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# Subjectivity and Reflexivity in the Social Sciences: Epistemic Windows and Methodical Consequences

*Franz Breuer & Wolff-Michael Roth*

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**Abstract**: We sketch four basic epistemological assumptions that imply a constructionist orientation to knowledge including (a) perspectivity, positionality; (b) horizonality, dynamic observer position; (c) the structuring of knowledge through instruments of knowledge production; and (d) interactivity and interventionist nature of research. Although social scientists often adopt a constructionist epistemology to frame their research object, the methodological consequences of such an epistemology for the production of social scientific knowledge are not normally drawn. Instead of dealing with the four assumptions as a productive epistemic window, many researchers exhibit a defensive tendency and continue the quest for objectivity in their own writing. We propose a different methodological position conceptualized in the dialectic of the always embodied, individual, and social researcher-in-interaction. Beginning with the concept of a decentered (self-) observation we develop the idea of the reflexive nature that relates the epistemic subject and object. We propose a way systematizing methodological considerations and procedures that follows the research process, beginning with the identification of a research topic to the final presentation of the results. The contributions to the two present *FQS* volumes on "Subjectivity and Reflexivity in Qualitative Research" provide answers and possible solutions to the questions and problems raised in this introduction.

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## 1. The Epistemological Starting Point: Constructionism

Over the past two or three decades, the subject-centered nature of all human knowing and learning has become increasingly salient. Accepting the contingent nature of scientific research and knowledge was not easy for scientists. However, many participants in the current epistemological and methodological debate seriously question the possibility of objective knowledge that does not carry traces of the epistemic subject's actions. "Objective knowledge is the construction of an epistemological subject that regards itself as the absolute because and as long as it does not know anything about itself" (RAUSCHENBACH 1996, p.21; our translation). Taking the position that all knowledge is necessarily marked by the actions of the knower has consequences that constitute the point of departure for the FQS special issues on "Subjectivity and Reflexivity in Qualitative Research." We take the position that it makes little sense to talk about knowledge without also talking about the *epistemic subject*: the knower and the known form a dialectic unit. Any bit of knowledge, however purified in the process of reporting it to a wider audience, bears the marks of its epistemic subject. Knowledge is therefore inherently *subjective*, inherently structured by the subjectivity of the researcher. All we have to do is look underneath the neat surface of "facts," re-open the black boxes that are used to hide the contingencies of knowledge production and the subjective nature reappears (LATOUR 1987). [1]

The fundamentally constructed nature of knowledge has been described and elaborated from a number of different epistemological positions, including radical constructivism (MATURANA; GLASERSFELD), radical relativism (GOODMAN), semiotics (ECO), the sociology of knowledge (FLECK; KUHN), and science studies (KNORR-CETINA; LATOUR & WOOLGAR). These authors agree that knowledge bears the characteristics of the epistemic system, that is, of the knowing subject and its activities, actions, and operations. Relevant characteristics are observable in different contexts and at different scales, including physiological-biological, ethnic, neural, cognitive, verbal, textual, social, and sub/cultural levels. For example, recent research in the cognitive neurosciences shows that the structure of our physical bodies enables and constrains what and how we know (RIZZOLATTI, FADIGA, FOGASSI & GALLESE 1997). Similarly, physiological research showed how efferent processes tune receptors and therefore shapes what and how an organism perceives its environment (JARVILEHTO 1999). [2]

In the following, we develop four basic characteristics of knowledge and knowledge construction, including (a) perspectivity, positionality; (b) horizonality, dynamic observer position; (c) the structuring of knowledge through instruments

of knowledge production; and (d) interactivity and interventionist nature of research. [3]

