Forms of Knowledge in Pragmatic Research

Peter Bogason
Department of Society & Globalization
Roskilde University

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1. Introduction

This paper is a report from my work-in-progress on the new pragmatism. It deals with one specific theme, namely what scientific knowledge may be about. I am not a philosopher, so those with that background will have to bear with my simple-mindedness. My only aim is to broaden the perspective on scientific knowledge as I have encountered it in my work on public administration and public policy. This is necessary, I think, when the scientific community is trying to open up the research process - from a pedestal where the theorist watches the world and reports on what s/he found, to an involvement with those who were being watched. This is, of course, what anthropologists have done for centuries, but I am not arguing for their view of the world. I want to include a variety of approaches, and hence the question: does interactive research (one, but only one, element of the new pragmatism) imply that we have to broaden our conception(s) of what knowledge is.

You guessed it: my answer is yes. Below follows some fragments from my present work. They come from a discussion of one element of anti-essentialism, namely contextualization of research results. First, my conceptions of constructivism and pragmatism are presented. Since those forms of research invite to a reflexive research process, involving more than just the researches, I then discuss four types of knowledge derived from psychology, but discussed in a social science context, and understood as elements in a knowledge creating process. The question then is whether there is an form of privileged knowledge. I think not, but how do we as researchers situate ourselves when we report, using more than the traditional form of scientific knowledge?

2. Constructivism & pragmatism as creators of contextualized knowledge

Post-positivists have one thing in common: they see research as a product of the researchers that are involved in the research process; their choice of perspective determines what “reality” is about - there is no absolute truth. They are not alone, though. Even positivists reduce their claims to the generalizing aspirations of social science. But they do this out of necessity, not because they regard it as desirable. In other camps of meta-science, the road towards
contextualization is more welcomed. In the sociology of knowledge, a path towards constructivism has been found for quite some years. And among researchers in public policy and evaluation many have found a need to reformulate the scientific basis for their activities. We shall first take a look at some of those changes, and then proceed to the new pragmatism and its relations to contextuality and constructivism.

2.1. Constructivism

*The social construction of reality* (Berger and Luckmann 1966), is sometimes referred to as the historical point of departure for constructivism. It is true that constructivism is discussed, but when it was published in the mid-sixties the book was not seen as a particular argument for what has later become social constructivism. It was received as an argument for using sociology rather than biology to understand the human world, and to denounce structuralism within sociology. The argument was that humans are not destined by biological heritage, but by socialization by group membership etc. Humans are habitual in character, they create institutions and thus routinize many facets of life by systems of rules which they follow under normal circumstances. At the same time, however, humans are not just structural dopes, they act within and act upon their structural environment. Thus Berger and Luckmann criticized structuralism and functionalism within sociology and recommended a focus on the interplay between human actors and social structures.

This *actor-structure* problematic came in theoretical focus for several decades (but especially in the 1980s) in debates among schools of meta-science, witness Harmon’s theory of action (Harmon 1981), Giddens’ theory of structuration (Giddens 1984), and Lundquist’s discussion of implementation steering (Lundquist 1987), to name a few. At the same time, more studies were made of the scientific processes, and the concept of constructivism was introduced, even regarding the working methods of the natural sciences (Latour and Woolgar 1979; Latour 1987). As to the social sciences, constructivism was in particular discussed among scholars involved in the fast growing evaluation research; the *fourth generation* (Guba and Lincoln 1989) was an attempt to conceptualize and generalize about constructivist research. Early in the 1990s, some researchers used the concept of *naturalistic inquiry* (Erlandson, Harris, Skipper, et
al. 1993) By that they meant constructivism, but given the constructivistic fight against realists, the concept was probably not a fortunate choice.

