Observing Participating Observation
—A Re-description Based on Systems Theory

Tina Bering Keiding

Abstract: Current methodology concerning participating observation in general leaves the act of observation unobserved. Approaching participating observation from systems theory offers fundamental new insights into the topic. Observation is always participation. There is no way to escape becoming a participant and, as such, co-producer of the observed phenomenon. There is no such thing as a neutral or objective description. As observation deals with differences and process meaning, all descriptions are re-constructions and interpretations of the observed. Hence, the idea of neutral descriptions as well as the idea of the naïve observer becomes a void. Not recognizing and observing oneself as observer and co-producer of empirical data simply leaves the process of observation as the major unobserved absorber of contingency in data production based on participating observation.

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1. Setting the Scene

From 2007 to 2009, three research conferences were held about the methodologies of systems theory[1]. However, only a single contribution addressed the methodology of *in situ* interaction studies. This contribution concerned

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1   "Methodologies of Systemic Ttheory—Empirical Research and Form Analysis," Dubrovnik, Croatia, April 2-6, 2007, http://www.iuc.hr/conference-details.php?id=92, [Date of access: July 1, 2010].

"Arbeitskreis Funktionale Analyse, Universität Hohenheim," Stuttgart; Germany, September 4-6, 2008, http://www.funktionale-analyse.isinova.org/# [Date of access: July 1, 2010].

educational research and argued that *in situ* studies are fundamental for the production of knowledge about the processes of teaching and learning (KEIDING & KRUSE, 2008). Educational studies often delimit themselves to descriptions of conditions, learning outcomes or participants' experiences (e.g., KLETTE 2007, 2008). However, what one roughly might call "input and output studies" leave the fundamental processes of teaching and learning unobserved. Consequently educational research has brought itself into a situation in which teaching as interaction is often handled as a huge "black-box.". From this position, educational research might be able to answer questions on "what works" but is unable to understand "how it works." [1]

The relevance of *in situ* studies is not delimited to educational research but has relevance for many topics in social science as well as the humanities. Taking this into account, this contribution addresses how *in situ* observation studies in general can be understood and conceptualized through Niklas LUHMANN's systems theory. [2]

In situ observations as observations where the observer observes interaction by being present as interaction emerges is familiar from anthropology, ethnography, social science and psychology—often, under the label "participating observation" (e.g. BERNARD, 1998; CRANO & BREWER, 2002; HAMMERSLEY, 2006; HEDEGAARD, 1984; HOWITT & CRAMER, 2005; LANGDRIDGE, 2004; LINDLOF, 1995; SANJEK, 1990; WADEL, 1991). However, current reflections on methods and techniques for participating observation are either incompatible with or inadequate from a systems theoretical approach. [3]

The paper will concentrate on four subjects: namely, the concepts of observation and participation, the concept of meaning, and note-taking. To avoid general theoretical descriptions, the concepts of systems theory in general are introduced successively as they emerge in the text. [4]

2. Participation and Observation

"Participating observation" connects the two phenomena "observation" and "participation." They are often opposed for the construction of a range of types of participating observation—for instance, "pure observation" versus "pure participation" (DEWALT, DEWALT & WAYLAND, 1998, p.262) or "complete participation" versus "complete observation" (LINDLOF, 1995, pp.141-149). This habit indirectly describes observation and participation as events, which can be separated from one another. [5]

According to Niklas LUHMANN, the key phrase regarding interaction systems is "der Wahrnehmung des Wahrgenommenwerdens" (LUHMANN, 2002a, p.56). It might be translated as "perception of being perceived" and underlines that participating in interaction is tightly intertwined with mutual experiences of being

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"Niklas Luhmann's Theory of Self-referential Systems. Theoretical and Empirical Research," Dubrovnik, Croatia, September 14-18, 2009, http://www.iuc.hr/conference-details.php?id=145 [Date of access: July 1, 2010].

perceived. When one as an individual connects to or engages in interaction, one becomes aware that one is observed and perceived by other participants. Participation does not mean that one has to contribute to communication by expressing oneself. Just being present makes one as participant: "In practice, one *cannot not communicate* in an interaction system; one must withdraw if one wants to avoid communication" (LUHMANN, 1995a, p.413). [6]