### 1.1 Perspectivity, positionality

All knowledge depends on the position (point of view) of the epistemic subject not only in a spatial but also general and metaphoric sense. The birds-eye perspective is an ideal that embodied subjects cannot ever take; there is no Archimedean point outside the world. Perception and therefore knowledge are always tied to some position, which inherently gives the epistemic subject a particular rather than a general perspective. Although the integration of two or more perspectives lead to new forms of perception due to binocular (BATESON 1979) or "multinocular" vision, each contributing perception is still situated. Thus, the two statements "The moon is to the right of the steeple" and "The moon is to the left of the steeple" seem to contradict one another but can both be "true" depending on the observer's spatial position and his or her specific frame of reference. Depth perception arises exactly from this phenomenon, whereby the left and right retinas are differently stimulated in their interaction with the world (CHURCHLAND & SEJNOWSKI 1992). [4]

### 1.2 Horizonality of knowledge and perception

Every perception takes place in a system that moves with respect to other systems. This system constitutes an (interpretive) horizon for perception. From within the system, this motion cannot or not easily be observed—for example, we do not notice the saccades of our eyes or the eye movements that make possible reading an unknown text aloud. The motion can be observed from the outside of the system, from another frame of reference. The experience of a sun rising in the morning and setting in the evening is an example of horizontality: Within our frame, the earth stands still, forms a stable horizon, and the sun appears to move with respect to us. In a "decentered" position we would make a different observation. For example, from a fictional observer position above the plane in which the sun and the planets move we would see the sun as relatively fixed and the Earth as revolving around the sun. The idea of the dynamic and relative character of the observer point of view played an important role in GALILEI's attempts to promote a heliocentric worldview and served to illustrate EINSTEIN's theory of relativity—observations depend on the frame of reference, the horizon, which the observer chooses explicitly or implicitly. EINSTEIN's theory of relativity also makes clear that there exists not only spatial relativity but also temporal relativity with respect to observation. The temporal changes in perception are articulated in the motto, "Tempora mutantur, nos et mutamur in illis" (Times change, and we change with them). While in the field as participant observers, our perceptions and understandings of salient objects and events change. Thus,

> "A historian living during the late days of the rule of the Roman emperor Tiberius would surely not have talked about the passion of Christ. The only context for telling this story would have been in the tale of the political and religious riots of the Jewish

> people. But in this tale, Jesus would have only had a walk-on part—not until the history of Christianity began." (VEYNE 1990, pp.35ff; our translation) [5]

### 1.3 Structuring of knowledge through instruments of knowledge production

Knowledge depends on our senses, on concepts, schemata, language and instruments. Every nerve takes part in producing perceptions that are specific to it. No matter how I stimulate the retinal cells, such stimulation always produces visual perceptions. Creatures with different sensory equipment produce different pictures of the world (i.e. UEXKÜLL & KRISZAT 1983). Furthermore, these nerves are not constant in the way they react to physical stimuli but, in addition to the normal fatigue and latency processes based on the biochemistry, are tuned by efferent processes (JARVILEHTO 1999). That is, "we can see only what we know to look for" (NEISSER 1976, p.20). That means we need an experience-based differentiation of our perceptual abilities—perceptual schemata—to be able to notice certain stimuli; and this differentiation arises with our own actions (NOË 2002). In scientific research, the methods for knowledge production (procedures, instruments) select those aspects that can be observed directly or through their presumed effects on other things. The choice of method is necessarily a subjective decision concerning the selection of facts and the manner of interaction between epistemological subject and object (e.g. BREUER 1991)—even intersubjective criteria are subjective. [6]

### 1.4 Interactivity and interventionist nature of research

*Interactivity* pertains to the interaction, or perhaps more accurately, the transactions between epistemic subject and its object that bring the two ontologically different entities into a dialectical unit. Agency and structure are dialectically united (SEWELL 1992). There is no object without subject, and the subject requires the object to become itself. There is no Self without the Other; Self and Other coemerge simultaneously from the actions of the productive subject (RICŒUR 1990). The necessary contact between the epistemic subject, inherently corporeal in nature, and the object known, leads to the *interventionist* nature of knowing. We do not learn merely by looking at the world, without interacting with our environment we would never be able to see (CHURCHLAND & SEJNOWSKI 1992). Furthermore, these interactions also lead to the fact that simultaneous observations are not independent. The notion of the interdependence of two observations has played an important role in atomic physics. HEISENBERG's uncertainty principle states that on a subatomic level there are certain pairs of variables that cannot be measured simultaneously with arbitrary precision—the more precise researchers measure one variable (e.g. velocity, energy) the more imprecise the measure of its correlate (i.e., momentum, time, respectively). This idea is also of great importance to the social sciences: Every observation in a social context *changes* the object of observation (ROTH 1993). Because of the interventionist nature of (social) situations every observation affects the observed object. In the sciences all data arise from the transaction between subject and object—though in some (i.e., natural) sciences these effects may be relatively small. Yet this transaction between the knowing

