation, and acknowledged only the shaft head frame to be of heritage value. As Buschmann claims, the protection of even this part was rejected because the company had no further use for it (2002 p.32). At this point only an expedited motion could rescue the site from demolition. Fortunately the protection efforts were successful on the whole. However, some smaller parts, namely all the buildings surrounding the head-frame of shaft 6, were replaced with residential houses (Buschmann 2006).

The city of Essen bought the estate through the LEG (a land owned administration agency) with the following purposes: 1. to bare the site, 2. to make it ready for new construction, and 3. to sell the property to private developers (Der Oberstadtdirektor, Schul- und Kulturdezernat et al. 1993 p.4). The low sales price of only 500,000 Euro for shafts XII and 1/2/8 reflected the assumption that the acquisition was a burden rather than a benefit. Although the area is located fairly near the centre of Essen, it is surrounded by low-income quarters. Nearly 100 years of heavy industry left long-standing ground contaminations. Many of the constructions were poisoned with asbestos. In their dilapidated state they were regarded as a liability rather than an asset of the purchase.

Walter Buschmann (head of the regional monument preservation office) confirms how difficult it was to get the pit and its buildings listed under the monument preservation act and talks about a tug of war over several years (Buschmann 2002; 2006). In an interview with Walter Buschmann I learned that Essen's administration was merely interested in the "street aspects" (those buildings immediately visible from the entrance gate) and was ready to sacrifice the rest (including the coal wash) to new development projects.

Only the fast intervention and enduring engagement of a few individuals, including Walter Buschmann and Karl Ganser, could stop plans that would have destroyed or ruined this

heritage site. The fight continued long after Zollverein XII had received its status as a listed monument. Further disputes erupted over the use of vacant areas such as coal and waste rock-piles, and about smaller neighbouring shafts (e.g. 1/2/8) and surrounding settlements.

In 1991 I joined a demonstration against the establishment of an industrial waste dump which was meant not only to fill sub-surface mining areas but also to occupy the site of today's sculpture forest. In 1992 this idea was fortunately abandoned.

After 1993 new quarrels broke out over the neighbouring coking plant. The owner had plans to disassemble the entire plant and sell it to China (Heidner and Mehrfeld 2002, p.8).

The IBA Emscherpark (an international building and construction exhibition) lasted from 1989 to 1999. It promoted visionary urban planning and construction projects in the region and gave decisive impulses for changing the entire region's perception of its industrial heritage. It is safe to say that without this engagement, large parts if not all of the area would have been destroyed.

Not only is this historical background interesting in and of itself, it is also a good example of a "problematic situation" as introduced in earlier chapters of this dissertation.

Prior to 1986 the daily extraction and processing of coal created an equilibrium of habitual processes routines. Around the time of Zollverein's closure this equilibrium gave way to an "unsettled" situation. Abandoning production on an area of this size demanded a reorganisation of future uses, developments and the ownership of the site. The phase leading up to the closure of the site may be called an "indeterminate situation" as defined by Dewey. At that point no one had a clear idea of what should be done afterwards, and most did not even perceive the urgency that was required. Only a handful of people understood how politically explosive the field could turn out to be. The situation soon turned from "indeterminate" to "problematic" when various opposing views were expressed on what to do with the site. All parties were suddenly forced to pay attention to the situation. One cannot speak of the perceived need for a "solution" because at this point

there was no clearly defined problem. What was needed was a new understanding or framing of the situation.

Even those factions that urged a comprehensive preservation of the entire estate were not committed to a defined goal or a clear vision. However they were convinced that the site was a masterpiece of industrial architecture and that there was great potential for future acts of planning.

Heidner and Mehrfeld confirm that all the early supporters of Zollverein had the hope that “patience and curiosity” would help to raise fascination for the location (Heidner and Mehrfeld 2002 p.20 my translation):

“And good concepts [for its use] would then arise almost by itself.”

Later developments justified this intuition.

Zollverein rapidly gained recognition in the region as an important historical identification point, as an architectural monument of first rank, and as a vibrating cultural location with countless exhibitions, projects and events.

The greatest breakthrough was the recognition Zollverein received in 2001 from UNESCO as a world cultural heritage site. Only in the lead-up to this change of status was it possible to make the case for admitting the entire ensemble, including the coking plant and even some nearby mining settlements, to Essen’s protection list.

Through this transformation from an expired industrial ruin to a popular and nationwide revered heritage site and cultural centre, I would like to illustrate some further ideas that constitute the *situational transactive* approach as embodied in the decision-cell model.

Planning as Inquiry, and Inquiry as Appreciation

Norms in context

Earlier I discussed Dewey's reasons for rejecting the "hierarchical model" of ends and purposes. This model claims that concrete aims and strategies are designed to yield the best possible realisation of ultimate ends and purposes. Although concrete goals and strategies take situational constraints into account, these ultimate ends and purposes are ranked independently of conditions that influence their realisation. I.e. on account of the "hierarchical model," situational constraints have no rational import on the formation and ranking of ultimate ends. In this model some high-ranking norms would normally occupy a super-ordinate position and would pose demands and constraints on concrete decisions. Dewey's view was that ends should be regarded as means or "instruments" that enable an agent to organise her activity *within* a situation. Ends evolve out of a situation. Norms are general principles that have been extracted from experience through abstraction and draw their authority from their ability to guide action in these concrete contexts. Dewey concludes that norms themselves have an instrumental character. Their authority and their quality of guidance rest on how well we employ, interpret and adapt them in a particular situation.

Zollverein is an interesting case to illustrate this idea: Heritage protection and the preservation of monuments is an established and well-rehearsed framework of norms that is not only recognised by the general public, but is expressed in the legal and political realms. It is commonly accepted that certain buildings should be protected on account of their historical significance and their cultural or aesthetic value. Cathedrals, cloisters and palaces are traditionally listed under protection acts, i.e. buildings that were designed for representative purposes. These are often ornate or designed by famous architects.

In the case of Zollverein, the application of heritage preservation norms was extremely difficult and ambiguous. The ensemble did not match the public understanding of protected heritage sites, even though the Zollverein XII was in fact designed with a distinct

representative element. The style of the entrance area is commonly seen in Baroque court architecture. It leads to a square with side wings, and the pit-hall in the front has an impressive hoist frame. Zollverein's prestige also came from its being on the cutting edge of the industrial technology of its time. However, by the time it closed it was by no means clear to most citizens and city planners that there was anything worth protecting amongst the sinister, dirty and purely functional buildings. In particular the wider surrounding (e.g. Shaft 1/2/8 and the coking plant) seemed like an outdated industrial relic with nothing edifying or uplifting about it. The vast conveyor belts, the jungles of pipes and the towering chimneys were an eye-sore for most people in the grey and industrial Ruhr valley.²

² This appetite for colour often lead city planners to favour architecture that borders on the ridiculous, like the pastel-coloured constructions "city-center" at Porscheplatz, or the two pink towers including the Cinemaxx at the Berliner Platz, that were built during the same time period.



Fig. 9.4: Shaft XII – Coal Wash and Hoist Frame³

On its own, the normative demand for protecting important heritage sites and monuments did little to preserve Zollverein. The norm, on its own account, had no authoritative claim over this particular situation. Applying the normative toolbox of monument preservation to the case of Zollverein demanded a great deal of situated judgement, or what I have called the “transfer dimension” of imagination (chapter 5). More than that, it demanded the adaptation of the normative framework of “monument preservation” to the concrete context and the development of a fundamentally new aesthetic – a new way of seeing.

³ Source: <http://www.thomas-lehr.de/gallery/ruhrgebiet04/7ZecheZollverein>.

Remember that Dewey says (HT, MW6.263):

“There is no label, on any given idea or principle, that says automatically, ‘Use me in this situation’—as the magic cakes of Alice in Wonderland were inscribed ‘Eat me.’ The thinker has to decide, to choose; and there is always the risk, so that the prudent thinker selects warily – subject, that is, to confirmation or frustration by later events. If one is not able to estimate wisely what is relevant to the interpretation of a given perplexing or doubtful issue, it avails little that arduous learning has built up a large stock of concepts. For learning is not wisdom: information does not guarantee good judgement. Memory may provide a refrigerator in which to store a stock of meanings for future use, but judgement selects and adopts the one to be used in an emergency—and without an emergency (some crisis, slight or great) there is not call for judgement.”

This “emergency” arose after RAG and the city of Essen had drafted their demolition plans. However, some cogent arguments had to be dealt with before the norms of heritage protection could be used to preserve Zollverein. Schupp and Kremmer’s constructions were designed as “outer skins” for the protection of machinery, not as indoor spaces that would readily yield new uses. Further, the economic method of construction had produced buildings that were designed to last for only 30 to 60 years. This was not only the result of the companies’ tight budgeting, which already anticipated the exhaustion of coal depositories at that location, but Schupp and Kremmer interpreted the Bauhaus motto “form follows function” to imply that “function” also exhausts the *raison d’être* of an architectural monument. The philosophy behind this movement of “new objectivity” positively rejected the idea of building for eternity. When in the nineties these buildings were in a deplorable state of disrepair, and some were even in immanent danger of collapsing, it had to first be established that it was appropriate to preserve these buildings. Schupp and Kremmer were not widely recognised as first rate architects at that time. It was said that Norman Foster, who later took over the task of re-designing the interior of the boiler-house, had never heard of them.

All this did not make the case for preservation an easy one. Even after it was acknowledged that the central area of Schacht XII was indeed worthy of protection, it seemed utopian to preserve the entire ensemble, including Schacht 1/2/8, the coking plant, and the rock-piles and empty areas, without at least some appealing new ideas for its use.

Means and ends

The recipe for Zollverein's eventual success had many components. One was a series of initiatives that grew into a framework of functions and thereby provided perspectives for future developments. These activities helped create a new identity for the place.

In the beginning there were a few artists (like Ulrich Rueckriem and Stefan Pietryga) who were not only inspired by the space, but were able to make use of the abandoned halls and the old equipment of the mine to construct, lift, and transport large sculptures. Ulrich Rueckriem created a sculpture park of monolithic granite blocks in an overgrown stretch of wasteland. These multi-ton granite blocks were officially integrated into the renowned exhibition for contemporary art, "Dokumenta," in Kassel.

Many other artists came and made use of the location in very original ways: walk-around theatre performances turned constructions and machinery into sceneries, and contemporary composers used the acoustics of the oddly shaped halls for experimental concerts and sound installations. It is well known to architects that the optimal acoustics for traditional music performances is achieved in shoe-box shaped rooms, yet few concert halls have ever been built this way. Many of Zollverein's halls were originally designed in this shape, making them ideal concert halls.

In the mid-nineties choreographers discovered the location. An international dance fare was held there, and dance companies used all possible locations on the estate as natural stages for their performances. Later, the chorographical centre PACT was set up in the old pithead baths.

Many creative ideas were inspired by the bizarre character of the location, and old mining tools and technology were used as resources for new artistic purposes.

Designers also showed a lively interest in Zollverein. Students of FB4 (Essen University's design department) were the first to use the "coal wash" as an exhibition space, and even planned to move their quarters to the location. A significant step toward establishing Zollverein as a first-rate cultural site occurred when the famous British architect Norman Foster re-developed the boiler house for the new "red dot" design museum.

Under the leadership of Karl Ganser, the IBA Emscherpark, (the regional building construction and urban project exhibition that lasted from 1989 to 1999) was the first initiative that appreciated the adjacent coking plant in its own right. Its bizarre industrial landscape harboured a world of visual and spatial experience. It attracted some 300,000 people during the exhibition "Sonne, Mond und Sterne" (sun, moon, and stars). Visitors were able to see a chimney from the inside with its *camera obscura* effect, and were guided along the industrial stages of coke production.

In 2001 the artists Dirk Paschke and Daniel Milohnic created an out-door swimming-pool on the roof of the old coal mixing facility by joining two blue cargo containers. This popular installation, which the artists called "Badesaison" (bathing season), is still in use during the summer months. Next to it, a cooling basin, stretching alongside the coking plant, has been turned into a 150 meters long winter ice rink that attracts up to 22,000 visitors each year.



Fig. 8.5 Ice rink and Ferris wheel on the coking plant

(source: <http://www.thomas-lehr.de/gallery/ruhrgebiet04/7ZecheZollverein>)

The only significant new building on the site is the Zollverein School of Management and Design. It is a white cube with square windows quasi randomly scattered over the facade, designed by the architects Kazuyo Sejima and Ryue Nishizawa (office Sanaa). Even here the idea of using the context to inspire new purposes has been honoured. The architects managed to use the warm waste water that the mining company had not yet drained out of the pit to heat the entire building (Schuler and Matt 2006).

