On Research in Action and Action in Research

Bodil Stilling Blichfeldt Jesper Rank Andersen

January 2005

All rights reserved. No part of this WORKING PAPER may be used or reproduced in any manner whatsoever without the written permission of IME except in the case of brief quotations embodied in critical articles and reviews.

© University of Southern Denmark, Esbjerg and the authors, 2005

Editor: Eva Roth

Department of Environmental and Business Economics IME WORKING PAPER 62/05

ISSN 1399-3224

Bodil Stilling Blichfeldt Department of Environmental and Business Economics University of Southern Denmark Niels Bohrs Vej 9-10 DK-6700 Esbjerg

Tel.: +45 6550 4139 Fax: +45 6550 1091

E-mail: bsb@sam.sdu.dk

Jesper Rank Andersen Center for Industrial Production Aalborg University Fibigerstræde 16 DK-9220 Aalborg Ø

Tel.: +45 9635 8992 Fax: +45 9815 3040

E-mail: rank@iprod.aau.dk

Abstract

A unique (and challenging) characteristic of social sciences is that these sciences are multi-paradigmatic and adhere to a wide range of research strategies. One research strategy that social scientists can choose to rely on is action research. However, action research qualifies as a research strategy much criticised for not being subject to scientific rigor. Drawing on an extensive review of the literature on action research, this paper discusses what action research **is (not)** and what it **can (not) do** for social scientists, who wish to do research of relevance to practitioners. Especially, this paper discusses lines of criticism that action research is subject to and further, it suggests ways in which action researchers may enhance quality of action research. In particular, we argue that enhancement of quality of action research is necessary if we wish for communities of social scientists to acknowledge action research as a scientific endeavour as well as if we wish for such communities to rely on the findings of action research studies.

Table of contents

1.	Introduction	7
2.	Axiomatic Dimension of Definition of Action Research	9
3.	Case Studies versus Action Research – What's the Difference?	18
4.	Ontodology, Epistemodolgy, and the Works	26
5.	The Big 'A' in Action Research	32
6.	Putting the 'R' (back) into Action Research	33
7.	Cyclic Time	37
8.	Empirical Dimensions of Action Research	39
9.	Ethical Dimensions of Action Research	47
10	. Where to Now in Action Research?	49
11	. Conclusion	51
12	. References	53

1. Introduction

To a researcher who just recently entered the action researchers' path a major challenge is to make sense of the large body of literature on action research (AR). Moreover, apart from the mere number of articles in peer-reviewed publications addressing AR, AR is related to a wide variety of domains (according to Dash, 1999, such domains are e.g. agricultural development, appropriate technology development, community development, educational reform, environmental management, organisational change and development, participatory development, public health, self-development, and urban planning). Drawing on Dash (1999), AR is thus not a 'methodology' supervening on investigation of one particular set of phenomena and/or one particular substantive domain. Furthermore, apart from quantity of academic literature on AR and the variety of domains investigated by means of AR, the un-experienced AR researcher is, certainly, likely to be overwhelmed by the diversity of AR approaches represented in the literature (approaches such as e.g. participatory AR, educational AR, action learning, action science, action inquiry, cooperative inquiry, and manager-researcher AR). Consequently, one might argue that trying to understand what AR is; let alone to understand what AR approach to adopt, or develop, qualify as research endeavours in their own rights; or at least that was our experience whilst trying to 'grasp' AR. Closely related to the diversity of AR approaches, the academic literature offers wide varieties of (1) definitions of AR; (2) suggestions on roles of researchers and practitioners; (3) end results of AR projects; and (4) dominance of action/intervention and research during the AR process. In sum, our first encounters with the academic literature on AR thus suggested that not only did we have to become familiar with a host of peerreviewed articles (i.e. the simplest possible search for such articles identified more than 500 AR related articles), but also we had to construct some sort of cognitive schema enabling us to 'make sense' of the highly diversified and fragmented body of literature that deals with AR.

From our point of departure (i.e. an externally funded, multiple researcher research project focusing on project portfolio management, which had to incorpo-

rate 'some sort' of 'doing something' in collaboration with companies participating in the research project in order to improve project portfolio management), our journey into the AR landscape began. As many before us have made that journey, we do not claim this paper to qualify as a roadmap on places 'untouched' by academicians; nor do we claim this paper to qualify as a roadmap that will take a future traveller safely through this landscape. Nonetheless, this paper is the end result of a highly reflective literature study undertaken by a group of researchers in order to 'do' AR. Consequently, the key contribution of the paper to extant AR knowledge is twofold. First, the purpose of the paper is to enable future AR researchers to draw on our reflections on AR so that (s)he will not have to create his/her own roadmap from scratch. Secondly, our hope is that more experienced AR researchers might also benefit from reading the paper due to the fact that it explicates a number of key dimensions of AR; dimensions the choices related to which, we argue, qualify as major threats to (as well as major opportunities for improvement of) quality of research.

The dimensions of AR discussed in this paper are as follows. First, we discuss the axiomatic dimensions of AR in order to identify the building blocks of AR. Secondly we discuss differences between AR and case study research. Especially, we point to such differences due to the fact that case study research qualifies as a 'method', for which criteria for evaluation of quality of research seem to be 'saturated' concepts to a far greater extent than it is the case for AR evaluation criteria. Afterwards, we take a detour around the epistemological and ontological assumptions that – more or less explicitly – underlie AR in order to further address the lack of consensus on 'what' constitutes 'sound' AR. In the two next sections of the paper we focus on the key characteristic of AR; the interdependency of action and research that qualifies as the key contribution of AR whilst – we argue – it also qualifies as the single most important threat to quality of (action) research. From an academic perspective, we thus question soundness of extant AR practices and their focus on 'action' whilst we suggest ways in which we might increase the emphasis on 'research' in the future. Consequently, the paper draws heavily on our 'being researchers at heart' and henceforward, our concerns in the quest for valid and reliable research processes and results. Closing the paper, we offer comments on additional dimensions of AR to be taken into account before engaging in AR; such dimensions being the concept of cyclic time, empirical dimensions, and ethical issues.

2. Axiomatic Dimension of Definition of Action Research

The axiomatic part of a definition of AR relates to what we mean by AR (Altrichter *et al.*, 2002). Consequently this part of the paper discusses definitions of AR as well as key contributions to, and historical origins of, AR. As a result, the purpose of this section is to familiarise the reader with the methodological landscape surrounding the action researcher and most importantly; the purpose is to identify the landmarks characterising this landscape. Thus, although we do not clime all mountains and even though we do take some shortcuts, we claim the content of this section to capture the essence, or contour, of the AR landscape.

Drawing on the AR literature, the origins and historical roots of AR can be traced back to the 1940s and to the works of Blum (1955); Chein *et al*, (1948); Collier (1945), Lewin (1946; 1947; 1948), Moreno (1943) and – somewhat later - Whyte and Hamilton (1964) (Powell, 2002; Koch *et al*, 2001; Newman and Fitzgerald, 2001; Kaplan, 1998). Although we do not claim that academicians did not engage in research qualifying as AR prior to the 1940s, it does seem that the 1940s was the point in time, at which some researchers (and especially Kurt Lewin) explicated the unique characteristics of, and particular benefits inherent in, a research approach that integrated action and research to a far greater extent than explicated previously. According to Hendry (1996), especially the works of Lewin qualify as a foundation that other researchers have surmised. In the 1940s, apparently theorists such as Lewin were increasingly paying attention to the shortcomings of methods inherited from the natural sciences when such methods were applied to social sciences (Larsson, 2001). As such, in retrospective we might claim the 1940s to be an especially fertile time for generation and

dissemination of research methods that could potentially qualify as 'viable alternatives to conventional, positivistic research' (Checkland and Holwell, 1998). Primarily, AR arose from theorists' (or at least Lewin's) being not satisfied with 'the limitations of studying complex social events in a laboratory' as 'the artificiality of splitting out single behavioural elements from an integrated system' was deemed most problematic (Foster, 1972). Also, Lewin (1946) conceived AR as a way in which researchers could (finally?) bridge practice and research (Cunningham, 1993; Dickens and Watkins, 1999). Thus, already from the beginning the key advantage sought by means of AR was to allow researchers to combine theory building with the solving of practical problems (or at least with offering suggestions on how to solve such problems). Henceforward, the key reason why AR emerged seems to be a concern on theorists' behalves related to (1) positivistic researchers' generation of theories un-adequate as far as real world problem solving was concerned and (2) practitioners' engagement in 'uninformed' actions. The notion of 'uninformed action' implies that due to researchers' lack of generation of theories applicable to real world problem solving, practitioners cannot turn to theories when dealing with such problems and thus, practitioners' actions do not hinge on adoption of sound normative advice (or at least not on normative pieces of advice generated by researchers). Drawing on Dash (1999) the two fundamental explananda why AR emerged could thus be summarised as (1) a wish to break free from established modes of inquiry and (2) to do academic research useful for solving practical problems.

Apart from the rational for doing AR regarding linkages between action and research, Lewin, in particular, emphasised *change* and *investigation of change* (Hendry, 1996) as key contributions of AR. According to Lewin, emphasising action (facilitating change) thus enabled researchers not only to suggest appropriate lines of action; but also to investigate actual effects of such actions. Elden and Chisholm (1993) labelled Lewin's original conception of AR 'the classical model of AR'. One feature that characterises such 'classical AR models' as well as a feature less dominant in more contemporary AR approaches is that originally AR drew on the traditional paradigm of experimental manipulation and observation of effects hereof on the object (*i.e.* system) (Clark, 1972).

Thus, the classical model of AR draws heavily on researchers' wishes to maximise 'scores' on the 'realism desideratum' (Brinberg and Magrath's, 1985, notion) whilst researchers also try to 'score' highly on the desideratum 'precision' (i.e. the desideratum regarding ability to establish causal relations between e.g. actions and effects hereof and thus, the desideratum that we traditionally ascribe maximisation of to classical experiments). Henceforward, initially Lewin (1946) described AR as a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action. Although contemporary AR approaches may have expanded the AR continuum so that this continuum "ranges from more traditional, consultant-directed, linear applications toward increasingly collaborative, systemic, transformational change processes" (Newman and Fitzgerald, 2001, p. 37), nonetheless, across the entire spectrum of AR approaches the notion of 'change' still occupies a prominent position. Thus, AR is a means to investigate changes and effects hereof whilst overcoming 'normal' approaches' "self-imposed distance from the world of action" (Dash, 1999, p. 479).

Although the literature offers a host of useful definitions of AR and although the vast majority of such definitions are concerned with the dual aim of practical problem solving and generation of new knowledge (Hult and Lennung, 1980), none of the definitions seems to have 'gained pre-eminence in the field' (Altrichter *et al*, 2002). Consequently, in order to discuss the essence of AR in further depths, table 1 offers an overview of some influential definitions of AR.

Table 1. A Selection of AR Definitions

Susman and Evered, 1978	AR constitutes a kind of science with a differ-
	ent epistemology that produces a different kind
	of knowledge, a knowledge which is contin-
	gent on the particular situation, and which de-
	velops the capacity of the members of the or-
	ganization to solve their own problems

Rapoport	AR aims to contribute both to the practical
As reproduced in Powell,	concerns of people in an immediate problemat-
_	
2002	ic situation and to the goals of social science by
	joint collaboration within a mutually accepta-
711 1	ble ethical framework
Ebbult	AR is the systematic study of attempts to im-
As reproduced in Powell,	prove educational practice by groups of partic-
2002	ipants by means of their own practical actions
	and by means of their own reflection upon the
	effects of those actions
Hult and Lennung, 1980	AR simultaneously assists in practical prob-
	lem-solving and expands scientific knowledge,
	as well as enhances the competencies of the
	respective actors, being performed collabora-
	tively in an immediate situation using data
	feedback in a cyclical process aiming at an in-
	creased understanding of a given social situa-
	tion, primarily applicable for the understanding
	of change processes in social systems and un-
	dertaken within a mutually acceptable ethical
	framework
Argyris & Schön, 1991	It builds descriptions and theories within the
Fra Dickens and Watkins	practice context itself, and tests them through
	intervention experiments – that is, through ex-
	periments that bear the double burden of test-
	ing hypotheses and effecting someone (puta-
	tively) desirable change in the situation
Cunningham, 1993	AR is a term for describing a spectrum of ac-
6 ,	tivities that focus on research, planning, theo-
	rising, learning and development. It describes a
	continuous process of research and learning in
	the researcher's long-term relationship with a
	problem
	prodein

	-
Kemmis, 1996	AR is simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of those practices, and the situations in which the practices are carried out
Tripp, 1996	AR is being applied to any practice in which thought and action are related together whether or not any kind of research is involved
Greenwood & Levin, 1998	AR aims to solve pertinent problems in a given context through a democratic inquiry where professional researchers collaborate with participants in the effort to seek an enact solution to problems of major importance to the local people
Coghlan, 2000	Action research has traditionally been defined as an approach to research which is based on a collaborative problem-solving relationship be- tween researcher and client system which aims at both managing change and generating new knowledge
Reason and Bradbury, 2001	AR is a generic term, which covers many forms of action-oriented research, and indicates diversity in theory and practice among action researchers, so providing a wide choice for potential action researchers as to what might be appropriate for their research question
Coghlan, 2001	AR involves <i>opportunistic</i> planned interventions in real time situations and a study of those interventions as they occur, which in turn informs further interventions

Zuber-Skerritt and Perry,	Key aspects of AR; (1) a group of people at
2002	work together; (2) involved in the cycle of
	planning, acting, observing, and reflecting on
	their work more deliberately and systematically
	than usual; and (3) producing a public report of
	that experience

Drawing on table 1, some key characteristics of AR stand out. First, the scope of AR seems to have been broadened over the years. Thus, whereas classical definitions of AR seem much concerned with manipulations of circumstances and observation of effects of such manipulation, contemporary AR definitions rely on manipulation to a far lesser extend. Consequently, one may argue that classical AR definitions rely on maximisation of the desideratum 'precision' whereas contemporary definitions of AR are much more concerned with participants' self-reflections and learning processes than with accurate observations of tangible effects of change imposed on the real-life system. Furthermore, contemporary AR definitions seem much more aligned with social-constructivistic approaches to social sciences than with the aspects of experimental manipulation, upon which classical definitions rely. As a result, table 1 suggests a shift in approaches to AR over time; a shift perhaps originating from downgrading of natural sciences' positivistic criteria for conducting research to prioritisation of social constructivistic criteria for doing research in close collaboration with practitioners.