The terms participation and participating in communication might lead us to forget that social systems consist of communication and that human individuals, according to Niklas LUHMANN (e.g. 1995a, pp.210f.), belong to the environment of social systems. Accordingly, participation in this context does not mean "being part of" in the sense of included or integrated in. To participate means to contribute to social interaction by providing the structural complexity of one's psychic system for the communication's selection of information, utterance and understanding and to expose one psychic system to communication, thereby allowing communication and actions to stimulate new thoughts and impressions, which produce new points of departures for the process of observation (e.g. LUHMANN, 2002b). [7]

Utterance of information can be attributed to human beings, who thereby enter communication as persons (LUHMANN, 1995a, p.210; 1995b). Attribution allows social identification. Nevertheless, all communicative events refer to communication, not to the human individuals:

> "Observers can predict action better by knowing a situation than by knowing people, and correspondingly, their observation of action often, if not always, is not concerned with the mental state of the actor, but with carrying out the autopoietic reproduction of the social system. *Nevertheless, everyday action is attributed to individuals*. Such extremely unrealistic behavior can only be explained by a need to reduce complexity" (LUHMANN, 1995a, p.166). [8]

As regards participating observation, this means that the observer is co-producer of the observed interaction and that, when he or she attributes communicative events and actions to observed individuals, he or she omits to observe that meaning refers to the situation and the specific interaction rather than to single individuals, who might behave completely differently in a similar situation. A student might appear unengaged in one lesson and very active in a subsequent lesson. That the actions of observed persons refer to and must be interpreted with the social system as point of reference does not only apply to the observation of systems that count more persons than the observer and the observed. Also in systems in which the observer observes how a single person interacts with objects, it must be taken into consideration that actions take place and refer to a social system. One might even consider whether the experience of being observed in this case is more present and has stronger influence on the observed than in social systems with several participants. [9]

Attribution of human beings to the environment of social systems has produced strong reactions and accusations of "anti-humanism." This discussion falls

outside the scope of this contribution but is addressed in Tina B. KEIDING (2005, pp.115f.). However, a few lines should be spent on Niklas LUHMANN's own reply to the critique:

"If one views human beings as part of the environment of society (instead of as part of society itself), this changes the premises of all the traditional questions, including those of classical humanism. It does not mean that the being is estimated as less important than traditionally. Anyone who thinks so (and such an understanding either explicitly or implicitly underlies all polemics against this proposal) has not understood the paradigm change in systems theory" (LUHMANN, 1995a, p.212). [10]

Consequently, participating observation should not be considered from the difference participating/observing but rather from a perspective of *how* the observer participates—for instance, expressed in terms of involvement. An observer engaging in discussions, asking questions, etc., exposes him- or herself to a different complexity and, consequently, challenges his or her opportunities for moments for programmatic self-observation in different ways than an observer participating solely as addressee. On the other hand, direct involvement produces opportunities to test understandings and meaning attribution. [11]

The matter of involvement is not unambiguous, nor can it be decided at a general level. It is a question that must be answered in each specific case by weighing opportunities and challenges against each other and must be addressed explicitly to create transparency—at least, at the level of programs for and reflections on observation. *In situ*, there is no privileged vantage point from which interaction can be observed without becoming a part of it. The observer is, for better or worse, thrown into interaction and a co-producer of the research object. [12]

One might question whether observation of video- or audio-recorded interaction should be considered as interaction. The observer and the observed do not perceive each other directly. But the observed might still be aware that they are observed, and the observer definitely becomes co-producer of meaning when he or she observes the recordings. Not *in situ* but displaced in time and place; in a different context. There is no simple method to choose one approach over another. Advantages and disadvantages must be observed, which forces the observer to observe how he or she observes the observed observers' observations. [13]

2.1 From person to personality

Participating in and observing communication implies construction of "the other," a topic that Niklas LUHMANN only addresses sporadically. He distinguishes between persons and human individuals and uses the word "person" to "indicate the social identification of a complex of expectations directed toward an individual human being" (LUHMANN, 1995a, p.210). The distinction between person and human individual addresses a logical consequence of the theory's description of social and psychic systems as functionally closed and an environment for each other. An observer can only observe communication, acts and physical

phenomena. He or she has no access to what other participants as humans individuals mean, think or feel, including no access to their motives and reasons. [14]

