

From Objects to Processes

A Proposal to Rewrite Radical Constructivism

Siegfried J. Schmidt • University of Münster, Germany • sjschmidt/at/gmx.net

> Context • Philosophical debates in recent decades have developed new ways of dealing with old philosophical problems such as reality, truth, knowledge, language, communication, and action. These new approaches deserve serious consideration because they can improve the discourse of radical constructivism. **> Problem** • This paper discusses the following problem: How can we overcome dualistic and ontological approaches to basic philosophical problems – problems that are relevant to all scientific domains? **> Method** • The method applied here can be roughly described as a transition from entities/substantives/identities to actions and processes, the actions and processes from which so-called entities result. Action-orientation – or an actor-based process – is necessarily combined with sense-orientation as provided by culture and society. **> Results** • The paper demonstrates how the problems mentioned above can be reformulated in a non-dualistic and non-ontological way. **> Implications** • Opening up constructivist thinking to insights provided by neighbouring philosophical approaches facilitates interdisciplinary cooperation and helps overcome dualistic remnants – as well as the cognitive one-sidedness of traditional constructivism. **> Key words** • Process-orientation, observer, communication, language, understanding, reality, knowledge, action, truth.

Preface

« 1 » This paper surveys the main arguments of my recent book *Die Endgültigkeit der Vorläufigkeit. Prozessualität als Argumentationsstrategie* [Finality of Transience. Processuality as Strategy of Argumentation] (Schmidt 2010a), which continues my endeavors to overcome some of the shortcomings of “traditional” radical constructivism started with my books *Kognitive Autonomie und soziale Orientierung* [Cognitive Autonomy and Social Orientation] (Schmidt 1994) and *Histories & Discourses* (Schmidt 2007). Nevertheless I continue to accept the advantages of constructivism, summarized in Schmidt (2010b).

1. Introduction: Reality – a perpetual topic?

« 2 » Questions concerning the existence, status, and accessibility of “the reality” have been crucial in traditional European philosophy as well as in constructivist discourses from their beginning until today. For this reason my proposals to revise constructivism start with this central topic. I clarify that philosophical problems similar to the reality problem cannot be solved

but can only be *resolved* – an argument deeply rooted in Ludwig Wittgenstein’s philosophy – and give reasons why this is so. But why are we so fascinated and bewildered by the reality problem? In Peter Janich’s words:

“The present widely-ramified discussion about reality contains some riddles; and the most important one could be why on earth this discussion is conducted at all.” (Janich 1995: 460; my translation)

« 3 » As usual, this question has been answered in different ways. One argument in favour of the/a reality discourse may be that in present media-culture societies (Schmidt 2001b) the traditional differences between fact and fiction have become blurred and categories such as virtuality, simulation or hyperreality then come to the fore. As a consequence, the traditional quest for reality in European philosophy is experiencing a renaissance in societies that are ruled by media and shaped by globalisation. Today, the question of what is real and what is not real seems to be a relevant question for anybody anywhere.

« 4 » For epistemological reasons, theoretical approaches such as radical constructivism have revived the question of

whether or not we can acquire objective knowledge about “the reality.” Its main thesis, that we merely *construct* reality, is inspiring the philosophical debate between realists and non-realists anew – although once more without an accepted result (Mitterer 1992, 2001).

« 5 » In recent years I have tried to *dissolve* the debate about realism and constructivism by concentrating on *processes* instead of objects or ontological entities. This decision relies upon an observation of philosophical debates of the last thirty years, which have displayed a tendency towards action-orientation rather than object-orientation. Action-orientation implies a concentration on actors acting in situations/contexts according to their acting conditions, and the pursuit of goals in their life-contexts. Action-orientation does not imply a categorical rejection of systems theoretic thinking (e.g., Luhmann 1985) since action theory and systems theory should not be regarded as mutually exclusive alternatives. Instead, processes require actors, together with the various biographical, cultural, and social conditions orienting their activities. In other words, they presuppose and require (highly-conditioned) performance as well as socio-culturally determined sense orientation.

2. Background: Changing arguments

« 6 » The following section gives an overview of my discussion of philosophical approaches that represent a promising change in the debate about basic philosophical problems such as reality, communication, language, understanding, knowledge, action, experience, and truth. The argumentation for these problems has increasingly become action-oriented, including the important consequences of this movement in theory. This short survey shall concentrate on some of the examples that have inspired and supported my own position.

« 7 » The most important argument of radical constructivism has been, and still is, the *observer-dependency* of all human activities: whatever is said is said by an observer to an observer (*sensu* Maturana 1970); observers are necessarily involved in their observations, i.e., they do not observe from a neutral objective or outside position (*sensu* von Foerster 1981); observers are not isolated but operate in social contexts interacting with other observers in processes of common problem solving (Janich 2000). That is to say, acting observers and the social contexts they are acting in constitute one another, but neither of the components dominates the other.

« 8 » This also entails that the acquisition of knowledge is a social operation performed by socialised individuals in actual contexts. As a consequence, knowledge should be theoretically modelled as operational knowledge; the evaluation of knowledge, too, must be made by observers according to the relevant criteria for their specific social group and context.

« 9 » It follows from these arguments – which have been supported and elaborated by Ernst von Glasersfeld as well as by Niklas Luhmann and their followers – that it is implausible and unnecessary to either postulate or deny the existence of a reality or an objective truth that is outside the discourse of observers or independent of them. Accordingly, following von Glasersfeld, epistemology has to be reformulated as a theory of knowledge; the worlds we live (in) should be described as experiential worlds. Thus, radical constructivism shifts the epistemological orientation from the objects of knowledge to the knowledge of objects.