Another key characteristic emerging on the basis of table 1 is that academicians define AR in multiple ways. This argument is corroborated by Meyer (2000, p.8), who argues that "AR is not easily defined, as it is an approach to research, rather than a specific method. The term is used widely and loosely throughout the scientific and professional literature". Furthermore, Dickens and Watkins (1999) argue that AR practitioners vary in their emphasis on different elements of the AR process. However, most AR definitions (e.g. McKay and Marshall, 2001) emphasise that the name 'AR' represents a juxtaposition of practice and theory (*i.e.* action and research). As a result, most definitions also emphasise

collaboration between researchers and practitioners. For example, Burns (1994) argues that the researcher brings an intellectual framework as well as knowledge of process to the study whereas 'problem owners' brings along knowledge on context. Apart from definitions of AR, more researchers have listed key characteristics of AR. A selection of such listings of AR characteristics is offered in table 2.

Table 2. A Selection of Listings of Characteristics of AR

Argyris et al, 1985	Summarisation of Lewin's AR concept:
	- Change experiments on real problems in social systems
	- Focuses on a particular problem
	- Providing assistance to the client system
	- Involves iterative cycles of identifying a problem;
	planning; acting and evaluating
	- Changing patterns of thinking and action
	- Challenging status quo from a participative perspective
	- Simultaneous contribution to social action and basic
	knowledge in social science
Gummesson, 1991	Characteristics of AR studies;
	- two goals; solve problems for clients and contribute to
	science
	- researcher/consultant and clients should learn from
	each other
	- development of holistic understanding
	- requirements for co-operation, feedback, and continu-
	ous adjustment
	- applicable primarily to change in social systems
	- regarding management subjects, pre-understanding is
	essential
	- governed by the hermeneutic paradigm; although in-
	clusion of positivistic elements is possible

Bargal et al, 1992	Features of AR;
Fra Dash 1999	- cyclic process of planning, action, and evaluation
	- continuous feedback to all parties; including clients
	- cooperation between researchers, practitioners, and
	clients throughout the entire process
	- application of governing principles for social life and group decision making
	- incorporation of different values and power of
	participants
	- concurrent problem solving and new knowledge
	generation
DePoy, Hartman	Basic tenets common to all forms of AR;
and Haslett, 1999	- those experiencing a phenomenon are best suited for
	investigating it
	- purposes are to generate knowledge and henceforward,
	to inform action
	- principle values; democracy; equity; liberation; and life
	enhancement
	- action processes come from experimental and/or natu-
	ralistic traditions
	- cyclical in nature; begins with problems or dilemmas,
	moves through systematic inquiry towards planning
	and using findings
Dick, 2000	Significant characteristics;
	- cyclical in nature
	- participative
	- deals more with language than numbers and thus, it is
	qualitative
	- reflective
	- responsive

Gummesson, 2000	Major characteristics of AR;
	- action researchers take action
	- AR involves two goals; to solve a problem and to con-
	tribute to science
	- AR is interactive
	- AR aims at developing a holistic understanding
	- AR is fundamentally about change
	- AR requires understanding of ethical frameworks, values, and norms
	- AR can include all types of data gathering methods
	- AR requires breadth of pre-understanding
	- AR should be conducted in real-time
	- the AR paradigm requires its own quality criteria
Coughlan and	Broad characteristics defining AR;
Coghlan, 2002	- research <i>in</i> action, rather than research <i>about</i> action
2 3 5	- participative
	- concurrent with action
	- a sequence of events and an approach to problem
	solving

Drawing on the preceding table, AR involves solution of social and organisational problems besides resolution of theoretical issues. Furthermore, although several broad characteristics seem to define AR (see e.g. Coughlan and Coghlan, 2002; Foster, 1972; Susman and Evered, 1978; Peters and Robinson, 1984; Argyris et al., 1985; Whyte, 1991, Aguinis, 1993; Coghlan, 1994; Baskerville and Wood-Harper, 1996; Eden and Huxman, 1996; Checkland and Holwell, 1998; Greenwood and Levin, 1998; Gummesson, 2000; McDonagh and Coghlan, 2001), especially academicians seem to agree on AR being characterised by

characteristics such as research in action; rather than research about action; AR being participative and concurrent with action; and AR constituting a sequence of events and an approach to problem solving. Due to these characteristics, a rather unique feature of AR is that the researcher is both embodied and imbedded in a particular social context (Mingers, 1997). Accordingly, a primary of AR is to avoid separation of research and practice (Baskerville and Wood-Harper, 1996; Susman and Evered, 1978; Avison and Wood-Harper, 1991; Greenwood and Levin, 1993). In order to emphasise interdependencies between action and research in AR studies, drawing on Checkland, 1985; Keys, 1991; and Ulrich, 1987, Pothas and de Wet (2000, p. 141) argue that "interaction exists between theory and practice; theory is tested out by practice, and the development of theory leads to changes in opportunities for practice; practice itselt is the source of theory and leads to modification in existing theory". Hence, the key characteristic of AR that qualifies as the 'glue' holding together definitions and characteristics of AR (as accounted for in tables 1 and 2) is that practice and theory development are interrelated entites. In the next section, elaborations on such interdependencies are offered by means of comparison of AR with case study research.

3. Case Studies versus Action Research – What's the Difference?

Drawing on the (for a couple of paragraphs more – unsubstantiated) claim that the case study method seems to have successfully positioned itself within the social sciences to a far greater extent than AR has been able to, the purpose of this section is to discuss similarities as well as differences between these two approaches to social science. Furthermore, the discussion on similarities and differences should enable us to identify central tenets of AR that may qualify as reasons why AR has had (and still has) severe difficulties in becoming accepted by academic communities as a research strategy enabling us to generate *scientific* knowledge. Thus, at least partially this section should elaborate on possible reasons why "there is actually only a few action researchers which have made

major contributions to the scientific community" (Grønhaug and Olsson, 1999, p. 13).

In comparison with the preceding sections, the focus of which was AR, investigation of the case study method suggests that case research, too, is a generic term covering many forms of research. Thus, diversity in theory and practice is a characteristic of case research as well as a characteristic of AR. For example, although Yin (1989) advocates a generally positivistic approach to case research (Dobson, 2001), (1) case research can take a positivistic or an interpretive stance (Caveye, 1996); (2) both inductive and deductive approaches are within the range of case research (Caveye, 1996); and (3) some authors define the 'case study continuum' as ranging from Yin's (1989) hypotheses-deductive design to Glaser and Strauss' (1967) notion of grounded theory (Blichfeldt, 2004 discusses this issue in further depths). Thus, as AR's ranging from 'realworld' experimentation inspired by positivistic experimental research designs to emphasising practitioners' socially constructed learning processes facilitated by the researcher, so does case research cover a range of research activities (i.e. according to Dobson, 2001, this range includes both descriptive case research reflecting a postmodern perspective and explanatory case research reflecting a realist perspective). Furthermore, both case research and AR are concerned with the researcher's gaining an 'in-depth' understanding of particular phenomena in 'real-world' settings. Drawing on the preceding paragraphs we thus argue that differences in 'academic acceptability' of the two types of research do not seem to relate to case research being less diversified or fragmented than AR. Nor do such differences seem to hinge on the fact that AR is concerned with 'realworld' entities. On the contrary, the two types of research seem quite similar when focusing on diversities in theory and practice as well as when focusing on concerns regarding investigation of 'real-world' (i.e. prioritisation of the desideratum 'realism').

The claim that AR and case research have much in common is further corroborated by the fact that the case study method is mentioned by several authors as a method adopted by action researchers. For example, Yunker (1994) refers to Cunningham's (1993) emphasising that AR (as practised in organisation development studies and practices) uses the case study method, according to which the researcher investigates the organisation from close range. Thus, it seems that the specific guidelines on how to conduct case research are adopted by action researchers to a fairly large extent. Apart from such adoptions' corroboration of our claim that AR and case research have much in common, one might also claim adoption of case study methods and techniques by action researchers to indicate that roadmaps on 'how to do real life AR' are not, as yet, as detailed as the roadmaps telling researchers how to do case research (we return to this discussion in section 8 of the paper).

Along with researchers who adopt the case study method, action researchers generate context-bound, or local, knowledge. However, whereas Yin (1989) would test pre-specified hypotheses during field work, most action researchers would identify problems in their particular substantive context (see e.g. Dickens and Watkins, 1999). Specifications of the intellectual framework of ideas that the researcher brings to a case study vary extensively (i.e. ranging from Yin's clearly defined hypotheses to be tested to some theory-building case studies that seek to predominantly ground concepts in empirical findings and thus, researchers abandoning rigorous, explicit specification of an intellectual framework of ideas prior to 'entering the field'). However, although such specifications vary, the role that the conceptual domain plays might qualify as a discriminator between case research and AR. For example, Argyris and Schon (1991, p. 86) argue that "AR takes its cues – its questions, puzzles, and problems – from the perceptions of practitioners within particular, local practice contexts". Hence, a key characteristic of AR studies is that the action researcher relies on participants (i.e. practitioners) when defining the problem to be solved and henceforward, when explicating the research question and substantive phenomena to be addressed by the piece of research in question. Consequently, a major discriminator between case research and AR seems to be that AR (at least to a greater extent than case research) seems to have omitted the need for a declared-in-advance intellectual framework of ideas (Checkland and Holwell, 1998), whereas case researchers seem much more concerned with the dimen-

sion of scientific endeavour, the purpose of which is to confront the researcher's initial intellectual framework with empirical findings. Henceforward, one might argue that, especially, what seems to hinder academicians' acceptance of AR is the fact that actions researchers' being less concerned with declaration of intellectual frameworks prior to 'doing the study' qualifies as denial of social sciences as comprised of puzzle-solving and thus, incremental pieces of work that build on scientific accomplishments of the past. Thus, in terms of scientific rigor a main 'deficit' of AR seems to be the substitution of declared-in-advance intellectual frameworks of ideas comprised of extant pieces of knowledge and thus, reflecting the positioning of a particular piece of research within the broader social science community with practitioner-oriented identification of 'real-world' problems. Although one might argue that, of course, action researchers bring their familiarity with theoretical constructs and theories along to the study (as all other researchers), the claim put forward in this paper is that a major reason why research communities, in general, do not accept AR is related to the fact that very few action researchers take it upon them to explicate and disseminate (1) the intellectual framework of ideas that they bring to a particular AR study and (2) the ways in which such intellectual frameworks affect the researcher's choosing of 'real-world' settings to be investigated; let alone the ways in which such a framework, deliberately or unconsciously, acts as a screening device that enables the researcher to choose (not) to investigate certain 'real-world' settings and problems. Thus, although action researchers seem to neglect this question, one would anticipate that (at least highly experienced) action researchers would (at least once in a while) stop an action research project due to the fact that the problems identified by practitioners show little resemblance to the researcher's research area. Concordant with our claim that one may criticise action researchers for *not* explicating the purpose of their research before they engage in problem identification in collaboration with practitioners, Checkland (1981, p. 400) argues that "there must be an intellectual framework, declared in advance, in terms of which learning will be defined. Without such a framework, action research can quickly become indistinguishable from mere action". An important point to make is that the notion 'declared-in-advance intellectual framework' does not mean that researchers adhere to definitions of focal concepts fully established prior to 'doing the study'; nor does it imply that researchers suggest relations between focal concepts prior to 'doing the study'. Instead, the notion 'intellectual framework' is important due to the fact that it suggests the researcher to know (at least something about) where the study is going before (s)he engages in a particular AR project in collaboration with practitioners. Thus, foremost the notion 'intellectual framework' implies that, prior to doing the empirical study, the researcher has thought about possible contributions of the particular AR project to extant theory and further, (s)he has some idea as to the theoretical frame(s) of reference to rely on while doing the study. Thus, drawing on Blichfeldt (2004), our claim is that even case studies adhering to the principles of grounded theory explicate theories (or concepts) that they bring to the central stage of the study.