Construction of a person initially draws on the bodily and physical appearance and only later on experiences with and expectations for the person as participant in communication (LUHMANN, 1995b). Drawing on a few observations, interaction actualizes a horizon of expectations and allocated meaningful utterances and understanding. Metaphorically, one might say that a pattern of expectations—and thereby a person—is constructed in the light of few context markers. Pattern construction and pattern recognition is a key topic in Gregory BATESON's (2000, pp.292f.) theory of learning categories in which he uses the term "context markers" to designate observations, which interpret the context from a few elements. This has significant implications for participating observation: It indicates that observers from the very beginning of their observations, based on a few and, most likely, unobserved observations, actualize specific expectations about the participants and the interaction. Expectations may, of course, later be proven wrong, but initially they actualize specific horizons of meaning, even in cases in which the observer decides to avoid immediate and spontaneous interpretations. A hardcore "open mind approach" is, from this perspective, nothing but explicit self-blinding. [15]

Repeated observations of specific utterances or acts from specific participants tend to construct a pattern of expectations, a pattern that is easily attributed to the person as "personality" (pp.297-298). These patterns of expectations are efficient reducers of complexity, because they indicate what to expect when the same human person is observed in a new context. Attribution introduces a potential lack of sensitivity regarding the possibility that a human individual appears as different persons, i.e. assume different roles in different contexts. As Gregory BATESON (1991, p.137) says, it is always possible to observe in such a way that one's expectations are confirmed. [16]

Observing in a way that does not take first impressions as the full picture but challenges them by seeking other descriptions and interpretation takes time and must be weighed against data lost by leaving parts of the ongoing interaction unobserved. Furthermore, impressions and expectations cannot be observed as a whole. Only what is observed as first impression—not the impression as whole —can be submitted to second-order observation. [17]

Reduction of complexity from construction of behavioral patterns and attribution of personality cannot be avoided, nor can its possible and, to some extent, unobservable influence on observation. Nevertheless or, perhaps, because of this, the topic must be recognized as a condition for participating observation rather than stand unobserved or silenced. [18]

3. Observing the Concept of Observation

The concept of observation could be expected to play a crucial role in the current methodology of participating observation. And, to some extent, it does. Karl WEICK (1985, p.569), for instance, talks about observation as follows:

"Regarding the observation process, systematic observation makes self-conscious and full, clearly expressed notation on how the observation is done, goes about the observation activity in an alert manner that allows for tactical improvisations, imparts attention to objects in ways that in some sense are standardized, yet individually trained." [19]

Current methodology generally addresses participating observation by "asking from" the concept. The term "asking from" expresses that methodology takes the concept of observation for granted and mainly addresses how participating observation can be carried out. Reflections on what an observation "is" are rarely found. The absence of this type of question leaves the mere act of observation as a "black box" and the major "absorber of contingency" in data production based on *in situ* studies. [20]

3.1 Observation and reality

Two different understandings of the relation between phenomenon, reality and observation can be identified. One position defines descriptions as "close reflections of the world," whereas the other defines descriptions as "creation of the world" (SANJEK, 1990, p.15). The first indicates an epistemological approach similar to direct realism: What you observe is what happens. [21]

The other indicates some kind of constructivist approach. However, it should not be confused with the constructivist epistemology in the tradition represented by Gregory BATESON (2000, Heinz von FOERSTER (1985), Niklas LUHMANN (1988) and Humberto MATURANA and Francisco VARELA (1980). Rather, it seems to refer to a pragmatic statement that, as a consequence of a high complexity in the surroundings compared to the limited complexity the observer can handle in data production, observations must be conducted with a focused and disciplined glance. [22]

Accordingly, the two main positions seem to differ primarily in whether observation captures the world as a whole or creates the world by extracting selected segments. In other words, their epistemology differs mainly with respect to the degree of re-presentation. [23]

Niklas LUHMANN sees observation as a unity of the two events distinction and observation: "Observing means making a distinction and indicating one side (and not the other side) of the distinction" (2002c, p.85). [24]

This approach must not be confused with the ideas of focused and disciplined observation. For Niklas LUHMANN, re-construction is not solely a question of

extraction of specific segments. Rather, the object or phenomenon itself becomes a construction. We do not see an object as it is; we see the object as it emerges through the specific distinction used in the act of observation. Different observers may observe the same object—for instance, a specific car—and yet observe different cars—for instance, as a signifier of social class, as a threat to the environment, as a toy or as a practical object for transportation, depending on the distinctions used in observation. Correspondingly, human individuals and social interaction are not observed as they are but are shaped or created through the selected distinction. [25]

This is also well-known from Alfred KORZYBISK's famous saying: "The map is not the territory" (e.g., BATESON, 2000, pp.455f.). However, it is further radicalized by LUHMANN, who claims that an observer has no access to or knowledge about the territory as it is. Everything we know is a product of observation and refers to the observation, not to the observed. This position can be recognized in Heinz von FOERSTER's statement: "I disagree with Gregory Bateson. I say the map is the territory" (in SCHILLING, 1997, p.28). [26]