« 10 » In addition, theories of observation emphasize that the properties of the observer and those of the observed cannot be defined independently from one another: knowing and acting form a unity where we know because we act and we act because we know. What we call reality and what we experience as reality results from our acting as observers. In other words, observers produce their own “ontology” by externalising the results of their observations. This may be regarded as the meaning of “construction of reality.”

« 11 » In *communication theories* of recent decades (such as Krippendorff 1989; Baecker 2005; Brandom 2000; Grant 2007; Janich 2001 or Wright 2005), a similar trend to action-orientation can be observed. Communication is modelled as motivated, or goal-oriented, action that serves the verbal organisation of interactions or common activities. Communication must be performed, which means that the bodily based performance in specific situations is as important as the propositional content of a communication offer. This pragmatic turn includes the conviction that communication is performed by actors according to their specific acting conditions. Among these conditions, cultural orientations and social regulations play an important role: if actors assume that (the) other communication partners refer to similar orientations, understanding becomes possible, despite the cognitive autonomy of the individuals (Schmidt 1994) that constructivists have always emphasized. Communication is therefore no longer modelled in terms of transfer of information from one person to another. It is instead modelled as a social process based on the principles of reflexivity in terms of expected expectations (in the domain of knowledge), imputed imputations (in the domain of motives and intentions), and discourses organizing themselves via new contributions to respective topics. It seems reasonable to assume, therefore, that there is no action without communication and no communication without action.

« 12 » Within this conceptual framework of communication, *language* is modelled first of all as communicative action, and only thereafter as a matter of signs (e.g., Feilke 1996; Janich 2001 and Wittgenstein's *Philosophical Investigations*). The tradition-

al notion that language is a sign system in which the signs refer to an outer reality is replaced by the hypothesis that in using language we refer to *experiences*, gathered in socially valid applications of signs, and to *common knowledge*, acquired in the course of our socialisation. In other words, language organises social coordination and the success of action coordination is determined by expected action results and not by a correct reference of signs to an outer world.

« 13 » From this concept of language it follows that *understanding* (Rusch 1987) should equally be modelled as a specific kind of action that has two aspects: cognitive and social. Regarding cognition, understanding can be seen as an active process of generating information in the course of perceiving a communication offer. Regarding the social aspect, understanding is attributed to communication partners in social interaction if the speaker deems the partner's reaction to be correct or at least sufficient.

« 14 » Many authors (such as Janich 2006, Luhmann 1990, Sackman 1991, Spender 1998, or Wright 2005) agree that *knowledge* has to be regarded as societal knowledge that is “embodied” in actors, processes, communications, contexts, and cultures. Knowledge results from condensations of observations and experiences. In other words: knowledge, thinking, and experiencing are intrinsically connected with one another, so experiences fail by experiences. The orientation towards action requires an explication of the notion of *action* (Furth 1998, Janich 2009, Joas 1992, Maturana 1991). There is a remarkable consensus concerning such an explication: acting is theoretically modelled as acting in social communities, which may fail or succeed. Acting can be performed in various types, – e.g., participation in common activities, verbal or non-verbal acting, poetic acting, etc. – each regulated by specific criteria regarding acceptance, failure or success. Acting is attributed to actors, which means that it constitutes moral or legal commitments, i.e., the actor must take responsibility for her/his actions. Acting is performed in the format of socially stereotyped action-schemata that orient the performance as well as the understanding of actions. In summary, acting-competence of actors is a cultural product, characterised by the autonomy of

choosing aims, the rationality of the means applied, and the responsibility for results. From a pragmatist point of view, epistemology therefore has to take into account not only the fundamental role of consciousness but also the equally important basic role of acting. Perception and cognition are bound to the actor's body, are performed in a situation connected with the body, and are in-solvably intertwined with the experience, knowledge, emotion, and memories an actor has acquired during his life.

« 15 » An action-oriented debate about *truth* (e.g., Goodman 1978; Mitterer 1992; Rorty 1989; Luhmann 1990) abandons all traditional ontologies or substantiations of this concept. Instead, truth is conceived of as the regulative principle of knowledge processes in our daily life as well as in the sciences. Truth is modelled as a strictly observer-dependent category, i.e., it basically matters who makes use of this concept in which situation and for what purposes.

« 16 » A remarkable shift in the debate about *reality*¹ replaces the question of what reality is with an analysis of the different ways we talk about reality. This talk is deliberately specified by the discourse context, the aim of the talk and the selected discourse type. Thus a dictum of Carl F. von Weizsäcker, written as early as 1980, has become a topos in the discussion about reality: "If we reasonably talk about reality, we talk about reality. If nobody speaks about reality, reality is not at stake." (Weizsäcker 1980: 42; my translation) Language, thinking, and acting evidently form an indivisible unity, a mutually constitutive framework of interactive dependencies² ("Wirkungszusammenhang") from which emerges what we experience as and call "reality." As there is no acting without communication and no communication without acting, this means that the question of what reality "is" is replaced by an analysis of what we "do" to make something "real." In other words: processes form the basis for the emergence of realities.

1 | Regarding the debate on reality I refer to authors such as Brandom (2000), Janich (2000), Lenk (1995), Mitterer (1992), Putnam (1994), and Welsch (1998).

2 | For an explication see Schlosser (1993).

3. Consequences: From entities to processes in our life-world³

« 17 » I shall now set out my own position⁴ on the problems in the philosophical debate on the "heavy words" such as "reality," "knowledge," "experience," "truth," "action," "understanding," "language" or "communication." In general, I do not advocate – as, e.g., Richard Rorty does – abolishing epistemology. Instead, a strict process-orientation in philosophical argumentation allows us to avoid the obviously unsolvable problems connected with the traditional treatment of those concepts. And as these problems concern all disciplines in the scientific world, my argumentations apply to interdisciplinary perspectives, too.