Drawing on Checkland (1981), the researcher's declaration-in-advance of an intellectual framework thus seems to be the activity that discriminates between practical problem solving activities and scientific endeavours on the behalves of academicians engaging in action research. Further, the fact that (many) action researchers do not take it upon themselves to explicitly discuss the intellectual framework that they bring to an AR study seems to be the most important reason why AR has such difficulty positioning itself as a research method along with e.g. case research. For example, the works of Yin (1989, 1994) may have proven so influential within research communities focusing on investigation of 'real world', context bound organisational phenomena due to the simple fact that Yin (1989, 1994), quite thoroughly, discusses the crucial importance of the intellectual framework of ideas (or even propositions) that the researcher brings to the study. Also, the importance ascribed to such clearly-in-advance defined frameworks might also qualify as the key reason why so few articles based on the grounded method (Glaser and Strauss, 1967; Strauss and Corbin, 1990) or AR studies get published (peer-reviewed articles focusing solely on methodology of AR excluded at present). Although we do not argue that AR should qualify as hypothesis-deductive research and even though we agree on Checkland and Holwell's (1998) replacement of hypotheses with 'themes' when it comes to AR, we do argue – that aligned with e.g. theory-building case study researchers – action researchers need to declare such themes *if* they wish to generate scientific knowledge accepted and acknowledged by their peers and *if* they wish to generate something 'beyond' mere action.

Mostly the outset of a case study is the researcher's interest in a particular (set of) phenomena; whereas the outset of an action study seems to be comprised (at least partially) of the substantive systems, with whom the researcher interacts. Therefore, a key difference discriminating between case studies and action studies is that AR is characterised by "the active and deliberate self-involvement of the researcher in the context of his/her investigation" (McKay & Marshall, 2001); an involvement characterised by the fact that the problem area and henceforward, the phenomena to be investigated are identified in collaboration with 'problem owners' whereas case researchers, mostly, draw on practitioners in order to investigate a phenomena specified by the researcher (possibly in detail) prior to 'doing the study'. Consequently, one might argue that collaboration between the researcher and the 'problems owners' seems much more critical to the success of an action research endeavour than it is to the case study researcher, who rely primarily on practitioners as 'sources of evidence'.

Intertwined with the action researcher's emphasising collaboration with, and dissemination of findings to, practitioners is the 'difficulty of generalising results from AR' (McKay and Marshall, 2001). Generally, case researchers do not experience such difficulties (or at least not to the same extent as action researchers), due to the case researcher's better possibilities for choosing substantive elements and systems that enable analytical generalisation. Concordant with this line of reasoning, Meyer (2000, p. 8) argues that AR "is often written up as a case study and it is important to note that generalisation is therefore different to the more traditional forms of research". Further he argues that case studies and action studies are "means by which theoretical explanations of phenomena can be generated using analytic induction", "rich in conceptual detail" and that "readers are invited to judge the relevance of the findings to their own practice situation" (Meyer, 2000, p. 8). Coghlan (2002a, p. 63) claims that "action research is fundamentally about telling a story as it happens". In opposi-

tion to action researchers' 'story telling', we argue that fundamentally case researchers wish to tell stories that enrich and expand our understanding of focal phenomena beyond the 'stage', in which individual stories are constructed.

A further substantial difference between AR and case studies relates to researchers' own explication of how (and to whom) they are obliged to disseminate results of their research. Although often case researchers take it upon themselves to disseminate research findings to those, who kindly participated in the case study in question (e.g. case companies), first and foremost case researchers oblige to disseminate research findings to the research community, of which they are part. Action researchers, on the other hand, have a special obligation to 'feed data back into the community' (e.g. organisation), in collaboration with which they identify and, hopefully, solve a practical problem. Thus, although a bit simplistic one may argue that foremost case researchers 'think' dissemination of findings to peers whereas action researchers first 'think' dissemination of such findings to clients. This postulate is corroborated by Grønhaug and Olsson's (1999, p. 13) suggestion that "action researchers 'have forgotten' to report in detail their research activities and how they 'step-bystep' have arrived at their interpretations and actions, which usually means that the knowledge creation of action research is partially neglected in the literature". Although AR is supposed to be especially relevant in developing, testing, and refining theories about aspects of a particular problem context (Avison, 1993; Susman & Evered, 1978) and although some overlap exists between AR and case research in relation to development, testing, and refinement of theories, usually case researchers thus seem more concerned with analytical generalisation and 'what' can be learned from the study beyond 'case level'.

Flyvbjerg (2001, p. 70) draws on Aristotle in his clams that "in the study of human activity we cannot be satisfied with focusing on universals" and that studies of human activity demand that "one practice *phronesis*, that is, that one occupy oneself with values as a point of departure...". Furthermore, Flyvbjerg (2001) suggests that the fact that cases generate concrete, practical, and context-dependent knowledge qualifies as the key reason why the case study generates

(especially) valuable, scientific knowledge, i.e. "the case study produces precisely the type of context-dependent knowledge which makes it possible to move from the lower to the higher levels in the learning process" (p. 71). Along with case studies AR "does not attempt to create universal knowledge" (Coghlan, 2002, p. 64). Thus, both types of studies generate 'local' theory related to one (or fewer) particular organisations or communities. However, whereas action researchers mostly leave it to the reader of their story to decide "what can be taken from the story" (Coghlan, 2002, p. 64), researchers adopting case study methodology more often take it upon themselves to explicate analytical generalisation of their work. Thus, at present a key discriminator between action researchers and case study research is that the former group of researchers relies more on presenting stories 'just as stories'. The claim that researchers' accounts for AR studies have relied less on scientific rigor than accounts for case studies is (to some extent) corroborated by Dash's (1999, p. 446) remark that "the earlier notion of a 'story' seems to have been replaced by the notion of a 'case'" and especially, by the fact that he finds AR presentations adopting the notion of 'case' to be interrelated with the generation of more reliable reports of events. Drawing on Dash (1999), we wish to corroborate Coghlan's (1992, p. 64) view that, for action researchers, "it would be so much richer if the writer/presenter articulated why he/she thought this story should interest others and inform their understanding of organizations". Hence, we argue that, at present, a key discriminator between case study research and AR is that researchers adopting the first methodology are very concerned with elements such as analytical generalisation; the ladder of abstraction; and developing theory at higher levels of abstraction whereas action researchers seem to rely much more on description of the concrete experience of the individual AR study. One implication of action researchers' focus on concrete experiences of individual AR studies is that it might be difficult to distinguish AR stories from novel writing (Checkland and Holwell, 1998). Drawing on the preceding paragraphs, we argue that a key reason why the case study method is accepted by social science communities (or at least by the subsets of these communities that acknowledge and accept qualitative research in general) to a farther extent than AR studies has more to do with the scientific rigor of *presentation* of results than is has to do with the type(s) of knowledge generated. Hence, we find that a reason why case studies are more acceptable to social science communities might be that researchers using the case study method emphasise scientific rigor more in their written presentations of research findings. Hence, we do not (at least not in this section) argue that AR hinges less on scientific research principles than case studies do. Instead, we argue that although action researchers may use the case study method (e.g. Cunningham, 1993), they do not account for their research process with the same rigor that case study researcher traditionally do (e.g. when they choose not to discuss analytical generalisation of their findings and/or when they choose not to discuss the intellectual framework of ideas that initially they brought to the study). As such, we argue that lack of transparency of research processes actually hinders research communities' acceptance of AR in general and of findings of individual AR projects in particular.

In relation to AR, Checkland and Holwell (1998, p. 11) suggest "that the only certain object of research becomes the change process itself". However, we claim such a conception of AR to profoundly affect the ability of AR to become a method accepted by the broader academic community. Especially, we argue such a conception to eliminate actions researchers' possibilities for doing research that could be characterised as puzzle-solving activities that explicitly draw on extant academic knowledge and explicitly as well as clearly contribute to further evolvement in and enrichment of this body of knowledge. In sections 5 and 6 we return to this subject matter.

4. Ontodology, Epistemodolgy, and the Works

In their article on AR, Grønhaug and Olsson (1999) argue that "core assumptions about ontology, epistemology, methodology and human nature are often stated implicitly only, and thus add to the ambuiguities associated with this research approach" (p. 6). Especially, it seems important to address the question on which ontological and epistemological assumptions guide AR due to the fact that AR "is not only a methodology and a set of tools, but also a theory of social science" (Peter and Robinson, 1984). Consequently, the purpose of this section

is to 'uncover' the implicit assumptions, upon which most maps on the AR landscape seem to supervene. Thus, the purpose of this section is to uncover the basic schooling, upon which academicians attempting to draw maps of the AR landscape rely on.

Drawing on the 'objective'/'subjective' distinction that underlies much discussion on philosophy of science, a number of key differences between 'traditional' research and AR emerge. For example (and drawing on Grønhaug and Olsson, 1999), important differences between ideal positivistic research designs (i.e. classical experiments) and AR are: (1) The former is characterised by control over treatment and focus on covariation between cause and effect as well as on time order of cause and effect whereas such control and focus of action researchers are only partial and (2) the former has access to control groups and randomisation whereas action researchers have neither. Also, Grønhaug and Olson (1999) point to the fact that the central tenets of AR (i.e. focus on real-life problems; client-researcher collaboration; doing longitudinal studies; and engagement in multiple research activities) are not characteristics of 'classical' experiments. Deeper investigation of the differences between AR and ideals of traditional research suggested by Grønhaug and Olsson (1999) suggests that, although implicitly at most times, most (if not all?) action researchers seem to rely on ontological and epistemological assumptions quite different from those, upon which traditional definitions of validity of research supervene. Especially, action researchers seem to belong to the parts of research communities favouring the notion of subjectivism. For example, Meyer (2000, p. 9) claims that AR "acknowledges subjectivity, and rather than seeking objectivity, instead demonstrates freedom from bias". Also, Pothas and de Wet (2000, p. 140) emphasise that action researchers attempt to "conduct qualitative research not merely on, but rather with the subjects" and thus, their conception of AR emphasises the perception of 'clients' as subjects; not objects from whom the researcher distances him/herself. In the same vein, drawing on Avison (1993), McKay and Marshall (2001) argue that, in a social context, 'facts' are interpreted within some socially constructed framework of understanding. Accordingly, investigation of a social context does not qualify as value-free (Elden and Chrisholm,

1993); nor can such investigations be separated from their situational and historical contexts (Hult and Lennung, 1980). Furthermore, according to Dash (1999), both Moreno and Lewin emphasised needs for researchers to be more active when doing AR than allowed for by traditional (objectivistic) research thinking. In the next sections we offer further discussions on these issues.

Drawing on the preceding section, to a fairly large extent AR seems to rely on 'constructivistic' views on science. Basically, 'constructivists' suggest that social reality is constructed by means of human activity (e.g. Berger and Luckmann, 1966; Astley, 1985; Gergen, 1985). Henceforward, it seems that "a constructivist paradigm admits no concept of fixed, external reality" (Baburoglu and Ravn, 1992, p. 26). Drawing on Baruroglu and Ravn (1992), constructivists thus generate explanations and knowledge that do *not* qualify as 'mappings' of external reality. Consequently, if ones defines AR as constructivist in nature, action researchers (socially) construct knowledge in collaboration with clients.

The claim that AR supervenes on ontological and epistemological assumptions that resemble constructivism is corroborated by Coghlan's (2000, p. 190) discussion on Lewin, during the course of which he argues that Lewin "judged that it was essential to discuss the meanings that actors themselves give to events from their social context". Also, Coghlan (2002b, p. 116) drawing on Rogers (1980) finds that Rogers' philosophy of the person is based on "the premise that the human being is basically a trustworthy organism, capable of evaluating the outer and inner situation, understanding himself/herself in its context, making constructive choices as to the next steps in life an acting on those choices". Furthermore, (drawing on e.g. Ackoff, 1974; Checkland and Scholes, 1991; Churchman, 1971; Flood and Jackson, 1991; Jackson and Keys, 1984) Pothas and de Wet (2000) argue that each person involved in a particular problem situation has his own weltanschauung (each experiences the real-world or social reality differently). Consequently, action researchers do seem to rely on the assumption that human nature is best described by means of voluntarism (Näslund, 2002); an assumption shared with constructivists. Thus, a constructivist would say that volition creates a mental construction of reality, which is subjectivist, individual, specific, and based on social activities and experiences.

Due to AR's reliance on socially constructed knowledge, "the researcher never completely escapes colouring the obtained response" (Potsas and de Wet, 2000, p. 143) and henceforward, "being aware of the (unavoidable) shaping of the context by posing questions, however carefully phrased, is part of the process(es) of finding out about social reality and of intervening in a real-world problem situation" (Potsas and de Wet, 2000, p. 152). Especially, constructivist perceptions of reality seem to underlie AR definitions in so far such definitions incorporate the three elements; "its participatory character; its democratic impulse; and its simultaneous contribution to social science and social change" (Meyer, 2000, p.8).