Niklas LUHMANN (2002d, p.136) does not call the reality of the external world into doubt. Nonetheless, knowledge about the external world refers to the observing system and finds no correlates in the environment of the system. Consequently, Niklas LUHMANN (p.132) talks about the de-ontologization of reality. That something appears to be real does not mean that there is something that correlates with the observation. Reality is, as Niklas LUHMANN puts it, the result of tests of consistency (1997, p.102). [27]

The epistemology in Niklas LUHMANN's systems theory puts a strong focus on the participant observer as observer, i.e. on the differences though which he or she produces, or should one say invents, empirical reality. [28]

3.2 Observation and observations of observations

As mentioned, Niklas LUHMANN describes observation as an operation that consists of two events: distinction, in which the world is split into a marked and unmarked space, and indication, in which the marked side is named (LUHMANN, 2002c; 2002e). [29]

According to Niklas LUHMANN and George SPENCER-BROWN, differences do not exist in the environment. As Niklas LUHMANN puts it, the world does not demand to be observed in a specific way. Differences are not given by the world ahead of the act of observation but forced on it by an observer. This does not mean that the environment does not influence what can be observed. It may contain what Niklas LUHMANN (1988, p.41) calls "discontinuities," which may attract the attention of the observer. Or as George SPENCER-BROWN (1969, p.1) says: "contents are seen to differ in value." [30]

In the operation of observation, only the indicated, the inner side of the distinction, is revealed. While observing, the observer can neither observe the

unmarked space nor the difference used in the construction of reality: "Observation has to operate unobserved to be able to cut up the world" (LUHMANN, 2002c, p.87). An observation that designates a student as skilled cannot simultaneously observe that it uses the distinction skilled/unskilled, nor what it cannot see in using this difference, or that another difference will produce different information about the observed object. Niklas LUHMANN (e.g., 2002d, p.136) talks about the difference as the blind spot of the observation and about the observer as "the excluded middle of his observation" (LUHMANN, 2002f, p.190). As regards the latter, the original text uses the phrase "der Beobachter ist das ausgeschlossende Dritte seiner Beobachtung" (LUHMANN, 1990, p.231) or directly translated "the observer is the excluded third of his or her observation." [31]

Consequently, there is no such thing as an objective or neutral observation. That something is designated as an objective fact simply refers to the circumstance that various observers agree on what is observed and that differences among observers can thus be ignored (LUHMANN, 2002d, p.136; LUHMANN, 2002f, p.188). Objectivity in this perspective guarantees no correspondence between observation and object but indicates that observations have been socially proven to whatever standards the specific social system takes into account. [32]

However, observations can observe previous observations and the differences used by them. Niklas LUHMANN (2002e) calls observations that observe observations "second-order observations." Hence, a demand to observe the observer seems to be a crucial dimension in observation methods. [33]

3.3 Who is the observer?

Perhaps, one of Niklas LUHMANN's most striking utterances about the relevance of second-order observations is found in his reflections on dysfunctional communication in families: "But if one wants to know what is "pathological," one must observe the observer who uses this description, not that which is described" (LUHMANN, 1995c, p.89; my translation). Dysfunctional communication is not something which "is" but something that comes into being when communication is observed through the difference dysfunctional - well-functioning, and specific communicative events are subsequently attributed to the inner side. And, accordingly, dysfunctionality—and descriptions in general—refer to the observer, not to the observed. [34]

According to Niklas LUHMANN (2002f, p.190), the observer does not exist ahead of the observation but emerges from the mere act of observation. A system becomes an observer through the distinction used in the act of observation. Any system or individual might observe an endless number objects and phenomena, just as several systems may construct similar observations. Consequently, the first cannot with plausibility be explained by referring to the latter. Attributing an event to a specific individual/system rather than to the act of observation may, of course, reduce complexity for the second-order observer but does not produce further information about the observed. Hence, observing the observer does not

mean to observe simply who the observer is and what is observed but to observe how a given observation was carried out:

> "The usual understanding of the observation of observations focuses above all on what an observer observes (distinguishing thereby between subject and object, but concentrates above all on the object). Constructivism describes an observation of observation that concentrates on *how* the observed observer observes [...] by this means one can also observe what and how an observed observer is unable to observe. In this case one is interested in his blind spot, that is, the means by which things become visible or non-visible" (LUHMANN, 2002d, p.140). [35]

