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Pluralism or trivialism: A comparative study of academic ECKM papers

Johan Olaisen and Birgit Helene Jevnaker, BI Norwegian Business School, Oslo, Norway
johan.olaisen@bi.no
birgit.h.jevnaker@bi.no

Abstract: The purpose of this paper is to analyze and compare all the papers in the proceedings of ECKM in 2017 (Barcelona), 2018 (Padua), 2019 (Lisbon), and the digital conference in 2020. The study classifies the papers according to methodology, analysis, discussion, and conclusion regarding their contribution to the four paradigmatic boxes. The approach uses a philosophy of science framework and compares this to the content of the research papers. We will use the findings in four representations of knowledge, two typologies of concepts, four paradigmatic classifications, and the concluding framework for knowledge management research.

The four conferences have a heavy emphasis upon knowledge-itis and instrumental-itis and much less emphasis upon problem-itis. The papers are mostly centered around existing knowledge and accepted methodology and less related to new problems. The results indicate a conference based upon as-is knowledge and less upon new and often unsolvable problems.

The ECKM academic papers in 2017, 2018, and 2019 have relatively low complexity presented in an empirical and materialistic paradigmatic framework through definitive concepts representing a form of atomistic research. The papers for the digital conference in 2020 are presented in a clarified subjectivity and materialistic-based framework through both definitive and sensitizing concepts. What would ECKM have been with a higher degree of complexity in action and subjective paradigmatic framework through sensitizing concepts representing a form of holistic research? Probably a more creative, engaged, and relevant conference. Probable also a more scientific conference since advances in knowledge demand not living up to the conference expectations data cannot meet. Data do not prove anything in themselves. It is only the logical argumentation and speculations of the researchers that can prove anything at all. Objectivity is in demand, but subjectivity is needed. There are more critical and green papers in the 2020 conference opening up for new perspectives in the choice of methodology, problems, and knowledge.

To move ahead for better quality in the research, we find it necessary to break free from the empirical paradigm and the materialistic paradigm and move into the clarified subjectivity and action paradigm. Paradigmatic ecumenism will tend to a fiercer but idea-generating debate. This pluralistic approach will give more engaged practical research representing more sustainable societies and businesses. ECKM is on the road to include more pluralistic perspectives upon sustainability, value creation, gender issues, and the design of future knowledge work. There is a critical openness toward these issues making ECKM 2020 a more relevant conference than the ECKM conferences in 2017, 2018, and 2019.

Keywords: Paradigms, Concepts, Perspectives, Knowledge creation, Knowledge accumulation, Research domain

1.Introduction

Tornebohm (1983) conceives social science as a sequence of partly cumulative and partly non-cumulative transformations of knowledge (K), problems (P), and instruments(I). Tornebohm (1983) argued that if the sciences and social sciences are going to progress, there has to be a balance between K, P, and I. An overemphasis on any of them will hinder a free scientific discourse and, by that, the development of any scientific field. For instance, a central notion from the compound (K1, P1, I 1) to (K2, P1, I2) occurs when the problems P1 are solved to increase the stock of knowledge from K1 to K2. In the problem-solving process, new instruments may be developed or borrowed from other disciplines, at this moment changing I1 to I2. If one of the three aspects is allowed to dominate the other two, the discipline becomes less relevant. Overemphasis on knowledge ("knowledge-itis") may result in empirically empty structures irrelevant to the problems. Empty content structures are the case for business school research in general (VendeVen 2007, Olaisen and Revang 2017), where business schools are producing more and "better" research than ever, but the practical business world finds the study results less relevant than ever. Preoccupation with problems ("problem-itis") may mean shallow pragmatism and conceptual malnutrition. Finally, too much attention to instruments ("instrument-itis") may erode the substantive core. The focus of the studies is how to practice the research methodology in itself. The researchers end up testing themselves if they can master the instruments and not the theories. Tornebohm (1983) identifies these imbalances in the researcher's orientation as lacking commonly agreed-upon perspectives and something less than social science and something more than fiction. Kuhn identifies it as a pre-scientific situation where any discipline might remain until the discipline dies or advances a new paradigm.