subject and its epistemic object is one of the most dreaded characteristics of knowledge production in the social sciences. If the act of perception itself modifies the epistemic object, any claim to objective measurement is questioned in a fundamental way. Some social scientists spend much effort on methodical refinement and elaboration to eliminate this aspect both practically and methodologically. [7]

In summary, knowledge and knowledge production bear the characteristics of the epistemic subject and the transactions between subject and object from which the knowledge in question has resulted. On an epistemological level most social scientists nowadays appear to agree on the contingent nature of the knowledge of others. But the consensus is only valid as long as it does not come with "costs," that is, as long as the epistemology is not applied to their own knowledge. In the current era of social science research, the epistemological credo to constructionism or constructivism has not yet led to the inherent consequences for theorizing social science knowledge and knowledge production. [8]

## 2. Constructionism Does Not Affect Research Methodology

The hardly avoidable subjective nature of knowledge is often perceived as a "loss of control over the conditions of knowledge production" (AMANN & HIRSCHAUER 1997, p.17; our translation) and is considered as endangering the production of "objective" knowledge. In response, researchers often enact *defense* strategies in their choice of methods rather than confronting the epistemological challenge. Rarely do researchers regard the subjective nature of research as a productive opportunity, an *epistemic window* and a possibility for *methodological innovation*. Both Gregory BATESON and Karl MANNHEIM provided examples that draw on perceptual metaphors to articulate alternative ways of understanding perspectivity and horizonality. Thus, diverse perspectives can be used in a productive manner. Rather than triangulating commonalities and thereby eliminating differences multiple perspectives can be employed synergistically. In fact, informational difference is the key to depth perception in binocular vision. Our two eyes see the world from a slightly different perspective, which creates a new perceptual quality in *depth perception*. To see in depth, we require *different* perspectives even if these are very small. Gaining "depth" is a general principle of knowledge production that arises from the juxtaposition of multiple, different perspectives (see BATESON 1979, pp.71ff). [9]

The recognition of cultural blind spots is a rather recent achievement in the social sciences, for even those disciplines that now consider (self-) reflexivity as an inherent characteristic of knowledge production only treated the worldviews of others as "relative," culturally determined (MARCUS & FISCHER 1986). Thus ethnographers and anthropologists only wrote about the knowledge of others as culturally situated and relative. They hardly ever noticed the relativity of their *own* knowledge and worldview. Over the years, however, ethnographers have increasingly opened and taken an introspective turn, eye-witnessing also became "I-witnessing," for "to be a convincing 'I-witness,' one must, so it seems, first

become a convincing 'I'" (GEERTZ 1988, p.79). The constructive nature of scientific knowledge production has become increasingly evident in those sciences concerned with understanding social, cultural, and intellectual dimensions of knowledge production. What appeared to be "objective" knowledge has become *constructed knowledge*, which inherently would be different if constructed from another perspective. Researchers in the social and cultural sciences seldom accepted this notion for their own research although there have been exceptions, for at least some sociologists moved from the constructivist turn to a reflexive turn (e.g. ASHMORE 1989; WOOLGAR 1988). For others, the turn came with resistance and substantial delay. They wrote widely about the constructed nature of knowledge without accepting that their knowledge bears all the marks of construction and subjectivity. [10]