These are all illustrations of how means and ends can co-evolve and arise out of a single context. All these purposes grew out of the situation “Zollverein” more or less organically, thereby creating their own means. The sum of these activities and projects has helped to shape the very distinct character of the location and give it a new functionality.

Engelskirchen writes the following about Zollverein (Engelskirchen 2006 p.216, my translation):

“A thing taken out of its functional context becomes ‘garbage’ with regard to features of its design-purpose. But not everything that is garbage will be thrown away. Some things undergo a process of re-evaluation: A pit becomes a shut down pit, hence garbage, and then the monument of a pit. No longer coal but historical insights are now produced and a lateral shift has taken place.”

Zollverein has produced much more than “historical insight” since the mine shut down. The point I would like to make is that a curious study of a situation – an inquiry that employs imagination as its main tool – is able to turn “garbage” into useful resources and use these resources to develop new purposes and projects. Zollverein has proved that purposes and the means for their realisation are intimately related and mutually dependent. In 1986 it would have been inconceivable to preserve the entire ensemble, on account of the cost alone. By 2002 the site had attracted 70 million euro for its conservation and re-development. As Ganser (2002) mentions, knowing this sum in advance would have immediately turned all decision-makers off the project. Yet, Zollverein turned from what some deemed a liability called “garbage” into an invaluable resource – a resource for cultural projects, a heritage site, a point of identity for the whole region, and the location of many creative businesses. Although Zollverein consumed significant amounts of public funds it does not appear to be a bottomless pit for subventions. Zollverein is more and more able to generate income through the use of its own resources (e.g. renting out properties), and through the growing independence of the foundation “Stiftung Zollverein,” which runs effective fundraising campaigns.

The planning-process: inquiry and philosophy

I chose to introduce Zollverein and its planning history as a way of illustrating an unfolding problematic situation. In this history the achievement of “world cultural heritage” status and the protection of the entire estate by law had been an important transition, but not an end point to the *problematique*: A new stable equilibrium had not been reached. In fact it marked only the beginning of a new phase of urgently needed inquiry. Until that point

inquiry had centred on questions like what would justify preservation of diverse parts of the ensemble. Subsequent inquiries asked what “protection” and “preservation” actually meant in this context. These are only a few of the many problems and conflicts between competing ideas and institutions.

Zollverein’s planning history, read as a Deweyan inquiry, illustrates more than the process of structuring and settling a problem situation. Inquiry produces solutions, but these solutions, in turn, give rise to further indeterminacy and a need for further inquiry. This inquiry aspect of planning was taken very seriously, and once given answers always gave rise to further questions and research. Debates often became philosophical, necessitated by the search for concrete definitions.

One example of such an iterative inquiry process is The Stiftung Zollverein (foundation Zollverein), which is in charge of running the place. Two core items of its mandate are seemingly incongruous: it is supposed to protect the monument as a heritage site while at the same time making it accessible to a large number of visitors. Ingrid Krau speaks about the opposed demands of authenticity and utilisation as a tightrope walk (Krau 2006 p.177). The annual number of visitors has increased between 1998 and 2005 from 20,000 to 64,000 (Noelle and Durchholz 2006 p.222), and UNESCO lists tourism as one of the prime threats to heritage sites worldwide. Easy solutions, for example cordoning off sensitive areas and channelling visitors along defined and affixed paths, were rejected. Instead much thought was given to reaching a genuine synthesis between opposing demands. The right choice of programme, the adequate involvement of visitors in the projects, human guides who were familiar with the location (many ex-workers), and elaborate signpost systems⁴ were considered as ways to keep the site open but protected.

⁴ During an onsite interview with Ute Durchholz I learned that Zollverein has now, for a fourth time, installed a new sign-posting system.

Problems like this conflict between heritage protection and new forms of use can rarely be solved by quick fixes and improvised compromises. They require further inquiries into conceptions and ideas of this place and its unique character. It has been argued, for example, that the central area of shaft XII was originally designed by its architects as the high ground of a “machine-rationality,” i.e. as an area of automated processes devoid of people. Only the odd engineer would be found in this “giant machine without workers” (Krau 2006 p.177), and even the miners entered and exited their workplaces at shaft 1/2/8, far from the main area. The question therefore arose again on a more theoretical level: how could the preservation of the character and architecture of this site be reconciled with frequent visitors?

I will remark as a side-note that it is not without irony that I chose Zollverein to illustrate the *situated transactional* model of rationality. Being a contemporary of Zollverein’s construction, Dewey was a vocal critic of its dehumanising machine-age rationality, which Buschmann (2006 p.60) explains (my translation):

“In the turn toward geometrical and stereometrical design, the entire philosophy of this epoch finds its expression. It demonstrates a specific relation between man and nature... [a] renunciation of the organic... This style expresses the unbroken belief in the omnipotence of human reason and its unlimited power over nature.”

The very application of heritage status to the Zollverein ensemble created conceptual problems and dissonances that needed further inquiry on a philosophical level: what exactly was it that we wanted to preserve by giving Zollverein this status? How does turning Zollverein into a museum square with the ideas of the architects and their rebellion against permanence? Is heritage protection not really a form of betrayal of the architects’ vision, worse even than destruction? Can we really separate these building from their functions and should they be seen as monuments in their own right?

After asking on what grounds we should protect Zollverein as a heritage site, Boris Goys writes (Boris Groys quoted after Ganser 2002 p.28, my translation):

“It seems that this question cannot be answered by claiming that such modernist constructions [like Zollverein] are just as beautiful or as interesting as the monuments of pre-modern periods. The problem must not be treated by a mere equalisation of diverse epochs. In fact this problem cannot be solved at all, because of the paradoxical nature of the particular context: we are asked to treat and protect something as a museum that originally resisted the very concept of preserved heritage and rebelled against the very idea of something permanent or remaining. It is this notion that [Zollverein] embodies and which lends it its remaining quality.”

Dealing with this paradox gave rise to one of Zollverein’s most defining inquiry projects. The answers given evolved over time: the fear of *killing through preservation* was joined by an urgent need to raise popular awareness for the entire ensemble in order to protect it from various destruction plans. In the mid-nineties Zollverein was frequently used as an events location. These events and programmes were committed to maintaining a level of “high culture,”⁵ but were nevertheless meant to attract many visitors (and often did so successfully, as in the case of the “Sonne, Mond und Sterne” exhibition).

This development was important for winning the necessary support for the ensemble, but it was also eyed with great suspicion. For example, it led to the construction of a Ferris wheel on the coking plant, something that would have little chance of approval under the current regulations.

Groys had an appealing answer to the paradox of preserving a piece of architecture that was designed in a spirit of “rebellion against the idea of the permanent.” These “monuments of modernity” should neither be seen as “museums” nor as leisure parks. Instead they should continue as “locations for projects, research, reflection and experiments” (Dettmar 2006 p.97, interpreting Groys, my translation).

⁵ A commitment that opened whole new dimension of conflicts: how to distinguish “high” from “low” or “popular culture” from “high culture”. How can “high culture” ever be made at home in a quarter with predominantly low income inhabitants and ex-mine-workers?

This spirit was at work when the *red-dot* design centre was established. Zollverein was seen as a workshop of transformation, destined to become a beacon of a successfully accomplished *Strukturwandel*. Buschmann and Walgern (2006) suspect that Norman Foster's modest and cautious design for redeveloping the boiler house left those who had expected a strong architectonic statement from this illustrious architect rather disappointed.

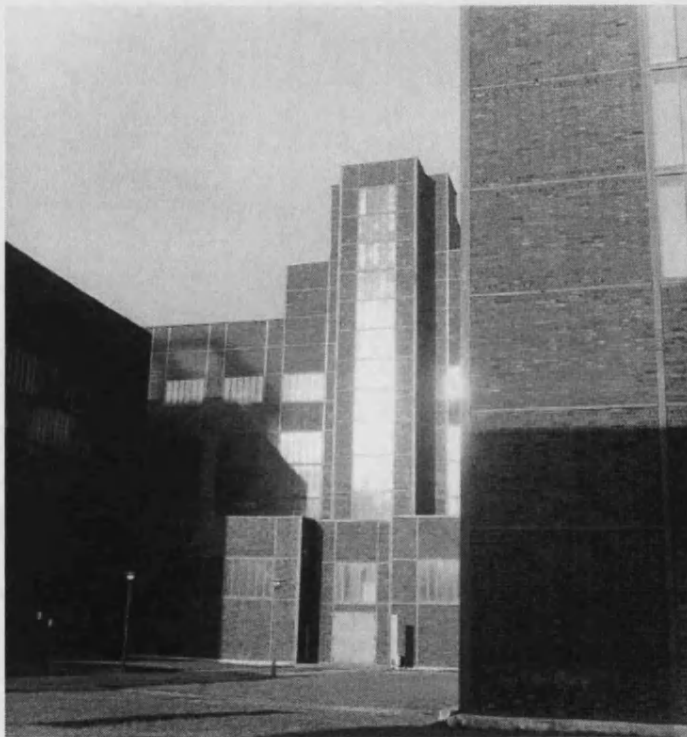


Fig. 9.6: Shaft XII the Boiler House⁶

Another great shift followed later when the coal-wash was redone. The “cool elegance” of the design museum gave way to the search for a more down to earth identification with the roots of the place (Buschmann and Walgern 2006). The traces that the coal dust had left on the walls of the plant have been preserved. The machinery of the plant was kept, following the idea of allowing each step in the process that the coal underwent to be represented by at

⁶ Source: <http://www.thomas-lehr.de/gallery/ruhrgebiet04/7ZecheZollverein>.

least one of the original machines. This concept meant a great sacrifice to further uses of the location, since even a single line of machinery took up much of the available space. This new modesty with respect to the old structures is of course challenged by the impressive new structure of the “gangway,” a recently added escalator leading from the ground to the fifth floor of the coal wash. However, this construction followed considerations of necessity more than aesthetics because the plant, standing on concrete stilts, did not provide other natural entrances. Though it is a stark architectural feature, the “gangway” fits surprisingly well into the landscape of boldly cast conveyor belt bridges and pipelines.

For Dewey a satisfactory outcome of inquiry is not merely settling a situation, but it means transforming it “... into one that is so determined in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole” (Logic, LW12.108). I have interpreted this as an appeal to inquirers and planners to develop a detailed and subtle understanding of their field, so as to avoid superficial fixes in a complex environment. Zollverein is a good example of how planning can fruitfully involve a differentiated inquiry into the meanings, “distinctions and relations” of a situation.

Rhythm of situations

What I call *planning as inquiry* is a continuing project on Zollverein. No reliable equilibrium point has yet been found, nor can one be expected in the near future. However, the ‘*problematic situation*’ has changed and new questions arose. Current inquiries have to address the relationship between industrial monuments and natural habitats on the estate (Dettmar 2006). Is Zollverein really only about “cultural” heritage? Are its natural habitats not part of the ensemble and its heritage status, and can there really be a strict dividing line between “cultural” and “natural” heritage? Further questions have to clarify the implantation and role of master-plans (like the one provided by Koolhaas and its office). They will also address the form of organisation and leadership in the ensemble (see below). Although for the foreseeable future the development will remain defined by further fundamental questions and inquiries, this is not to say that Zollverein will forever remain in

a state of changing indeterminate and problematic situations (as per Dewey's definition). Although important structural decisions can surely crop up at any point in time, it can be anticipated that the immediate presence of a problematic quality that engulfs the whole site will level off at some point, and will give way to a more regulated and habitual routine of dealing with tasks and problems.

Structuring a situation

In discussing the role of instruments and purposes in human agency and planning in previous chapters, I defended the claim that agency creates distinctions such as “means” and “ends” in order to gain orientation in un-structured situations.

The gradual process of structuring a situation is well documented in the history of the case at hand.

Fairly early on planners struggled with framing the principles for guiding the planning process. The University of Essen has reports on the IBA's (1989-99) planning efforts. In a time when the city and the RAG saw the goals of protection and economic development as incompatible, the IBA together with the Bauhütte developed the idea that jobs could be created through the conservation and development of the monument. In order to achieve this, the job-creation company EBAG was founded and settled on the site.⁷

With this strategy at hand, and with the resulting support from officials, it became realistic to introduce further strategies. Three general principles on the development of the ensemble were introduced (Mettler-v. Meibom, Kaltenborn et al. 2000):

1. *preservation*, which demanded nothing be torn down without necessity,
2. *re-development* in a “sensible way,” and
3. creation of a “reserve” or “*sanctuary*”⁸

⁷ It soon became clear, however, that the tasks at hand required highly specialised personnel.