The initial KPI maps the aspect of interest (in this case, feature of knowledge structures or processes). The KPI compound in this process filters through what is called the "researchers orientation and worldview" or perspectives in Tornebohm's words (1983) or paradigms in Kuhn's words (1970) or research domains in Olaisen's words (1985). These authors are all referring to the fact that there are alternative ways of approaching the social sciences and, by that also knowledge management research. The aspects studied are not given once and for all. New knowledge widens the boundaries, as might happen after the broadening of the knowledge management research. Thornebohm's idea is that pluralism is needed in any discipline to get an accumulation of knowledge, and if this pluralism is lacking over time, any discipline will erode and be a form of mechanistic puzzle-solving of more and more irrelevant problems. The relevance will be found in other disciplines replacing a discipline over time. Kuhn (1970) defined this as normal science activities where the scientists agree upon good science reproducing noticeable results in quasi-scientific ways to gain respect within a smaller and smaller circle.

Galtung's (1972) idea was to identify four ways of approaching the social sciences in a triangle of theory, data, and values:

(1) Empiricism – is what we are presenting true or false (if true consonance if false dissonance)
(2) Criticism – is what we are presenting acceptable or not acceptable (if acceptable consonance if not acceptable dissonance)
(3) Constructivism – is what we are presenting adequate or inadequate (if adequate consonance if not adequate dissonance)
(4) Pluralism – a triangulation of empiricism, criticism, and constructivism (if congruence consonance if not congruence dissonance)

Galtung (1972) assumes that a common goal of all social sciences is to establish what are called sentences dichotomizing their "world space" by including some defining the empirical world by including some "world points" and excluding others. Hence, data sentences explain the empirical world by including what they observe and eliminate what they do not see or imagine. Theory-sentences (hypotheses or propositions), on the other hand, define the foreseen world, including aspects that are predicted by the underlying theory.

Finally, value sentences refer to the preferred world, including what is accepted and excluding what is rejected. Galtung's idea was that all the social sciences could be analyzed according to this framework. Our research paper is the first time Galtung's and Tornebohm's approaches are used analyzing a research discipline.

Blumer (1969) argued that research concepts in any social sciences might be divided into definitive concepts and sensitizing concepts. The concepts have an essential role in any scientific inquiry. They are usually the anchor point in the interpretation of findings.
The purpose of the definitive concept is to:
Describe-Explain-Predict and Control and Rule (A definitive and objective process). Bunge (1967) named this process "the process of all serious systematic research."
The sensitizing concepts have another purpose:
Describe-Explore-Reflect-Participate and Change (A subjective and relative process). Glaser and Strauss (1967) named this process “Grounded-theory-research."

Olaisen (1985) divided any kind of knowledge into four types of knowledge:

(1) What we know defining
(2) What we do not know implying
(3) What we do not know that we know as a part of
(4) What we do not know that we do not know

According to Olaisen, to get a scientific, intuitive, and creative movement between these four types of knowledge to represent the essence of representable and non-representable knowing modes in any science and social science.

Olaisen (1985) divided the social sciences into four paradigms in a quadrate of harmony versus conflict and objectivity versus subjectivity:

(1) The empirical paradigm
(2) The materialistic political paradigm
(3) The clarified subjective paradigm
(4) The action paradigm

According to Olaisen, any social science paper could be placed within these four paradigms. These are the five scientific philosophy frameworks used as analytical tools for analyzing academic papers.

2. **Methodology**

This paper aims to analyze and compare all the papers in the proceedings of ECKM in 2017, 2018, 2019, and 2020. A total of 430 double-blind reviewed academic papers within a framework of 5000 words for each paper. The approach uses a philosophy of science framework and compares this to the content of the research papers.

We have used five philosophy of science frameworks to analyze all the papers:

(1) Tornebohm's knowledge, problem, and instrument description (1983)
(2) Galtung's scientific perspective triangle (1972)
(3) Olaisen's four kinds of knowledge identification (1985)
(4) Blumer's two kinds of scientific concepts (1969)
(5) Olaisen's four kinds of paradigms identification (1985)

This paper has combined (4) and (5) a pluralistic proposal for future progress for knowledge management research.

Each paper has been classified according to:

(1) Problem
(2) Methodology
(3) Theoretical foundation
(4) Propositions or hypotheses
(5) Analyze
(6) Discussion of results
(7) Conclusions
(8) Theoretical and practical implications

For each academic paper, a decision has been made for each of the five frameworks according to which format the paper fits within. The decision is based upon the reading of the paper. For two-thirds of the papers, the decision of placing them into a category was clear. For one-third of the papers, we had to make a subjective decision for which category we placed them within. The decision is based upon our notes from each paper, and if in doubt, we have reread the paper.