Two concepts with approximately the same denotation are found: constructivism and constructionism. Social constructivism roughly implies that the mind constructs reality in its relationship to the world, this mental process is significantly informed by influences from social relationships, whereas social constructionism emphasizes discourse as the vehicle through which self and world are articulated, and the way in which such discourse functions within social relationships (Gergen 2001, 60). The differences may be subtle, but it seems to me that constructionism is primarily used by researchers with some focus on psychology, constructivism is more used by those who have more of a macro (not structuralistic, though) orientation. I shall stick to the concept of constructivism, meaning that we can only interpret what we observe (in a broad sense) about the world by means of a conceptual framework which provides us with a system of mental orientation and a language to express this. When we speak of social constructivism, we acknowledge that the conceptual framework is a result of interaction with other people, and within the social sciences this means that we have oriented ourselves about ways other researchers formulate conceptual frameworks, and we have chosen to follow and/or reject some of these constructs. Consequently, we have chosen our approach in an direct or indirect communication with our peers. In that sense, constructivism is relational - it depends on relations with other social actors. Our constructivism is social - as actors we have related to the scientific community, we have understood the limitations and capacities various ways of understanding possess, and we follow, amend or reject what we have been introduced to. We relate to the scientific world, but such relativism does not mean that anything goes. On the contrary, “what goes” is determined by that relationship, and therefore we use considerable space in any scientific publication to explain to the reader what our perspective is about, and hence what we will include and what we will exclude from our analysis.

Thus our scientific basis for interpretation is socially constructed. But so are the phenomena we observe and report about. Constructivists have a long tradition of discussing whether to subscribe to a modified version of realism, or whether to discard realism altogether. The first position implies that the world exists whether we observe (in the broadest sense) it or
not, but in so far as we ourselves are humans and thus participating in social affairs, we are part of what we observe, and we can influence phenomena we want to scrutinize in various ways, consciously or unconsciously. The second position (following e.g. Rorty and *the linguistic turn*, see chapter 2) would mean that all we have is communication based on a language, and we cannot comprehend beyond that. The world does not exist apart from our construction of it by language, knowledge is constructed by the knower.

Most constructivists are not that radical and follow the first line of thinking. They recognize that the world exists whether the scientists observe it or not. But our cognitive platforms determine what we can communicate and how we can communicate about it. Furthermore, the social world is in itself not a stable phenomenon; the discussion above of the relationships between actor and structure, and the understanding of structuration may be worth keeping in mind. When you add the researcher as a possible and even plausible part of the structuration process, the simplicity of if-then causal relations becomes very clear. These mutual dependencies take many forms. The classic one has always been recognized even by positivists: there is a possibility that the researchers influences the research object merely by being present, by asking questions, by sending out questionnaires etc. Positivists then try to minimize such influences. But if we widen the horizon to e.g. asking how a particular culture influences the thinking of both researcher and research object, it becomes clear that there is a mutual relationship that cannot be ignored, nor can it be done away with. We see it in collaborative comparative research where researchers from several nations join forces to analyze their political systems. Often each tends to take for granted own national phenomena that puzzle their foreign colleagues, and thus it is revealed how we are blind to some ways we are influenced by our social systems.

Even if they are not blind to such influence, some researchers find it difficult to use constructivism in their research reporting:

“Many contemporary researchers are inspired by constructivism in their *understanding* of their field of research, but even so this understanding only intermittently affects their (and their students’) methodological choices. One may see reality as socially constructed .... but own research is not comprised by this thesis” (Järvinen and Mik-Meyer 2005, 22).
In the research, then, it is important to understand how the meaning of an action of a phenomenon is created in the interaction between humans (or actors), or between actors and objects (artefacts). Meaning is created as a relative phenomenon which can only be determined contextually, in a situation, taking into account the interaction (directly or indirectly) between actors. Meaning, then, is not created by structures (social or psychological), but by concrete social interaction (Chicago school, Mead) - just as identity is created by symbolic interactionism. For the researcher, methods like observation and interviewing therefore must be understood as elements in processes of constructivism, and - as we shall see in chapter 5 - one must plan interviews accordingly, bringing the interaction in as a planned activity and not just a technique at the same level as any other research instrument.