⁸ “Indianerreservat” in the original.

Though somewhat vague, the first principle in particular decisively influenced further developments.

Successively Zollverein became dedicated to “high culture,” partly because Zeche Karl, another pit in the vicinity, had recently been turned into a club and concert venue with an orientation more toward popular culture. But only after a host of new initiatives and developments on the site had taken shape was it possible to define Zollverein’s key purposes more precisely.

Buschmann and Walgern (2006 p.110) write about four pillars on which the future development of Zollverein should rest:

1. design and creative business (the *red dot* museum and a number of small and medium sized companies),
2. science, research and education (the Zollverein School),
3. culture (fine art, choreography, theatre, events and exhibitions), and
4. history and identity

These pillars tied together and conceptualised activities that were already in full swing. With these “development pillars” at hand it was easier to determine how new projects should be fostered.

Two master plans were subsequently commissioned that were far more specific about Zollverein’s functions, purposes, and development stresses (cf. Krau 2006 p.178).

Master planning and the decision-cell

Buschmann and Walgern write that “the process of redeveloping Zollverein was frequently challenged as lacking a coherent conception” (2006 p.107). My argument until this point can be framed as an attempt to show that the redevelopment was not as incoherent as it may

appear. Some order, rationality, and *intelligence* become visible if we read the evolution of Zollverein as a Deweyan inquiry, and not as a failed linear instrumental planning project.

The history of developing master plans for the ensemble allows us to recognise the relevance of the decision-cell model. Astonishingly, in 1993 the “Entwicklungskonzept Zollverein” (development concept for shaft XII) had already laid out a redevelopment plan for the core area (Der Oberstadtdirektor, Schul- und Kulturdezernat et al. 1993). This included assigning main areas and buildings certain purposes (e.g. theatre stages, concert halls, the design museum), and it exacted a timeframe for the diverse redevelopment activities (p.26). This early plan has been realised with very few changes. Even the timeframe turned out to be fairly adequate. The linear notion of adhering to such a plan must not be overestimated. The development plan only concerned the core area of Shaft XII and was spelled out in very rough lines, leaving much room and demand for further planning. Finally, with regard to future functions and uses, the development plan from 1992 only spelled out the four pillars (Design/Business, Science/Education, Culture and History), which already had some roots there. In this respect one cannot speak of a master plan preceding the implementation of a new strategy.

The era of master planning really only began after Zollverein had been ennobled with the status of a world heritage site. The first document called a “master plan” was produced in 2001 by Rem Koolhaas and his Office of Metropolitan Architecture (OMA). A second master plan by Agence Ter / Professor Henri Bava was then formulated in 2003. These plans were meant to provide a general framework for the use and development of the entire estate. Ingrid Krau reports on how Rem Koolhaas’ plan collected, documented and systematised all initiatives and ideas for future uses which had “grown out of a wide participation” (p.177). His master plan thus meant to summarise present uses and active ideas, and group them in order to define their geographic location in centres and development zones. This was meant to give priority to a sensitive preservation policy.⁹ Koolhaas distinguished 47 core projects, ideas and initiatives and bundled them into five

⁹ Hence Koolhaas’ expression “walled city,” referring to the central parts of the ensemble.

categories (Business, Service, Info&Education, Art&Design and Event). He then defined a detailed geographic plan with seven areas, among them an “inside zone” (core heritage), a “business” (some new settlements), and “attractors” (new architectural and functional highlights meant to draw more attention to the place).

Policy makers hoped that Zollverein would become the “pivot of a new economic advance” (Krau 2006 p.77). Koolhaas’ design focused on this dimension, but it was not greeted with universal enthusiasm. Not only did his expression “walled city” imply an idea of isolation and detachment from the context (e.g. neighbouring quarters and the Route Industrie-Kultur), but the heavy emphasis on new construction efforts raised suspicion that it could interfere with the many different perspectives and vistas that this bizarre location offers.

The second master plan by Agence Ter / Professor Bava emphasised this latter point. Bava’s plan saw the reduction of bushes and the creation of vista-points as a way to “satisfy tourists,” who were expected to come in ever greater numbers. The idea of a “walled city” was thereby negated in favour of transparency and perspective integration of the ensemble and its context.

It may be said that both master plans introduce too much planning into the situation. Both tend to overemphasise marketing the place to a mass audience, (Koolhaas by his dedication to events and festivals, and Bava by catering to sightseers). Joerg Dettmar fears, for example, that turning the rail tracks into a rail “boulevard,” and reducing vegetation in favour of better vistas, would be too invasive, both in terms of aesthetics and for the thriving biotope that he sees as part of the memorial. He believes that the natural habitats are an essential part of the heritage environment (Dettmar 2006). Overgrown railways, birch forests and bramble hedges do in fact contribute to the time and memory dimension, and are an essential part of the nostalgic touch of this enchanted place. Zollverein must be discovered through curiosity, not offered to tourists *a la carte*.

Krau (2006) poses the question “whether the two master plans offer enough flexibility for a future that may demand a more modest approach” to planning (p. 182). It may seem that

these master plans depart from Zollverein's previous recipe for an organic planning approach. This however is only partly true. As I have argued, the late occurrence of this phase of master planning is a key indicator of how the phases of the decision-cell model, *define*, *design* and *realise*, remain interrelated: Master planning is predominantly a *define* type of activity that often extends into *design*. It is particularly evident in Koolhaas' project that *define* relies on previous *realise* and *design* activities (e.g. if one looks at the systematisation of core activity fields). In fact, these three types of activity modes have been concurrently active and mutually dependent throughout the planning history of the memorial site.

The exhibition "Sonne Mond und Sterne" with its discovery of the coking plant, focused mainly on *realise*-type activities, in the creative learning-centred definition of the term: many ideas and projects sprung from the immediate interaction between planners and their location. For this reason the exhibition was an important contribution to the definition and design of the Zollverein area. Exhibitions held by design students in the coal wash in the earliest days of Zollverein's rediscovery were also mostly *realise* types of activities. I already pointed out that *define* and *design* activities, like master plans, strongly relied on such initiatives. Foster's *design* of the design museum, in turn, became possible only after *defining* the heritage value of the space, and reflected the interests of designers and creative visionaries on the site, who had already left their traces (Rueckriem, several art galleries, designers from the University Essen). How, without Rueckriem's *realisation* of a sculpture park, could the *design* of a heritage walk through the onsite rock piles and birch forests have been conceived? And how, without the conceptual design of the "Sonne, Mond, und Sterne" exhibition and the *realisation* of the design centre, could the idea for the "Entry"¹⁰ have been *defined*?

¹⁰ The Entry is an exhibition/fair/event, with the idea of being for contemporary developments in design what the "Dokumenta" in Kassel has become for the fine arts.

Zollverein is an excellent example that illustrates the parallel exercise of all activity modes of the decision-cell model and the rapid and unpredictable moves of participants between activities in these modes.

Formation of agency

I would now like to discuss the coordination of activities around the heritage site. It is striking how many organisations were involved in and responsible for the planning process. It is therefore not surprising that Karl Ganser speaks of a “jumble of competences” (Ganser 2002 p.25) that the planning process suffered from. Ganser explains that (2002 p.92, my translation):

“The gradual path of unfolding that Zollverein took was accompanied by many accidents and lead to a parallel existence of institutions, actors, and competences...”

Dettmar lists nine key actors that determined Zollverein’s destiny (Dettmar 2006 p.92):

- **LEG/Grundstuecksfond**, the estate administration and development agencies of the land in North Rhine-Westphalia and the current owner of large parts of the estate, including Schacht XII and 1/2/8,
- **The city of Essen’s** diverse planning and administrative departments of the city of Essen and the “Wirtschaftsfoerderungsgesellschaft,” an organisation for economic development that runs the EBAG (Essen’s job-creation company),
- The Foundation “**Stiftung Zollverein**,” installed as the successor of the Bauhuettenverein and coordinator of the programmatic dimension of Zollverein’s development,
- The Foundation for Industrial Heritage (“**Stiftung Industriedenkmalpflege**”), established by RAG and responsible for the “black side” (coke production) of the coking plant,
- **Montan-Grund**, an estate company owned by RAG and responsible for the “white side” (chemical processing) of the coking plant,

- **RVR** (formerly KVR), an organisation of associated communes in the Ruhr region responsible for the “Route Industriekultur” (industrial heritage route across the Ruhr region),
- The North Rhine-Westphalian **Design Centre**,
- **Restflaechenprojekt/Industriewald Ruhrgebiet**, an organization for managing the forests spaces without constructions, and
- A member’s club for the history of Zollverein

Further actors have more recently entered the field, including:

- The **Zollverein School for Management and Design**,
- **PACT**, a chorographical association,
- **UNESCO**,
- **KMU**, an organisation of artists and small and medium sized businesses,
- **Triple Z**, an organisation responsible for the external shaft (4/7/10),
- **Koolhaas/OMA**, an architecture and planning office and authors of the first master plan, and
- **Agence Ter/Prof. Henri Bava**, authors of the second master plan

The sheer number of involved organisations is baffling, and most of the ones listed above have formal participation- and decision competences. If it were assumed that rational or intelligent planning presupposed the category of a well-defined agent, this meshwork of responsibilities would be a recipe doomed for failure. In the case of Multi-Casa an effort was made to unify the category of the agent at the outset by creating the development company GID which in turn commissioned the ECE with the complete task of planning, coordinating, and running the place. No effort was made in the case of Zollverein to put all competences for planning and management into the hands of one organisation. This certainly created problems and conflicts, but it did not have the paralysing effect that could be expected when applying an LIR perspective. As a working hypothesis I would like to suggest that Zollverein’s planners reacted to demands for better coordination in the cases where problems occurred. Efforts at more coherent forms of organisation were made where the planning situation demanded it. The solutions were therefore tailored to the

requirements of a given situation. This is, without a doubt, an idealised description, and I do not intend to gloss over the problems and inefficiencies that came from the hurly-burly of voices and competences. However, just as master plans were only commissioned when the heritage site reached a level of structural differentiation that made it essential to commit to a strategic framework, so were competences bundled when the situation demanded better coordination. The LEG for example established the “Bauhütte” when the heritage preservation aspect gained importance. It thus reacted to demands that any traditional public owned redevelopment agency could not have met.

Defining new responsibilities and developing the structure of organisations is a continuous theme. Forms of administration and organisation have co-evolved with the projects and responsibilities of this site, and hence the *formation of agency* is an important part of Zollverein’s planning process. A further example is the involvement of the IBA and the RVR in the wake of an increasing regional recognition of this ensemble.

At the present moment the question of coordination is again high on the agenda. Buschmann (2006) writes:

“What is missing is a position of overall responsibility and coordination between the old colliery and its surrounding quarters.” (p. 120, my translation)

In an interview with the press officer of Stiftung Zollverein, Ute Durchholz, I asked about the most urgent issues of the current planning process. Her answer was that a major revision of competencies and responsibilities was immanent. However, the focus will still be on experienced problems and inherent weaknesses in the present system. The dimensions of construction and substantive development activities, for which the LEG with its sub-organisations are responsible, cannot always be neatly separated from the foundation’s service mandate to run and develop the programmatic dimension of the ensemble. The situation became difficult when events like a European meeting of Environmental Ministers, the popular “Extraschicht,” and the world heritage day coincided with planned measures to redevelop bridges and conveyor belts. The more pressing

problem, however, seems to be the perceived lack of a unified organisation. This had repercussions for the Stiftung's ability to fundraise, and also created problems for communicating Zollverein's programmes and developments to the public. Another problem is the organisational integration of the coking plant into the entire ensemble, which is currently under separate ownership. Such problems are solvable as long as no entrenched interest groups actively block solutions or attempts to change the current framework. Zollverein has successfully maintained the necessary flexibility and has been able to turn its pluralistic planning structure into a strategic advantage. The active involvement of a great plurality of agents has contributed to a great wealth of ideas. The visionary perspectives of the IBA, the intellectual competences of the NRW conservation office, and the creative networks of the design centre, were indispensable conditions for the variety and quality of the present programme.

Conclusion

I have introduced two cases from neighbouring cities in the Ruhr region to characterise basic intuitions that I attributed to the conceptions of LIR and STR. My aim was to illustrate how these conceptual distinctions help us interpret real planning contexts and how STR may provide a better platform for understanding a situation and gaining necessary orientation on actions and strategies.