3. Knowledge-itis, instrument-itis and problem-itis

The papers are suffering from "instrument-itis" and to some extent from "knowledge-itis," but they are indeed not suffering from "problem-itis." Problem-oriented research is demanding and requires systematic and logical argumentation (Lawrence 1992). Problem-orientated research might be a weakness for knowledge management researchers. The researchers do the statistical tests well, and the researchers present the data in "nice" total packages as a form of scholarly truth. However, very few results conflict with existing results or anything. 2 of 3 hypotheses are found to be correct, and 1 of 3 hypotheses is incorrect. There are many similar hypotheses/propositions (54%) in papers dealing with knowledge sharing and knowledge management, while 61% reach the same result and 39% reach a different result for similar propositions and hypotheses. The Popperian falsification process (1973) is used for both explicit and tacit knowledge processes even if 82% in 2017, 84% in 2018, 83% in 2019, and 68% of the papers in 2020 do not make any distinction between tacit and explicit knowledge processes. The unableness to distinguish between tacit and explicit knowledge might represent a lack of theoretical sophistication. Two-thirds of the papers lack a definition of knowledge, information, management, leadership, or the situations these concepts are used within. The lack of definitions presents a kind of storytelling where a story exemplified with statistics is told. The scholarly and scientific storytelling is what Kuhn (1970) defined as a pre-scientific situation where anything might be equal in importance or what Popper (1973) described as the situation for psychology as a field. Kuhn (1970) called this "something less than research." The lack of problem-itis makes it challenging to make progress and accumulate knowledge; as Nonaka (2018) noted that there had not been any progress about the understanding and performance of tacit knowledge.

More than 60% of the papers write about the need for new ways of knowledge leadership, knowledge management, and knowledge organizing. The papers, however, are centered around traditional leadership, management, and organization issues. The papers label and marketing are proposing new ways of leadership, management, and organizing, but they do neither define the situation today than the situation tomorrow nor how we will take us for tomorrow. The papers are promising the "promised land," but in the end, tomorrow's management is the same as today's management. The papers' problems are centered around solvable matters and very seldom if anytime, related to unsolvable problems. We define such "instrument-itis" and "knowledge-itis" in knowledge management research as a misdirecting striving for respectability. Forty of 430 papers (9.3%) discuss our ecological systems' problems and what we need to do to solve the climate crisis through sustainable businesses. These green ecological papers ask several questions they cannot answer and are thus speculative and are all conceptual papers without any empirical basis. The 2020 conference doubled the number of such papers and increased the conference's relevance for our actual and future business situation.

4.The aspects of the world studied

We are making a distinction between four areas of knowledge in management research: "What we know" (1), "What we know that we don't know" (2) and "What we don't know that we know (3) and What we don't know that we don't know" (4). Area (1) will define the area (2), while there will be a misinterpretation and bias towards the area (3) and area (4).

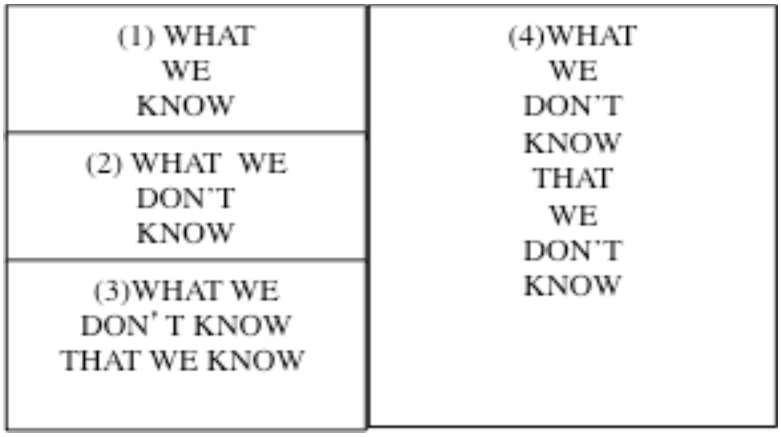

Figure 1 Knowledge representations (Olaisen 1985)