Social scientists—and especially social scientists working in the qualitative tradition—are mostly "constructionists (constructivists)" but do not apply this epistemology to their own knowledge. They accept that people construct their social world, structure it, and find it meaningful. That means a social world as experienced by its inhabitants has characteristics of these inhabitants (BOURDIEU 1997). But the scientific view of this world is often taken as having a superior epistemological status, as being *more objective*. This view implies a self-deception in that it fails to understand the researcher as an equally subjective system, a member of a social world whose constructions are mediated by individual and social characteristics. There is therefore an uncoupling of epistemology (knowledge of the other as constructed) and methodology (scientific knowledge as untouched by the beliefs and actions of researchers and their culture). One may therefore have the impression that researchers are but skin-covered, interchangeable instruments. The researcher implied in textbook methodologies has no age, sex, smell, color, or socially conditioned habitus. Many qualitative social scientists treat interpersonal differences as extraneous variables leading to errors that need to be minimized and even completely eliminated. They tend to forget them—because they want to forget them—and thereby are in good company in a scientific community that shares this tacit consensus. The "tales from the field" (VAN MAANEN 1988) are usually told only after hours in the form of anecdotes or jesting and strange stories. [11]

How much the scientific community objects to the researcher's ordinary, everyday human nature is apparent in an episode from the history of ethnography, that is, the (posthumous) publication of Bronislaw MALINOWSKI's private diaries written during the time of his field research in the South Pacific. Initially the method of participant observation MALINOWSKI had pioneered was considered a groundbreaking authority in ethnography. The introduction, however, points to the uneasiness with which the diaries were published because of their offending and shocking nature (GEERTZ 1988). Some characterize MALINOWSKI's approach as "paternalistic objectivism" (FUCHS & BERG 1993, p.37), because the ethnographer alone is taken to understand the background and principles of the community or culture under study. These diaries describe subjective strains of fieldwork, far away from home and family, personal reactions, and coping strategies (including his helplessness, depression, berating of participations, and

erotic desires). Instead of clinging to a fictitious ideal of knowledge production, this debate led to a more realistic appreciation of participant observation as a social, interpersonal, and psychological process that involves concrete individuals. The main purpose of the present *FQS* issues on subjectivity and reflexivity was to consider possible consequences of this constructionist approach for concrete research methodology. The editors of the issues wanted explicit discussion of these issues without the fear that the authors' methodological expertise and ways of knowledge production would be questioned. [12]

## 3. The Counter-Position: The Embodied, Individual, and Social Researcher-in-Interaction

The classical view conceives the research products as independent of the characteristics of the research processes and researchers. However, this ought to be treated as an assumption that requires empirical evidence. A more minimal assumption is that the research products are in fact a function of research processes and researchers. The fundamental question therefore is, "If we cannot eliminate the situated and subjective nature of the researcher, how can one *utilize* it positively in *knowledge production*?" An interesting counter-position to the one outlined above is the embodied researcher, who bears social, historical, socialized, and biographical characteristics and who *interacts* with and *intervenes* in his or her research object (participants, research field). [13]

Franz: In my interactions with research participants I explicitly acknowledge being male, in the fifties, with a certain—strange or attractive—outer appearance, academic, foreign to the participants, speaking High German in a way that is sometimes perceived as complicated or archaic. My participants may perceive me as foreign, good-natured, awkward, naïve, harmless, un/interesting, or as a temporary visitor. Accordingly they may be cautious, helpful, open, reserved, careful, insecure, or conforming. They attempt to accommodate my communicative competencies. They want to make me an ally for their interests. They anticipate my departure from the field. I experience my participants as exotic, friendly, well-behaved, demanding, and unsettling. I try to overcome these experiences by sticking to my research plan (interview schedule). I do not acknowledge or react to the signs of uneasiness or warning signals exuded by the participants. I ignore these signals and do not make them thematic. Without taking such social, cognitive, and interactive characteristics of the research meeting into account, I cannot adequately understand my research data. Above all, I miss information that a decentered and self-reflexive view of my participation, role, relation, reaction patterns, and influence on my research participants and field could reveal. [14]