« 18 » An important presupposition of the following argumentation concerns the framework of interactive dependencies constituted by models of realities and culture programs.

« 19 » I call the categorical semantic system of possible meaning-orientations of a society the *reality model* of a society. It can be defined as the collective knowledge that is at the disposal of individual members of a society, that emerges from acting and communicating, and that is systematised and sustained by practice and communication. This shared common knowledge co-orientates the interactions of actors via shared expectations and imputations (that is, via the elaboration of structures that are reflexive and selective in the actors' operations). Reality models qua *models for* and not *models of* reality systematise interaction with the whole range of domains of reference considered to be important for practical life – namely the environment, actors in the environment, forms of socialisation, feelings, and values. That is to say, every society must solve the problems arising from the questions of:

3 | For stylistic reasons it is difficult to avoid substantiations – "communication, action" – and assertions such as "X is Y." Readers are therefore requested to keep in mind that these are abbreviations of formulations such as "communication processes" or "X is defined/described as Y."

4 | For an extensive discussion of my position, see Schmidt (2007, 2010a).

- how its relation to its environment is defined
- how mankind is understood
- which institutional organisations are accepted
- how emotions are estimated, and
- which moral orientations are accepted and realised.

« 20 » Such a reality model can only become effective if a practical program for its application, a *culture program*, emerges at the same time. Culture programs regulate possible relations between basic semantic categories and their semantic differentiations,⁵ their relevance in practical life, their affective content, and their moral significance in a socially binding manner. They thus render the applications of world models of actors socially effective. Culture programs enable and schematise options for actions in all socially relevant areas of life, such as gender relations or power structures.

« 21 » My argumentation is based upon three basic presuppositions regarding assumptions.

a. The basic mechanism: positings [Setzungen] and presuppositions [Voraussetzungen]⁶

« 22 » Whatever we do, we do in the gestalt of a positing: we do this, and not something else, although we could have done that. Such a positing always takes a certain gestalt for us and also – if we are under observation – for others: it is a type A positing, not type B or X.

« 23 » As far as we can judge within our lifetime, every single positing that we make here and now has been preceded by other positings to which we (can) more or less consciously relate, depending on the type and context of that positing. All our previous positings to date therefore form a context of positings in given particular situations, a context to which we can refer by way of memories and narratives. This context of positings comprises the sum of our prior relevant life experiences that will,

5 | The category "age," e.g., is semantically differentiated into "old" and "young," the category "human" into "male" and "female" etc.

6 | For details see Schmidt (2007).

in turn, affect our future experiences as expectations in every specific situation.

« 24 » Every positing – in the cognitive or the practical domain – draws upon at least one presupposition. As a rule, however, many presuppositions are drawn upon – consider, for instance, how many presuppositions must be fulfilled before we can, e.g., ski down a slope.⁷ The nexus between positing and presupposition is auto-constitutive as neither can be meaningfully envisaged without the other. From a logical point of view, positing and presupposition are, therefore, *strictly complementary*: the presupposition of a positing can only be observed in the reflexive reference to that positing. If one accepts the auto-constitution of positing and presupposition, then one must also accept that there can be no presupposition-free beginning – the only possible beginning is to make a positing; even if one denies this argument, this can only be done in terms of a positing. Thus we start our argumentation with a *self-founding* basic argument.

« 25 » Positings constitute *contingency* because they must be selective with reference to other options. As selections they are more or less conscious decisions, and only as realized decisions do they render contingency *observable*. This means that selection and contingency, too, must be envisaged jointly. They logically constitute each other; they are strictly complementary. So we must, e.g., decide whether in our leisure time we go to the cinema, read a book, meet with friends or do something else – and each decision is contingent, though not arbitrary since we normally believe we have good reasons for our decisions.

« 26 » Whether we perceive or describe something, ponder something or become consciously aware of something as something particular, we are always executing a consequential application of *distinctions*: we (and not anyone else) describe (not explain) something as that particular something (not as something else). In doing so we make use of resources of distinctions whose semantic potential and social acceptance is tacitly presumed and is, at the same time, by this very use confirmed as

7 | Of course, this example is in honor of Ernst von Glasersfeld.

“viable” (i.e., as manageable or successful, in the understanding of von Glasersfeld 1980). All this is realised (we can envisage or think of all this only in this way) as the performance of an action in a particular situation at a particular point in time, i.e. in a particular biographical and social context of an actor.

« 27 » Every supposition, according to the logic of the present argument, requires a positing instance (= a process performer) that becomes an actor by the very act of positing. In the case of cognitive positings (e.g. thoughts, ideas, perceptions), we call the positing instance *consciousness*. Consciousness operates on all levels by means of *reference* through the auto-constitutive framework of interdependency of positing (consciousness can only be consciousness of something) and presupposition (without consciousness, *no* something is at stake). I am conscious of something if, due to specific presuppositions, it “is in my mind.” The presupposition of a positing can only be observed (posited) as such by reflexive reference, thus repeating the procedure of positing and presupposition. It is only by virtue of *reflexivity* that references can be recognised and communicated: consciousness is the irreducible condition for referring to cognitive operations, and reflexivity is regarded as the condition for becoming aware of consciousness (Jünger 2002).

« 28 » The elementary principles or mechanisms driving all our actions and making them accessible to observation and interpretation can be described as:

- reference or *relationality* as the principle of consciousness
- *reflexivity*, allowing reference to presuppositions, and the community-forming imputations of such relations in others, and
- *selective auto-constitution* of the context of positing and presupposition.

« 29 » In summary, positings are, by necessity, selective and thus contingent, though not arbitrary. They are highly conditioned by presuppositions and so enmeshed in the history of the performer of the respective positing.