For areas (3) and areas (4), will imagination and intuition be necessary for the creativity needed to make a scientific movement in knowledge management in zone 3 and 4? If we expand only into area two, it will be somewhat limited knowledge research emphasizing instruments and knowledge while the problems will be defined by what we know.
If we want to move between area one and two, the logical, empirical studies ("secure and clean studies") will be ideal, but the source of bias and misinterpretations start as soon as we move into what we do not know anything experienced. We will here begin to involve imagination and intuition. Experience-based intuition is the start point of any essential research effort, while the movement from area one to area two is only instrumental puzzle-solving, most often without any knowledge accumulation (Minzberg 1979, Morgan 1980). The way to improve our technique is not to attempt to analyze things into their elements, reduce them to measure and determine functional relations, and educate and train our intuitive powers (Knight 1936). If our role is only to produce some publishable or travelable research, then we are reduced to mechanic puzzle-solving, demonstrating that we can master the techniques we were learning in our Ph. D's. Between 80 and 90% of the research papers represent this kind of mechanic puzzle solving (Morgan 1980). We are sending out a questionnaire to a large sample getting a response rate of 5-20% applying statistics and getting a classification of research results in nice tables, diagrams, and figures, getting more of the same trivial already known knowledge. The 2020 papers are slightly more based upon qualitative in-depth interviews, constructed datasets from several studies, and theoretical foundations.

5. Scientific orientations

Galtung (1972) assumes that a common goal of all social sciences is to establish what are called sentences dichotomizing their "world space" by including some defining the empirical world by including some "world points" and excluding others. Hence, data sentences explain the empirical world by including what is observed and excluding what is non-observed. Theory-sentences (hypotheses or propositions), on the other hand, define the foreseen world, including aspects that are predicted by the underlying theory. Finally, value sentences refer to the preferred world, including what is accepted and excluding what is rejected. Most of the papers (65%) in 2017, 63% in 2018, 61% in 2019, and 52% in 2020 do not develop hypotheses but only describe the theory's findings without concluding them into hypotheses for testing (Bunge 1967). However, the research compares data sentences with theory sentences without using Popper's falsification principle (Popper 1972). Dissonance does not produce new theory sentences, while a consonance occurs in noting that the research results are in line with mainstream knowledge management research. Criticism is the type of scientific activity where data sentences are confronted with value sentences. By the tenets of this orientation, consonance is created by producing new data sentences by changing reality into an acceptable condition. Criticism is not a large part of the ECKM 2017, 2018, 2019, and 2020 papers (15% versus 16% versus 18% versus 23%). The trend is towards more criticism-based papers. Criticism is needed through values, speculations, and ad hoc methods to advance a field even if the validity and reliability are low.

Constructivism implies comparing theory sentences with value sentences to see to what extent the foreseen world is also the preferred world. Consonance refers to what is adequate and dissonance to what is inadequate. In dissonance, theory and value sentences are about equal in priority, and both might be changed in knowledge management research. Constructivism represents 20% of the papers, increasing from 15% in 2017 to 25% in 2020. The business reality is today complex and global. A combination of the understanding of both wholisms and atomisms is needed in a good research strategy (Minzberg 1979) and actionable puzzle solving (Morgan 1980). Imagination and intuition are required for this process (Bunge 1967, Alvesson and Skjoldberg 2009). The intuitive powers seem to be less trained among the ECKM researchers.
Intuition, imagination, and creativity are needed to handle a high degree of complexity like scenarios for the business future or the green environmental future. Such complex scenarios are only handled in 31 of the papers (7%), where both criticism and constructivism are handled simultaneously to develop what is acceptable and not acceptable for the society going on with what is further adequate and inadequate for the businesses. The distinction between what is acceptable and what is adequate might, as a result, give us a greener, more innovative, and safer world where businesses and societies walk hand-in-hand. The paradigmatic perspective change results in more subjective and actionable research for a better future, missed in the ECKM 2017,2018 and 2019 papers while increasing in the 2020 papers. Also missed is what kind of leadership will take us into a more responsible, sustainable world. The knowledge management papers represent the status quo and the existing business elite. We have to ask the question of what is acceptable and what is not acceptable. We have to construct our data for this purpose since data in itself does not prove anything. It is only our argumentation that can prove anything. We need constructivism, where we ask what is adequate and what is inadequate for a sustainable future.