Multi-Casa was analysed as a case in which important aspects of the linear instrumental approach could be recognised. A caveat is necessary here: It is easy to diagnose diseases in a dead duck; I therefore refrain from judgements on what should have been done to make the planning of this vacant estate in the centre of Duisburg a success. I am only analysing similarities between the facts of the matter and traits of the LIR conception that I had earlier explored in theory (cf. chapter 2), and I show how they appear problematic in these particular settings. I refrain from making direct comparisons between the two case studies. Their settings are too different to allow such judgements, and it is impossible to say that one should have adopted the approach of the other. Duisburg's freight depot is not a

heritage site, and offered much less material than Zollverein did for new and creative developments. However, I do believe that the Duisburg's planning disaster could have been avoided if the development had been treated earlier as part of a complex and dynamic *problematic situation*. Judging from the ideas and experiences explored here, the new master plan for an integrated concept of the city centre is a promising innovation.

The aim of the second part of the chapter was to show how *situational transactive rationality* (STR) can be understood in practical contexts as an alternative to the linear instrumental rationality model (LIR). What are the lessons that can be drawn from studying the planning history of Zollverein? Some principles may be transferred from this case to others, but they should not be established in the form of a "to do list" for planners. Following previous arguments about the situated application of norms and guiding rules, there can be no universal recommendations for planners, save one saying that we should not rigidly follow norms or procedural schemes without taking particular demands of a situation into account. Nevertheless we can summarise a few ideas and guiding principles that seemed helpful and fertile in the present case.

- It was helpful to appreciate the *indeterminacy* of the context in its own right. E.g. decision-makers could be persuaded to protect the area before settling on exact definitions of a mission, a purpose or a goal for the old pit.
- Establishing the scope and source of available *resources* was not treated as a necessary precondition for the first steps in planning and implementation. Important decision-makers allowed for an iterative evolution of the project in which the success of earlier investments would secure further funds to be realised at a later time. Planning was never treated as chiefly an allocation problem with given resources and budgetary restraints. Instead the planning process itself was concerned with creating new value and instrumental possibilities. Often the projects benefited from the creative use of given conditions as new resources, as demonstrated in using warm waste water from the mines to supply the new Zollverein School with a central heating.

- *Ends* and visions were developed iteratively and were encouraged to co-evolve together with projects and initiatives. The late and repeated formulation of master plans testifies this.
- Planning was treated as an exploration of the potentialities that this area had to offer. It thereby often took the form of explicit and theoretical *inquiry*, with the aim of understanding the meaning and architectural language of the place in order to develop a sensible approach. Zollverein thereby embodies the idea of planning as learning.
- As the history of applying heritage protection statutes proved, the application of *normative* principles was no matter of course, but part of a complex deliberation and adaptation process, which did not only change the status of the site but also altered the meaning of those principles of heritage protection.
- *Imagination* was an important deliberative tool. It played an important role in establishing industrial history as cultural heritage for future generations (c.f. in particular the “projective” and “situational horizon” dimensions and also the dimension in chapter 5). Other dimension of imaginative vision can easily be distinguished in the process (e.g. the “aesthetic” dimension, thinking particularly of the aesthetic and educative mission of this place).
- The planning process of Zollverein proved that it is not only possible but also beneficial to allow parallel operation of *activity modes* and rapid shifts between them, where the LIR model would allow only a linear ordering of subsequent processes in a rational planning process. The modes of defining the situation, designing projects and implementing changes were often so intricately connected that it would be difficult to tell their difference, save as an abstraction. The resulting flexibility was a motor for Zollverein’s development and interestingly it was a warrant for the coherence of the entire project because it facilitated the possibility of adapting visions to actual experiences in local realities.
- The management and planning of Zollverein was not initially in the hand of a single organisational structure. Like the heritage site itself, also the *organisational form* of its management was allowed to evolve in response to situational demands for co-ordinated intervention. This allowed a plurality of agents and organisations to

participate and contribute their ideas. It is possible to interpret the history of Zollverein as a form of inquiry based on collective intelligence as introduced in chapter 7.

- This also meant that *decisions* were normally *formed* or developed over an extended period involving a large number of participants. Decision-making was generally understood not as an authoritative judgement by a central body which would separate investigation from implementation stages, but as a process of collective deliberation.

All these observations easily yield to a formulation recommendations or guiding principles. Such guidelines are of course the product of my interpretation of the case in the light of a theory that I developed during this thesis. There is little evidence that these principles were formally adopted during Zollverein's planning process. However, this case-study was chosen because its planning history appeared to have great affinities with the *situational transactive* approach as developed here.

One caveat is important at this point. *situational transactive* rationality is not a form of anarchy or anti-planning: letting an indeterminate situation evolve, allowing ends and purposes to form in response to instrumental possibilities, not insisting on clearly defined organisational structures from the start, involving many heterogeneous participant groups, following no strict procedural norms, initiating implementation before plans are fully matured, rejecting the universal applicability of normative principles, all sound suspiciously similar to an outright rejection of planning as a pro-active, forward-looking effort at coordinated action within a coherent strategy. The important difference is that all these seemingly unconstrained and unmediated activities have their constitutive place within a larger process of inquiry. This inquiry process is itself an enterprise to employ human intelligence in order to achieve highly complex forms of coordination through explicit reflection and communication between participants. Planning as Deweyan inquiry is not an uncommitted form of self-organisation, following spontaneous piecemeal adaptations without a clear perspective on the whole. It does not, like incrementalist and laissez faire approaches neglect long term effects of local interventions. On the contrary, imagination

directed at the ramified consequences of each act build the foundation of this method. STR may appear like the rejection of all classical principles of planning only in the beginning of planning processes, where situations are still marked by indeterminacies and a lack of definition and agreement among participants. It seizes to be “anarchic” as the planning process advances and the methods of inquiry produce a situation “determined in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole” (Logic, LW12.108).

Another caveat regarding this chapter is of a personal nature. When I first visited Zollverein in 1991 I fell in love with the ensemble and its site, and this love has never ceased. My view as a researcher may therefore be biased, although I meant to present a fair perspective of the evidence. I hope this discussion has at least served to characterise my understanding of the difference between LIR and STR approaches to rational planning.

Chapter 10: Conclusion – Deweyan Rationality in Perspective

The saxophonist John Coltrane was the greatest innovator in the jazz idiom since Charlie Parker reminted the coinage of jazz expression in the mid-1940s. Playing with Miles Davis Quintet, Coltrane took to playing long long solos which might last for 20 minutes or more. On one occasion at the Apollo in Harlem, when he eventually finished a very lengthy solo he was asked why he had gone on so. He is said to have replied 'I could not find nothing good to stop on', whereupon Davis answered, 'You only have to take the horn out of your mouth'

Peter Checkland¹

It has been a long road. This thesis has attempted a fundamental reconstruction of our concept of rationality. It undertook a thorough investigation of the foundations of agency theory and developed a pragmatist concept of rational action and deliberation. This concept is aimed at an understanding of rational action that is adequate to the empirical reality of human conduct and able to foster its intelligent and creative potential. This project was not born of pure philosophical curiosity. My intention here was to reconstruct the concept of rational planning, and I followed my intuition that Dewey's pragmatist philosophy was the key to solving a series of problems that have marred planning theorists and practitioners with regard to their concept of rationality for several decades. I showed how this project of philosophical conceptual reconstruction can yield a concrete deliberation model that is able to account for planning processes and guide planners and participants. In order to show the practical difference that this theoretical contribution can make, I illustrated my results in two case studies.

At the end of the introduction chapter I provided a list of requirements that any contemporary conception of planning rationality should fulfill. I encourage the reader to turn back to these criteria in order to evaluate the results achieved so far.

¹ (1999, p.A41)

I will now raise a few questions that will require future research, and will outline possible strategies to meet the challenges posed.

Challenges to the Project

Practical Relevance

In spite of Dewey's extensive and detailed writing on almost every topic of philosophical or social concern, his claims may be considered vague in terms of quantifiable recommendations and material consequences. Critics therefore claim that his project lacks practical relevance. The substance that such an allegation can have is this: If the only criteria used to make judgements on conduct were those established in the process of inquiry, there would be no further criteria by which to judge and discriminate between better or worse types of inquiry (or better or worse systems of planning and policy design). Should every system therefore freely establish the standards according to which it chooses to be judged?

Earlier I addressed the criticisms of inherent relativism and reiterated that they ignore the fact that pragmatist inquiry is rooted in processes of social transaction that are set within *real* problematic situations. Norms and methods of reasoning are developed against the backdrop of an existentially problematic experience that they either manage or fail to settle in a systematic and sustainable way. This also means for *inquiry* to develop its own methods and standards for knowledge and value claims is not an empty project, as long as we do so in the context of real problematic situations.

False Objectivity?

From the above argument a converse challenge arises, one that would claim that a rationality of *problematic situations* would cater to an *objectivist understanding* of the problems that planners and policy-makers face. Hans Joas (1996) briefly mentions this as one of the key critiques against pragmatism. It is often in the hands of planners or

participants to turn a settled situation into something more indeterminate or problematic. At times, using a specific word to describe a situation is enough to alter its nature. E.g. *apologising* instead of *expressing regret* for crimes can trigger an avalanche of compensation claims. Calculated moves can turn a habitually settled situation into an indeterminate or problematic one. Moreover, such moves can be important driving forces in politics. Perhaps planners do not have to wait until the quality of an experienced situation turns from settled to “indeterminate” to start getting active.

Dewey explicitly rejects the idea that situations are “problematic” only by virtue of a subjective judgement: The adjectives disturbed, ambiguous, troubled, confused, conflicting and obscure characterise the indeterminateness of situations; all these categories seem beyond the control of planners (Logic, LW12.109, italics added).

“It is the *situation* that has these traits. We are doubtful because the situation is *inherently* doubtful. Personal states of doubt that are not evoked by and that are not relative to some existential situation are pathological.”

Does this quote imply that the “situation” must make the first move in becoming “indeterminate” before a planner can define it as “problematic,” i.e. that there is little or no freedom to define problems in stable habitual situations?

Various sociologically-oriented policy theories reject the idea that problems are given or pre-determined by the nature of a situation. Ian Hacking describes how policy programs, e.g. for the benefit of “women refugees,” require conceptual taxonomies that identify some female migrants as “women refugees” and assign to them a special epistemic and legal status (Hacking 2000). A movement in policy and management theory that calls itself *critical systems thinking* makes the definition of a situation almost entirely a matter of discursive deliberation amongst various groups of participants (Ulrich 1983). These examples indicate that a naïve objectivist understanding of an “indeterminate quality” will not do justice to many contemporary planning contexts. For Dewey the “indeterminate situation” implies a compelling imperative to engage with it and turn it into a problematic

situation. Without this imperative there seems to be no convincing way for planners or participants to address an existing equilibrium as a concern or to turn a settled situation into a problem.

As a short answer to this problem we could point out that the above argument relies too heavily on a separation between *situation* and *planning agency* as opposing categories. A transactive view, in turn, would understand all moves undertaken by planners or participants as processes *within* a situation. Hence, when a planner takes an initiative, it is still the situation that becomes indeterminate. However, this answer is insufficient to account for the motivation to such a move. Remember, Dewey's agency theory saw the perturbation of a previous equilibrium as the only reason for agents to deliberate intentionally.

This is indeed a serious concern for Deweyan rationality, and it is closely related to another challenge to which I will now turn.

Is Deweyan Rationality Conservative?

Given the above points, one could suspect that a Deweyan concept of rationality may have a dangerously conservative leaning. A problematic situation is defined as an interruption or inhibition of existing practice. Such a definition seems to imply that we should wait until a crisis is rife before engaging in inquiry and problem-solving activities. A Deweyan inquiry may therefore come too late to be of any assistance in solving very pressing problems. If we think of threats like anthropogenic climate change, a faltering pension system or a failing education policy, we simply cannot afford to wait until our habitual practices become interrupted by effective repercussions. Any concept of rationality purporting to face the demands of contemporary situations must afford a long-term perspective and engage proactively with looming problems that have no immediate adverse manifestations.

This challenge cannot be dealt with swiftly. However, Dewey appears to have been very well aware of it. His notion of agency defies the idea that deliberate action would be merely

a re-action to external conditions. Already, critiques of classical behaviourism show that his notion of organic behaviour is incompatible with the idea of behaviour as a *reaction* to a received stimulus. Receiving a stimulus presupposes a readiness and even a proactive search for the triggering experience by directing sense organs toward sources of perception and by coordinating them (RA EW5).