« 30 » In the following I shall explore where applications of these elementary mechanisms leads us in the development of our theories.

b. Strict process-orientation

« 31 » In order to escape the seduction of dualistic approaches,⁸ I recommend focusing our argumentation strictly upon processes instead of objects or identities. All processes necessarily combine an agency (or action-carrier), the performance (or realisation) of the process, and the process-result(s). Processes are therefore conceptually modelled as dynamic three-part relations, implying that none of the three components can be omitted. A process-oriented argumentation attracts our attention to the fact that what we call “object” (in the broadest sense of the word) is constituted within a process. Perception, description, communication, and action are all empirically accessible processes that result in experiences that are “real-for-us” for good reasons, because they prove their validity.

« 32 » A consistent orientation towards processes allows the two nasty traditional problems of “representation” and “reference” to be resolved. Processes do not represent “reality;” instead they produce real-for-us results. Without these results nothing could be represented or referred to.

« 33 » The coupling of process results and their attribution as “real for...” must be socially accepted and thus intersubjectively confirmed, i.e., without the others there is neither certainty nor uncertainty for us. This means that experiencing something as real presupposes the context of acting and communicating communities determined by their framework of interactive dependencies, the *reality model* and *culture program*. We necessarily live our life-worlds together with other people.

« 34 » Talking about reality means talking about observers and the distinctions they use in order to experience, observe, and describe something as something. Since observer-orientation (*sensu* von Foerster or Glanville, as well as Luhmann) has played such an important role in recent years, I will develop this further.

« 35 » The rather one-sided observer concept of traditional radical constructivism can be replaced by a more complex one. That is to say, the constructivists’ concentration on brain and cognition should be

8 | For details see Mitterer (1992, 2001) and the contributions to Riegler & Weber (2008).

deliberately extended to action, emotion, language, communication, and culture in order to respect not only biological but also socio-cultural acting conditions of human observers. This extension can be legitimated by the fact that observers are, by necessity, enmeshed in social communities and their respective cultural conditions.

« 36 » The process-orientation I have recommended above applies to the observer, too. Whatever he performs is performed in terms of three-part relations (i.e., actors, performances, and results regarding consequences of actions), i.e., in terms of processes. Accordingly, observers “live the worlds they live in,” which result from their presupposition-rich positings in terms of real processes. This might be plausibly called “construction.”

c. Proceeding from our life-world

« 37 » Gertrude Stein once formulated (in her unique way) that nobody is somebody except in daily life. This important insight has been elaborated in philosophy from Edmund Husserl to Peter Berger and Thomas Luckmann under various labels, such as *Alltag(swelt)* or *Lebenswelt*. The ideas behind these concepts correspond more or less to “life-world” or “everyday life.” My argumentation is as follows: the total sum of presuppositions we rely upon in our activities/positings can be regarded as our life-world and constitute the framework of our experiences, actions, and communications – a framework we do not and cannot question. I use the concept “life-world” as a methodical starting point. Our life-world does *not* precede or surround us in terms of an entity or fixed state of affairs. Instead we *proceed* from our life-world in every positing, thus rendering it into our respective presuppositions.

« 38 » We live our life-world in our histories and discourses,⁹ and we live our his-

9 | In Schmidt (2007), chapter 5, I introduced my special use of these two terms. By “history” I mean the synthesis of actions and experiences that become efficient in respective actions; by “discourse” I mean the synthesis of communication processes an actor is engaged in at a specific time. Histories and discourses can be defined as a framework of interactive dependencies: histories

and discourses in our life-world. In other words, our life-world can be described in terms of a synthesis of all our currently relevant histories and discourses. This holds equally true for scientific or economic histories and discourses. This basic point of departure cannot be reduced, neither by logical or methodological arguments nor by ontological or psychological ones. In our life-world we operate on the common basis of our mother tongue and of common sense. Common sense can be regarded as the collective knowledge actors take for granted (= operative fiction¹⁰) and attribute to other actors in interactions. This culturally based knowledge enables action and communication between cognitively autonomous actors. Life-worlds are constituted by all hitherto made experiences, the descriptions made up to now, the striving for power and influence, the search for alternatives; etc.

« 39 » For these reasons it seems plausible to *proceed* from our life-world – i.e., to choose a bottom-up procedure – because the objects we deal with are objects described and experienced by us in our life-worlds. The problems we try to solve are culture-dependent problems-for-us in our life-worlds. By proceeding from these objects and problems we then develop special ways and methods to deal with objects and problems, e.g., in science, religion or art.¹¹

« 40 » Time plays an important role in our life-world, which is characterised by “all-inclusive nowness” (*sensu* Marshall McLuhan). It is very important that we *now* talk to somebody, repair our bicycle *now*, write an article *now*, etc. We can only and we do only act in our life-world *now*. Our actions happen in the form of three-part processes (see above) in which they are attributed to actors as their actions, they are

are enmeshed in discourses and discourses in histories.

10 | For an explication of this concept see Feilke (1994) or Schmidt (2001). Common sense is fictitious because it cannot be directly and empirically checked in the cognitive domains; nevertheless it works more or less successfully in the co-orientation of actors.

11 | A similar view is held by Janich and other representatives of methodical culturalism (Methodischer Kulturalismus). See the contributions to Hartmann & Janich (1996).

described and evaluated as their individual actions, and processes are conceived of as forms of realisations (Ver-Wirklichung): if actors deem them real they are *real-for-them*.

d. real¹²

« 41 » In the remainder of my paper I shall explain the consequences of the three basic presuppositions (a–c) for a philosophical “liquefaction,” or dynamisation, of the “heavy words” in epistemology.¹³ Let me start again with “real.”