Some authors (e.g. Dickens and Watkins, 1999; Peters and Robinson, 1984) emphasise similarities between AR and positivistic research in regard to yielding a set of causal relations and propositions. However, what (especially) discriminates between traditional experiments and AR is that AR focuses on causes (interventions) and effects in a holistic sense within real-life settings (Perry and Zuber-Skerritt, 1994). Thus, 'effects' of AR interventions depend heavily on substantive conditions and contexts whereas positivists yield to eliminate such 'real life' contamination by conducting controlled experiments in laboratorial settings. Consequently, although especially classical AR approaches hinge on researchers establishing ('as close to as possible') causal linkages between actions and effects hereof, action researchers acknowledge the fact that causal linkages are not easily established in real life settings (Baskerville and Wood-Harper, 1996).

Several reasonable lines of critique can be raised against AR. For example (and drawing on Dickens and Watkins, 1999) one may argue (1) that AR either produces research with little action or action with little research (Foster, 1972); (2) that AR lacks the rigor of traditional scientific research (Cohen and Manion, 1980); (3) that AR lacks internal and external control (Merriam and Simpson,

1984); (4) that AR is of limited use in contributing to the extant body of knowledge; and/or (5) that action and research rely on mutually exclusive principles and henceforward, that bridging of action and research creates internal conflicts. Thus, the fundamental dilemma of AR is that it must contribute to extant knowledge in the same manner as other forms of social science research while AR must also generate a resolution of an actual problem (Brocks and Warkins, 1994).

According to Dickens and Watkins (1999, p. 134), who draw on Cunningham (1993), "action researchers may differ in what they choose to emphasize in the AR cycle. Some emphasize experimentation; others show more concern with feedback, planning, or learning and theory building". In regard of the differences between constructivism and positivism, constructivists may be more concerned with feedback and learning whereas positivists may emphasise experimentation more. However, regardless of action researchers' reliance on feedback and learning versus experimentation, a viable line of criticism is that lack of scientific rigour and discipline in AR may lead to lack of valid data (Baskerville and Wood-Harper). Especially, the fact that action researchers deal with 'dual imperatives' may question the extent of scrutiny that researchers have exhibited in relation to the AR process and its underpinning data collection and analysis techniques. Further, one may argue that part of the problem with AR stems from a lack of clarity in the way some researchers think about AR (McKay and Marshall, 2001).

One could argue that the lines of critique listed above are based on traditional, analytical research approaches. Should AR create knowledge concordant with this approach, objectivity should be the ideal for research. However, due to the fact that human beings are seen as autonomous subjects, who create their own realities through communication and behaviour, objectivity can never be obtained. Thus, lack of valid and reliable data, will inevitably occur (Andersen, 1988). On the other hand, constructivists argue that their research method makes it possible for researchers to get in touch with aspects, which would not be uncovered by traditional research methodologies (Abnor & Bjerke, 1997).

This is also the reason why external as well as internal control is impossible to achieve. The notion 'control' implies that you can be prepared for a certain kind of action, but as the constructivist will argue, you must let the subject unfold his/her knowledge (Andersen, 1999) to get in touch with that kind of knowledge. However, this kind of human activity and development makes research rather unpredictable and uncontrollable. Thus, because knowledge is not generated by means of a traditional scientific approach, knowledge generated by means of AR does not correspond well with traditional definitions of research generating reliable, valid knowledge and characterised by transparent research processes. Thus, AR might experience severe difficultites being accepted as a 'viable' research method.

Hirschmann (1986) offers 4 lines of reasoning that are adopted at anonymous reviews; lines of reasoning that support editorial decisions concerning 'publishability' of academic articles: Purpose, philosophy of science, perspective, and personality. *Purpose* relates to reasons why research is carried out; emphasising extrinsic, practical motivation versus intrinsic, purposeless motivation. *Philosophy of science* concerns how arguments are presented (prudent or persuasive) and what scientific paradigm underlies argumentation (positivistic or post positivistic). The *perspective* element concerns ways in which arguments are constructed, by causality or understanding. Finally, the *personality* element deals with stance in a particular. If AR researchers focused more on Hirschman's (1986) 4 elements, they (we) might better evaluate ontology, epistemology and methodology, explicitly, and in a transparent manner. Furthermore, emphasising Hirschman's (1986) dimensions might offer the AR researcher the possibility to deal with subjectivity and objectivity as ideals guiding research.

Closing this section, Dickens and Watkins (1999, p. 135) argue that "the literature fails to clarify the interdependence of action and research". Furthermore, discussing interdependence of A and R, McKay and Marshall (2001, p. 49) argue that "this means that the action researcher has dual aims: the researcher must aim to bring about improvements through making changes in a problematic situation, and must also aim to generate new knowledge and new insights as

a result of his/her activities". Hence, traditionally we assume AR to be comprised of two cycles; one overlaid on the other, and operating in tandem with one another. The first cycle relates to the researcher's problem solving interests and responsibilities; the second to the researcher's research interests and responsibilities. Cycle one is thus concerned with the researcher's becoming aware of real world problem whereas cycle two concerns a real world problem that provides scope for the elucidation of research themes and ideas. Thus, what discriminates between AR and consultancy is the second cycle and especially, it's supervenience on research interests and responsibilities. In the next two sections, we discuss these two cycles of AR in greater depths.

5. The Big 'A' in Action Research

Most AR writings seem to focus more on A than on R. In fact, more writings claim AR to fundamentally concern A whereas R, at best, qualifies as a 'by product'. For example, Elliot (1991, p. 49) argues that "the fundamental aim of action research is to improve practice rather than to produce knowledge". Accordingly, drawing on a range of writings (e.g. Elden and Chrisholm, 1993; Elliot, 1991; McKay and Marshall, 2001; Shanks et al, 1993) we thus argue that, in general, AR writings give rise to conceptions of 'big As' and, at best, complementary 'Rs'. For example, Dickens and Watkins (1999, p. 132) go to the extreme of arguing that "AR consists of a team of practitioners, and possibly theorists..." and thus, actually they consider AR as an endeavour not necessarily involving researchers. Drawing on Dickens and Watkins (1999), academicians seem to emphasise the practitioners' dimension of AR (i.e. A) more than the academicians' dimension (R) and thus, it seems quite difficult to discharge McKay and Marshall's (2001) claim that AR may be regarded as being little more than consultancy. For example, the claim that AR "involves a process of planning, taking action and then fact-finding about results of that action in order to plan and take further action" (Coghlan, 2000, p. 190 drawing on Lewin 1973) corroborats the suggestion that predominantly action researchers 'think As'. Heller (1976) finds that what may discriminate between different AR methodologies is the choice of intervention approach. Thus, it seems that the term 'intervention' covers a wide variety of activities; activities ranging from researchers 'doing experiments' in 'the real-world laboratory' (McKay and Marshall's, 2001, notion) to constructivistic researchers' engaging in some sort of learning in collaboration with practitioners. In the same vein, Flood (2000, p. 728) posed the question: 'What is 'A' anyway?' Reflecting the wide range of AR approaches offered in the literature, academicians do not seem to agree on the answering of this question. On the contrary, the answering of this rather fundamental question seems to range from 'close-to-positivistic' implementation of researchers' solutions to practical problems (*i.e.* researchers conducting experiments in real-life settings and measuring the effects of induced action) to constructivistic reconstruction of practitioners' subjectively constructed world views and/or some sort of organisational learning being facilitated (e.g. exemplified by Dickens and Watkins', 1999, p. 133, argumentation that "the feedback to the community may act as an intervention itself").

Drawing on the preceding sections of the paper, in general (although with valuable exceptions) action researchers seem much more concerned with the 'action' element of AR than with the 'research element; although they do not agree on 'what' constitutes this 'big A'. However, we argue that big 'As' do not qualify as scientific research unless they are accompanied by robust and trustworthy 'Rs'. Consequently, the next section of the paper is devoted to our quest for 'Rs' significant enough to qualify as part of the maps, we draw on when we explore the AR landscape in future.

6. Putting the 'R' (back) into Action Research

In the preceding section we argued that, in general, the action element seems to pre-dominate AR. For example, most definitions of AR emphasise the solution of practical problems whereas the generation of new knowledge is produced *through* the solution of practical problems (Elden and Chrisholm, 1993; Shanks *et al.*, 1993; McKay and Marshall, 2001). As such it seems as if most action researchers do *not* define A and R as two equal and interdependent entities; instead it seems that most researchers settle for definitions of AR, according to

which R (explicated as generation of knowledge of importance to academia) is a second-order entity that supervenes on A whereas A is an entity in its own right; regardless of the presence or absence of R. For example, Elliot (1991, p. 49) argues that "the fundamental aim of action research is to improve practice rather than to produce knowledge". However, if we look back to the time at which AR was first introduced, we are not convinced that the intention was for R to be only a second-order entity. For example Argyris and Schön (1996, p. 44) reproduce Kurt Lewin's remark that "there is nothing more practical than a good theory". As another example, Babüroglu and Ravn (1992, p. 20) find that "the nature of the scientific-knowledge component needs further clarification" and "insufficient clarification of the relation between practical knowledge and scientific knowledge may contribute to an impression that AR is essentially a juxtaposition of action and research, rather than a true synthesis." Unfortunately, if we allow R to be only a secondary priority of AR, the development of theory is not, we argue, necessarily an outcome of AR studies. Thus, although a specific AR project may enhance participants' reflection and learning and henceforward, action, such a project does not, automatically, enrich or enhance the body of knowledge, upon which academicians base future studies. The purpose of this section is to discuss how a true synthesis of A and R might be reached, i.e. how we may build 'Rs' worthy of inclusion into the body of knowledge that scientific communities rely on. Thus, we wish to discuss how, in future, we might avoid comments such as that of Schein (who, according to Coghlan, 2002, p. 62 suggested that the concept of AR "tended to be glibly tossed around as applying to anything where clients or subjects are asked or allowed to get involved in the inquiry process or the interpretation of their own data"). Especially, one might claim that it is symptomatic for action researchers when Cohen and Manion (1980) list the use of AR to develop theoretical knowledge as but one of several different uses. However, looking at the key contribution of AR to social sciences, Molineuz and Haslett (2002, p. 466) emphasise that "AR provides an approach for theory and practice to inform each other" and further, Greeenwood and Levin (2000, p. 98) argue that AR "is a disciplined way of developing valid knowledge and theory while promoting positive social change". In the same vein, Coghlan (2002b, p. 62) argues that

"organization development and action research frequently get a bad name through the work of some of the practitioners who appear to advocate that anything they do constitutes ... valid theory".

One way in which we may improve 'Rs' is to enhance our 'thinking in two cycles'; *i.e.* thinking in both action and research cycles might enable us to dispel the criticism that AR is just like consultancy. Henceforward, emphasising the research interest cycle offers a mechanism for action researchers to clearly differentiate their activities from those of consultants as "two cycles makes it a lot easier for the action researcher, particularly the less experienced researcher, to ensure that they are doing research, and are not inadvertently trying to masquerade consultancy or problem solving as research" (McKay and Marshall, 2001, p. 51). Also, thinking more in cycles of research might offer solutions to the methodological quandary (Dash's, 1999, p. 463 notion for the need for an active role of the researcher while the research still aims to produce 'laws').

Also, due to the unique characteristics of AR, Dash (1999, p. 479) suggests that conventional research quality criteria might prove inadequate in relation to AR and thus, we need to establish quality criteria for evaluation of soundness of AR studies specifically. However, simultaneously we wish to point to the fact that good quality of A can *not* substitute good quality of R. On the contrary, we argue that sound AR should be of good quality *both* in solving actual problems *and* in generating high quality research (or at least research, the findings of which contribute to the extant body of knowledge on the focal problems and phenomena). In 1957, Hodgkinson (1957) posed the question: "What are the grounds for placing confidence in action research?" Although this question was posed almost 50 years ago, we still have not answered it adequately, *i.e.* we have yet to explicate criteria of quality for AR if we wish for social scientists in general to play confidence in AR.

Reviewing the AR literature and inspecting AR studies conducted in the past, Grønhaug and Olsson (1999) suggested that action researchers 'have forgotten to' report in detail their research activities and how they 'step-by-step' have ar-

rived to their interpretations and actions. Consequently, it seems that action researchers have not enabled peers to re-examine exactly how they have arrived at their conclusions (Kirk and Miller, 1986). In order to overcome such deficits of AR, Pothas and de Wet (2000, p. 139) suggest that "for sound qualitative research, adhering to at least two major imperatives is vital". These two imperatives are (1) to obtain the own expression of the people involved; not only as seen from the frame of reference of the researcher and (2) to obtain a holistic as possible expression, which implies working with the rich diversity of the people involved in and affected by the AR project at hand. Furthermore, Potsat and de Wet (2000, p. 162) suggest that adherence to these two imperatives "demands from each researcher this constant process of critical reflection, and the explicating thereof in the research report". Also, generalisation of AR studies depends on contextual similarity (transferability or fittingness) and analytical induction (based on deviant case analysis and the constant comparative method) (Meyer, 2000).