In conclusion, constructivism points to several fields of doubt as to the possibilities for generalization. First, knowledge is situated in relation to the circumstances under which it was established - in terms of history, geography, culture, social circumstances etc. Any interpretation must take such factors into account. Second, it is no simple matter to create a representation of social phenomena in the sense of an early 18th century painting of a scenery. For the researchers, there are many conceptual languages to choose between to create a perspective, for the target group or audience there are likewise many ways to “read” research reports; so the process of creating meaning among observers of social events is an intricate communication process which does not easily offer opportunities to simplify or generalize.

Again, let me stress that I do not equal constructivism with “anything goes” or extreme relativism. As researchers we choose perspectives for our research, and we should be able to substantiate those choices. That, as a matter of fact, is what distinguishes a social scientist compared with journalists or fiction writers. Researchers know why they choose a perspective; they know that they did choose, and they can distinguish between a number of choices and communicate with peers about the range of choices and the positive and negative sides of each possibility. A main task is to clarify those possibilities to those we communicate with - in a report, in a lecture, in any scientific context. A journalist or playwright may, of course, also know about their perspective, but it is not customary for them to unveil it directly to their readers - who would probably regard such confessions as unbearable and a waste of time. We go to the
theater to be entertained, not to discuss meta-theoretical principles, at least not as a direct part of the performance.

2.2. Pragmatism

Pragmatists of the early 20th century probably did not discuss problems of actor and structure mentioned above. But they were eager to do away with other dualisms, like subject-object, means-ends, body-mind, theory-practice etc. These are classics in philosophical discussions, and pragmatists tend to solve a dualism by scrutinizing the consequences of the dispute, i.e. by looking at the problem at hand and trying to specify the context or problem situation in order to clarify consequences of action. We are not, however, speaking of some version of a narrow, abstract evaluation based on a particular set of values, as in cost-benefit analysis. There is an intrinsic value simply in being part of a process of action because those participating are developing their skills to solve problems (Ansell n.d., 12). In so far as people are capable of learning from trial and error, this is the case even if they fail.

The process of clarifying consequences of action is carried out by active uses of experience, but it is important to understand the concept properly. For instance, Dewey did not conceptualize experience in the usual sense as a subjective event, a constellation of ideas residing inside some sort of mind. For Dewey, experience means “a process situated in a natural environment, mediated by a socially shared symbolic system, actively exploring and responding to the ambiguities of the world by seeking to render the most problematic of them determinate.” (Alexander 1987, xiii). Experience, then, is not a subjective or reductionistic concept, based on cognition; it is an involved, meaningful and shared response to the world and one another (Alexander 1987, xvii).

Experience has no fixed or deontological meaning (see the Miller/Shields debate discussed in chapter 2.4). It is part of a process and can be used by the participants for their process of learning, but its use remains exclusive to those participants an cannot be used derive any absolute, moral or deontological meaning. Of course, one cannot forbid the participants to infuse whatever values they may have in the process, but none of such values has a higher status than others, and it is the outcome of the process that determines the direction of any evaluation, not the values people hold.
Based on that understanding, we can relate experience to pragmatism and contextualization. “Experience begins with a situational, present problem that calls forth our attention. In the expressive, creative act of solving this present problem, we create a gestalt unity of past experience with future consequences. Problem-solving requires the actor to develop a hypothetical or experimentalist stance towards prospective action - a sense of expectancy. Development occurs because problem-solving requires a reconstruction that draws on both the past and future. Meaning is created through the act of solving problems” (Ansell n.d., 11).

Similar examples of thought which may be linked to pragmatism are found in fairly recent publications like John Forester’s book on the deliberative practitioner (Forrester 1999), which has roots in the work of Donald Schön’s reflective practitioner (Schön 1983). At a more abstract level, the ideas about *phronetic research* (Flyvbjerg 2001) can be said to be a reformulation of pragmatic reasoning. We shall return to that in chapter 6.

For now, I will sum up that the processes indicated to above come close to the process of *abduction*, a process of reasoning “the other way round” or *bottom-up* in a causal chain: from an effect to its cause - originating from Charles Peirce (Menand 2001, 367); he also called it *retroduction*, and it may be seen as a provisional acceptance of a hypothesis¹. If a causal theory states that A causes B, and one observes B, one may by abduction infer A. This is what detectives do, at least in novels, and doctors diagnose diseases from symptoms.