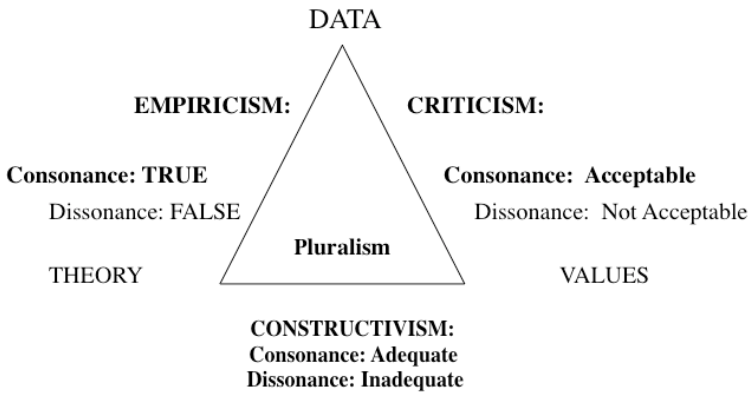

Figure 2 Empiricism, criticism and constructivism

6. The rise and fall of paradigms

The essence of Kuhn's position (1970) is that paradigms serve a normative and conserving function. When a standard prevails in a discipline, "normal" science practice evolves as the puzzle-solving activity. During normal science, the scientific community works under the assumption that "it knows what the world is like," and is prepared to defend this assumption "at any cost." (Kuhn 1970: 5). Very often, normal science suppresses "major novelties, conceptual or phenomenal" (Kuhn 1970:36). Thus scientists are only preoccupied with solving problems/puzzles according to accepted specific rules according to the traditional viewpoint or preconception. With such anomalies built up and scientists losing faith, the field enters the crisis stage.
Kuhn writes that "there can be a sort of scientific research without paradigms, schools, perspectives"… (1970:11), in such research "… though the field's practitioners were scientists, the new findings of their activity were something less than science or social science" (1970:13). He further notes that "… every individual researcher starts over again from the beginning" (1970: 13), that some competing schools are directing their publications where they may be published, and a continued discussion over the same fundamentals and no scientific progress is made at all" (1970: 159).
We may sum up Kuhn (1970) in this way:

1. Only readily available facts are collected.

2. At this stage, all facts seem equally relevant.
3. The instruments are overemphasized and often presented in “quasi-fanciful” ways to get “false” respect.

If we look at knowledge management research at ECKM, we conclude that this is the situation for more than 80% of the papers. The 2020 papers were more scientific than 2017, 2018, and 2019 papers – 71% versus 83%. There is in 2020 progress in making knowledge management more scientific and robust. We found that Kuhn's description fit the situation in knowledge management research well. It looks like every researcher starts over again from the beginning was easily collected survey, and case data are assembled and presented in fancy scientific ways. The papers in 2020 (21%) upon sustainable businesses, greener businesses and societies, and the future of knowledge work represent a positive change.
For Feyerabend (1974), this was the management literature situation where one case description follows the other case report without knowledge accumulation. According to Feyerabend, this is a storytelling tradition where the marketplace gives new stories all the time. The faster the marketplace develops, the more the researchers will be in dissonance with the market. According to Feyerabend (1987), they will produce more and more "hard science" stories without basis in reality, but with a kind of basics in business schools further and further from the firm itself. The businesses themselves will find the highest-rated research less and less relevant (Van-de-Ven 2012, Olaisen and Revang 2017). The ruling group in business schools is its exclusive audience and often behaves like a mob against revolutionary thoughts. The group is dogmatic, authoritarian, and narrow-minded. They represent groupthink. The mind is, in other words, temporarily closed. The highest aim is to control the field and the rules for the accepted puzzle-solving activity. The rules of the puzzle-solving activity become the most crucial issue. There is a Matthew effect in work – those who do it the most accepted way shall get more, and those who do not do it the accepted way shall not be published or getting tenure (Merton 1968). Most researchers in knowledge research are trained in Ph. D. programs with an emphasis on empirical studies. They know that to get papers accepted, they have to follow the "correct" researchers, have a representative sample, and use a proper statistical package to prove their results and end up with decent results or a proposal for another knowledge framework. The papers in 2020 on sustainability, gender equality, and new professional working forms 2020 opened up perhaps for a new generation of critical business and societal researchers at ECKM.