Michael: Fieldwork always is an existential experience, filled with angst of appearing to participants as a traditional researcher, who objectified their participants into research subjects. By asking others to become participants, to participate in my activity system, I am obliging them, and every moment of an interview I sense the need to return. Participation is a gift, and my culture requires the gift to be followed by a counter gift, the schema of the "give as much as you

take" in a generalized form of exchange so common across cultures (LÉVI-STRAUSS 1958/1974). But the gift is impossible since the emergent obligations no longer allow the gift to qualify as a pure present at the very moment that I recognize a transaction the gift becomes Gift (German, poison), the *pharmakon* or poisoned present (DERRIDA 1992). I squirm, reflexively aware of our presence, the participant's and mine, feeling the impossibility of the gift that my culture seems to require. I go feed the fish in return for the interview with the fish culturist and thereby turn the gift into the first part of an economic exchange—the madness of economic reason. [15]

Researchers and their participants are part of one another's world; they constitute stimuli to each another (DEVEREUX 1968). These stimuli elicit specific reactions on both sides in addition to those elicited by the intended methodical procedures. Researchers and participants have differently tuned sensors, ways of seeing, standards, and interpretations for the stimuli issuing from the other and themselves. They enact different practices, strategies, and interactive competencies to process these stimuli and act upon them. Acknowledging these phenomena is more important for collecting and producing data than the detailed elaborations of methodical procedures in textbooks. [16]

## 4. A Different Methodology for the Social Sciences: Decentering and Reflexivity

The constructivist turn in our criticism of the culture of concealment that characterizes the scientific community rests on the maxim of the constitutive and concrete significance of the embodied, individual, and social epistemic researcher-in-interaction. We advocate a reflexive analysis of the context in which knowledge production takes place, the situation, constellations, and transactions with others and the material world. On a more abstract level, this maxim requires a simultaneous social scientific analysis of the process of scientific knowledge production together with the production, which involves all participants, their productions and all research stages. Participants become authors and researchers become participants, involving transformations both of participants' and researchers' practices (ROTH, LAWLESS & TOBIN 2000). This makes it necessary for researchers to abandon the conventional textbook approach and to take a decentered and reflexive position. Researchers observe not only participants but also themselves, which allows them to document how their presence marks the research process and its products. [17]

Arne RAEITHEL (1983, 1998) developed an epistemological model of reflection. This model, which includes the three components *basic centering*, *decentering*, and *recentering*, provides a suitable framework for our methodological recommendations. Basic centering refers to way in which the epistemic subject perceives the structure of the object through its activity. The epistemic subject engages with the object in immediate ways without awareness of the structure of this engagement. "Decentering" involves a stepping back from one's own practices. By taking in an observer or meta-perspective with respect to the original situation one becomes aware of the subjective nature of the fundamental

perspective in praxis. This constitutes a reflexive moment. "Recentering" constitutes a stage of reflective actions. The observing subject "reflects, rearranges or newly invents the parts of the social system that determine one's own view on the problem" (RAEITHEL 1998, p.141; our translation) in interaction with others and itself. [18]

These methodical procedures could therefore be characterized as techniques of decentering and recentering. The terms decentering and recentering denote those procedures that make thematic the researchers' practices or positions in the research process or that employ the subject-object relation in a reflexive manner. In one of our projects concerned with bringing about changes in teaching and learning in inner-city schools, we explicitly draw on this methodology both to do research and bring about changes in the practice (e.g. ROTH & TOBIN 2002). All stakeholders are part of the lessons (basic centering), subsequently participate in analyzing and critiquing the lessons (decentering), and devising changes (recentering). We therefore propose that following aspects be taken into account in any research method:

- researchers are persons, with characteristics, roles, thoughts, perceptions and practices;
- scientific community are characterized by practices and their variation, have histories, and politics;
- research object (subject matter, participants, field);
- researchers' interactions in and transactions with the field;
- patterns of thought, perceptions, and actions of the participants in the field;
- research outcomes (i.e., the texts); and
- recipients of scientific texts, their processing, and their discussion. [19]