Drawing on Eden and Huxtham (1996) and Coghlan and Brannick (2001), Coghlan (2002, p. 63) suggests rigor in AR to refer to "how data are generated, gathered, explored, and evaluated, how events are questioned and interpreted through the enactment of multiple AR cycles" Thus, we need to demonstrate that we do sound research. Discussing the particular problem Ph.D.-students experience when conducting AR, Zuber-Skerritt and Perry (2002, p. 175) find that although AR projects may enhance learning within an organisation, it is not certain that the particular AR project also makes "a contribution to a body of knowledge that interests a university". Thus, action researchers (and especially a Ph.D.-student) face two goals or 'imperatives'; "to solve a practical problem within an organisation and to generate new knowledge and understanding" (McKay and Marshall, 2001, p. 46). However, Perry and Zuber-Skerritt (2002) as well as Carson et al (2001) find that the question on how to simultaneously address both these goals has rarely been addressed in the literature. In order for AR projects to contribute to academic knowledge, Checkland and Holwell (1998) turn to the criterion of 'recoverability'. Further, they (Checkland and Holwell, 1998, p. 18) suggest that "the aim in AR should be to enact a process

based on a declared-in-advance methodology (encompassing a particular framework of ideas) in such a way that the process is *recoverable* by anyone interested in subjecting the research to critical scrutiny." However, in relation to the 'recoverability' criterion especially the notion of action researchers working within cycles seems to be problematic (*i.e.* it seems much more difficult to account – in retrospective – for a cyclic research process than for one characterised by higher levels of linearity). Consequently, the next section turns to discussions on cyclic time and the ways in which this conception of time affects action researchers' work.

7. Cyclic Time

Dating back to Lewin, a central tenet underpinning AR is the idea of cyclical time (Dickens and Watkins, 1999; Molineuz and Haslett, 2002; Chrishold, 2001; McKay and Marshall,; Sanford, 1970; Lewin, 1946). Drawing on Lundin et al (2001), time is social constructed; i.e. an entity that is culturally as well as contextually dependent. For example, in permanent organisations time is used in a 'master clock' manner (time is eternal and runs from infinity to eternity) whereas within projects time runs towards zero in a count-down manner, i.e. time is 'consumed' and cannot be replaced. Drawing on et al's discussions on time as a socially constructed entity, even the construct of linear time is selfimposed. Burrell (1992) introduces the concept of spiral to overcome the deficits of constructing time as linear or circula. Thus, Burrel (1992) finds that time is best thought of as a spiral; things change over time and you return to similar situations but they are not quite the same; i.e. time runs in circles but it also runs forward. Obviously, conceptions of time as cyclical (as represented by the various visualisations of AR processes discussed in the next part of the paper) have profound implications for researchers engaging in AR. For example, Lundin et al (2001, p. 19) argue that "when a project is initialized it is a cut-out of a short episode of the long spiral". Elaborating on Lundin et al, a research project could thus equalise a situation, in which one cuts out (a) short episode(s) of real-world in order to complete a (more or less clearly defined) research endeavour. Consequently, an AR endeavour equalises a situation, in which the researcher gains access to 'real world' for a period of time containing a series of spirals. As such, the time frame(s) of the research project is decisive for the number of spirals and research cycles that the researcher can complete during the specific AR project. For example, Lewin considered AR to be "a cycling back and forth between ever deepening surveillance of the problem situation (within the persons, the organization, the system) and a series of research-informed action experiments" (Dickens and Watkins, 1999, p. 128). Whereas the notion of 'cyclic time' – as discussed by Lundin *et al* (2001) – focuses on the 'count-down' conception of time, to a greater extent Lewin focuses on the iterative dimension inherent in the notion of cycles. Thus, one might argue that when focusing on one cycle (e.g. one project), the concept of 'count-down time' predominates. However, when one focuses on multiple cycles, the idea of iterations becomes especially important.

Drawing on the notion of cyclic time, inherent in the AR process we thus find the compelling world of researchers engaging in cyclic processes. Although some researchers (e.g. McKay and Marshall, 2001) find that, usually, the AR process is comprised of a single cycle (with possible iterations), most researchers (e.g. Dickens and Watkins, 1999; Kemmis and McTaggart, 1988) confine in action researchers as people, who 'cycle through a spiral of steps'. Thus, AR might be liniar (Baskerville and Wood-Harper's, 1998, notion for AR processes in which researchers pass through a singular cycle) or AR might contain iterations (Kock et al's, 1998, notion for AR processes in which researchers repeat cyckling back and forth within the same context or in which researchers apply similar processes across various contexts). Although Lewin never wrote any systematic statement of his views on AR (Argyris et al, 1987), his idea of AR as cyclic research containing 'a spiral of circles of activities' (Sanford, 1970; Lewin, 1946) has thus had a deep impact on action researchers; although such researchers may choose to emphasise different aspects of the AR process (Dickens and Watkins, 1999). In comparison with previous discussions on recoverability, the fact that action researchers engage in research containing a spiral of circles of activities seems to qualify as a key reason why action researchers, often, neglect to account for actual research processes. Elaborating on this line of

reasoning it thus seems that the researcher accounting for a highly iterative research project experiences more problems when (s)he tries to account for the actual research process and for the ways, in which (s)he has arrived at his/her conclusions. Especially, it thus seems difficult to account for highly iterative research processes and especially, it seems difficult to account for such processes and results hereof in ways that are, simultaneously, reversible and pedagogical. Thus, the notion of cyclic time seems to be an important part of the explanation why action researchers do not account for research processes in ways enabling peers to see exactly how they have arrived at their conclusions. In the next section (focussing on how one might actually conduct AR studies), we elaborate on this line of reasoning.

8. Empirical Dimensions of Action Research

According to Altrichter et al (2002), the empirical part of a definition of AR presents the inventory of 'rules of thumb'. Zuber-Skerritt (2002, p. 143) finds that although a host of researchers have focused on AR, "there are gaps in the literature around the actual design and conduct of a program, the reasons for success and failure of programs, and the core values underpinning AR". Drawing on the gaps identified by Zuber-Skerrit (2002), (and suggesting they generalise across all forms of AR), the purpose of this section is to focus on the first gap (i.e. the 'actual design and conduct' gap). Thus, primarily this section focuses on the extent to which the literature offers 'roadmaps' (i.e. process models) on how to do AR. Further, this section discusses quality of the roadmaps offered by the literature. Hence, this section discusses the inventory of 'rules of thumb' that the literature on AR lends to the researcher about to engage in AR. Traditionally AR is organised through projects and henceforward, "research and action are supposed to intertwine within the project" (Dash, 1999, p. 475). Drawing on Brown et al. (1982), Dickens and Watkins (1999) find that researchers may vary durations of research cycles depending on their particular purposes. Thus, AR may vary from small scale to large scale projects; i.e. an action researcher might define his entire academic life as a never ending AR process in progress whereas a Ph.D.-student would define an AR process as a research project with a clearly defined start and an-even-more-clearly-defined end within e.g. three years of employment devoted to that particular research endeayour.

One unique characteristic decisive for design of AR studies is that researchers evaluate the results along the way rather than at the end (Yunker, 1994). Furthermore, Dickens and Watkins (1999, p. 132) suggest that "the cyclical nature of AR recognizes the need for action plans to be flexible and responsive to the environment". Consequently, a key characteristic of AR designs is that such designs should be highly flexible due to the importance of clients' feed-backs and due to researchers' exceptional reliance on practice.

Traditionally, AR models contain a series of steps, completion of which should assure that the action researcher benefits from AR's cyclic nature while (s)he completes all activities that AR definitions suggest are important. According to Cady and Caster (2000) as well as Cady (2000) traditionally AR models contain the steps 'diagnose', 'intervene', 'evaluate', and 'knowledge transfer' (explained later in the section). However, the labels attached to these steps as well as levels of detail (i.e. division of the four basic steps into subcategories and clearly defined sets of activities) vary considerably across AR models. For example, Argyris (1989) identified the following steps: collecting data, control, formulating and implementing strategy, intervention, implementation, continued learning, implementation, and follow up. Also, although Lewin's original AR model contained five steps (Cady, 2000), nonetheless, Lewin did add additional steps to the model if/when contextuality suggested such model expansions to be fruitful. Thus, for example Lewin's (1948) model suggests seven steps, i.e. 'entry/background', 'include key stake holders', 'broad fact finding', 'diagnosis', 'feedback and intervention', 'intervention evaluation', and 'stabilisation and exit'. Furthermore, on the basis of a review of the AR literature, Cady (2000) concludes that most AR models are comprised of 5 to 14 steps (e.g. Argyris, 1980; 1989; Barker and Barker, 1994; DePoy et al, 1999; French and Bell, 1999; Lewin, 1948; and Schmuck, 1997). However, investigation of the various roadmaps offered by the literature suggests that "the practice of AR re-

mains somewhat enigmatic, as there are comparatively few guidelines for would-be action researchers to follow" (McKay and Marshall, 2001, p. 49). Especially, one may argue that the entire range of AR process models is, especially, concerned with the action element of AR whereas these models offer little guidance as to how action researchers should assure 'R' to be an integral part of such processes on equal terms with 'A'. Consequently, actual contents of AR models corroborate McKay and Marshall's (2001) claim that action researchers need to think and act more deeply and more reflectively than suggested by any of the AR models. Drawing on McKay and Marshall (2001) we thus argue that the literature offers little guidance on 'how to do' AR even though several authors (e.g. Cady, 2000) suggest that AR offers a step-by-step framework for diagnosing, implementing, and evaluating a change process. Although it is not our intention to assess quality of various AR projects, the variety of actual research projects relying on AR indicates that AR relates to a wide variety of phenomena, research questions, and research paradigms. This diversity might also explain the difficulties the AR society has experienced in regard to offering roadmaps on how to do AR. Subsequently, we introduce and discuss some of the most influential AR roadmaps (models). Obviously, Lewin's (1946) original model is utmost influential and thus, this is the first of the models we discuss. However, before 'going into the model' it is important to establish how Lewin conceptualized AR and it's uses. Lewin (1946) argued that: "The research needed for social practice can best be characterized as research for social management or social engineering. It is a type of action-research, a comparative research on the conditions and effects of various forms of social action, and research leading to social action. Research that produces nothing but books will not suffice". In order to make research that produces 'more' than books, Lewin generated a model comprised of a spiral of five steps: Problem identification; planning: execution; fact-finding; and evaluation - each of which is composed of a circle of planning, action and fact-finding about the result of the action. Lewin's (1946) first step is careful examination of the research idea in light of what means are available. When more fact-finding has occurred, an overall-plan of how to reach the objective must be established together with the decision to carry out the first step of action. Lewin's (1946) next step is the execution of planned action followed by evaluation of facts and (possibly) modification of the overall plan (step 4). However, Lewin's (1946) approach is not a 'model' with a clear sequence of steps. Instead, it should be seen as a checklist of things to do during an AR project; a checklist 'open for interpretation'.

Perry and Zuber-Skerritt (2002) are amongst the, indeed few, researchers who have tried to answer the question on exactly how to carry out AR. Specifically, they suggest that AR projects should contain three steps. The first step is defined as a 'pre-step' during which the researcher seeks to understand context and purpose. Afterwards, the researcher conducts the six main steps (i.e. gathering data, feeding data back, analyzing data, planning actions, implementing actions, and evaluating actions (see also Coughlan and Coghlan, 2002)). Finally, Perry and Zuber-Skerritt (2002) include a meta-step to account for the researcher's monitoring of the cycles.

According to Perry and Zuber-Skerritt (2002) the pre-step includes the questions: 'What is the rationale for action?' and 'What is the rationale for research?'. The first question is answered by the researcher's arguing the necessity of the project. Further, the researcher considers the economic, political, social and technical forces that drive the need for action within the project. The answering of the second question involves the researcher's asking why the project is worth studying; why AR is an appropriate methodology; and exactly what contribution to knowledge is expected.

As for the six main steps explicating by Perry and Zuber-Skerritt (2002) (*i.e.* data gathering, data feedback, data analysis, action planning, implementation, and evaluation), these steps are carried out by the researcher's doing as discussed subsequently.

In reality, 'data gathering' is likely to qualify as the biggest problem when one wishes to do AR. Also, Perry and Zuber-Skerritt, (2002) argue that data are gathered in different ways depending on the context. In general, data gathering includes 'hard' data (like economics about an organisation) as well as 'soft' da-

ta (like, for example, communication patterns, leadership behaviour, and norms). Consequently, the researcher needs to apply both quantitative and qualitative techniques to gather data (Greenwood & Levin, 1998). Mostly, 'hard data' are gathered by means of the researcher's relying on statistics, financial accounts, and/or marketing reports and the likes. 'Soft data', on the other hand, is gathered by means of techniques such as doing observations, undertaking discussions with participants, and/or interviewing participants. Especially, doing semi-structured or non-structured interviews seems reasonable due to the fact that the aim of AR is to obtain deeper understanding of the problem. Furthermore, Perry and Zuber-Skerritt (2002) argues that when one does AR data is gathered by the researcher's accessing day-to-day activities and operations. Also, Perry and Zuber-Skerritt (2002) emphasise that data is not merely gathered by means of participation and observation. Instead, interviews qualify as an important source of evidence due to the fact that asking participants questions enables them to reflect on ways, in which (not) to act. The phase 'feeding data back into the organisation' includes the researcher's reports or facilitation during feedback meetings.