7. Alternative concepts

The concepts have an essential role in any scientific inquiry. They are usually the anchor point in the interpretation of findings (Blumer 1969 and Baugh 1990). The concepts are the glasses we have used since we got our Ph.D.'s. We discuss two different worlds of ideas. The definitive concept is based on empirical data or "evidence" and often searches for causal relationships.
The more definitive concepts are linked to "what we know and "what we know that we do not know, while the more sensitizing concepts will be related to "what do not know that we know and "what we do not know that we do not know." Sensitizing concepts will advise where to look and will set up and compare alternative views. They will indicate more relationships, and they will be dependent on inductive research methods and precise descriptions. Definitive concepts represent deductive quantitative research methods. For induction, the sample of 0 (imagined sample) or one might be good enough, while deduction requires large samples. Induction is closeness, while deduction is distance. Induction is participation and involvement, while we do not interfere at any price. Induction might be exploring, and actionable while deduction might be explaining without action.
In knowledge management studies, the definitive concepts are taking over the ground of the sensitizing concepts. Taking all the papers and dividing them into one of these ideas, around 65% of the studies rely on definitive deductive theories while 35% rely on inductive sensitizing concepts. In the ECKM 2020, about 55% rely upon definitive concepts while 45% rely upon inductive sensitizing concepts. The induction process described as “directions along which to look and use intuition and curiosity” instead of facts or data is less used. Intellectual curiosity might be the path to choose for creative scholars. The papers are becoming more inductive and sensitizing in the 2020 conference than the 2017, 2018, and 2019 conferences.

8. Alternative research paradigms

It is here proposed to analyze knowledge management research from four main perspectives. These alternative realities are different meta-theoretical assumptions about the nature of social science. The

empirical paradigm where its explanatory power consists of establishing causal variables between variables. The knowledge systems and the knowledge technology relations have a concrete, actual existence and systematic character producing quantitative and qualitative findings according to the need for the societies and businesses. The business world is considered primarily conflict-free and harmonious at a higher level of aggregation. 50% of the studies in 2018 versus 45% of the 2019 papers belong here compared to 38% in 2020. The trend is towards fewer empirical papers.

The materialistic political paradigm where physical events and behavior are the surface manifestations of underlying mechanisms. The materialistic paradigm relies on the assumption of predictable uniformities in the knowledge systems. The world of knowledge systems exchanges is defined by concrete, measurable, ontologically fundamental structures and the interdependencies in knowledge systems. 20 % of the studies in 2018 are here versus 21% in the 2019 conference and 16% in 2020.

The clarified subjectivity paradigm holds social reality does not exist in any concrete sense but is the product of individuals and organizations' subjective and inter-subjective experiences. According to this paradigm, knowledge behavior must be understood from the employee and organization's viewpoint rather than from the outside observer. We can only get such understanding by direct, give-and-take interaction with the employees and organizations. We can, of course, get in surveys as questionnaires, but then we are defining the questions and the business situation. 25% of the studies in 2018 are here versus 27% of the 2019 studies and 32% of the 2020 studies. The action paradigm (5% of the studies in 2018 and 7% of the studies in 2019 compared to 14% in the 2020 studies) also assumes that what passes for reality is socially determined. The move towards clarified subjective paradigms and action-based paradigms in 2020 is significant. A more sensitizing knowledge concept along subjectively chosen directions demands another kind of research paradigm. The role of knowledge research is to identify the stakeholders in the systems, their goals, interests, and power bases to describe the conflicts and contradictions of the knowledge systems and show how to emancipation, for instance, working smarter or greener. Knowledge management researchers inspired by the action paradigm are concerned with discovering how individuals can link thought and action as a means of transcending their alienation. The papers often analyze the situation where the author is a consultant, owner, or employee. The relationship to the investigated firm is close. The results are own experiences, knowledge, and attitudes from the actual situation resulting in practical and theoretical recommendations.