One often meets the view that abduction is some form of induction, but I can illustrate the difference as follows - the scene is that of a researchers in local government: What can they say about mayors? Let us spell it out for deduction, induction and abduction - in absolute simplicity:

**Deduction:** All men who are mayors wear golden chains - the men in the room are mayors -> the men in the room wear golden chains

**Induction:** The men in the room wear golden chains - the men in the room are mayors -> all men who are mayors wear golden chains

¹ In the following discussion we do not follow the foot prints of Peirce - this would require a positive understanding of precise signifiers and correspondence truth - an understanding far from the anti-foundationalism that informs the new pragmatism. For a more foundationalistic (“Critical Realism”) line of thought on abduction, see (Bertilsson 2004).
Abduction (to a factual statement/hypothesis): All men who are mayors wear golden chains - The men in the room wear golden chains -> The men in the rooms are mayors.

Abduction, then, is one way of formulating hypotheses. As the above should make clear, it is not just a hunch, guesswork or feeling. It is a particular way of reasoning. But there is a clear risk for error by reasoning within abduction: If other people than mayors wear golden chains, the men in the room need not all be mayors. Similarly, the doctor watches a number of symptoms in a patient, but the symptoms may have other causes than a specific disease. Therefore, the doctor tries to do a number of tests that can exclude some of the possibilities. Still, there is an element of guessing involved, as Peirce had found when he disclosed a thief without any hard evidence, and invented the phrase of abduction based on that experience (Menand 2001, 367).

But the guessing does not take place in an empty space when we are speaking of social research. One may say that abduction means an interpretation or a process of recontextualization of what we observe (Danermark and others 2002, 80). To place it within a conceptual scheme or a set of ideas as above: men with chains around their necks probably are mayors - particularly if we can minimize the plausibility that they are University Presidents. Based on that hypothesis, we can then infer characteristics of mayors on those men. On a personal level, we can then create a logic of appropriateness if we want to address some of them in a conversation. On a theoretical level, we can create abstractions of what we observe and use the abstractions for further scientific work on mayors. In other words, we try to order what we see, and by following the rules of abduction we fulfill our obligations to communicate to other researchers what steps we are taking in the research process: what we observe and how we categorize our observations.

Abduction may be used in any kind of research process. In pragmatism, the important difference to e.g. constructivism is the desire to be an active part of a changing world; to solve the problem at hand. Therefore, truth for a pragmatist is to see action fulfilling a purpose, and accordingly, theory should be used to help change agents initiating and implementing action for a - hopefully - better world. This is accomplished, not by a lonely scientist thinking and testing ideas, but in an interactive context, a community. We shall return to concrete, interactive uses of abduction below.
3. Knowledge and reflexivity

In traditional social science, the relations between researchers and stakeholders (in the widest sense of the word) are characterized by distance: The stakeholders will voice that there is a problem, but then the role of the researcher is to define the appropriate research questions and the perspective (theory) for addressing them; then to collect and analyze data, and finally to draw conclusions to the research questions and disseminate the results to the stakeholders and other interested parties - for them to ponder, draw their own conclusions about and then act as appropriate.

Constructivists and pragmatists have a different view. They invite us to take a closer look at the research process in terms of interaction and learning. The scope of what is to be considered knowledge is widened to include more than research institutions; there is a continuum from pure science in universities over special research institutes, think tanks, and consultants, to interest organizations and public organizations.

The preceding discussions have presented the result of the scientific process - knowledge, “truth” - as one entity which may be based on various processes and have various ranges. But knowledge can take various forms. A well-known dichotomy is “knowing that” versus “knowing how”, that is, having precise knowledge about facts versus knowing how to obtain some facts if necessary. I may know that two million hogs are produced annually in Denmark, because I can read it in public statistical tables - but in order to bring that figure into some perspective, I should know how to get other kinds of statistical information to assess e.g. the value of hog production for Danish farming, in relation to other products like dairy products or sugar beets. I may also be interested in environmental impacts of hog production, e.g. odors in the neighboring village.