The phase 'data analysis' is a collaborative process, during which both the researcher and the participants are involved. The reason why participants are highly involved in data analysis is that 'the clients know the organisation best' and thus, participants are much more likely to answer questions such as e.g. 'What will work for us?' and/or 'How can such courses of actions be implemented?' Drawing on Perry and Zuber-Skerritt (2002) clients' involvement is critical to the 'data analysis' phase. Thus although analysis should be research oriented as well as facilitated by the researcher, participants should never be neglected – or under-appreciated – during this phase.

Action planning is also a joint activity. However, critical questions to be answered during this phase qualify as parts of the change plan. Thus, primarily this phase includes the answering of questions such as: 'What needs to change?'; 'In what part of the organisation?'; 'What types of change are re-

quired?'; 'Whose support is needed?'; and/or 'How is commitment to be built?'.

The implementation phase incorporates clients' active implementation of the change plan as well as the researcher's observations of such implementation and results hereof. Often, the researcher collaborates with key members of the organisation during this phase.

Evaluation is the phase enabling learning. Especially, the evaluation phase qualifies as the phase during which both the researcher and clients reflect upon outcomes of induced action. Furthermore, reflections upon both practical, context-dependent knowledge and generic scientific knowledge are integral parts of this phase. Also, reflections regarding both intended and un-intended outcomes are included. In sum, the purpose of this phase is to review experiences that can be brought to the next cycle of planning and action.

Apart from the main phases of AR processes, Perry and Zuber-Skerritt (2002) emphasise the monitoring phase. This phase is not the end phase of AR processes; instead it is a phase extant throughout the entire AR process. Thus, continuously participants in the AR process monitor the process.

Drawing on DePoy *et al* (1999), Powell (2002) discusses a ten step process model containing: (1) problem identification, (2) steering committee formation, (3) purpose and scope identification, (4) team members selection, (5) training of research team, (6) inquiry design development, (7) conduct inquiry and analysis, (8) report of findings, (9) findings submission and (10) identification of further areas for inquiry. If the researcher is to carry out AR concordant with this model, (s)he can draw on Powell's (2002) detailed explanations concerning structuring of the steps. However, this model does not emphasise issues such as (1) how to collect data and analyse them; (2) how to document data; or (3) how to validate them etc. Apart from the first step (*i.e.* problem-identification), all steps involve participants. Thus, also the step 'identifying scope and aim of re-

search' includes participants' active involvement. In sum, the most significant issues included in this model are:

- 1. To recognise and identify scope and stakeholders of the problem beforehand
- 2. To establish a steering committee, in which all stakeholders are represented (including research community)
- 3. The steering committee defines scope and objects
- 4. Research is carried out by a team
- 5. Rigidity is decisive during analysis
- 6. The report must be adaptive and should meet the needs of all the stake-holders (including both researchers and practitioners)

Kock *et al* (1997) present a 5 step model, in which the researcher (compared to other AR models) has more 'control over processes'. Kock *et al*'s (1997) model contains the following steps: (1) diagnosis, (2) action planning, (3) action taking, (4) evaluating and (5) specifying learning - in an on-going cycle. Especially, this model is different from the alternative models in so far the researcher performs a problem diagnosis before carrying out the steps suggested in the model. Also, after the experiences, the researcher collects information and offers critique. From what is learned, in collaboration, practitioners and researchers decide what actions are needed, what outcomes to expect, and what methods to use in order to reach those outcomes. Afterwards, the problem identified initially is redefined and a new set of actions are carried out. Kock *et al*'s (1997) model does not offer details explaining how to carry out the steps of action planning and action taking, and thus, Kock *et al*'s (1997) model offers the researcher a very broad role. Consequently, according to this model the researcher can hinge on his/her own preferences regarding methodology and methods.

As mentioned previously, Cady & Caster (2000) offer a four step overall research design – the DIET model, which includes Diagnosis, Intervention, Evaluate, and Transfer. According to Cady & Caster (2000), the diagnosis step covers what many other AR models label entry, start up, assessment, action plan-

ning, problem identification, feedback (Cummings & Worley, 1997), and data gathering. In table 3, the ways in which the researcher works with different kinds of problems that interfere with the different steps are shown. Although the model does not give advise on issues such as which 'tasks are to be handled by the researcher' or 'which tasks are to be handled by the practitioners', the table does show that practitioners are invite to participate during all steps of the AR process.

Table 3. Cady and Caster's Problem Approach and Appreciative Approach

	Problem Approach	Appreciative Approach
D	Identify weaknesses – what is not working and why? Explore stories or moments of stupidity. Identify root causes for failure.	 Identify strengths — what is working and why? Explore stories or moments of brilliance. Identify root causes for success.
I	 Design the intervention to diminish weaknesses Sell it as a way to get rid of the weaknesses (i.e., problems). Remove obstacles. 	Design the intervention to capitalize on strengths Sell it as a way to build the strengths (i.e., competencies). Create quick wins.
E	 Catch people resisting the change and get them on track or remove them. Verify that problems have decreased in size and frequency. Communicate success stories of overcoming obstacles. 	Catch people supporting the change and build on their momentum. Verify that strengths have increased in size and frequency. Communicate success stories of continued achievement
Т	 Ensure that leaders know how to identify and correct challenges that they have overcome. Follow-up to see what problems have arisen. Ask the following question, "what is the next problem incident to address"? 	 Ensure that leaders know how to perpetuate the positive aspects experienced in their organization. Follow-up to help the client appreciate the progress they have made. Ask the following question, "what is the next positive story to build upon"?

Reprint from Cady and Caster (2000).

In sum, the preceding sections suggest that a wide variety of AR models (as well as various types of AR projects) exists. However, across all of the models, practitioner participation seems utmost important during all steps of the AR process. A few of the AR models suggest that the researcher identifies the problem before participants are involved in the process. Even fewer models offer roadmaps on how to do AR step by step. Also, rarely do these models suggest 'how to validate results'. Some action researchers might argue that these deficits of AR models are attributable to the fact that every AR project has a unique outset, and thus, they all need different designs and methods. In other words; the design has to be highly flexible thus reducing our ability to construct roadmaps to follow. In sum, models of the AR process do not seem to, sufficiently, ensure transparency of AR processes; nor do they offer roadmaps on how to do AR in ways resembling the roadmaps available in relation to case study research. We return to these issues in part 10 of the paper.

9. Ethical Dimensions of Action Research

Due to the special strong ties binding researchers and practitioners together during an AR project, the ethical dimensions of research become especially important in relation to AR. Henceforward, one may argue that action researchers need not only to comply with general ethical guidelines for conducting research; also they need to pay special attention to the particular ethical issues that arise due to the fact that action researchers collaborate extensively with practitioners during the course of an AR project. Especially, action researchers seem to have a special obligation to construct and discuss the ethical framework within which the research project is positioned with practitioners/participants. Thus to Peter and Robinson's (1984, p. 118) notion that collaboration "must take place within a mutually acceptable ethical framework governing the collection, use and release of data" we add that the action researcher should take a proactive role in developing such an ethical framework; at least if (s)he wishes to disseminate findings of the AR project to a wider audience than that comprised of participants. Thus, in a 'beyond participants' perspective the action researcher will probably experience problems beyond those experienced by e.g. case researchers. Consequently, apart from the ethical challenges that all qualitative researchers experience, action researchers may enact additional ethical dilemmas and especially, they might enact the problem of 'unintentionally' and 'undeliberately' providing changes — merely by means of their being present and/or by their listening to informants.

Furthermore, in regard to AR particular ethical issues emerge due to the action researcher's special obligation to feed data back into the organisation investigated. Especially, such special ethical issues relate to the fact that the action researcher feeding data back into the organisation experiences 'above average' difficulties in assuring anonymity and confidentiality for participants, who (s)he draws on in regard to feed-back. Further, criticality of such issues is reinforced by the researcher's active (*i.e.* action generating) role in AR. As such, action researchers are part of a cyclical process, in which different (coalitions of) participants may pursue different, perhaps implicit, agendas and in which the researcher (unwillingly or even unknowingly) may become an actor subject to participants' direct or indirect activations of power. For example, *someone* within the real world setting will hold responsibility for letting the researcher enter the community and henceforward, even at the outset of the AR process the mere inclusion of the action researcher may favour some participants, some agendas, and/or some coalitions.

Most writings on AR acknowledge that ethical codes of practice should be negotiated between the action researcher and participants. For example, Meyer (2000, p. 9) advocates that "the action researcher needs to be aware of participants' values, beliefs and power relations and sensitively work between different agendas. ... difficulty of assuring participants of anonymity and confidentiality, when findings are fed back to participants in the field Participants need to feel that they have ownership of the data and feel able to control how the findings are more widely disseminated." In the same vein, Morton (1999) focuses on the conflict between the role as researcher and the role as consultant, *i.e.* a conflict that may cause 'role contamination'. Morton (1999) further suggests that such conflicts might takes many forms; e.g. conflicts regarding what

to promise a client; how 'theoretical' (R-focused) one can be on client's time and payroll; whether to present oneself as predominantly an academic research (who happens to do consultancy) or as predominantly a consultant (who happens to have theoretic interests); how to resolve conflicts between the quality of the research and the quality of the consultancy (a failure in consultancy terms may be quite illuminating in research terms); and problems of confidentiality (in contact with all sorts of people at all sorts of time and in all sorts of settings during a dynamic and cyclical enterprise). Also, Walker and Haskett (2002) suggest that ethicals dilemmas relating to (1) selection and voluntary participation; (2) informed consent; (3) decision making; (4) anonymity and confidentiality; (5) conflicting and different needs; and (6) data interpretation are likely to arise during an AR Study.

In sum, it seems that the action researcher has a special obligation to build ethical reflection. Especially, such obligation on the action researcher's behalf seems crucial if the action researcher wishes to generate knowledge disseminated across a wider audience than the one comprised of 'clients'/'participants'. In the next section, we offer further comments on the reasons why action researchers might experience extraordinary problems in relation to dissemination of research findings to a wider audience and especially, we point to problems related to dissemination of AR findings across academic communities.

10. Where to Now in Action Research?

One key feature emerged during our road trip through the AR landscape. This feature is that although 50 years have passed since AR emerged as an explicit research method, action researchers are still confronted with the claim that they do not engage in *scientific* endeavours. If action researchers wish for their theories to become integral parts of the accumulated body of scientific knowledge, this is a major threat to action research (on the other hand; if action researchers settle for disseminating findings to practitioners and henceforward, if they are comfortable generating good *practical* and *local* theories, action researchers may be content generating theories deemed unscientific by the broader academ-

ic community). However, we argue that if AR is to have a prosperous future, the foremost important task of action researchers is to enrich AR with scientific rigor – regardless of how we may end up defining scientific rigor in relation to AR. Thus, we do not find AR to be only applicable either within (neo)positivistic or constructivistic approaches to social sciences. However, we do argue that action researchers take it upon themselves to define and induce scientific rigor; regardless of definitions of scientific rigor adhering to positivistic or social-constructivistic ideals for generation of scientific knowledge.

Primarily, our AR journey suggests the following issues to be of critical importance in the quest for making AR an acceptable research strategy along with e.g. case study research:

- increasing transparency of research processes
- explicating intellectual frameworks brought to the specific AR study
- discussing analytical generalisation and/or transferability of findings
- defining individual AR studies as puzzle-solving activities which, incrementally, add to the scientific body of knowledge

In sum, it thus seems that the future of AR might hinge on action researchers' changing the ways in which we do AR; but especially; it seems to hinge on our changing of the ways in which we report such research endeavours. Thus, we argue that action researchers would gain much from adhering to the four simple 'rules of thumb' listed above. First, it seems that we should become much better at accounting for the actual research processes underlying our AR findings. Secondly, part of such accounts should be that we account for the intellectual frameworks brought to AR studies in order for us (1) to become better at suggesting both analytical generalisation of the context-specific, local conclusions we arrive at and (2) to better explicate which specific pieces we bring to the puzzles comprising social sciences.

11. Conclusion

Dickens and Watkins (1999) find that "different researchers using the action research method may disagree in their approach, while agreeing on fundamental philosophies or goals. The participants in any action research undertaking ultimately choose – either consciously or unconsciously – the particular route that directs the research". Primarily, our contribution to AR knowledge is that we urge researchers to explicate the particular route they take through the AR land-scape; and even more importantly; (metaphorical speaking) we cry out for action researchers to explicate the criteria for judging quality of research that are to be employed as we assess trustworthiness, or credibility, of their particular and context-bound AR journey.