An answer to this challenge of passive reactive conservatism in Deweyan rationality can be found in Dewey's concept of an inquiring mind (The Quest for Certainty, LW 4.182):

”A disciplined mind takes delight in the problematic, and cherishes it until a way out is found that approves itself upon examination. The questionable becomes an active questioning, a ... quest for the objects by which the obscure and unsettled may be developed into the stable and clear. The scientific attitude may almost be defined as that which is capable of enjoying the doubtful; scientific method is, in one aspect, a technique for making a productive use of doubt by converting it into operations of infinite inquiry.”

Thinking does not take place outside our habitual co-ordinations but is part of this process. Thus if we are able to anticipate a distantly looming catastrophe, this anticipation may perturb our habitual equilibrium; anticipation has the power to cause cognitive dissonances within present experience. A rationality model that rests upon the idea of an oscillating pattern of habitual and problematic situations does not imply a passive – reactive mode of conduct, but is compatible with a proactive attitude.

“Growth” as an ideology of progress?

The concept of “growth” is central to Dewey's philosophy. We must therefore ask, as was Bertrand Russell's concern (1939), whether a Deweyan *situational transactive* rationality does not embody a western or even capitalist idea of continuous limitless progress.

One could see a potential tension between Dewey's concept of "growth" and his "rhythmic" conception of alternating habitual and problematic situations. The concept of "growth" connotes a typically western faith in unlimited progress, whereas the 'rhythm of situations' is reminiscent of more cyclical models of history.

However, Dewey's concept of "growth" is not a teleological notion such as that implied in concepts like 'growth of income.' Nor is it an Aristotelian "entelechy" or growth toward the completion of an innate plan or *potency*, like an acorn growing into an oak tree. In order to resolve the tension between the concepts of "*rhythm*" and "*growth*" in Dewey's philosophy, both perspectives may need to be viewed from an evolutionary perspective (Dewey 1997 [1910]). Evolution favours neither unstable nor stagnant processes. The equilibriums gained in evolution and inquiry processes do not imply a return to previous habitual practice; they entail new forms of coordination, and lead to an increased readiness to meet future challenges. Progress is the ability to adjust to changing circumstances and to augment one's adaptive capacities in unreliable contexts; "growth" is a qualitative notion of forming a character that is rich and complex and ready to face the world.

How can we tell whether Planning was successful?

How do we decide whether we have arrived at a "unified" situation? Or in other words, who decides whether a *status quo* is settled or problematic? This question is again closely linked with the previous challenges and appears to touch upon a weak point in Dewey's theory of inquiry. Dewey seems to assume that the "immediacy" of an "indeterminate quality" will suffice to convince everyone concerned that a situation must be defined as "problematic." A unified situation, in contrast, is by definition one in which conflicts and disagreement disappear.

But what about situations where a ruling elite crushes opposition and manages to uphold a routine of public order? How shall we evaluate situations where a few individuals attend to problems that the majority prefers to ignore?

It is true that Dewey does not give clear enough criteria to pass unambiguous judgements on the problematic or settled character of a situation. Yet settled or problematic qualities of situations are not subjective states of participants but are determined by natural and social transactions. This means that dissent in a society is a disturbance in the social transactions of a community even if the majority chooses to ignore it. By the same token we must not call an imposed public order a 'unified state of equilibrium.' A situation can only be "unified" if it does not suppress or ignore dissent and if it learns to live with a plurality of viewpoints and life projects. It must be able to encourage differences in order to benefit from the creative potential of dialogue.

The intuition that it is not arbitrary to define a situation as problematic is strong in Dewey's theory. Indeed this distinguishes Dewey's from many post-modern approaches. The idea that indeterminate and problematic qualities are existential properties of experience and not merely differences of definition may be contentious. However, human life in society and in nature faces challenges that we cannot overcome with speech *acts* alone. Other *acts* must not be neglected in our "world-making" (Goodman 1978). Many of our problems can be transformed or solved by changing descriptions. Yet even these cases are not internal affairs of an independent realm of language. Changes in our frames of reference directly change our transactions and the way we relate to our contexts.

Dewey's theory maintains that we can intuitively grasp when we have lost a previously existing equilibrium and when a situation merits the attention of inquiry. This inquiry gives us hope but no certainty that we will return to the relative safety of successful habitual coordination. In this respect Dewey's theory gives us some guidance as to where planning begins and where it temporarily pauses. At the same time Deweyan rationality never releases us into the complacency of having finally solved a problem or achieved an ultimate end. The best we can do is temporarily enjoy a phase of "consummatory experience." "Growth" is always in progress. Dewey's inquiry is truly a rationality of learning.

Power

Earlier, in chapter 7, I discussed the idea that Dewey's philosophy cannot be charged with being naïve about power. I pointed out that he was indeed sensitive even to more subtle forms of power that later philosophers labelled as 'false consciousness' or 'distorted communication.'

However, in the vast body of Dewey's work the question of power leads an existence on the fringes. Even one of his most ardent admirers noted that (Bernstein 1998 p.149)

“...at times, in his reliance on metaphors of harmony and organic unity, Dewey underestimates the conflict, dissonance, and asymmetrical power relationships that disrupt 'the harmonious whole.' I do think that, at times, Dewey is excessively optimistic.”

The question of how power figures in *situational transactive rationality* must be addressed in a separate investigation. In previous chapters I pointed to this concern and repeatedly put forward arguments to help secure STR and the decision-cell model against expected barrages of criticism. I am, however, quite aware that the topic of power will need special attention in future visits.

A Rationality for our Time?

These are but a few critical issues that can be raised for a Deweyan rationality of planning and policy-making. I do not claim that my reconstruction project is complete. Many more problematic issues will need to be discussed if *situational transactive rationality* is to become a viable philosophical conception for planning and policy-making. I hope that this work falls into the hands of planners and policy-makers who will consider the *situational transactive* model of rationality and the decision-cell benevolently.

I believe that *situational transactive rationality* can be a strong contender in sparring with other rationality conceptions. Throughout this thesis I have pointed to a number of its

advantages. Some of these make *situational transactive rationality* particularly relevant to contemporary planning settings. These I will summarise in a few bullet points:

- STR has the ability to steer a middle path between the extremes of realist foundationalism and relativism. It understands problems as real and simultaneously as subject to construction, and it integrates divergent descriptions and perspectives in a transactive perspective.
- It fosters human creativity through several techniques: It is a notion of intelligent deliberation that joins together all psychological capacities, including imaginative, emotional and cognitive ones. It does not limit human creativity with external constraints (like an *a priori* definition of purposes of given resources). It facilitates inquiry as a collective task in which all participants, rather than only a few experts, are encouraged to contribute.
- The model of *situational transactive rationality* is ethically perceptive without pre-judging moral issues. This makes it able to meet rapidly changing contexts where re-evaluation of normative commitments is more important than in relatively stable environments. This also allows for a sensible way of dealing with moral disagreement and pluralism. Instead of being either neutral or partial, it provides a public platform for critically evaluating moral claims.
- Obtaining a transactive perspective that sees human agency as part of a natural context, STR is particularly prone to environmental sensitivity (McDonald 2004).
- STR does not try to impose a normative model of rationality on a reality that does not match it. Deweyan rationality allows normative and descriptive elements to mingle and encourages any normative conception to develop continuously in view of and in response to experience. In this way, rationality becomes a general tool that can serve in unique contexts.

In evaluating this project I ask the reader to allow his/her intuition to play a part. Does Deweyan rationality appear like a more natural way of looking at deliberative contexts or is it just another philosophical brain child? Does this approach have the power to give us confidence in dealing with insufficiently understood circumstances or does it add to the

general cacophony of well-intentioned advice? The following anecdote will help to see how important intuition is in comparison with the laborious task of thinking: Tara, the little niece of my colleague Shyama Kuruvilla, had to take a test in her primary school. The task was to recall the past and perfect forms of a number of irregular English verbs, and she performed very well: be – was –been, catch – caught – caught, know – knew – known. Later she recounted to her aunt, “I knew them all – except for one: ‘to think’ I thought and thought and thought ... then I wrote ‘think’.”

This, I believe, is a good note to finish on and ‘take the horn out of my mouth.’ Dear reader, for your patience and attention, many “thunks!”

Abbreviations

Dewey's Works:

ACF	A Common Faith
DE	Democracy and Education
E	Ethics
E rev	Ethics revised
EN	Experience and Nature
EW	Earlier Works
MW	Middle Works
LW	Later Works
HNC	Human Nature and Conduct
HT	How we Think
KI	Knowledge as Idealisation
KK	Knowing and the Known
LSA	Liberalism and Social Action
NRP	The Need for a Recovery of Philosophy
P	Psychology
PIE	The Postulate of Immediate Empiricism

QC	Quest of Certainty
RA	Reflex Arc Concept in Philosophy
Rejoinder	Experience, Knowledge and Value: A Rejoinder
RP	Reconstructions in Philosophy
RP	Reconstructions in Philosophy
Syllabus	Syllabus of Eight Lectures on "Problems of Philosophical Reconstruction"
TV	Theory of Valuation

Other Abbreviations:

DC	Decision-cell
LIR	Linear Instrumental Rationality
STR	Situational Transactive Rationality

Literature

- (2005). Beschlussvorlage. Der Oberbuergermeister. Duisburg, Ratsinformations System der Stadt Duisburg.
- (2005a). Mitteilungsvorlage. Der Oberbuergermeister. Duisburg, Ratsinformations System der Stadt Duisburg.
- (2005b). Mitteilungsvorlage. Der Oberbuergermeister. Duisburg, Ratsinformations System der Stadt Duisburg.
- Ackoff, R. (1979). "The Future of Operational Research is Past." Journal of of the Operational Research Society 30: 93-104.
- Albrecht, H. (2008). Der Eva-Faktor: Warum Frauen Laenger Leben und Maenner Fruher Sterben und Jeweils auf ihre Art von der Medizin Vernachlaessigt werden. Die Zeit. Hamburg. Nr 28: 31.
- Alexander, T. (1990). "Pragmatic Imagination." Transactions of the Charles S. Peirce Society 26(3): 326-348.
- Alexander, T. (1993). "John Dewey and the Moral Imagination: Beyond Putnam and Rorty toward a Postmodern Ethics." Transactions of the Charles S. Peirce Society 19(3): 369-400.
- Alexander, T. (2002). The Aesthetics of Reality: Dewey's Ecological Theory of Experience. Dewey's Logical Theory. T. F. Burke, D. M. Hester and R. B. Talisse. Nashville, Vanderbilt University Press.
- Anderson, E. (2005). "Dewey's Moral Philosophy." The Stanford Encyclopedia of Philosophy, 2005, from <<http://plato.stanford.edu/archives/spr2005/entries/dewey-moral/>>.
- Anscombe, G. E. M. (1957). Intention, Cornell University Press.
- Argyris, C. and D. Schön (1978). Organizational Learning: a Theory of Action Perspective. Reading, Addison Wesley.
- Argyris, C. and D. Schön (1996). Organizational Learning II, Addison-Wesley.
- Arrow, K. J. (1963). Social Choice and Individual Values. New Haven, Yale University.
- Banfield, E. C. (1973). Ends and Means in Planning. A Reader in Planning Theory. A. Faludi. Oxford, New York, Pergamon.
- Baumgartner, F. R. and B. D. Jones (1991). "Agenda Dynamics and Policy Subsystems." Journal of Politics 53(4): 1044-74.
- Bentham, J. (1996 [1780]). Introduction to the Principles of Morals and Legislation. Oxford, UK, OUP.
- Bernstein, R. J. (1961). "John Dewey's Metaphysics of Experience." Journal of Philosophy 58: 5-13.
- Bernstein, R. J. (1965). Action, Conduct, and Self-Control. Perspectives on Peirce. R. J. Bernstein. New Haven and London, Yale University Press: 66-91.
- Bernstein, R. J. (1966). John Dewey. New York, Washington Square Press.
- Bernstein, R. J. (1971). Praxis and Action. Philadelphia, University of Pensilvania Press.
- Bernstein, R. J. (1986). Essays in a Pragmatic Mode. Cambridge, UK & Oxford, UK, Polity Press in association with Basil Blackwell.