Observations observing previous observations can be designated second-order observations (e.g. LUHMANN, 2002e). Second-order observations do not bring the second-order observer closer to the object. They cannot claim any privileged position; they do not offer what Niklas LUHMANN (2002d, p.141) designates a "holier-than-thou" perspective. A second-order observation is like any other observation bound to the difference used to observe observation and to the fact that another difference would have led to another observation of the observed observation. Accordingly, second-order observations do not bring the observer closer to the object but allow for observation of how cognitive reality became visible, came into being. [36]

4. Observation Is Interpretation—The Ongoing Production of Meaning

The term "meaning" has so far denoted that observations produce meaning and that there are no such things as neutral observations. This section will concentrate further on the production of meaning and on what I will call "the myth of the naïve observer." [37]

Social and psychic systems process meaning. Meaning is, according to Niklas LUHMANN, a very abstract concept:

> "The phenomenon of meaning appears as a surplus of references to other possibilities of experience and action. Something stands in the focal point, at the center of the intention, and all else is indicated marginally as the horizon of an "and so forth" of experience and action" (LUHMANN, 1995a, p.60). [38]

Meaning in this sense becomes the unity of the difference "between what is *actually given* and what can *possibly* result from it" (p.74). Meaning is constituted in three dimensions: the fact dimension, the temporal dimension and the social dimension (pp.76-81). The three dimensions emerge intertwined but can be analyzed separately—for instance, when observing how the same utterance seems to produce different horizons of meaning when uttered by different persons and/or at different times. [39]

For systems operating in meaning, there are no alternatives to meaning:

> "Not all systems process complexity and self-reference in the form of meaning; but for those that do, it is the *only* possibility. Meaning becomes for them the form of the world and consequently overlaps the difference between system and environment" (p.61). [40]

Meaning is the form of the world. It recursively draws on structures developed in the past and sketches out a horizon for possible interpretations and future. Due to this circularity, there is no way for an observing system to escape the past's influence on the fluctuating horizon of meaning that emerges and disappears as observations take place; a horizon which is never endlessly open, never completely determined. As participant, the observer is enrolled in the production of meaning. [41]

Current methodology seems—although conceptualized differently—to some extent to be aware of the circularity by which meaning simultaneously refers to something previous and produces new meaning. At least, a request to be aware of and, at best, to get rid of preconceived notions and expectations is quite common (e.g. DEWALT et al., 1998, p.288); whereas Cato WADEL (1991, p.59) says that the observer must act as a sociologist on him- or herself. [42]

Some approaches in anthropology emphasize the so-called "naïve observer" as an ideal for the observer's approach in participating observation. The idea seems to be that the observer, in order to understand the observed on its own conditions, must avoid forcing his or her cultural categories onto the observed (e.g. ANGUERA-ARGILAGA, 1979, p.451; WADEL, 1991, p.27). [43]

Max GLUCKMANN (2007), on the other hand, questions the notion of self-attributed naivety. William D. CRANO and Marilynn B. BREWER (2002), Kathleen M. DEWALT et al. (1998) and Cato WADEL (1991) also express reservations about how much the observer can "put him- or herself aside." [44]

As an example of naïve observation, i.e. observation without drawing on "fixed" categories, Cato WADEL describes how a friend from the United States, who is unfamiliar with soccer but knows football, could describe the first five minutes of a soccer match.

> "Several men, some dressed in red, some in blue, run into the arena. I count 22. I also count 10 red and 10 blue, and two who are dressed in green. All of them have a number on their back. The two men in green have the number 1. They take up position at a goal at each end of the field. The other men run about" (1991, p.80; my translation). [45]

This might seem like a naïve observer's description of social behavior. However, observation of these "naïve observations" reveal that previous horizons of meaning tend to reproduce themselves behind the back of the naïve observer. [46]

Is it, for instance, likely that the term "goal" but not "player" will appear as notions for a naïve observer familiar with football? Would even a very naïve observer say that "the men run about" rather than they kick the ball to each other? [47]

Of course, these objections reflect the horizon of meaning that opens to me while I observe Cato WADEL's observations. This, however, confirms rather than contradicts the theoretical premise that the production of system-specific meaning is unavoidable and that observations say more about the observer than about the observed. [48]

The production of meaning cannot be escaped by describing "pure" behavior. Firstly, behavioral descriptions also use categories. Run is, for instance, a very condensed description of a countless number of actions; secondly, the term "runs" in itself produces another meaning than, for instance, "moves around," "walks" or "hurries." To run means something specific. What it means depends on the specific interaction system, on the context. [49]