Another dichotomy - close to the first one - is propositional knowledge versus procedural knowledge. A third dichotomy is explicit versus tacit knowledge; the former may be expressed by a person e.g. as a proposition, the latter is not put forward verbally, but put to use in a more or less unconscious way.

These dichotomies, however, are rather simplistic, and they seem to over-emphasize the importance of propositional (i.e. classic scientific) knowledge. John Heron has worked extensively on broadening our perspective on forms of knowledge (Heron 1992, 161–176; Heron
1996, 52–58). His principles take departure from and are integrated into psychological theory, but I see them as applicable across the social sciences. Heron distinguishes between four types of knowledge: experiential, presentational, propositional, and practical. These forms are interdependent in various ways, as we shall return to below.

**Experiential knowledge** refers to direct, personal experiences which one may say are “added up” in a person’s mind. It is based on the *world of presence*, our being there, feeling our presence as human beings, using our perceptions and imagination with an emphasis on immaterial qualities (Heron 1992, 157–158). In psychological terms the way we act, based on experiential knowledge, is dominated by feelings and intuition. But since it is through encounters with persons, places or things that the individual builds up his or her experience, this concept nonetheless emphasizes the role of participation, being with other people, it is not just an inward directed type. The reality or validity of experiential knowing therefore is "lived experience of the mutual co-determination of person and world." (Heron 1996, 164). A comparable concept - reaching out to the social sciences, and coming close to experiential knowledge - is *learning* as it is used by organizational theorists based on an understanding of a social process - the capacity to sustain one’s own transformation by referring to how people make sense of their experiences at work and other social settings, and act accordingly. A simple example is the reactions of individuals as well as the industry to the rising costs of heating: to provide more efficient insulation of houses. It pays off for all parties and for the society at large.

**Presentational knowledge** goes beyond what is so to say stored in the individual and therefore maybe not made explicit for other people. Presentational knowledge is the way we represent our knowledge through various forms of images such as metaphors, myths, drawing, writing, dance, art or stories. This kind of knowledge is rooted in the *world of appearance*, the world view of the artists and phenomenologists; producing patterns of phenomena and interconnections between them (Heron 1992, 159). In psychological terms, the way we act is dominated by intuition and reflection, producing a form of analysis and expression very much

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2 Heron explicitly distances himself from pragmatism because he thinks that pragmatists equate truth with propositions that work; in his opinion, the working of a proposition does not *establish* its truth, it *consummates* it (Heron 1996, 169).
mirroring the particular aspects of the individual performing the activity. The reality or validity of presentational knowledge is “significant form and pattern ... that interconnects analogically and metaphorically in a whole network of other significant forms and patterns.” (Heron 1996, 164). The closest concept from recent social science discussions of epistemology probably is *techne* in the version that stresses the craft of the person performing the presentation\(^3\). It is oriented towards the practical world rather than conceptual brilliance, and it is based on instrumental rationality, driven by stated goals (Flyvbjerg 2001, 57). Many traditional social scientists would perform such roles as consultants. Only they would not regard this activity as scientific, but an extracurricular activity which may be enjoyed for gaining new experiences and maybe even handsome pay, but it is not integrated in their scientific work.

Propositional knowledge is factual knowledge represented by concepts and linked together to coherent observations about the world. It is usually expressed in terms of statements, facts, or theories. This kind of knowledge is based on the *world of essence*, dominated by universals and general ideas, which we use to determine the nature of things (Heron 1992, 159). In psychological terms, we act by mixing reflection and intention to theories and models, a classic way of action for the intellectual person, trying to lift the action out of the strong links to individual personality (as in presentational knowledge) and placing it in a broader context. It is of primary importance in classic social science as we have discussed it above. The reality or validity of propositional knowledge is derived from “the combined sense and reference of concepts.” (Heron 1996, 164). In the broader recent epistemological discourse, the closest concept appears to be *episteme*, meaning knowledge based on general analytical rationality as we know it from mainstream social sciences as they have developed over the last century or more (Flyvbjerg 2001, 57). The aim is to create generalized knowledge across time and space.