« 42 » In order to escape dualistic traps I try to avoid the substantive “reality” and focus on the usage of the adjective “real.” Talking about “the reality” means talking about a discourse product that has no ontological reference because it has been produced by a silent transformation of adjectives and verbs into a substantive. So we can, e.g., talk about “the reality,” but we cannot live in “the reality.” Instead, we live in *our* life-world, in acting and communicating communities that dispose of efficient criteria for deciding what is (regarded to be) real or not. The adjective “real” is used in communication in many reasonable ways. It denotes something we have experienced and described as “real-for-us” according to our hitherto acquired knowledge and to socio-culturally confirmed criteria. We probe into our “reality” by living it and by talking about it.

« 43 » Perhaps some readers may assume that “life-world” is but another word for “reality.” But such a replacement overlooks that “the reality” is regarded as an ontological given, whereas “life-world” (despite all problems in dealing with nouns) is conceptualised as the offspring of the interplay between positings and presuppositions. It is as a process-result that can hereafter be transformed again into a system of presuppositions.

12 | Formulations such as “knowledge” or “truth” are but abbreviations of formulations such as “what we know” or “what we call true.”

13 | I shall not repeat the quotations of authors in Section 2, whose argumentations are helpful for my elaboration of a process- and action-oriented philosophy. These arguments will, of course, be integrated in my argumentation and so some repetitions cannot be avoided.

« 44 » I am convinced that it has been and still is unnecessary and epistemologically misleading to avow or disavow the existence of something in a reality that is allegedly independent of us. Instead I abandon realists' and constructivists' play of reference and representation in favour of a strict process-orientation. Processes do not represent "the reality" but lead to results we hold to be real. Without process-results there is nothing that might be represented. It is important to note that process-results and their evaluation as real must be socially accepted since there is neither certainty nor uncertainty regarding "real things" without the others: i.e., the experience of something as real presupposes an action and communication community. In this community we normally know for sure what is real, what is doubtful, what is unreal, etc. What we deem real is real in its *consequences*, in success and failure, and not because of its correspondence with "the reality."

« 45 » "Reality" has one characteristic: it is real in our life-world! As it is real it generates a content of matter in our communication. We use "real" in our communications to denote something we have experienced and described as real according to the situation, presuppositions confirmed by experience, and socio-cultural criteria. These denotations are then called factual, true or "existing as compared to," etc. In our life-world we acquire corroborated knowledge, the criteria of which we deduce from the praxis of our histories and discourses in both cooperation and conflict with others. One of the most important criteria for "real things" is "stability over time." Accordingly, speaking about objects should be understood as speaking about processes that render stabilities/results relative to time and processes. In other words, if we use the concept "reality," it should be modelled as an everlasting *process* on the basis of actions and interactions, of language and culture. Metaphorically speaking, via language and our acting in our life-world "the world" has emerged – thus repeating an important constructivist insight.

« 46 » The question of whether "reality" is *accessible* for us is answered by the fact that we ask it. The "real things" we deal with gain their objectivity from the fact that an action- and-communication-community performs its activities on the basis of their

acceptance as real. What we experience as "real" results from the interaction of body, cognition, emotion, communication, and action in the orienting framework of language and culture. This framework organises our experiencing/making experiences via schemata of experiencing that belong to the collective knowledge of actors in a society. In our life-worlds we start from successful experiences to continue making new experiences. As Heinz von Foerster (1993: 46) wrote: "Experience is the reason, the world the consequence." Experiences are closely connected with expectations, knowledge, emotions, and moral evaluations. They tell us a story about us, not about "the reality" independent from us.

e. to know

« 47 » To know something may be conceived of as to be able to act (= acting-competence). To know is related to actors who try to solve (their) problems. What I know becomes socially relevant only in the context of communication: it presupposes social interaction and enables me to act and communicate successfully. Knowing thus has a cognitive as well as a social/communicative component, and these cannot be separated from one another.

« 48 » In academic discourses on knowledge, several types of knowledge are mentioned, e.g., implicit and explicit knowledge; empirical, ontological, encyclopaedic or historical knowledge; theoretical or practical knowledge. The relevant point in this discussion is which criteria are applied in which knowledge domain and what purpose the given distinction is expected to serve.

« 49 » Knowing is closely related to truth-conviction or at least truth-assumption. It is not sufficient to know *that* one knows something. Instead, during the process of knowing one has to be convinced that what one knows is (bona fide) *true*. For this reason criteria such as responsibility and legitimation are fundamental for the treatment of knowledge. This is especially important regarding so-called collective knowledge, i.e., knowledge that actors have acquired during their socialisation and that they impute to other actors as the common basis for interaction and communication, i.e., as an operative fiction.

« 50 » Knowing is a theory-loaded and actor-relative process: what we know is structured by concepts that are organised in concept-structures and is incorporated in the knowing-competence of actors. This holds true for so-called "collective knowledge," too. Asking, learning, knowing, and experiencing in acting and communicating are complementary. We know because we learn, and we learn because we know. And learning as well as knowing are oriented by models of reality and culture programs.

« 51 » According to the process-orientation of my argumentation, what is known is not modelled in terms of an entity that can be stored in and retrieved from the memory, acting as store house. Instead, memory, too, has to be modelled as a specific kind of *action* that produces what we call "knowledge."¹⁴ When we refer to what we know in reflexive operations, our "knowledge" has already been produced; we then know what we know only when we have already acquired a specific knowing competence.

f. true

« 52 » Like "reality," "truth" is one of the semantically vague concepts. However, we need them in our daily communications, as well as in scientific and philosophical communications. This is because – at least in principle – everybody is committed to telling the truth in any kind of communication. Generally speaking, the attribution of the predicate "true" is implemented in human practices with respect to its success (= acceptance) or failure (= rejection), which is always imbued with emotional and moral components.