5. Programs for Observation

Niklas LUHMANN (1995a, p.317) describes a program as "a complex of conditions for the correctness (and thus for social acceptability) of behavior." As regard *in situ* observation, programs contain conditions for the observation process. Programs can be more or less detailed but will always be general and, in this sense, abstract descriptions of a forthcoming or carried-through course of observation. Accordingly, a program can be applied on a number of concrete courses of observation. Even a retrospective description will be abstract and describe the course of observation in categories and patterns rather than specific episodes. Programs can be further specified in plans, but even plans must be seen as abstractions of interaction. [50]

Reflections on and programs for participating observation are frequent in current methodological literature and concern a variety of aspects of the discipline, such as the role of the observer, the degree of participation, social relations, gender and note-taking (e.g. BERNARD, 1998; CRANO & BREWER, 2002; HAMMERSLEY, 2006; HEDEGAARD, 1984; HOWITT & CRAMER, 2005; LANGDRIDGE, 2004; LINDLOF, 1995; SANJEK, 1990; WADEL, 1991). [51]

Regarding programs for observation, Roger SANJEK (1990, pp.385-418) talks about the three canons of participating observation called "theoretical candor," the "ethnographer's path" and "field note evidence." His point is that the observer must be aware of what he or she is looking for in order to "avoid opportunistic study of everything" (SANJEK, 1990, p.398). [52]

However, as mentioned in the previous section, another position can be found. It claims that the observer must enter observation with "an open mind" to avoid forcing preconceived notions and concepts on interaction. [53]

This approach is highly incompatible with the demand of transparency that seems to be an utmost necessity with an approach based on Niklas LUHMANN's systems theory. The incompatibility does not relate to cognitive openness but to transparency and the fact that entering observations without a disciplined glance makes what is observed completely random. Or as Roger SANJEK (1990, p.398) puts it: Allows for an opportunistic study of everything. Something will attract the observer's attention, produce meaning and frame future observations, but what attracts the attention is unpredictable and, to some extent, unobservable. [54]

One of the more spectacular descriptions of this approach is found in David LIPSET's description of the young Gregory BATESON's first anthropological field study:

> "Upon arrival, Bateson began measuring heads with calipers until one of the Baining asked why he was doing it. This so confused him that he was unable to explain himself, much less formulate a response in his then meager pidgin English. This termination of this part of his research did not clarify what he ought to do instead" (LIPSET, 1980, p.127). [55]

Roger SANJEK's concepts of theoretical candor and the ethnographer's path have parallels to three concepts that, drawing on Niklas LUHMANN, can be called guiding difference, system reference and point of observation. [56]

As the name suggests, guiding differences guide observations by creating a glance—a form—through which interaction is observed. They indicate *what* the observer is observing or is "looking for." In classroom research, a guiding difference could be "teacher-student feedback." Observing classroom interaction from this perspective will most likely produce another story about interaction than, for instance, the guiding difference "student-student interaction" or "exclusion." In this sense, guiding differences reduce complexity for the observer by indicating which episodes or events in the continuous stream of events the observer's awareness should be directed towards. Along with formulation of guiding differences, conditions for indication must be settled, i.e. under which conditions does a communicative event belong to the inner side of the guiding difference? In more common terms: How does one recognize, for instance, feedback; when is a communicative event designated as "feedback;" when is it merely a question or a response? [57]

Interaction has no inherent meaning. Episodes or events become what they become depending on the observer's system reference. System reference expresses the coding or conditioning of interaction from which single episodes gain meaning. Interaction and episodes will, for instance, emerge differently to the observer if observed from an educational point of view than if friendship, the economy or power is chosen as system reference. Answering a question with a counter question might appear to be impolite with friendship as system reference but as professional feedback if education is chosen as system reference. Certainty about the participating observer's system reference, in other words,

contributes to transparency concerning from where, i.e. from which perspective, interaction is observed. [58]

A third concept in programs for observation can be called "point of observation." It puts the focus on whose observations the participating observer observes. The current methodology of participating observation seems without exception to understand social interaction with human individuals as the point of reference, thus attributing social events (communication and actions) to single individuals. However, through his concept of social systems, Niklas LUHMANN offers unique opportunities to observe interaction as self-referring communication, describing how communication evolves, how and when themes emerge and fade away, how participants take part and redraw, etc., without reducing the dynamics of communication to acts and behavior of single individuals. [59]