Practical knowledge is knowledge in and by action. The proof of the pudding is the eating - and when we carry something out, we know that it is happening. Our abilities to express it as presentational or propositional knowledge, however, may vary. Practical knowledge has its roots in the *world of existence*, the world view of the doer, for whom intention and action are

\(^3\) Another interpretation of *techne* puts more emphasis on technical and instrumental rationality, see (Flyvbjerg 2001, 57)
primary, creating a lived world of enterprise and endeavor (Heron 1992, 159). In psychological terms, we act by a mix of intention and feeling, emphasizing interpersonal encounters and relationships, creating social structures. The reality or validity of practical knowledge is “excellent practice and its effects.” (Heron 1996, 164). A concept from recent social science epistemology that comes close is *phronesis*, the ability to act prudently within a practical situation, based on intimate knowledge of the relevant social or other practices and their relations to the settings we are operating within (Flyvbjerg 2001, 57). Flyvbjerg, however, wants to reserve phronesis to value-based activities, in brief, *ethics* and deliberation about its practical uses by interested parties.

A few words may be in place regarding the short associations made above with recent social science epistemological discussions. As can be seen from the references above, these are triggered by, among others, Bent Flyvbjerg’s work which became broadly known among social scientists by his book on *Making Social Science Matter* (Flyvbjerg 2001), followed by some how-to articles (Flyvbjerg 2003; Flyvbjerg 2004). I have used his triple-conceptual discussions of *episteme*, *techne* and *phronesis* to indicate familiarity with three of Heron’s concepts, but the fourth one does not have a counterpart in Flyvbjerg’s universe. This, of course, is not the fault by either theorist, it is due to different perspectives, and my use of Flyvbjerg is only an approximation - and some may say that I twist his uses. I do, however, find the familiarity so close that I want to call attention to it. Flyvbjerg uses the term experience, but only as a prerequisite for phronetic action - experience is used to infuse practical knowledge into the process. It is, however, not integrated into Flyvbjerg’s approach.

There are also some differences between the two approaches. Especially it seems that *techne* goes beyond presentational knowledge and spills into practical knowledge, and *phronesis* exceeds practical knowledge because of Flyvbjerg’s demands for ethical action. In addition, there are important differences in the goals of the two theorists. Heron discusses types of knowledge, and Flyvbjerg discusses “intellectual virtues” in science, which may roughly be translated as approaches. Heron’s fourth type of knowledge is simply not part of Flyvbjerg’s universe, because it is not an intellectual virtue and therefore out of scope. This statement is not a critique of Flyvbjerg’s approach, just a recognition of the differences. But in my context,
experiential knowledge is a form of knowledge which I want to bring into our understanding of how social science may operate.

According to John Heron, his four aspects of knowing may be approached and understood in two ways. Below, his ways of understanding are presented, but also amended in order to better include the points of view from social science.

First, the four types may be seen as ordered in a pyramid. At the broadest level, the bottom, we have experiential knowledge, expressing a resonance with being. For our social science purposes, we could simply say that this is where people formulate their immediate concerns about the world as they experience it. On this foundation then follows presentational knowledge, based on metaphors and symbols. In social science, we would of course recognize the artistic elements, particularly those related to metaphors and story-telling in a hermeneutic vein. But in addition we have e.g. the statistical way of manipulating data and presenting the information coming out of this process as graphics of various kinds. The third layer of the pyramid is propositional knowledge with its theories and generalizations. This, of course, is home land for all social scientists, what is new is that this territory is not the one and only to know about and to base your scientific endeavors on. Finally at the top of the pyramid we have practical knowledge with encounters and experiments. When in the social sciences we speak of action and hence pragmatism, practical knowledge is in many ways the one to strive, but again, it is extremely important to realize that it is based on the other three. So in the social sciences, we cannot isolate experiments and action as the only acceptable scientific approaches, they interact with other forms of knowledge, and this interaction we must understand if we want to fulfill the basic scientific demand that we can lay bare the whole research process for others to comprehend and discuss in a critical vein. This leads to the second understanding of the relationships.
This second perspective sees the four types as distinct, and not ordered in a hierarchical pyramid, but interrelated in a process. In research, this means an ordering of a process of scientific reasoning into an approach that is getting near to a circular movement with possibilities of going back-and-forth between all the forms. One starts out with some beliefs about the research object, and step by step these beliefs are changed into various kinds of knowledge. This inquiry cycle (Heron 1996, 52–57) would probably start out with a presentational form of communication about one's beliefs (which may rest on experiential beliefs), in a form as images or symbolic knowledge of what one is going to investigate. One then proceeds to specify some propositional beliefs about the research object and proceed to test them out in practice. This leads to some experiences which then may be expressed in some presentational form, and one can then go on to re-formulate this into propositional language. But beliefs now have changed into knowledge (which of course may be challenged by other observers) to be tried out in practice, etc.
The familiarity with the concrete uses of abduction discussed above should be fairly easy to see - the process goes back and forth between tentative knowledge (beliefs) to more certainty provided by the scientific procedure - open, transparent and subject to reflection and revision at any point. Certainty, however, is not equal to generalization or formulation of law-like statements. The knowledge produced is contextual, but may be transferred to other contexts provided that it is either tested out or stated as provisional or tentative.