« 53 » The handling of the attribute "true" can be differentiated into cognitive and communicative aspects.

« 54 » In *cognitive* processes, we in practice treat statements as being true as long as the conscious reception of a text – i.e., the process of meaning construction by means of processing semiotic materials of the respective text – is neither disturbed nor interrupted. The presumption of truth is enacted here as an experience of immediate evidence. As long as the cognitive process of order creation is undisturbed, the question

14| Similar views can be found in the contributions to Schmidt (1991).

of truth does not arise: we approve what we receive. If the process is interrupted, we then raise the question by asking ourselves, as it were, whether and why we are convinced by the meaning construct that we have assigned to the statement within the context of our available knowledge. In addition we may ask ourselves whether or not we can envisage a scenario that can support our belief (e.g. documents, methods of proof, statements by witnesses, experiments).

« 55 » In *communicative* processes, too, the question of truth does not arise as long as the process is not interrupted, and statements, assertions or arguments are not called into question or subject to doubt. Here the recourse to true statements functions as an interrupter of legitimation, which itself restores the connectibility of communication. The ascription of the predicate “true” realises itself in this case as a decision scenario in which those knowledge constellations or decision practices that are accepted without objection or protest at the given state of discourse serve as evidence.

« 56 » This argumentation leads to the following hypothesis: If truth is not designed in the mode of correspondence relations (between reality and knowledge, statement and object), but as the cognitively and communicatively efficient strategy of the invisibly contingent treatment of contingency, then it can be specified as follows:

- from the observational perspective of discourse: as the successful communication, stabilisation, and regress interruption that permits communal action
- from the observational perspective of history: as the practical social assessment of an action as a viable problem solution.

« 57 » In both cases, in histories and in discourses, the goal is to successfully act in a social context. If we assume an indissoluble interdependence between actions and assertions, then successful action becomes the *definiens* of “action-truth.” Assertions that are intended to serve as instruments of successful problem solutions must be true if they turn out to be suitable and effective for the organisation of communal praxis. The lack of action success renders assertions false; assertions, as “true speech,” function as a summons in the organisation of communal activity.

« 58 » The attribution of “true” to statements or actions can be theoretically modelled as a strategy of contingent management of contingency, which integrates cognitive, affective, and moral aspects. Unquestioned acceptable knowledge permits cognitive and communicative operations, and allows for a positive pleasure-pain equilibration (in the sense of Luc Ciompi 1997): to command true knowledge is emotionally satisfying. In everyday life – apart from special forms of communication such as humour or advertising – it is morally expected (however sometimes counterfactually) that every actor always speaks the truth – white lies are the utmost in excusable counteraction. And scientists, in particular, are under high moral pressure to create and disseminate true, and only true, knowledge, to avoid risking their reputation. Conversely, in fulfilling this expectation, they gain both cognitive and emotional satisfaction as well as social recognition.

g. to act¹⁵

« 59 » Strictly speaking we cannot observe actions. Instead we observe sequences of events or behaviours of actors in histories and discourses that we as observers classify as a specific type of action or action schema, defined within the respective culture and forming part of the common knowledge. “Acting” is an observer-dependent category, be this self-observation or observation by others. The attribution of this category is meaningful and serves a specific function: it is connected with approval or criticism, acceptance or rejection, reward or punishment, etc.

« 60 » Actings can be described as real processes performed by actors in specific situations and in their life-world together with other actors. This interaction implies moral and juridical obligations: acting is attributed to actors as persons who are (as far as possible) responsible for their acting, its intended results, and sometimes even its unintended consequences.

« 61 » Since acting processes are bound to the basic mechanism of positing and presupposition, they are enmeshed in the con-

nection of selection and contingency. All our actions are contingent, and all societies have developed cultural mechanisms to render this contingency invisible, i.e. to save it from second order observation. In the course of history, this happened via claiming evidence, developing action schemata and action conventions, or by establishing action-systems whose meanings and evaluations formed parts of the common knowledge of a society. Accordingly, there is no action without knowledge and no knowledge without action. We act in the framework of sense-orientations, expected-expectations, imputed-imputations, good reasons, and plausible goals that have been constituted in previous actions and that differ from acting type to acting type. The acting intention regulates the acting goal as well as the evaluation of actions regarding success or failure: we do not act without intentions. However, the intentions need not always be clearly conscious before we start acting – it can become clear “as we walk along.”

« 62 » Perceiving, observing, recognising, and speaking should be modelled as types or forms of acting. They all are tied to the body of actors and the acting situation in which they are performed at a given time; at the same time they get their meaning from the culture program of their respective society.

h. to speak

« 63 » As already mentioned in Section 2, language should be regarded first and foremost as an instrument of communication and not primarily as a system of signs with stable references to outer world objects. It is only its use in social communication processes that constitutes its semantic and pragmatic relevance. In this respect, two aspects must be taken into account: the successful constitution of texts and the communicative success of speech acts.

« 64 » We speak in our acting and communicating community in order to solve our problems in our life-worlds. As is well-known, Ludwig Wittgenstein defined this use of language as linguistic games that are performed in common life-forms.¹⁶

15| The argumentation in this section has profited from the action theory developed by Janich (2001).

16| In 1973 I introduced the notion “communicative action game” (kommunikatives Handlungsspiel) in order to characterize this situation.

« 65 » The basic problem of traditional linguistic and language philosophy is the referential problem: What do the signs of a language refer to? Since Charles Sanders Peirce we know that not all signs have a referential function. But even if we consider signs that allegedly refer to something outside language, we must realise that they do not refer to something beyond our discourses. Instead they “incorporate” knowledge that we have acquired by/through our treatments of objects-for-us. The function of signs may therefore be described as the relation of reflexivity or as self-reference of communication.