The attempt to understand interaction as interaction is also a key topic in Gregory BATESON's work and is clearly expressed through his descriptions of symmetrical, complementary and reciprocal relations (BATESON, 2000). However, he never fully succeeds in finding a way to describe interaction and relations without dissolving them by attributing single actions to single individuals (e.g., BATESON 2000, pp.194-227, 271-278; KEIDING & LAURSEN, 2005, pp.160-161). [60]

Observing interaction with interaction as a point of observation does not exclude the possibility of focusing on selected dimensions of interaction. It could be specific persons or specific themes. Having interaction or selected dimensions of interaction as a point of observation simply means that interaction as a social system is understood and explained with reference to interaction, instead of trying to understand it with reference to single contributions or single participants. [61]

The claim for a disciplined glance should not be taken as an argument for stubbornness or lack of sensitivity. Of course, participating observers might benefit from cognitive openness, which allows for reflection on and adjustment of the program; but engaging in participating observation without transparency in the glance forced on interaction introduces a considerable randomness in what is observed as well as a fundamental lack of transparency and opportunities for observing the participating observer as observer. [62]

5.1 Thrown into interaction

Programs for participating observation cannot determine *in situ* observation. In general, one must, with Niklas LUHMANN, distinguish between planning and interaction. [63]

He addresses this topic in relation to both organizations (LUHMANN, 1975, p.15) and the educational system: "That aims and plans play a role is not put into question. They help to interpret not-unambiguous situation and decide on

subsequent steps if redundant capacity" (LUHMANN, 2002a, p.105; my translation)[2]. [64]

This means that a prior disciplined glance produced in the program for observation only influences observations if and as long as the observer is able to use it as program for reflection and selection of actions. However, observation and reflection on observation cannot take place simultaneously. The participating observer must either observe his or her observations or observe interaction. [65]

In this sense, participating observation—like any other observation—either operates in blindness or does not take place at all. [66]

The difference between program and interaction must not be seen as a problem of distance (too far from/close enough to) nor a problem with the level of abstraction (too general/adequately specific) and can definitely not be remedied by the addition of details to the program, although further details, at a first glance, might seem to bridge the gap between programmatic abstractions and concrete inter-action. On the contrary, the difference between program and process is a logical consequence of seeing interaction as a self-referential social system emerging with reference to itself. Using the metaphor of distance, one might say that the more detailed the program—i.e. the lower the level of abstraction—the harder it will be to reflect—and recognize—program and interaction in each other. [67]

Niklas LUHMANN expresses the same insight with regard to the gap between organizational programs and organizational interaction: "Interaction follows its own systemic conditions and does not, or only partly, take organizational programs into consideration. What is organizationally expected is at the level of interaction continuously deformed or even intentionally sidetracked" (1975, p.15; my translation)[3]. [68]

5.2 A note on field notes: Transformation and reduction of complexity

In situ observations are often fixed in text and the discipline of taking field-notes and reflections on field notes are a key issue as regards current methodology on *in situ* observations (e.g., BERNARD, 1998; CRANO & BREWER, 2002; LANGDRIDGE, 2004). [69]

Russel H. BERNARD (1998, p.270) emphasizes the significance of the subject but avoids addressing it in depth:

> "A whole chapter should be devoted to discussing strategies for writing, managing, and analyzing field notes. Space limits make this impossible [...] A useful maxim that

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2   "Da☐ Absichten und Pläne eine Rolle spielen, soll damit nicht bestritten sein. Sie verhelfen vor allem dazu, nicht-eindeutige Situationen zu interpretieren und weitere Schritte zu tun, wenn Kapazität dafür frei ist"

3   "Die Interaktion folgt ihren eigenen Systemgesetzen und nimmt das Organisationsprogramm nicht oder nur begrenzt auf. Das organisatorisch Vorgesehene wird auf der Ebene der Interaktion unterlaufen, deformiert oder gar absichtlich zum Entgleisen gebracht."

we have always used in training students is that: "If you didn't write it down in your field notes, then it didn't happen (at least so far as being data for analysis)." [70]

Addressing field-notes from Niklas LUHMANN's perspective nevertheless reveals more fundamental questions than how to write notes. [71]

One must turn Russel H. BERNARD's maxim around and ask whether something happened if it is written in the field notes. If notes are all that is left from observation and the foundation for data analysis, the answer seems to be "yes." A premise that makes further reflections on field notes highly relevant. [72]