The discussion above leads me to conclude that in constructivism and particularly pragmatism, there is a strong need for ongoing communication among those who are involved in the research process in the broadest sense. The research process becomes reflexive beyond the thoughts of the individual researcher. It should be clear now that different kinds of knowledge may be produced in different academic settings or approaches, each with a particular rationale, and in so far as we speak of pragmatism, the realization of visions are important - and if it is not feasible to do things outright, the research communication should take place in a spirit of accomplishment.
Different types of producers of research, then, should participate in elaborate communication about how to conceive of the world. As a result, they form an inter-organizational network, creating what could be called an *agora* (Nowotny, Scott and Gibbons 2001, 201), a platform for exchanging points of view substantiated by various forms of data. They are working in a division of labor that is not fixed, it varies according to circumstances, and they have as starting point that knowledge is contestable, not steadfast. This is not just an invitation for critical voices to comment on the research results in e.g. Flyvbjerg’s sense of being part of a dialogue with a polyphony of voices (Flyvbjerg 2001, 139; Flyvbjerg 2003, 378; Flyvbjerg 2004, 300), which in itself of course is a worthy way to proceed. In that kind of dialogue, the accomplishment of the research is only one input among many - from other social actors - to an ongoing dialogue about what to do. But the *agora* goes beyond discussing concluded research results and weighing them against other statements, it invites dialogue at all stages of the research process.

One aim of the *agora* is to bring wisdom into the research process, not just to discuss accomplished research results. In the vein of the *agora*, one does no longer design a research process as a stream moving forward like: idea -> conceptualization -> theorizing -> operationalizing -> data-producing -> analyzing -> concluding. The process becomes more messy with various actors in continuous communication about what is to be done and why: What can be learned from what we experienced five minutes ago, how does that square with our ideas up till now, how may that lesson affect the research project onwards, etc. In other words, every one involved in the project in the broadest sense may interfere with thoughts on the undertaking and its progress. The pragmatists go even further because they want to see action. Therefore, they also interact about possible forms of solution to a (policy-)problem in the light of what is so far known, and they will try out solutions as well as contest them in a broad dialogue between practitioners and researchers.

Let us go back to abduction and take a look at its possible role in processes of dialogue on the *agora*. Abduction is important in processes of innovation which may be seen as going back and forth between a version of generalized knowledge - lessons learned, maybe based on events from one’s past - and concrete action or concretization in a particular situation. This often
the case within processes of consultancy: the consultant meets a group in an organization, listens to their problems and uses theories or past events from his working life to suggest solutions by “parallel ways of thinking”, adapting some kind of generalized knowledge or pattern to a new situation. The group reacts to the proposal, some opposition comes up, the consultant reacts again based on past theory/experience, and so the process evolves, in a process of continuous quasi-experimentalism:

a) problem presentation
b) categorization based on recognition of pattern
c) dialogue about possible solution(s) relevant to category
d) first testing and critique in dialogue
e) amendment or change of category
f) refinement of solution
g) second testing etc, in dialogue

In principle, every step in this process may be subject to dialogue with stakeholders of various kinds. The example above was dealt with by a consultant, but a researcher could follow the same procedure. In such a process, experiential knowledge will probably play a strong role under problem presentation, pattern recognition and dialogue of possibilities of solution(s). Presentational knowledge may be important under problem presentation and categorization, and during amendments of categories. Propositional knowledge comes to the fore under possible solution(s), testing and refinement, and practical knowledge should be the outcome of all testings and critical dialogues.