- Bernstein, R. J. (1998). Community in the Pragmatic Tradition. The Revival of Pragmatism. M. Dickstein. Durham and London, Duke: 141-156.
- Bernstein, R. J. (2004). John Dewey and the Pragmatic Century. Dewey, Pragmatism, and Economic Methodology. E. L. Khalil. London, New York, Routledge.
- Blake, C. N. (2005). "John Dewey." Digital Knowledge Ventures Retrieved 26/04, 2005, from http://c250.columbia.edu/dkv/extracts/0743_dewey1.html.
- Bohman, J. and W. Rehg. (2007). "Juergen Habermas." The Stanford Encyclopedia of Philosophy. Summer 2007. from <http://plato.stanford.edu/archives/sum2008/entries/habermas/>.
- Boisvert, R. D. (1998). John Dewey: Rethinking our Time. Albany, N.Y., State University of New York Press.
- Bratman, M. (1999). Intention, plans, and practical reason. Stanford, Calif., Center for the Study of Language and Information.
- Brugha, R. and Z. Varvasovsky (2000). "Stakeholder analysis: A review. Health Policy and Planning." Health Policy and Planning 15(3): 239-46.
- Burke, T. (2002). Prospects for Mathematizing Dewey's Theory. Dewey's Logical Theory. T. F. Burke, D. M. Hester and R. B. Talisse. Nashville, Vanderbilt University Press: 121-159.
- Buschmann, W. (2002). "Wie Zollverein ein Denkmal wurde." Forum Industriedenkmalpflege und Geschichtskultur(1): 31-36.
- Buschmann, W. (2006). Zeche und Kokerei Zollverein. Form, Sinn, Herkunft und Verbreitung. Zeche und Kokerei Zollverein: Das Weltkulturerbe. B. Parakenings. Worms, Landschaftsverband Rheinland Wernersche Verlagsgesellschaft: 47-76.
- Buschmann, W. and H. Walgern (2006). Erhaltungsueberlegungen fuer die Zeche Zollverein in Essen: Ein Ueberblick ueber die Zielsetzungen und deren Realisierung. Zeche und Kokerei Zollverein - Das Weltkulturerbe. B. Parakenings. Worms, Landschaftsverband Rheinland, Wernersche Verlagsgesellschaft: 103-138.
- Buse, K., N. Mays, et al. (2005). Making Health Policy. Milton Keynes, Open University Press.
- Camhis, M. (1979). Planning Theory and Philosophy. London, New York, Tavistock Publications.
- Campanella, T. (1602). City of the Sun. Naples.
- Caspary, W. R. (2000). Dewey on Democracy. New York, Cornell University Press.
- Chadwick, G. F. (1970). A Systems View of Planning. Oxford, Pergamon Press.
- Checkland, P. (1981). Systems Thinking, Systems Practice. Chichester, UK; New York et.al., John Wiley.
- Checkland, P. (1999). Soft Systems Methodology: A 30-Year Retrospective. Systems Thinking, Systems Practice. P. Checkland. Chichester, New York, Weinheim, Wiley.
- Chudobba, H. and W. Kluemper, RP (1999). Bei den Amerikanern hat die Arena keine Chance mehr. Rheinische Post.
- Churchman, C. W. (1971). The Design of Inquiring Systems: Basic Concepts of Systems and Organization. New York, London, Basic Books.

- Churchman, C. W. (1979). Paradise Regained: A Hope for the Future of Systems Design Education. Education in Systems Science. B. A. Bayraktar, H. Müller-Merbach, J. E. Roberts and M. G. Simpson. London, Taylor and Francis.
- Churchman, C. W. (1979). The Systems Approach and its Enemies. New York, Basic Books.
- Churchman, C. W., R. L. Ackoff, et al. (1957). Introduction to Operations Research. New York, Wiley.
- CIMA-Stadtmarketing Duisburg: Stadt und Regionalverträglichkeit fuer das FORUM DUISBURG. Bonn.
- Cohen, M., J. March, et al. (1972). "A Garbage Can Model of Organizational Choice." Administrative Sciences Quarterly 17: 1-25.
- Cohon, R. (2004, Winter 2004). "Hume's Moral Philosophy." The Stanford Encyclopedia of Philosophy, 2005, from <<http://plato.stanford.edu/archives/win2004/entries/hume-moral/>>.
- Damasio, A. R. (1994). Descartes' Error : Emotion, Reason and the Human Brain. London, Vintage, 2006.
- Das Magazin Zollverein (2006). Das ist Zollverein. Essen: 2-3.
- Davidoff, P. (1965). "Advocacy and Pluralism in Planning." Journal of the American Institute of Planners 31(4): 331-38.
- Davidoff, P. and T. A. Reiner (1973). A Choice Theory of Planning. A Reader in Planning Theory. A. Faludi. Oxford, Pergamon.
- Dawkins, R. (2006). The God Delusion. London, Bantam Press.
- Dennett, D. C. (1987). The Intentional Stance. Cambridge, MA, MIT Press.
- Depew, D. (1995). Introduction to Part II: Pragmatism, Positivism, and the Linguistic Turn. Pragmatism - From Progressivism to Postmodernism. R. D. Hollinger, Robert. Westport, CT, Praeger.
- Der Oberstadtdirektor, Schul- und Kulturdezernat, et al. (1993). Entwicklungskonzept Zeche Zollverein Schacht XII. Essen.
- Dettmar, J. (2006). Freiraume auf Zollverein - zwischen Denkmal, Zukunftsstandort und Wildnis. Zeche und Kokerei Zollverein - Das Weltkulturerbe. B. Parakenings. Worms, Landschaftsverband Rheinland
- Wernersche Verlagsgesellschaft: 87-102.
- Dewey, J. (1934). A Common Faith. New Haven, Conn.
- Dewey, J. (1996 [1882-1953]). "The Collected Works 1882-1953 on CD ROM." Past Masters: The Collected Works of John Dewey.
- Dewey, J. (1997 [1910]). The Influence of Darwin on Philosophy and other Essays. London, UK, Prometheus Books.
- Dewey, J. (2002/1922). Human Nature and Conduct. , Mineola: Dover Publications Inc. (2002); New York: Henry Holt and Co (1922).
- Dewey, J. and J. A. Boydston (ed.) (1969 [1882-1898]). The Early Works 1882-1898. Carbondale and Edwardsville, Southern Illinois University Press.
- Dewey, J. and J. A. Boydston (ed.) (1969 [1899-1924]). The Middle Works 1899-1924. Carbondale and Edwardsville, Southern Illinois University Press.
- Dewey, J. and J. A. Boydston (ed.) (1969 [1925-1953]). The Later Works 1925-1953. Carbondale and Edwardsville, Southern Illinois University Press.

- Dorstewitz, P. and S. Kuruvilla (2007). "Rationality as Situated Inquiry: A Pragmatist Perspective on Policy & Planning Processes." Management and Philosophy 6(1): 91-117.
- Dowding, K. M. (1996). Power. Buckingham, Open University Press.
- Dressler, J. (2003/2004). MultiCasa Duisburg - City-Erweiterung am Hauptbahnhof/The Duisburg MultiCasa - expanding the inner city near the railway station. Wirtschaftsstrandort Duisburg/Business Location Duisburg: Chancen und Perspektiven Einer Stadt/ Opportunities of a City. C. Kirk and G.-D. mbH. Darmstadt, Europäischer Wirtschafts Verlag GmbH.
- Dror, Y. (1968). Public Policymaking Reexamined. San Francisco, Chandler Publishing.
- Dror, Y. (1973). The Planning Process: A Facet Design. A Reader in Planning Theory. A. Faludi. Oxford, Pergamon.
- DS (1999). Klare Kampfansage and Multi Casa. Duisburger Stadtpost. Duisburg.
- Elster, J. (1991). The Possibility of Rational Politics. Political Theory Today. D. Held. Cambridge, UK, Polity Press.
- Elster, J. (1996). The Nature and Scope of Rational-Choice Explanation. Readings in the Philosophy of Social Science. M. Martin and L. MacIntyre. Massachusetts, MA London, England, MIT Press: 311-322.
- Elster, J. (2006). Emotions and Behavioural Economics. Presented at the Popper Lecture, LSE, Unpublished, quoted with friendly permission of the author.
- Engelskirchen, L. (2006). Eventlocation, Ausflugsziel oder Identitätsfabrik? Anmerkungen zur Nutzungsgeschichte Sperriger Kulturräume. Zeche und Kokerei Zollverein: Das Weltkulturerbe. B. Parakenings. Worms, Landschaftsverband Rheinland Wernersche Verlagsgesellschaft: 215-221.
- Etzioni, A. (1973). Mixed-Scanning: A "Third" Approach to Decision-Making. A Reader in Planning Theory. A. Faludi. Oxford, New York, Pergamon: 217-230.
- Evans, K. G. (2000a). "Reclaiming John Dewey: Democracy, Inquiry, Pragmatism, and Public Management." Administration & Society 32(3): 308-328.
- Evans, K. G. (2000b). "Response to Stever and Garrison." Administration & Society 32(4): 482-486.
- Faludi, A. (1973a). What is Planning Theory? A Reader in Planning Theory. A. Faludi. Oxford, New York, Pergamon: 1-10.
- Faludi, A. (1985). Return to Rationality. Rationality In Planning. M. J. Breheny and A. J. Hooper. London, Pion.
- Farr, J. (1999). "John Dewey and American Political Science." American Journal of Political Science 43(2): 520-541.
- FDP. "Politik Entscheidet - Nicht Herr Staake." Retrieved 03/01, 2007.
- Fesmire, S. (2003). John Dewey & Moral Imagination. Bloomington, IN, Indiana University Press.
- Festenstein, M. (1997). Pragmatism and Political Theory. Oxford, Blackwell.
- Festenstein, M. (2002). "Pragmatism's Boundaries." Millennium: Journal of International Studies 31(3): 549-571.
- Festenstein, M. (2004). "Deliberative Democracy and Two Models of Pragmatism." European Journal of Social Theory 7(3): 291-306.
- Fiol, M. (1985). "Organisational Learning." Academy of Management Review 10: 803-813.

- Fischerman, R. (1996). Urban Utopias: Ebenezer Howard and Le Corbusier. Readings in Planning Theory. S. a. S. S. F. Campbell. Cornwall, Blackwell: 19-67.
- Flood, R. L. and M. C. Jackson (1991). Critical Systems Thinking: Directed Readings. Chichester, Wiley.
- Flood, R. L. and N. R. A. Romm (1996). Critical Systems Thinking: Current Research and Practice. New York ; London, Plenum.
- Forester, J. (1985). Practical Rationality in Planmaking. Rationality in Planning. M. J. Breheny and A. J. Hooper. London, Pion.
- Forester, J. (1993). Critical Theory, Public Policy, and Planning Practice. Toward a Critical Pragmatism. New York, State University of New York Press.
- Forrester, J. (1971a). "'The' Model versus a Modelling 'Process' (republished 1985)." System Dynamics Review 1: 133-134.
- Forrester, J. (1971b). World Dynamics. Cambridge, MA, Wright-Allen Press.
- Foucault, M. (1980). Power/Knowledge: Selected Interviews and Other Writings-- 1972-1977. New York, Pantheon Books.
- Frank, R. H. (1988). Passions Within Reason : the Strategic Role of Emotions. New York ; London, Norton.
- Friedman, J. (1969). "Notes on Societal Action." Journal of the American Institute of Planners.
- Friedman, J. (1973). Retracking America. A Theory of Transactive Planning. Garden City, New York, Anchor Press/Doubleday.
- Friedman, J. (1987). Planning in the Public Domain. New Jersey, Princeton University Press.
- Friedman, J. (1996). Two Centuries of Planning Theory: An Overview. Explorations in Planning Theory. S. J. Mandelbaum and B. R. W. New Jersey, Rutgers, The State University of New Jersey: 10-30.
- Ganser, K. (2002). "Auf Zollverein, da Schaut das Ruhrgebiet in den Spiegel." Forum Industriedenkmalpflege und Geschichtskultur(1): 23-29.
- Garrison, J. (2000). "Pragmatism and Public Administration." Administration & Society 32(4): 458-477.
- Geertz, C. (1973). The interpretation of cultures : selected essays. London, Fontana, 1993.
- Geertz, C. (1983). Local knowledge : further essays in interpretive anthropology. New York, Basic.
- Geertz, C. (1994). Thick Description: toward and Interpretative Theory of Culture. Readings in the Philosophy of Social Science. M. Martin and L. C. McIntyre. Cambridge, MA; London, MIT Press: 213-232.
- Geertz, C. e. (1974). Myth Symbol and Culture. [S.I.], Pub Norton.
- Gigerenzer, G. (1996). Rationality: Why Social Context Matters. Interactive Minds: Life-Span Perspectives on the Social Foundation of Cognition. P. B. Baltes and U. M. Staudinger. Cambridge, CUP.
- Gigerenzer, G. (2007). Gut Feelings : the Intelligence of the Unconscious. New York ; London, Viking.
- Glancey, J. (2004). Reassuringly Expensive. The Guardian.
- GMA (2004). Abschlussbericht zum Moderationsverfahren MultiCasa DUISBURG, Gesellschaft fuer Markt- und Absatzforschung.