## 5. A Systematization for a Reflexive Research Methodology

One of us has previously provided a systematization of a reflexive and decentered research methodology organized along the temporal unfolding of the research process (BREUER 1999). To illustrate the unfolding process, we raise questions associated with each stage that are normally hidden away or brushed under the carpet. We focus on those aspects that pertain to the personhood of the researcher. The answers to the questions are relevant for the intended research object, epistemic subject (the researcher), research participants, and contexts. Answering these questions is part of a research approach as outlined here. [20]

### 5.1 Choosing and refining a topic, sharpening research problems

What role do the researcher, the scientific community, participants and diverse publics play for choosing and refining a topic? Why and how does it become "my" topic? My personal beliefs, cognition, and emotional patterns concerning the object mark my dispositions, thinking about the object, and approach to the topic.

What do I know about the topic? What do I consider un/important or un/interesting? What are my preconceptions that have arisen from my own life-story, scientific literature, or other sources? What seems un/normal, un/attractive, and im/moral to me? What attracts me? What frightens me? Where do I want to look—and where not? How open/closed am I toward the dynamic of focusing and refining a topic? What does this attitude say about me, about the sub/culture I come from, and about the participants? [21]

### 5.2 Choosing and refining the methodical approach

To what extent are knowledge structuring and construction processes recommended to me and by whom? What are my ultimate choices? What is my position on the distal-proximal continuum in the contact with the object (DEVEREUX 1968)? What proximity to the object or field can I (am I willing to) bear? How much time and how many resources am I willing to dedicate to the research topic and field? How much uncertainty along the trajectory to the knowledge claims can I (am I willing to) tolerate? What are the perspectives and what "voices" that appear to be interesting? What do I appear to ignore? [22]

### 5.3 Positioning and acting in the field, interacting with participants

Every contact with the research object (observation, conversation, etc.) is an intervention. Participants and field act in response to strangers; these actions, as actions more broadly (RICŒUR 1991), can be read and interpreted as any other form of text. Who shows me what? What is hidden? How do I enter the field, by which means, who are the gatekeepers, and in which function do I enter the field? How do the answers to these questions change in the course of the research process? How do I deal with rules, regulations, and commitments to the diverse contexts of field and research community? To what extent do I need or use my scientific authority (the scientific authority ascribed to me) to demarcate myself from my participants? In other words, to what extent do I permit myself to *go native*? Do I sufficiently acknowledge participants' expertise and concerns? Do I (intend to) arrange interactions as decentering and growth opportunities for the participants? What are my own feelings (insecurities, anxieties, embarrassments, sympathies, or antipathies)? Should I make these thematic? Who may know or not know about it? [23]

### 5.4 Documenting the research

Which aspects of the research process do I record? Which events and facets of the field are salient? What is actually documented and in which medium (video, audio, written, photo)? What do I leave out? What are the officially sanctioned and what are the unofficially relevant phenomena? Which perspectives and voices are (not) recorded? What discourses, which vocabularies, and which language games are used in the description? How much does the choice of discourse, vocabulary, and language game depend on the personhood of the researcher, scientific standards, participants, and different communities of practice with which we interact? [24]

### 5.5 Analyzing and interpreting data—conceptualizing and theorizing the object

What do I deem (not) worth reporting? What is important to me? What do I understand and what seems obscure to me? What findings are congruent with my preconceptions or the emergent model of the object? How persistent am I in structuring the phenomena? To what extent do I trust my own structuring processes and products? To what extent do I want to bring to bear existing scientific concepts, constructs, and theories? How do I structure the dialogue with participants and their feedback to my interpretations? [25]

### 5.6 Presenting and representing

Which perspectives do I depict in my text? What is the grain size at which I note relevant phenomena? Which audiences do I address? How may I win over, impress, or even alienate my audiences? Who do I want to reach and what do I want to achieve with my text? Does authority derive from my authorship? How do I construct plausibility, coherence, and credibility? What are the genres that orient my writing? How are my texts received by different audiences and how do use this to achieve greater impact? [26]