Altrichter et al (2002) find that "AR has been recognised for its breadth as a field of research practice and its depth as a discourse of theoretical insight. It does not have one neat, widely accepted definition". Looking back of our process of familiarisation with the extensive body of literature of AR, maybe the key problem of AR is that its breadth and depth makes it extremely difficult for academicians to agree on criteria for assessing quality of AR. Furthermore, it seems that action researchers have not engaged themselves sufficiently in discussions on quality of research. However, if actions researchers took it upon them(us)selves to engage in such discussions we might be able to establish scientific rigor in so far quality of action research is concerned. Consequently, we argue that an important future undertaking of action researchers is to indulge in discussions on quality of research, the purposes of which are (1) to generate criteria for assessing quality of AR and (2) to generate scientifically rigorous guidelines for reporting AR studies in order to make AR studies publishable (e.g. in peer-reviewed publications). As such, we find that action researchers should address criticism raised against AR perhaps not as much by changing the ways in which we 'do' AR, but rather by properly addressing the ways in which we report findings of AR projects and especially, the way in which we (do not) report methodological choices and problems underlying such projects. Thus, we end this paper by (once more) urging action researchers to account for the ways in which we arrived at our conclusions in order for our peers to assess trustworthiness of these findings. After all, in science the route we take is at least as important as the destination (*i.e.* solutions and findings) we arrive at.

12. References

- [1] Abhor, I. & B. Bjerke (1997): *Methology for Creating Business Knowledge*. 2nd Edition. SAGE Publications.
- [2] Ackoff, R. L. (1974): *Redesigning the Future*. New York: John Wiley and Sons.
- [3] Aguinis, H. (1993): Action Research and Scientific Method: Presumed Discrepancies and Actual Similarities. *Journal of Applied Behavioural Science*, 29(4), pp. 416-431.
- [4] Altricther, H., S. Kemmis, R. McTaggart and O. Zuber-Skerritt (2002): The Concept of Action Research. *The Learning Organization*, 9(3/4), pp. 125-131.
- [5] Andersen, H. (1988): *Videnskabsteori og metodelære*. 2nd Edition. Samfundslitteratur.
- [6] Andersen, I. (1999): Den skinbarlige virkelighed. Samfundslitteratur.
- [7] Argyris, C. (1980): *Inner Contradictions of Rogorous Research*. New York: Academic Press.
- [8] Argyris, C. (1989): Strategy Implementation: An Experience in Learning. *Organization Dynamics*, 18(2), pp. 5-15.
- [9] Argyris, C., R. Putman and D. Smith (1985): *Action Science*. San Francisco, USA: Jossey-Bass.
- [10] Argyris C. R. and D. Schön (1991): Participatory Action Research and Action Science Compared. In W. F. Whyte: *Participatory Action Research*. Thousand Oaks, CA: Sage.

- [11] Argyris, C. R. and D. Schön (1996): *Organizational Learning II*. Reading, MA: Addison-Wesley.
- [12] Argyris, C., R. Putman and D. Smith (1987): Action Science: Concepts, Methods, and Skills for Research and Intervention. San Francisco: Jossey-Bass.
- [13] Astley, W. G. (1985): Administrative Science as Socially Constructed Truth. *Administrative Science Quarterly*, 30, pp. 497-513.
- [14] Avison, D. E. (1993): Research in Information Systems Development and the Discipline of Information Systems. *Proceedings of the 4th Australian Conference on Information Systems*. Brisbane, Australia: University of Queensland.
- [15] Avison, D. E. and T. Wood-Harper (1991): Conclusions from Action Research: The Multiview Experience. In M. C. Jackson et al (Eds): *Systems Thinking in Europe*. New York: Plenum Press.
- [16] Babüroglu, O. and I. Ravn (1992): Normative Action Research. *Organization Studies*, 13(1), pp. 19-34.
- [17] Bargal, D., M. Gold and M. Lewin (1992): Introduction: The Heritage of Kurt Lewin., *Journal of Social Issues*, 48(2), pp. 3-13.
- [18] Barker, S. B. and R. T. Barker (1994): Managing Change in an Interdisciplinary Inpatient Unit: An Action Research Approach. *Journal of Mental Health*, 21(1), pp. 80-91.
- [19] Baskerville, R. L. and A T. Wood-Harper (1996): A Critical Perspective on Action Research as a Method for Information Systems Research. *Journal of Information Technology*, 11, pp. 235-246.

- [20] Berger, P. and T. Luckmann (1966): *The Social construction of Reality*. New York: Doubleday.
- [21] Blichfeldt, B. S. (2004): *On Brand and Line Extensions*. Ph.D.-dissertation submitted to Det Samfundsvidenskabelige Fakultet. Denmark: University of Southern Denmark.
- [22] Blum, F. H. (1955): Action Research: A Scientific Approach? *Philosofical Science*, 22(1), pp. 1-7.
- [23] Brinberg, D. and J. E. McGrath (1985): *Validity and the Research Process*. London: Sage.
- [24] Brocks, A. and K. Watkins (1994): *The Emerging Power of Action Inquiry Technologies*. San Francisco: Jossey-Bass.
- [25] Brown, L., C. Henry, J. Henry and R. McTaggart (1982): Action Research: Notes on the National Seminar. *Classroom Action Research Network Bulletin*, 5, pp. 1-16.
- [26] Burns, R. (1994): *Introduction to Research Methods in Education*. 2nd Edition. Melbourne, Australia: Longman Cheshire.
- [27] Burrell, G. (1992): Back to the Future: Time and Organizations. In M. Reed and M. Hughes (Eds): *Rethinking Organization. New Directions in Organization Theory and Analysis*. London: Sage.
- [28] Cady, S. H. and M. A. Caster (2000): A Diet for Action Research: An Integrated Problem & Appreciative Focuses Approach to Organization Development. *Organization Development Journal*, 18(4), pp. 79-93.
- [29] Carson, D., A. Gilmore, C. Perry and K. Grønhaug (2001): *Qualitative Marketing Research*. London: Sage.

- [30] Cavaey, A. (1996): Case Study Research: A Multi-Faceted Research Approach for IS. *Information Systems Journal*, 6, pp. 227-242.
- [31] Checkland, P. B. (1981): *Systems Thinking, Systems Practice*. Chichester: John Wiley Sons.
- [32] Checkland, P. B. (1985): From Optimising to Learning: A Development of Systems Thinking for the 1990s. *Journal of Operational Research Society*, 36, pp. 757-767.
- [33] Checkland, P. B. and S. Holwell (1998): Action Research: Its Nature and Validity. *Systemic Practice and Action Research*, 11(1), p. 9-21.
- [34] Checkland, P. B. and J. Scholes (1990): *Soft Systems Methodology in Action*. Chichester: John Wiley and Sons.
- [35] Chein, I, S. W: Cook and J. Harding (1948): The Field of Action Research. *American Psychologist*, 3, pp. 43-50.
- [36] Chisholm, R. F. (2001): Action Research to Develop an Interorganizational Network. In P. Reason and H. Bradbury (Eds): *Handbook of Action Research: Participatory Inquiry and Practice*, pp. 324-332. London: Sage.
- [37] Churchman, C. W. (1971): *Design of Inquiring Systems*. New York: Basic Books.
- [38] Clark, P. A. (1972): Action Research and Organizational Change. London: Harper & Row.
- [39] Coghlan, D. (1994): Research as a Process of Change: Action Science in Organisations. *Irish Business and Administrative Research*, 15, pp. 119-130.

- [40] Coghlan, D. (2000): Interlevel Dynamics in Clinical Inquiry. *Journal of Organizational Change Management*, 13(2), pp. 190-200.
- [41] Coghlan, D. (2001): Insider Action Research Projects: Implications for Practising Managers. *Management Learning*, 32(1), pp. 49-61.
- [42] Coghlan, D. (2002a): Putting 'Research' Back into OD and Action Research: A Call to OD Practitioners. *Organizational Development Journal*, 20(1), pp. 62-64.
- [43] Coghlan, D. (2002b): Facilitating Learning and Change: Perspectives on the Helping Process. *Organizational Development Journal*, 20(2), pp. 116-120.
- [44] Coghlan, D. and T. Brannick (2001): *Doing Action Research in Your Own Organization*. London: Sage.
- [45] Cohen, L. and L. Manion (1980): *Research Methods in Education*. 2nd edition. Dover, NH: Croom Helm.
- [46] Collier, J. (1945): United States Indian Administration as a Laboratory of Ethnic Relations. *Social Research*, 12, pp. 275-276.
- [47] Coughlan, P. and D. Coghlan (2002): Action Research for Operations Management. *International Journal of Operations and Production Management*, 22(2), pp. 220-240.
- [48] Cunningham, J. B. (1993): Action Research and Organizational Development. Westport, CT: Praeger.
- [49] Dash, D. P. (1999): Current Debates in Action Research. *Systemic Practice and Action Research*, 12(5), pp. 457-489.

- [50] DePoy, E., A. Hartmann and D. Haslett (1999): Critical Action Research: A Model for Social Work Knowing. *Social Work*, 44(6), pp. 560-569.
- [51] Dick, B. (2000): A Beginner's Guide to Action Research. http://www.scu.edu.au/schools/gem/ar/arp/guide.html.
- [52] Dickens, L. and K. Watkins (1999): Action Research: Rethinking Lewin. *Management Learning*, 30(2), pp. 127-140.
- [53] Dobson, P. J. (2001): Longitudinal Case Research: A Critical Realist Perspective. *Systemic Practice and Action Research*, 14(3), pp. 283-296.
- [54] Eden, C. and C. Huxman (1996): Action Research for the Study of Organisations. In S. Clegg, C. Hardy and W. Nord (Eds): *Handbook of Organization Studies*, pp. 526-542. Thousand Oaks, CA: Sage.
- [55] Elden, M. and R. Chisholm (1993): Emerging Varieties of Action Research: Introduction to the Special Issue. *Human Relations*, 46(2), pp. 121-141.
- [56] Elliot, J. (1991): *Action Research for Educational Change*. Milton Keynes: Open University Press.
- [57] Flood, R. L. (2000): A Brief Review of Peter B. Checkland's Contribution to Systemic Thinking. *Systemic Practice and Action Research*, 13(6), pp. 723-731.
- [58] Flood, R. L. and M. C. Jackson (1991): *Creative Problem Solving: Total Systems Intervention*. Chicester: Wiley.
- [59] Flyvbjerg, B. (2001): Making Social Science Matter: Why Social Inquiry Fails and How it Can Succeed Again. Cambridge: Cambridge University Press.

- [60] Foster, M. (1972): An Introduction to the Theory and Practice of Action Research in Work Organizations. *Human Relations*, 25(6), pp. 529-556.
- [61] French, W. L. and C. H. Bell (1999): Organizational Development: Behavioral Science Interventions for Organizational Improvement. Upper Saddle River, NJ: Prentice Hall.
- [62] Gergen, K. J. (1985): *Toward Transformation in Social Knowledge*. New York: Springer Verlag.
- [63] Glaser, B. and A. Strauss (1967): The Discovery of Grounded Theory: Strategies for Qualitative Research. Chicago: Aldine.
- [64] Greenwood, D., W. F. Whyte and I. Harkavy (1993): Participatory Action Research as a Process and as a Goal. *Human Relations*, 46(2), pp. 175-191.
- [65] Greenwood, D. J. and M. Levin (1998): *Introduction to Action Research*. Thousand Oaks, CA: Sage.
- [66] Grønhaug, K. and O. Olsson (1999): Action Research and Knowledge Creation: Merits and Challenges. *Qualitative Market Research*, 2(1), pp. 6-14.
- [67] Gummesson, E. (1991): *Qualitative Methods in Management Research*. Thousand Oaks, CA: Sage.
- [68] Gummesson, E. (2000): *Qualitative Methods in Management Research*. 2nd Edition. Thousand Oaks, CA: Sage.
- [69] Heller, F. (1976): Group Feedback Analysis as a Method of Action Research. In A. Clark (Ed): *Experimenting with Organizational Life: The Action Research Approach*. New York: Plenum Press.

- [70] Hendry, C. (1996): Understanding and Creating Whole Organizational Change Through Learning Theory. *Human Relations*, 49(5), pp. 621-641.
- [71] Hodgkinson, H. L. (1957): Action Research: A Critique. *Journal of Educational Sociology*, 31(4), pp. 137-153.
- [72] Hult, M. and S. Lennung (1980): Towards a Definition of Action Research: A Note and Bibliography. *Journal of Management Studies*, 17(2), pp. 242-250.
- [73] Jackson, M. C. and P. Keys (1984): Towards a System of Systems Methodologies. *Operational Research Society*, 35, pp. 473-493.
- [74] Kaplan, R. S. (1998): Innovation Action Research: Creating New Management Theory and Practice. *Journal of Management Accounting Research*, 10, pp. 89-118.
- [75] Kemmis, S. (1996): Improving Education through Action Research. In O. Zuber-Skerritt (Ed): *Action Research for Change and Development*, pp. 57-75. Aldershot: Avebury.
- [76] Kemmis, S. and R. McTaggart (1988): *The Action Research Planner*. Victoria, Australia: Deakin University.
- [77] Keys, P. (1991): Operational Research and Systems: The Systemic Nature of Operational Research. New York: Plenum.
- [78] Kirk, J.and M. L. Miller (1986): *Reliability and Validity in Qualitative Research*. Thousand Oaks, CA: Sage.
- [79] Koch, N. F., R. J. McQueen and J. L. Scott (1998): Can Action Research be Made More Rigorous in a Positivist Sense? The contribution of an Iterative Approach. http://www.cis.temple.edu, 25 May 1998.