- Goetz, B. (1970). John Dewey's Philosophie der Erfahrung. Philosophische Fakultät. Tuebingen, Eberhard-Karls-Universität zu Tuebingen: 226.
- Goldberg, M. A. (1985). The Irrationality of 'Rational' Planning: exploring broader basis for planning and public decision making. Rationality in Planning. M. J. Breheny and A. J. Hooper. London, Pion: 120-36.
- Goodman, M., ST online, (2006). Vision of the Future at King's Cross. Sunday Times Online.
- Goodman, N. (1978). Ways of Worldmaking. Hassocks, Harvester Press.
- Green, T. H. (1883). Prolegomena to Ethics. Oxford, Clarendon Press.
- GWF-News. (04/03/2004). "Grosses Einzelhaendler-Treffen auf dem Petersberg." Retrieved 28/12, 2006, from <http://www.gfw-duisburg.de/aktuelles/news/petersberg.php?part=print>.
- GWF-News. (22/12/2003). "News: MultiCasa Duisburg: Wichtiger Meilenstein Erreicht." Retrieved 28/12, 2006, from http://www.gfw-duisburg.de/aktuelles/news/mc_meilenstein.php?part=print.
- GWF. (2003). "News: MultiCasa Duisburg: Wichtiger Meilenstein erreicht." Retrieved 28/12, 2006, from http://www.gfw-duisburg.de/aktuelles/news/mc_meilenstein.php?part=print.
- GWF. (2004). "News: Grosses Einzelhaendler-Treffen auf dem Petersberg." Retrieved 28/12, 2006, from <http://www.gfw-duisburg.de/aktuelles/news/petersberg.php?part=print>.
- Habermas, J. (1987a). The Theory of Communicative Action. Cambridge, Mass, Polity.
- Habermas, J. (1987b). Knowledge and Human Interests. Cambridge, UK, Polity Press.
- Habermas, J., T. Bürger, et al. (1992). The Structural Transformation of the Public Sphere : An Inquiry into a Category of Bourgeois Society. Cambridge, UK, Polity.
- Hacking, I. (2000). The Social Construction of What? Cambridge, MA; London, England, Harvard University Press.
- Hall, P. (1981). Great Planning Disasters. London, Penguin Books.
- Hansen, J. E., D. Johnson, et al. (1981). "Climate Impact of Increasing Atmospheric Carbon Dioxide." Science 213: 957-66.
- Hayek, F. A. v. (1945). "The Use of Knowledge in Society." American Economic Review 35(4): 5ff.
- Heclo, H. (1978). Issue Networks and the Executive Establishment. The New American Political System. A. King. Washington, US, American Institute for Public Policy Research.
- Hedberg, B. (1981). How Organisations Learn and Unlearn. New York, OUP.
- Heidner, G. and U. Mehrfeld (2002). "Ein Monumentales Denkmal wird Welterbe - Die Entwicklung der Kokerei Zollverein." Forum Industriedenkmalpflege und Geschichtskultur(1).
- Hickman, L. A. (1995). Pragmatism, Technology, and Scientism: Are Methods of the Scientific-Technical Disciplines Relevant to Social Problems? Pragmatism - From Progressivism to Postmodernism. R. Hollinger and D. Depew. Westport, CT, Praeger.
- Hickman, L. A. (2004). "On Hugh T. Miller on "Why Old Pragmatism Needs an Upgrade"." Administration & Society 36(4): 496-499.

- Hill, M. (1985). Can Multiple-Objective Evaluation Methods Enhance Rationality in Planning? Rationality in Planning. M. J. Breheny and A. J. Hooper. London, Pion: 166-182.
- Hoch, C. (1996a). A Pragmatic Inquiry about Planning and Power. Explorations in Planning Theory. S. J. B. Mandelbaum, Robert W. New Jersey, Rutgers, The State University of New Jersey: 30-44.
- Hoch, C. (1996b). What do Planners do in the United States? Explorations in Planning Theory. S. J. a. R. W. B. Mandelbaum. New Jersey, Rutgers, The State University of New Jersey.
- Hookway, C. (2000). Truth, Rationality, and Pragmatism: Themes from Peirce. Oxford, Clarendon.
- Houten, D. v. (1992). Planning in a Rocking Boat. Cognitive Relativism and Social Science. D. Raven, L. v. Tijssen and J. D. Wolf. New Jersey, New Brunswick.
- Howard, E. (1902). Garden Cities of To-Morrow. London, Swan Sonnenschein.
- Howlett, M. and M. Ramesh (2003). Studying Public Policy: Policy Cycles and Subsystems. Ontario, Canada, Oxford University Press.
- Huckfeldt, R. R., P. E. Johnson, et al. (2004). Political Disagreement : The Survival of Diverse Opinions within Communication Networks. Cambridge, Cambridge University Press.
- Hume, D. (2000 [1739/40]). A Treatise of Human Nature. Oxford Clarendon Press, Oxford, UK.
- Hume, D. (2007). An Enquiry Concerning Human Understanding and other Writings. Cambridge, Cambridge University Press.
- Jacobs, J. (1961). The Death and Life of Great American Cities. Harmondsworth, Penguin (1964 edition).
- James, W. (1907). Pragmatism: A New Name for some Old Ways of Thinking. New York, Longmans, Green.
- Joas, H. (1980). Praktische Intersubjektivitaet : die Entwicklung des Werkes von George Herbert Mead. Frankfurt am Main, Suhrkamp: 258p.
- Joas, H. (1996). The Creativity of Action. Cambridge, UK; Oxford, UK, Polity Press in cooperation with Blackwell.
- Joas, H. (1997). G.H. Mead : a Contemporary Re-Examination of his Thought. Cambridge, Mass., MIT Press.
- Joas, H. (1999). Die Entstehung der Werte. Frankfurt a.M., Suhrkamp.
- Joas, H. (2000). The Genesis of Values. Chicago, University of Chicago Press.
- John, P. (1998). Analysing Public Policy. Critical Political Studies. J. Townshend. London, New York, Pinter.
- Jung, C. G. (1946). Psychological Types : Or The Psychology of Individuation. [S.l.], Kegan Paul, Trench, Trubner & Co, Ltd.
- Kaapke, A. (2005). Gutachterliche Stellungnahme zu den Studien: Markt- und Standortgutachten zur Realisierung des Forum Duisburg in der Duisburger City der CIMA-Stadtmarketing, Buero Bonn & Ausirkungsanalyse fuer das geplante Einkaufszentrum MultiCasa in Duisburg der GfK Prisma, Hamburg/Nuernberg. Koeln, IfH - Institut fuer Handelsforschung an der Universitaet zu Koeln.
- Kingdon, J. W. (1995). Agendas, Alternatives, and Public Policies, Harper Collins College Publishers.

- Klosterman, R. E. (1978). "Foundations for Normative Planning." Journal of the American Institute of Planners 44(1).
- Kluemper, W., RP (1998). Es wird Eng fuer eine Mall, das Stadion und die Skihalle. Rheinische Post.
- Krau, I. (2006). Die Masterplaene - Konzepte zur Nutzung des Industriedenkmals. Zeche und Kokerei Zollverein: Das Weltkulturerbe. B. Parakenings. Worms, Rheinisches Amt fuer Denkmalpflege
Werenersche Verlagsgesellschaft: 177-182.
- Kumar, K. (1991). Utopianism. Buckingham, Open University Press.
- Kuruvilla, S. and P. Dorstewitz (forthcoming). "Pragmatist Rationality and the Decision Cell model: An Integrative Theory of Public Policy-making." under revision.
- Lai, S.-K. (2006). "A spatial garbage-can model." Environment and Planning B: Planning and Design 33(1): 141-156.
- Lane, D. C. (1994). "With a Little Help from our Friends: How System Dynamics and Soft OR can Learn from each other." System Dynamics Review 10(2-3): 101-134.
- Le Corbusier (1929). The City of Tomorrow and its Planning. London, Johan Rodker.
- Le Corbusier (1933). Le Ville Radieuse. Paris, Vincent, Freal et Cie.
- Levi-Strauss, C. (1962). The savage mind (La persee sauvage.). [S.I.], Weidenfeld & Nicolson.
- Lindblom, C. E. (1973). The Science of "Muddling Through". A Reader in Planning Theory. A. Faludi. Oxford, Pergamon.
- Lipsky, M. (1976). Towards a Theory of Street-Level Bureaucracy. Theoretical Perspectives on Urban Policy. W. D. H. e. al. Englewood-Cliffs, NJ, Prentice-Hall.
- Locke, J. (1989 [1690]). An Essay Concerning Human Understanding. Oxford, Clarendon.
- Lovelock, J. (1979). Gaia: A New Look at Life on Earth. Oxford, UK, OUP.
- Lovelock, J. (1991). Reflections on Gaia. Scientists on Gaia. S. H. Schneider and P. J. Boston. Boston, MIT Press: 1-5.
- Lovelock, J. E. and L. Margulis (1974). "Atmospheric Homeostasis by and for the Biosphere: The Gaia Hypothesis." Tellus(26): 2-9.
- Luhmann, N. (1968). Zweckbegriff und Systemrationalitaet: Ueber die Funktion von Zwecken in Sozialen Systemen. Tuebingen, Mohr.
- Lukes, S. (1974). Power : A Radical View. London, Macmillan.
- MacIntyre, A. (1970a). Is Understanding Religion Compatible with Believing? Rationality. B. R. Wilson. Oxford, Basil Blackwell.
- MacIntyre, A. (1970b). The Idea of a Social Science. Rationality. B. R. Wilson. Oxford, Basil Blackwell.
- Manabe, S. (1970). The Dependence of Atmospheric Temperature on the Concentration of Carbon Dioxide. Global Effects of Environmental Pollution. S. F. Singer. Dallas, Texas: 25-29.
- Manabe, S. (1971). Estimates of Future Change of Climate Due to the Increase of Carbon Dioxide. Man's Impact on the Climate. W. H. Mathews, W. W. Kellog and G. D. Robinson. Cambridge, Mass, MIT Press: 250-264.
- Manabe, S. and K. Bryan (1969). "Climate Calculations with a Combined Ocean-Atmosphere Model." Journal of the Atmospheric Sciences 26(July): 786-789.
- Massmann, A., NRZ (1999). Multi Casa wird Neu Geplant - Investor hat eine eigene Idee. Neue Ruhr Zeitung.

- Maturana, H. R. and F. J. Varela (1980). Autopoiesis and Cognition : the Realization of the Living. Dordrecht, Holland ; Boston, D. Reidel Pub. Co.
- Maturana, H. R. and F. J. Varela (1992). The Tree of Knowledge: The Biological Roots of Human Understanding. Boston, New York, Shambhala, Distributed in the U.S. by Random House.
- McClennen, E. F. (2004). The Rationality of Being Guided by Rules. The Oxford Handbook of Rationality. A. R. Mele and P. Rawling. Oxford, UK, Oxford Scholarship Online Monographs: 222-240.
- McDonald, H. P. (2004). John Dewey and Environmental Philosophy. Albany, State University of New York Press.
- Mead, G. H. (1967 [1934]). Mind, Self, and Society from the Standpoint of a Social Behaviorist. Chicago, University of Chicago Press.
- Mettler-v. Meibom, B., O. Kaltenborn, et al. (2000). "Industriedenkmaeler: Zeche Zollverein - Schacht XII." Retrieved 29/12, 2006, from <http://www.uni-essen.de/~gpo202/denkmal/zeche.htm>.
- Mill, J. S. and J. M. Robson (1974). A System of Logic. London, Routledge.
- Miller, H. T. (2002a). "Situation-Regarding Intentionality." Administrative Theory & Praxis 24(1): 219-224.
- Miller, H. T. (2002b). "Doubting Foundationalism." Administration & Society 34(3): 335-341.
- Miller, H. T. (2004). "Why Old Pragmatism Needs an Upgrade." Administration & Society 36(2): 243-294.
- Mitchell, E. T. (1945). "Dewey's Theory of Valuation." Ethics 55(4): 287-97.
- More, T. (1516). Utopia. Cambridge, CUP, 1975.
- Morris, D. (1999). "How shall we read what we call reality?": John Dewey's New Science of Democracy." American Journal of Political Science 43(2): 608-628.
- Mousavi, S. and J. Garrison (2003). "Toward a Transactional Theory of Decision Making." Journal of Economic Methodology 10(2): 131-156.
- Nietzsche, F. W. (1873). "On the Use and Abuse of History for Life." Retrieved 25/01, 2006, from <http://www.mala.bc.ca/~johnstoi/Nietzsche/history.htm>.
- Noelle, J. and U. Durchholz (2006). Wem Gehoert Zollverein? Ein Plaedoyer fuer eine Lebendige Welterbestaette. Zeche und Kokerei Zollverein: Das Weltkulturerbe. B. Parakenings. Worms, Rheinisches Amt fuer Denkmalpflege Werenersche Verlagsgesellschaft: 222-232.
- NRZ (1997). Auch Duisburg Hofft auf Erlebnis-Park. Neue Ruhr Zeitung.
- NRZ (1998). "Multi Casa": Bahn hat nichts zu Verschenken. Neue Ruhr-Zeitung.
- Nystrom, P. C. (1984). "To Avoid Organisational Crisis, Unlearn." Organisational Dynamics 12: 53-65.
- Olson, S. (2002). "The Forgotten Philosopher: A Look at John Dewey." Retrieved 25/07, 2008, from <http://www.shawnolson.net/a/43/the-forgotten-philosopher-a-look-at-john-dewey.html>.
- Oreskes, N. (2004). "Science and Public Policy: What's Proof got to do with it?" Environmental Science & Policy 7: 369-83.
- Oreskes, N. and E. M. Conway (2008). Challenging Knowledge: How Climate Science Became a Victim of the Cold War. Agnotology: The Making and Unmaking of Ignorance. R. Proctor and L. Schiebinger, Stanford University Press.