Unlike the natural sciences and a classical positivistic scientific method, we do not expect this process to reach one final conclusion which then will be applied to the problem. In this case, we witness a process of applying “what is known” to another field of operation, by parallel thinking: uses of a particular logic of action or principle, modified to new/particular circumstances. This process will point at conditional rather than generalized statements. In other words, context is everything when it comes to application to the problem at hand - but the context has be made understood by the participants in the process; this happens by dialogue and a continuing testing of levels of understanding by those involved - until the demands or wishes
of the participants are satisfied, for now. Tomorrow may be another situation demanding new ways of action.

In a similar vein, some organizational theorists speak of translation. The consultant intervenes into the processes of the organization with some - for the members of the organization - unknown ideas, and those ideas are then adapted to the situation.

“When new and foreign ideas and artefacts join together to form collages, the individual parts inevitably change the meaning they had in the previous context. The metaphor translation characterizes the process: in order to bring an idea into the local cosmos from any part of the outside world, one has to use a cultural code. ..... Translation aims at the appropriation of an external thing, which is then given another function, an altered meaning and often a new shape in the new context.” (Sevón 1996, 214).

Such processes should make the participants attentive to identity. If there is any reason to maintain the role of a “researcher” and a “practitioner”, these role holders should be careful that they can be identified when the project is over. Several discussion themes indicate what is at stake. Some speak of cooptation, seeing a risk that the researcher becomes a part of a political process in such a way that s/he can no longer maintain an independent stance and/or cannot voice an opinion that deviates from what is thought to be appropriate in the organization under investigation. A related metaphor is marriage. The researcher becomes married with his or her field of study, a well-known element of methodology within anthropology where the researcher goes “native” with the clan under scrutiny in order to properly understand their mores.

These terms indicate a troubled relationship between the researcher and the world s/he is doing research in. The main point seems to be that the social scientist loses the ability to perform judgment independent of the people s/he is working together with. Empathy or sympathy develops, and the critical distance that is necessary for scientific work, disappears.

One may also ask how the researcher knows that the right persons or roles are involved in the research process. There is an obvious risk that some voices are silent because they are not there - they are not invited, they may be kept outside as part of a power game, or they may not all have been identified (so they are neglected out of ignorance). “Interactive research” needs a normative basis which must be explicit and open for discussion - if not, there is a risk that there
will just be a bias - which is hidden, not open for discussion and hence quite a factor of vulnerability for the research process.

Moral and ethical considerations are important in social science, and this becomes even more evident in a reflexive research process. Those who get voice also get a strong base for influence. This is not to say that voice alone equals influence, in reflexive processes all statements from the participants are open for discussion and probing. Consequently, the quality of such dialogue depends on the abilities of the participants to think critically about what the other participants say and to challenge their opinions in a constructive and non-adversarial way, and thus the dialogue is step by step brought forward to a higher level.

4. Concluding remarks - questions

My basic claim is that when we engage in interactive research, we have to take many forms of knowledge into account. Heron’s four categories suit my purposes well, I think. The next question, then, is how to make use of the four categories:

- how do we report on them? How do we make explicit what type of knowledge that forms the basis for the various sides of our reflections on the research? Such considerations are necessary if we want to follow the demand of making the research process transparent.

- is there a need to distinguish between them in the uses of research results - is one type more “worthy” than another in our reporting on the research? In other words: Should we strive for propositional knowledge as the ultimate sort of knowledge?

- how do we understand what makes the three “other” types of knowledge valid? Is validity a concept that helps the research process, or should we abandon it or amend it to new forms?

Works Cited