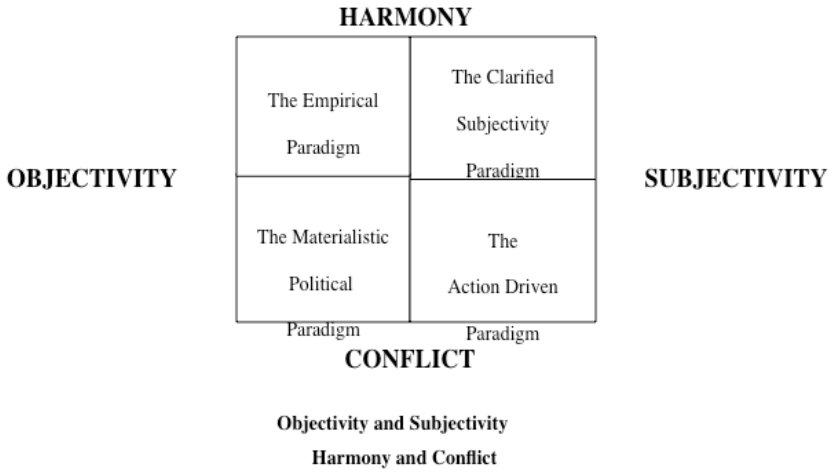

Figure 3 Research paradigms

9. The fall of knowledge management as objective research?

The action-driven and the clarified subjectivity paradigms represent a different degree of complexity and subjectivity. They represent both harmony and conflict. Various levels of complexity require different research paradigms; Pluralism is demanded to catch different aspects of reality. Subjectivism is necessary to capture complexity.

Consequently, we will have to define this discipline as a subjective multidiscipline, and we will have to innovate and simulate an experiment to a much higher degree. We will have to accept ad-hoc hypotheses and ad-hoc methodological solutions, and the clarified subjectivity. We need to cooperate with businesses and society to research sustainable societies and businesses supporting greener, more thoughtful, and safer solutions. A

more engaged knowledge management research field is needed to be a part of the sustainable, global, and digital businesses replacing traditional businesses.
Feyerabend (1974,1987) represents this anarchistic, irrational, and artistic view of science and social science. Feyerabend's reasoning can be summarized as follows. Epistemologists claim that scientists and social scientists follow specific "rational" rules in carrying out their research and that as a result of this, there is "progress." However, in reality, scientists follow "irrational" rules in any science, and there is progress. Therefore it is not needed no rules and a research strategy supporting this (Minzberg 1979).
Consequently, we will have to define this discipline as a subjective multidiscipline, and we will have to explore, innovate, simulate an experiment to a much higher degree. We need more subjectivity conflicts and minor harmony and objectivity in our research. There are leadership and organizational methodology movement towards phenomenon research taking research out of the iron jacket into a flexible and soft jacket opening up for alternative realities (Doh 2015, Schwartz and Stensaker 2014, von Krogh et al. 2012). The movement is towards action-based and clarified subjective paradigms representing instrument-itis, problem-itis, and knowledge-itis criticism and construction to grasp sustainability, gender equality, and new professional working forms.

10. Synthesis and conclusion

Figure 4 presents a form of synthesis of our reflections. One of the axes represents the degree of complexity, and the other the level of subjectivity. The definitive concepts represent a small degree of subjectivity (i.e., the high degree of objectivity, if possible), while the sensitizing concepts express a high degree of subjectivity. The four paradigms might be subjective or objective. Objectivity does not exist any longer. The problematic question is: if we choose one model, will it then be possible to move on from a low degree of complexity to a higher level of complexity (i.e., can we generalize from a tiny part of reality to a more substantial portion of the reality). Are the models interchangeable? It might be impossible or desperate to move up the line from origo to a higher degree of complexity and from the top to Origo (Alvesson and Skjolberg 2009, Bunge 1967). The knowledge research reality in both sustainability and climate conflicts offers global complexity. To understand this, we have to apply subjective paradigms combined with empirical investigations for theory building (Eisenhardt and Grabner, 2007). We have to use sensitizing concepts coupled with actionable definitive ideas. We have a field like knowledge research to understand whether applying it is subjective, but it is systematic and logically rigid.

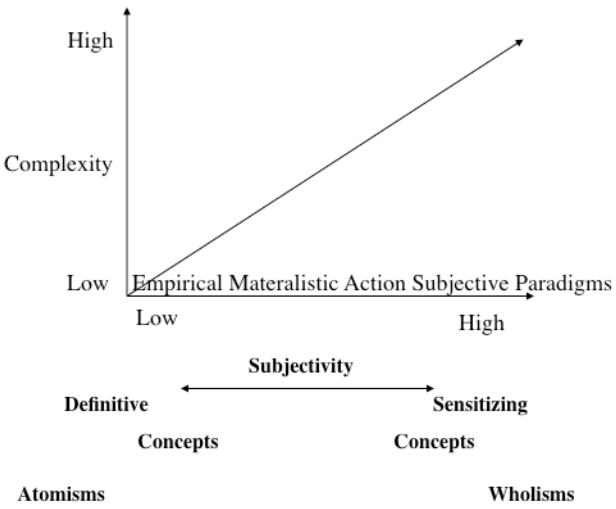

Figure 4 Complexity and subjectivity versus paradigms and concepts

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