- Peirce, C. S. (1831-1958). Collected Papers of Charles Sanders Peirce. Cambridge, MA, Harvard University Press.
- Peirce, C. S. (1867-1914). Collected Papers of Charles Sanders Peirce. Cambridge, MA, Harvard University Press.
- Peirce, C. S. (1958). The Fixation of Belief. Charles Sanders Peirce: Selected Writings. P. Wiener. New York, Dover: 91-112.
- Popper, K. R. (1945). The Open Society and its Enemies. London, Routledge.
- Popper, K. R. (1959). The Logic of Scientific Discovery. London, Hutchinson.
- Popper, K. R. (1960). The Poverty of Historicism. London, Routledge & Kegan Paul.
- Popper, K. R. (1961). The Poverty of Historicism. (Second edition.), pp. x. 166. Routledge & Kegan Paul: London.
- Pressman, J. L. and A. B. Wildavsky (1984). Implementation: How Great Expectations in Washington are Dashed in Oakland. Berkeley, CA, University of California Press.
- Prisma (1998). Die Wettbewerbssituation im Duisburger Einzelhandel. Hamburg/Duisburg, Prisma - Projekt GmbH.
- Prisma, G. (2004). Auswirkungsanalyse fuer das Geplante MultiCasa Duisburg. Hamburg/Nuernberg.
- Putnam, H. (1981). Fact and Value. Reason, Truth and History. H. Putnam. Cambridge, Cambridge University Press: 127-149.
- Putnam, H. (2002). The Collapse of the Fact/Value Dichotomy and other Essays. Cambridge, MA; London, Harvard University Press.
- Putz, G., NRZ,. (2003). ""Multi Casa" Kommt - Aber Voellig Anders." NRZ online Retrieved 08/10, 2003, from www.nrz.de.
- Reade, E. (1985). An Analysis of the Use of the Concept of Rationality in the Literature of Planning. Rationality in Planning. M. J. Breheny and A. J. Hooper. London, Pion.
- Reitzig, H. J. (2003/4). Handel und Dienstleistungen - Wichtige Saeulen der Duisburger Wirtschaft / Business and Services - Important Pillars of Duisburg's Economy. Wirtschaftsstrandort Duisburg/Business Location Duisburg: Chancen und Perspektiven Einer Stadt/ Opportunities of a City. C. Kirk and G.-D. mbH. Darmstadt, Europaeischer Wirtschafts Verlag GmbH.
- Richardson, G. P. (1991). Feedback Thought in Social Science and Systems Theory. Philadelphia, University of Pennsylvania Press.
- Rosenberg, A. (1995). Philosophy of Social Science. Boulder, US; Oxford, UK, Westview Press.
- Rosenhead, J., Ed. (1989). Rational Analysis for a Problematic World. Chichester; New York, Wiley&Sons.
- Rosenhead, J. and J. Mingers (2002). Rational Analysis for a Problematic World Revisited: Problem Structuring Methods for Complexity, Uncertainty and Conflict. Chichester, John Wiley & Sons.
- Russell, B. (1939). Dewey's New *Logic*. The Philosophy of John Dewey. P. A. Schilpp. La Salle, Illinois, Open Court: 135-56.
- Ryan, A. (1995). John Dewey and the High Tide of American Liberalism. New York, London, W.W. Norton and Company.
- Ryan, F. X. (2004). Five Milestones of Pragmatism. Dewey, Pragmatism, and Economic Methodology. E. L. Khalil. London, New York, Routledge.

- Sabatier, P. (1986). "Top-Down and Bottom-Up Approaches to Implementation Research: A Critical Analysis and Suggested Synthesis." Journal of Public Policy 6: 21-48.
- Sabatier, P. (1988). "An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning therein." Political Science and Politics 24: 147-56.
- Saito, N. (2002). "Pragmatism and the Tragic Sense: Deweyan Growth in an Age of Nihilism." Journal of Philosophy of Education 36(2): 247-263.
- Schilpp, P. A., Ed. (1939). The Philosophy of John Dewey. Library of Living Philosophers. Evaston.
- Schipper, F. (1996). "Rationality and the Philosophy of Organization." Organization 3(2): 267-89.
- Schipper, F. (2001). "Creativity and Rationality: A Philosophical Contribution." Reason in Practice 1(2): 3-15.
- Schnabel, U. (2006). In der Selbst Gebauten Falle. Die Zeit. Hamburg.
- Schuler, M. and C. Matt (2006). "Ein Lokales Energiekonzept." Baumeister 9.
- Selten, R. (1978). "The Chain Store Paradox." Theory and Decision 9(2): 127-59.
- Senge, P. (1990). The Fifth Discipline. New York, Double Day.
- Shields, P. M. (1996). "Pragmatism: Exploring Administration's Policy Imprint." Administration & Society 28(3): 390-411.
- Shields, P. M. (2003). "The Community of Inquiry: Classical Pragmatism and Public Administration." Administration & Society 35(5): 510-538.
- Shields, P. M. (2004). "Classical Pragmatism. Engaging Practitioner Experience." Administration & Society 36(3): 351-361.
- Shook, J. R. (2000). Dewey's Empirical Theory of Knowledge and Reality. Nashville, Vanderbilt University Press.
- Shook, J. R., Ed. (2003). Pragmatic Naturalism & Realism. Amherst, NY, Prometheus Books.
- Simon, H. (1945). Administrative Behavior. New York, Free Press.
- Simon, H. (1966). Administrative Behavior. New York, Free Press.
- Simon, H. (1983). Reason in Human Affairs. Stanford, Stanford University Press.
- Simondon, G. (1964). L'Individuation Psychique et Collective, Aubier, 1989.
- Smith, J. E. (1965). Community and Reality. Perspectives on Peirce. R. J. Bernstein. New Haven and London, Yale University Press: 92-119.
- Snider, K. F. (2000). "Expertism or Experimenting?" Administration & Society 32(3): 329-354.
- Snider, K. F. (2000b). "Response to Stever and Garrison." Administration & Society 32(4): 487-489.
- Spencer, H. (1862). First Principles. [S.l.], Williams and Norgate.
- Steuer, M. (2000). "A Hundred Years of Town Planning and the Influence of Ebenezer Howard." British Journal of Sociology.
- Stever, J. A. (2000). "The Parallel Universes - Pragmatism and Public Administration." Administration & Society 32(4): 453-457.
- Stolcis, G. B. (2004). "A View from the Trenches: Comments on Miller's 'Why Old Pragmatism Needs An Upgrade'." Administration & Society 36(3): 362-369.
- Talisse, R. B. (2000). On Dewey. Wadsworth, Belmont.

- Taylor, C. (1982). Rationality. Rationality and Relativism. M. H. S. Lukes. OUP, Oxford, UK.
- Taylor, C. (1985). Atomism. Philosophy and the Human Sciences. Cambridge ; New York, Cambridge University Press: 187-210.
- Taylor, C. (1989). Sources of the Self. Cambridge, UK, CUP.
- Taylor, C. (1994). Neutrality in Political Science. Readings in the Philosophy of Social Science. M. Martin and L. C. McIntyre. Cambridge, MA, MIT Press: 547-70.
- Taylor, N. (1980). "Planning Theory and the Philosophy of Planning." Urban Studies 17: 159-72.
- Taylor, N. (1998). Urban Planning Theory Since 1945. London, Sage.
- Tversky, A. and D. Kahneman (1981). "The Framing of Decisions and the Psychology of Choice." Science, New Series 211(4481): 453-8.
- Ulrich, W. (1975). Kreativitaetsfoerderung in der Unternehmung: Ansatzpunkte eines Gesamtkonzepts. Bern; Stuttgart, Paul Haupt.
- Ulrich, W. (1983). Critical Heuristics of Social Planning. Bern; Stuttgart, Paul Haupt.
- Varela, F. J. (1999). Ethical Know-How: Action, Wisdom, and Cognition. Stanford, Stanford University Press.
- Varey, R. (1998). "Appreciative Systems: A Summary of the Work of Sir Geoffrey Vickers (an unpublished workingpaper)." from <http://wms-soros.mngt.waikato.ac.nz/NR/exeres/1BA9D6AE-E1A8-4603-BCDD-461D98513F5B.htm>.
- Vennix, J. A. M. (1996). Group Model-Building: Facilitating Team Learning Using System Dynamics. Chichester, Wiley.
- Vickers, G. (1983). Human systems are different. London, Harper & Row.
- Vickers, G. (1995). The art of judgement : a study of policy making. Thousand Oaks ; London, Sage.
- Vickers, G. C. S. (1970). Freedom in a rocking boat: changing values in an unstable society, London: Allen Lane, the Penguin Press.
- Vickers, G. C. S. (1970). Value systems and social process, Harmondsworth: Penguin.
- Vinnikov, K. Y., G. V. Gruza, et al. (1980). "Recent Climatic Changes in the Northern Hemisphere." Soviet Meteorology and Hydrology 6: 1-10.
- Vysnowsky, E. (2004). Dewey's Reconstruction of Rationality. Deconstruction and Reconstruction. The East European Pragmatist Forum. J. Ryder and K. Wilkoszewska. Amsterdam, Rodopi. 2.
- Watkins, J. W. N. (1996). Historical Explanations in the Social Science. Readings in the Philosophy of Social Science. M. Martin and L. C. McIntyre. Cambridge, MA, MIT Press: 441-450.
- WAZ (1998a). Gute Chancen fuer Multi-Casa. Westdeutsche Allgemeine Zeitung.
- WAZ (1998b). IHK: Multi Casa darf Innenstadt nicht Schaden. Westdeutsche Allgemeine Zeitung.
- Weaver, C., J. Jessop, et al. (1985). Rationality in the Public Interest: Notes toward a new Synthesis. Rationality in Planning. M. J. Breheny and A. J. Hooper. London, Pion: 145-166.
- Weiss, C. (1980). "Knowledge Creep and Decision Accretion." Knowledge: Creation, Diffusion, Utilization 1: 381-404.

- Werhane, P. H. (1999). Moral Imagination and Management Decision-Making. New York, Oxford, Oxford University Press.
- Westbrook, R. B. (1998). Pragmatism and Democracy: Reconstructing the Logic of John Dewey's Faith. The Revival of Pragmatism. M. Dickstein. Durham, London, Duke: 128-140.
- Wikipedia. (2006). "The Scottish Parliament Building." Retrieved 29/04/05, from http://en.wikipedia.org/wiki/Scottish_Parliament_Building.
- Winch, P. (1970a). Understanding a Primitive Society. Rationality. B. R. Wilson. Oxford, Basil Blackwell.
- Winch, P. (1970b). The Idea of a Social Science. Rationality. B. R. Wilson. Oxford, Basil Blackwell.
- Winch, P. (1990). The Idea of a Social Science and its Relation to Philosophy. London, Routledge.
- Winner, L. (1977). Autonomous Technology. Cambridge, MA, MIT Press.
- Wright, G.-H. v. (1971). Explanation and Understanding. London, Routledge.
- Yewlett, C. J. L. (1985). Rationality in Planmaking: A Professional Perspective. Rationality in Planning. M. J. Breheny and A. J. Hooper. London, Pion.
- Zanetti, L. A. and A. Carr (2000). "Contemporary Pragmatism in Public Administration. Exploring the Limitation of the "Third Productive Reply"." Administration & Society 32(4): 433-452.