« 66 » Robert Brandom (2001) has emphasised that assertions are performances of processes including motivations, emotions, and evaluations. He recommends a top-down semantic that concentrates on the use of concepts in judgements and actions. Concepts are created in processes of judging and asserting, and they are integrated in a network of application processes.

« 67 » The meanings of words are not learned but are transferred from successful speaking processes. That is to say, as speakers of a language we proceed from meanings instead of concentrating our attention on them. Or in Philip Wegener’s formulation: “We need not “understand” a word. We either *know* it or not.” (quoted from Feilke 1994: 173) And we know it from the praxis of speaking in our life-world.

« 68 » Apart from proper names, sign relations are not determined by the representation of outer verbal facts but instead by self-reference in communication. What, e.g., “wisdom,” “hate” or “death” mean is defined by the ways these words/concepts are successfully communicated in a respective society. That is to say, verbal signs denote co-ordinations in social discourses. Therefore common knowledge about the use of words or signs provides sufficiently effective expectation-expectations for future verbal actions.

i. to communicate

« 69 » Following from the above, it is possible to conceptualise communication as symbolic social action by actors with the help of communication instruments or media serving the purpose of co-orienting the meaning production of actors. In the same

way the semantic aspect of communication can be distinguished from its performative aspect; it thus makes sense to speak of communication-actions. These are performed at a specific time and in specific situations. They are bound to the body of actors even if we communicate with the help of media. Single communication actions can be aggregated by means of combinations into communication processes that are embedded and organised in discourses.

« 70 » The construction of *meaning* occurs on the basis of the *materiality* of communication instruments. We exchange neither thoughts nor impressions or intentions in communication actions; instead we can merely use semiotic materials (phonemes and graphemes) and non-verbal indicators for the purpose of meaning production. It must therefore be assumed that – as already argued with respect to language – semiotic materialities condense (or encode) social experiences that are in contact with semiotic materialities in a way that guarantees a sufficient co-orientation of communication partners. Actors use these materialities as relations between signs and standardised experiences that they have acquired in the course of their linguistic socialisation and the validity of which they presuppose and posit as collective knowledge.

« 71 » It is assumed today that *reflexivity* is one of the most important mechanisms for the emergence of communication. Historically, by means of mutual observation people were able to accumulate knowledge in the form of experience, which in turn could be used in the constitution of expectations (X has to date always acted in this way and he will presumably do so again). In addition, on the basis of the reflexivity of observations people could know that other people disposed of similar knowledge; as a result, expectations developed into expected expectations that subsequently could be tested against experience.

« 72 » In addition to this reflexive mechanism based on knowledge, reflexivity developed in terms of assumption of motives and intentions of actions. This reflexivity can be termed as *imputed imputations*.

« 73 » The communication actions that emerged on the basis of both such reflexive mechanisms underwent enormous expansion by the evolution of language as a sym-

bolic instrument of communication, where communication possibilities could be differentiated according to their thematic, social, and temporal dimensions. It now became possible to talk to each other about those present and absent and about what is seen or indeed merely thought in the past, present, and future. This process of differentiation underwent two further shifts in complexity since by negation and metacommunication every assertion or speech-act could be duplicated.

« 74 » By virtue of the social “taming” of communicative complexity via rules, schematisations, conventions, discourse types, etc., understanding became possible, despite the fact that people cannot look into the heads of others or think together but can only speak to each other. At stake here are processes of agreement and not of “understanding,” because the emphatic concept of understanding is problematic in as much as it presupposes that a recipient in and by communication can achieve a duplication of statements of the intentions and semantic contents of the utterances of a communicator. By contrast, if actions and events related to consciousness are connected to the actors, the expectation of such understanding becomes illusory. What can be achieved instead is a balance between the intentions of communication and the coupling actions: that is to say, the fulfilment of expectations that communication partners direct to the various communication actions in histories and discourses. This balance can be guided by collective knowledge, action practices in histories and discourses, and by previously acquired problem solving strategies. They all relate to the context of the effects of reality models and culture programs – positing and presupposition.

4. Conclusion

« 75 » I hope that in the course of my argumentation – based on the self-founding arguments of positing and presupposition, life-world, and the processuality of all our actions – it has become clear that it is implausible to assume strict dualisms such as subject/object, language/objects, truth/reality or reality/perception. By modelling our operations – ranging from perceiving



SIEGFRIED J. SCHMIDT

was born in 1940. He was university professor at the universities of Karlsruhe, Bielefeld, Siegen and Münster for philosophy, linguistics, literary studies and media studies from 1971 to 2006 and is now professor emeritus. In the 1980s he played a leading role in establishing radical constructivism as a new paradigm in the German-speaking academic landscape.

and remembering to understanding – as types of acting I want to clarify that we always need a dual perspective in our observations and descriptions: the perspective of acting performance – which is connected with the body and the acting situation – and the perspective of sense orientation – which is connected with society, language, and culture. Society, language, and culture need performance/actors to survive, and actors need society, language, and culture in order to be able to interact, communicate, and understand. Actors acquire action- and communication-competence, which can be defined as *reality-competence*. The application of reality-competence is in no way arbitrary: we cannot decide to do it or leave it. On the contrary, we perform it ceaselessly at every moment of our life. This permanent performance provides us with the deep conviction that “reality” must exist independent of us because it is already present wherever and whenever we appear in our life-worlds – we cannot but “carry” it with us.