## 6. Summary and Future Prospects

Constructionist epistemology is grounded in the assumption of the fundamentally situated and contingent nature of knowledge, bearing all the marks of the transactions that the epistemic subject has with its social and material environment. We advocate a way of a reflexive qualitative social research that fully addresses the consequences of a constructionist epistemology by explicitly acknowledging this epistemology in its methodology. As soon as we accept the constructed nature of scientific knowledge, we also have to take into account actors, conditions, and procedures associated with and involved in the construction. That is, particular characteristics of knowledge can be attributed to the mediational character that actors, conditions, and procedures have on the products of research. Decentering and reflecting on the part of the epistemic subject are useful processes to account for the contingencies of knowledge production. [27]

The adoption of a constructionist conception of social science method implies the abolishment of conventional distinctions between methods that are correct and methods that are not. We need to rethink this distinction, especially given the case that we can learn from the mistakes that we have made in the past. We recognize mistakes or the breaking of rules, because the corresponding actions have consequences in the fields and, reflexively, are therefore experienced by the researcher in physical, emotional, and cognitive ways. We assume that all actions in research and interactions during the research process can contribute in a positive way to our understanding. The results of actions and interactions can be read in different ways and from different perspectives. The traditional criteria of

correct or incorrect methods should therefore be replaced by one along the lines of a method that is more or less productive for achieving certain goals. [28]

Our proposal deals with the lack of reflexivity in past social science research that necessarily had run under the banner of a constructionist epistemology. However, shortcomings and open questions remain. These include, (a) How can the new methods be inventoried and codified? (b) How can methods and codes be represented (e.g. in methodology textbooks)? (c) How can new researchers learn research methods, how are they socialized into the research community? (d) How do criteria for the quality and authenticity of research (e.g., GUBA & LINCOLN 1989; see our *FQS*-Debate on Quality of Qualitative Research) have to be restated? These questions raise a further one, namely whether and how can such a different methodological conception take hold in the scientific community? and can this methodology lead to a different public understanding of the social sciences? [29]

The idea of a different methodology for doing social science research is still uncharted terrain. By initiating and publishing the present *FQS* issues on "Subjectivity and Reflexivity in Qualitative Research" we hoped to create the climate for an increasing awareness of the role of the researcher in research process and product and solicit contributions to and initiate a discussions toward a reflexive epistemology. [30]

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## References

Amann, Klaus & Hirschauer, Stefan (1997). Die Befremdung der eigenen Kultur. Ein Programm. In Stefan Hirschauer & Klaus Amann (Eds.), *Die Befremdung der eigenen Kultur. Zur ethnographischen Herausforderung soziologischer Empirie* (pp.7-52). Frankfurt a.M.: Suhrkamp.

Ashmore, Malcolm (1989). *The reflexive thesis: Wrighting sociology of scientific knowledge*. Chicago: University of Chicago Press.

Bateson, Gregory (1979). *Mind and nature: A necessary unit*. New York: Dutton.

Breuer, Franz (1991). *Wissenschaftstheorie für Psychologen. Eine Einführung* (5th ed.) Münster: Aschendorff.

Breuer, Franz (1999). Probleme human- und sozialwissenschaftlicher Erkenntnismethoden: Viel Verwirrung—einige Vorschläge. In Norbert Groeben (Ed.), *Zur Programmatik einer sozialwissenschaftlichen Psychologie; Bd. I: Metatheoretische Perspektiven; 2. Halbbd.: Theoriehistorie, Praxisrelevanz, Interdisziplinarität, Methodenintegration* (pp.192-309). Münster: Aschendorff.

Bourdieu, Pierre (1997*). Méditations pascaliennes.* Paris: Seuil.

Churchland, Patricia S. & Sejnowski, Terence J. (1992). *The computational brain*. Cambridge, MA: MIT Press.

Derrida, Jacques (1992). *Given time: I. Counterfeit money.* Chicago: University of Chicago Press.

Devereux, Georges (1968). *From anxiety to method in the behavioral sciences*. The Hague: Mouton.