Observation first takes place in the observer's psychic system and, accordingly, gains the form of this system: thoughts, emotions and impressions. In order to fix observations in notes, the observer must first select which psychic events should to be fixed in field notes. Not everything observed in the psychic system is relevant, and not everything that is conditionally relevant can be fixed in notes. The gradient of complexity is always declining across the border between environment and system (LUHMANN, 1995a, pp.23f.). Interaction is more complex than the psychic system can observe, and the complexity of the psychic system is higher than what can be fixed in field notes. However, the transformation of psychic events into notes is not merely a matter of decline in subject-matter complexity. [73]

Psychic systems operate on the basis of thoughts, sensations, imagination (LUHMANN, 1995d, p.111). In contrast, notes are bound to forms provided by the language. Accordingly, note-taking includes transformation of non-linguistic psychic elements into linguistic forms. This transformation cannot be seen as a "neutral" preservation of meaning from one medium to another. In this sense, the writing of notes must be seen as complexity-reducing processes that interpret and transform and, consequently, might produce new horizons of meaning that, due to the permanence of the notes, are likely to become all that is left of the evanescent interaction. In this perspective, the specific words and phrases used in note-taking have a strong impact on the constructed reality. [74]

6. Conclusion

Approaching participating observation from systems theory and constructivism offers fundamental new insights into the topic. [75]

Observation is always participation. There is no way to escape becoming a participant and, as such, co-producer of the observed phenomenon. The actions of observed persons refer to and must be interpreted with the social system and its participants as points of reference. Moreover, in systems in which the observer observes a single person's interaction with objects, it must be taken into consideration that actions take place and refer to a social system. One might even consider whether the experience of being observed in a system consisting only of observed and observer is more present and has stronger influence on the observed than in social systems with several participants. [76]

Consequently, the well-known opposition between participation and observation should be replaced by reflections on types of participation—for instance, as degrees of involvement or the advantages and disadvantages related to each single type of participating observation weighed in each specific case. [77]

Observation has to do with differences selected and forced on the observed environment by the observer. Different differences will produce different realities. The constructive epistemology that is a consequence of the tight coupling between observation and the handling of differences must not be mistaken for an idea of "selective re-presentation." Observation does not selectively grasp the world as it is but creates an observed world. Or, in other words, invents an observer-dependent reality. Accordingly, there is no such thing as a neutral or objective description. Anything said is said by an observer. [78]

Social and psychic systems process meaning. Their events do not occur in a vacuum but draw on and produce horizons of meaning, of future actions and interpretation. Observed events, in other words, produce expectations for and the meaning of subsequent events. The observer can never escape him- or herself and the flavor that his or her experiences and expectations give to the process of observation and interpretation. Hence, the idea of neutral descriptions as well as the idea of the naïve observer become a void. Not recognizing and observing oneself as observer and co-producer simply leaves the process of observation as the major unobserved absorber of contingency in data production based on participating observation. [79]

Field notes cannot be understood as neutral descriptions of observation but are seen as a linguistic form of psychic events. The transformation from consciousness into text both selects and interprets observations and creates a new reality. [80]

The main consequence of these insights is that observers must make themselves observable. This requires both a general theoretical framework that can offer descriptions sensitive to the complexity of participating observation and transparency in the specific process of observation. Significant contributions to transparency are: First, to decide what should be observed and from where observations should take place. Second, programs for indication: When is a social event relevant for the observed phenomenon? What should be included in the description? Third, to be aware that plans do not determine observation. They contribute to a disciplined glance if observed and used as a program for observation, but the observer cannot simultaneously observe "something" and observe the process of observation. He or she must continuously choose what to observe. Observation either observes previous observations or operates in blindness. [81]

Acknowledgments

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Author

Tina Bering KEIDING is associate professor and leader of the research program "Educational research in higher education" at Department of curriculum studies, Danish School of Education in Aarhus, Aarhus University. She holds a master degree in environmental engineering and a PhD in higher education. Her main research combines general theories of teaching and learning (*allgemeine Didaktik*) and systems theory and concentrates on redescriptions of educational concepts and on teaching in higher education.

Contact:

Tina Bering Keiding

Program for educational research in higher education
Department of curriculum studies
Danish School of Education in Aarhus, Aarhus University
Niels Juels Gade 84, DK-8200 Aarhus
Denmark

Tel.: +4524424656
Fax: +4588889708

E-mail: tbk@dpu.dk
URL: http://www.dpu.dk/site.aspx?p=5290&init=tbk

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