- [80] Larsson, N. O. (2001): A Design View on Research in Social Sciences. *Systemic Practice and Action Research*, 14(4), pp. 383-404.
- [81] Lewin, K. (1946): Action Research and Minority Problems. *Journal of Social Issues*, 2(4), pp. 34-46.
- [82] Lewin, K. (1947): Frontiers in Group Dynamics II: Channels of Group Life, Social Planning, and Action Research. *Human Relations*, 1, pp. 143-153.
- [83] Lewin, K. (1948): Resolving Social Conflicts. New York: Harper.
- [84] Lewin, K. (1973): Action Research and Minority Problems. In G. Lewin (Ed.): *Resolving Social Conflicts: Selected Papers in Group Dynamics*. London: Souvenir Press.
- [85] Lundin, R. A., A. Söderholm and T. Wilson (2001): On the Conceptualisation of Time in Projects. Paper presented at the *16th Nordic Conference*. Uppsala University.
- [86] McDonagh, J. and D. Coghlan (2001): Can OD Help the IT Dilemma? OD in IT-related Change. *Organization Development Journal*.
- [87] McKay, J. and P. Marshall (2001): The Dual Imperatives of Action Research. *Information Technology and People*, 14(1), pp. 46-53.
- [88] Merriam, S. and E. Simpson (1984): A Guide to Research for Adult Educators and Trainers. Malamar, Fl: Krieger.
- [89] Meyer, J. (2000): Evaluating Action Research. *Age and Ageing*, 29-S2, pp. 8-10.

- [90] Mingers, J. (1997): Multi-Paradigm Multimethodology. In J. Mingers and A. Gill (Eds): *Multimethodology: The Theory and Practice of Combining Management Science Methodologies*. New York: John Wiley and Sons.
- [91] Molineux, J. and T. Haslett (2002): Working within Organizational Cycles A More Suitable Way to Manage Action Research Projects in Large Organizations. *Systemic Practice and Action Research*, 15(6), pp. 465-484.
- [92] Moreno, J. L. (1943): Lewin's Legacy for Small-Group Research. *Systemic Practice*, 9, pp. 7-26.
- [93] Newman, H. L. and S. P. Fitzgerald (2001): Appreciative Inquiry with an Executive Team: Moving Along the Action Research Continuum. *Organizational Development Journal*, 19(3), pp. 37-44.
- [94] Näslund, D. (2002): Logistics Needs Qualitative Research Especially Action Research. *International Journal of Physical Distribution and Logistics Management*, 32(5), pp. 321-337.
- [95] Perry, C. and O. Zuber-Skerritt (1994): Doctorates by Action Research for Senior Practising Managers. *Management Learning*, 25(2), pp. 341-365.
- [96] Peters, M. and V. Robinson (1984): The Origins and Status of Action Research. *Journal of Applied Behavioural Science*, 20(2), pp. 113-124.
- [97] Pothas, A.-M. and A. de Wet (2000): Two Imperatives for Qualitative Research. *Systemic Practice and Action Research*, 13(2), pp. 139-164.
- [98] Powell, W. R. (2002): Organizational Change Models. *Futurics*, 26(3/4), pp. 20-45.

- [99] Rapoport, R. N. (1970): Three Dilemmas in Action Research. *Human* Relations, 23, pp. 499-513.
- [100] Reason, P. and H. Bradbury (2001): Handbook of Action Research: Participative Inquiry and Practice. London: Sage.
- [101] Rogers, C. R. (1980): A Way of Being. Boston: Houghton-Mifflin.
- [102] Sanford, N. (1970): Whatever Happened to Action Research? *Journal of Social Issues*, 26, pp. 3-23.
- [103] Schmuck, R. A. (1997): *Practical Action Research*. Arlington Heights, II: IRI/Skylight Training and Publishing.
- [104] Shanks, G., A. Rouse and D. Arnott (1993): A Review of Approaches to Research and Scholarship in Information Systems. In *Proceedings of the 4th Australian Conference on Information Systems*. Brisbane, Australia: University of Qeensland.
- [105] Strauss, A. L. and J. Corbin (1990): Basics of Qualitative Research: A Grounded Theory Procedures and Techniques. Thousand Oaks, CA: Sage.
- [106] Susman, G. I and R. D. Evered (1978): An Assessment of the Scientific Merits of Action Research. *Administrative Science Quarterly*, 23, pp. 582-603.
- [107] Tripp, D. (1996): Action Inquiry. http://www.parnet.org/tools/tools_4.
- [108] Ulrich, W. (1987): Critical Heuristics of Social Systems Design. *Europe-an Journal of Operational Reseach*, 31, pp. 276-283.

- [109] Walker, B. and T. Haskett (2002): Action Research in Management Ethical Dilemmas. *Systemic Practice and Action Research*, 15(6), pp. 523-533.
- [110] Whyte, W. and E. Hamilton (1964): *Action Research for Management*. Homewood, II: Irwin-Dorsey.
- [111] Whyte, W. F. (1991): *Participatory Action Research*. Thousand Oaks, CA: Sage.
- [112] Yin, R. K. (1989): Case Study Research. Thousand Oaks, CA: Sage.
- [113] Yin, R. K. (1994): Case Study Research: Design and Methods. 2nd Edition. Thousand Oaks, CA: Sage.
- [114] Yunker, G. W. (1994): Action Research and Organizational Development. *Personnel Psychology*, 47(1), pp. 187-189.
- [115] Zuber-Skerritt, O. (2002): Professional Development in Higher Education: A Theoretical Framwrok for Action Research. London: Kogan Page.
- [116] Zuber-Skerritt, O. and C. Perry (2002): Action Research within Organisations and University Thesis Writing. *The Learning Organization*, 9(3/4), pp. 171-179.

Department of Environmental and Business Economics

Institut for Miljø- og Erhvervsøkonomi (IME)

IME WORKING PAPERS

ISSN: 1399-3224

Issued working papers from IME Udgivne arbejdspapirer fra IME

No.

1/99	Frank Jensen Niels Vestergaard Hans Frost	Asymmetrisk information og regulering af forurening
2/99	Finn Olesen	Monetær integration i EU
3/99	Frank Jensen Niels Vestergaard	Regulation of Renewable Resources in Federal Systems: The Case of Fishery in the EU
4/99	Villy Søgaard	The Development of Organic Farming in Europe
5/99	Teit Lüthje Finn Olesen	EU som handelsskabende faktor?
6/99	Carsten Lynge Jensen	A Critical Review of the Common Fisheries Policy
7/00	Carsten Lynge Jensen	Output Substitution in a Regulated Fishery
8/00	Finn Olesen	Jørgen Henrik Gelting – En betydende dansk keynesianer
9/00	Frank Jensen Niels Vestergaard	Moral Hazard Problems in Fisheries Regulation: The Case of Illegal Landings
10/00	Finn Olesen	Moral, etik og økonomi
11/00	Birgit Nahrstedt	Legal Aspect of Border Commuting in the Danish-German Border Region
12/00	Finn Olesen	Om Økonomi, matematik og videnskabelighed - et bud på provokation

13/00	Finn Olesen	European Integration: Some stylised facts
13/00	Jørgen Drud Hansen	
14/01	Lone Grønbæk	Fishery Economics and Game Theory
15/01	Finn Olesen	Jørgen Pedersen on fiscal policy - A note
16/01	Frank Jensen	A Critical Review of the Fisheries Policy: Total Allowable Catches and Rations for Cod in the North Sea
17/01	Urs Steiner Brandt	Are uniform solutions focal? The case of international environmental agreements
18/01	Urs Steiner Brandt	Group Uniform Solutions
19/01	Frank Jensen	Prices versus Quantities for Common Pool Resources
20/01	Urs Steiner Brandt	Uniform Reductions are not that Bad
21/01	Finn Olesen Frank Jensen	A note on Marx
22/01	Urs Steiner Brandt Gert Tinggaard Svendsen	Hot air in Kyoto, cold air in The Hague
23/01	Finn Olesen	Den marginalistiske revolution: En dansk spire der ikke slog rod?
24/01	Tommy Poulsen	Skattekonkurrence og EU's skattestruktur
25/01	Knud Sinding	Environmental Management Systems as Sources of Competitive Advantage
26/01	Finn Olesen	On Machinery. Tog Ricardo fejl?
27/01	Finn Olesen	Ernst Brandes: Samfundsspørgsmaal - en kritik af Malthus og Ricardo
28/01	Henrik Herlau Helge Tetzschner	Securing Knowledge Assets in the Early Phase of Innovation
29/02	Finn Olesen	Økonomisk teorihistorie Overflødig information eller brugbar bal- last?
30/02	Finn Olesen	Om god økonomisk metode – beskrivelse af et lukket eller et åbent so- cialt system?
31/02	Lone Grønbæk Kronbak	The Dynamics of an Open Access: The case of the Baltic Sea Cod Fishery - A Strategic Approach -

32/02	Niels Vestergaard Dale Squires	Technical Efficiency of the Danish Trawl fleet: Are the Industrial Vessels Better
	Frank Jensen	Than Others?
	Jesper Levring Andersen	
33/02	Birgit Nahrstedt	Estimation of Production Functions on
	Henning P. Jørgensen	Fishery: A Danish Survey
	Ayoe Hoff	
34/02	Hans Jørgen Skriver	Organisationskulturens betydning for vi-
		densdelingen mellem daginstitutionsledere i Varde Kommune
35/02	Urs Steiner Brandt	Rent-seeking and grandfathering: The case
33/02	Gert Tinggaard Svendsen	of GHG trade in the EU
26/02	Philip Peck	Environmental and Social Disclosure and
36/02	_	Data-Richness in the Mining Industry
	Knud Sinding	
37/03	Urs Steiner Brandt	Fighting windmills? EU industrial interests
	Gert Tinggaard Svendsen	and global climate negotiations
38/03	Finn Olesen	Ivar Jantzen – ingeniøren, som beskæftige-
20.102	Einn Oloson	de sig med økonomi
39/03	Finn Olesen	Jens Warming: den miskendte økonom
40/03	Urs Steiner Brandt	Unilateral actions, the case of internation-
41/03	Finn Olesen	al environmental problems Isi Grünbaum: den politiske økonom
	Urs Steiner Brandt	Hot Air as an Implicit Side Payment Ar-
42/03		rangement: Could a Hot Air Provision
	Gert Tinggaard Svendsen	have Saved the Kyoto-Agreement?
43/03	Frank Jensen	Application of the Inverse Almost Ideal
	Max Nielsen	Demand System to Welfare Analysis
	Eva Roth	
44/03	Finn Olesen	Rudolf Christiani – en interessant rigs-
11/05		dagsmand?
45/03	Finn Olesen	Kjeld Philip – en økonom som også blev
		politiker
46/03	Urs Steiner Brandt	Bureaucratic Rent-Seeking in the European
	Gert Tinggaard Svendsen	Union
47/03	Bodil Stilling Blichfeldt	Unmanageable Tourism Destination
		Brands?

48/03	Eva Roth	Impact of recreational fishery on the for-
	Susanne Jensen	mal Danish economy
49/03	Helge Tetzschner	Innovation and social entrepreneurship in
	Henrik Herlau	tourism - A potential for local business de-
	I C (1 1 IV 1 1	velopment?
50/03	Lone Grønbæk Kronbak	An Enforcement-Coalition Model: Fisher-
	Marko Lindroos	men and Authorities forming Coalitions
51/03	Urs Steiner Brandt	The Political Economy of Climate Change
	Gert Tinggaard Svendsen	Policy in the EU: Auction and Grandfa-
52/02	Tipparat Pongthana-	thering Review of Mathematical Programming for
52/03		Coastal Land Use Optimization
	panich Mar Ni alaan	•
53/04	Max Nielsen	A Cost-Benefit Analysis of a Public Label- ling Scheme of Fish Quality
	Frank Jensen	ting scheme of Fish Quality
	Eva Roth	
54/04	Frank Jensen	Fisheries Management with Multiple Mar-
	Niels Vestergaard	ket Failures
55/04	Lone Grønbæk Kronbak	A Coalition Game of the Baltic Sea Cod
		Fishery
56/04	Bodil Stilling Blichfeldt	Approaches of Fast Moving Consumer
		Good Brand Manufacturers Product Development
		"Safe players" versus "Productors": Im-
		plications for Retailers' Management of
		Manufacturer Relations
57/04	Svend Ole Madsen	Interactions between HQ and divisions in a
	Ole Stegmann Mikkelsen	MNC
		- Some consequences of IT implementation
5 0/0.4	Ling Stainer Drandt	on organizing supply activities Patcheting in Penguable Pagernage Con
58/04	Urs Steiner Brandt	Ratcheting in Renewable Resources Contracting
	Frank Jensen	iracinig
	Lars Gårn Hansen	
	Niels Vestergaard	
59/04	Pernille Eskerod	Voluntary Enrolment – A Viable Way of
	Anna Lund Jepsen	Staffing Projects?
60/04	Finn Olesen	Den prækeynesianske Malthus

	Ragnar Arnason Leif K. Sandal Stein Ivar Steinshamn Niels Vestergaard	Actual versus Optimal Fisheries Policies: An Evaluation of the Cod Fishing Policies of Denmark, Iceland and Norway
62/05	Bodil Stilling Blichfeldt Jesper Rank Andersen	On Research in Action and Action in Research