Fuchs, Martin & Berg, Eberhard (1993). Phänomenologie der Differenz. Reflexionsstufen ethnographischer Repräsentation. In Eberhard Berg & Martin Fuchs (Eds.), *Kultur, soziale Praxis, Text. Die Krise der ethnographischen Repräsentation* (pp.11-108). Frankfurt a.M.: Suhrkamp.

Geertz, Clifford (1988). *Works and lives: The anthropologist as author*. Stanford: Stanford University Press.

Guba, Egon & Lincoln, Yvonna (1989). *Fourth generation evaluation*. London: Sage.

Jarvilehto, Timo (1999). The theory of the organism-environment system: III. Role of efferent influences on receptors in the formation of knowledge. *Integrative Physiological and Behavioral Science*, *34*, 90–100.

Latour, Bruno (1987). *Science in action: How to follow scientists and engineers through society*. Milton Keynes: Open University Press.

Lévi-Strauss, Claude (1958/1974). *Anthropologie structurale*. Paris: Plon.

Marcus, George E. & Fischer, Michael M. J. (1986). *Anthropology as a cultural critique: An experimental moment in the human sciences*. Chicago: University of Chicago Press.

Neisser, Ulric (1976). *Cognition and reality: Principles and implications of cognitive psychology.* San Francisco: W.H. Freeman.

Nöe, Alva (2002). On what we see. *Pacific Philosophical Quaterly*, *83*, 57–80.

Raeithel, Arne (1983). *Tätigkeit, Arbeit und Praxis. Grundbegriffe für eine praktische Psychologie.* Frankfurt a.M. u.a.: Campus.

Raeithel, Arne (1998). *Selbstorganisation, Kooperation, Zeichenprozess. Arbeiten zu einer kulturwissenschaftlichen, anwendungsbezogenen Psychologie*. Opladen u.a.: Westdeutscher Verlag.

Rauschenbach, Brigitte (1996). Von uns selbst aber sprechen wir. Störenfried Subjektivität als Symptom und Methode unserer Zeit. In Martin Heinze & Stefan Priebe (Eds.), *Störenfried "Subjektivität". Subjektivität und Objektivität als Begriffe psychiatrischen Denkens* (pp.15-42). Würzburg: Königshausen & Neumann.

Ricœur, Paul (1991). *From text to action: Essays in hermeneutics, II* (Transl. Kathleen Blamey and John B. Thompson). Evanston, IL: Northwestern University Press.

Ricœur, Paul (1990). *Soi-même comme un autre.* Paris: Seuil.

Rizzolatti, Giacomo, Fadiga, Luciano, Fogassi, Leonardo, & Gallese, Vittorio (1997). The space around us. *Science*, *277*, 190-191.

Roth, Wolff-Michael (1993). Heisenberg's Uncertainty Principle and interpretive research in science education. *Journal of Research in Science Teaching*, *30*, 669-680.

Roth, Wolff-Michael; Lawless, Daniel & Tobin, Kenneth (2000). {Coteaching | cogenerative dialoguing} as praxis of dialectic method. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research* [On-line Journal], *1*(3). Available at: http://www.qualitative-research.net/fqs-texte/3-00/3-00rothetal-e.htm.

Roth, Wolff-Michael & Tobin, Kenneth (2002). *At the elbow of another: Learning to teach by coteaching.* New York: Peter Lang.

Sewell, William H. (1992). A theory of structure: duality, agency and transformation. *American Journal of Sociology*, *98*, 1-29.

Uexküll, Jakob von & Kriszat, Georg (1983). *Streifzüge durch die Umwelten von Tieren und Menschen. Bedeutungslehre*. Frankfurt a.M.: Fischer.

Van Maanen, John (1988). *Tales from the field: On writing ethnography*. Chicago: University of Chicago Press.

Veyne, Paul (1990). *Geschichtsschreibung—und was sie nicht ist.* Frankfurt a.M.: Suhrkamp.

Woolgar, Steve (Ed.) (1988). *Knowledge and reflexivity: New frontiers in the sociology of knowledge*. London: Sage.

## Authors

Franz BREUER, Wolff-Michael ROTH

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