« 76 » If perception is modelled as the active treatment of already available and linguistically formatted knowledge and as the continuation of descriptions based upon new experiences, then the certainty of our perception is determined in specific histories and discourses according to specific criteria that are valid in the various action areas. The decisive question reads as follows: Which acting potentials are opened by a perception? (And not: How true are our perceptions?) And an answer to the question of whether or not we can acquire objective knowledge can only be, “No, if objective means independence of actors.” Instead, intersubjectivity can be introduced as a regulative principle according to which facts are methodically produced and can therefore be scrutinised by everybody who applies the same method. The claim for validity relates to the procedure not to the results, which still have to be produced, interpreted, and evaluated by actors in specific situations regarding their applicability and acceptance over time in life-worlds.

« 77 » Let me finish with a last general remark. A strictly process-oriented way of argumentation can make us more resilient to disappointment. Having taken account of the dissolution of problems, one can accept the thesis of the finality of contingency without the feeling of loss. Our discourses are indeed bottomless and interminable. They are determined – apart from all the praiseworthy factual arguments – by emotions, traditions, habits, or *habitus* (*sensu* Pierre Bourdieu 1972), which function like blind spots. If they are interesting enough, they may give rise to the emergence of discourse communities. That would reveal something about their success but nothing about their objective truth.

« 78 » The upshot of these considerations, the finality of transience, is therefore a consoling, mitigating formula that, however, would be incomplete without its converse, “the transience of finality.” Maybe that’s it.

RECEIVED: 17 JANUARY 2011

ACCEPTED: 17 MAY 2011

Open Peer Commentaries

on Siegfried J. Schmidt's "From Objects to Processes"

Toward a Theory of Observers in Action

Christine Angela Knoop
Freie Universität Berlin, Germany
christine.knoop/at/fu-berlin.de

> **Upshot** • Siegfried J. Schmidt's process-oriented constructivism, with which he proposes to dissolve the debate about realism, offers myriad intellectual challenges to constructivists from numerous different disciplines. While "From Objects to Processes" seems to represent a review of Schmidt's work rather than a new addition to the debate, it derives in a convincing fashion the importance of a process- and action-based unending constructivism from a combination of Schmidt's own previous positions and a number of central epistemological questions.

Rewriting again?

« 1 » The subtitle to Siegfried J. Schmidt's article "From Objects to Processes," "A Proposal to Rewrite Radical Constructivism," sounds oddly familiar, like a direct reference to the subtitle of the author's earlier book *Histories & Discourses* (Schmidt 2007): *Rewriting Constructivism*. There might be more than a formal link between these two subtitles. *Histories & Discourses*, in the German original, is entitled *Geschichten & Diskurse. Abschied vom Konstruktivismus*. At first, the German and the English subtitles seem to predict opposite approaches. Where the German "Abschied" ("parting"/"farewell") alludes to an end of discussing constructivism, the English "rewriting" alludes to a new beginning. This points toward a char-

acteristic of Schmidt's dealings with radical constructivism: the constant attempt to overcome old assumptions by developing them and, true to constructivist theory, to reflect that overcoming traditional theories is achieved by reconsidering them from previously neglected perspectives. Parting and rewriting, therefore, do not mutually exclude each other.

« 2 » In that sense, the return to the promise to rewrite constructivism indicates a perpetual intellectual necessity rather than a mere repetition. Nonetheless, the subtitle's promise might leave readers wondering if Schmidt is really, yet again, re-examining his position, or if this paper is more of a review of three of his books (Schmidt 1994, 2007, 2010a). What can this paper add to his position?

Process orientation and real-for-us results

« 3 » In his characteristic manner, Schmidt, in "From Objects to Processes," links systems theory to radical constructivism. His continuous affinity to systems theory confirms his readiness to abandon some of radical constructivism's more traditional ideas. It leads him to assume, for instance, the existence of shared common knowledge (§19). This conception obviously separates his approach from a constructivism such as Ranulph Glanville's, who simply denies the existence of properties shared by individual minds without a means of direct interaction. For Glanville, knowledge, too, results from individual constructions of meaning, and the closest we can come to shared knowledge is if "your meaning and mine allow us to believe that we share" (Glanville 1996: 449; my emphasis). Schmidt's approach, however, seems more prone to accepting communica-

tive success as something that can be called shared knowledge, or even shared social rules; and this is supported by two important claims. Firstly, Schmidt calls for abandoning the discourse around reality and proposes to replace the term "reality" with the notion of "real-for-us results" (§§41–46); and secondly, connected to that, he calls for a strictly process-oriented understanding of human communication, observation, perception, understanding, and knowledge (§§31–36).

« 4 » I shall look at these two points in more detail. The replacement of "reality" by "real-for-us results" emphasizes the notion that we actively create our worlds. And indeed, the term "real" is often used to describe an observer-dependent world, not a stable ontological given (which we can see, for instance, in the different everyday uses of "the real world" and "reality"). Nonetheless, from a methodological perspective I tend to doubt the success of such renaming. Firstly, renaming usually does not omit the traditional term, nor its traditional meaning, because said meaning has been neither replaced nor redefined in the communicative process; and secondly, because meeting the epistemological baggage of terminology head-on sometimes prevents the discursive return of the same epistemological problems under their new labels. Besides, replacement notions for hotly contested epistemological terms often have a way of disappearing all too quickly and only reappearing with reference to their inventor, as we have seen it happen with Martin Heidegger's "wesen," Roland Barthes's "scripteur," and, as it were, Richard Rorty's "epistemological behaviourism," to which I shall return later. This being a mere opinion, however, I should be pleasantly surprised to see an outcome that contradicts my view.

« 5 » The matter of process-orientation in the creation of observer-dependent worlds seems to me to be at the heart of Schmidt's constructivism. By defining understanding, knowing, and perceiving as actions, Schmidt highlights the process-based nature of our "Lebenswelten" or "lifeworlds" (§42), in which we perform actions rather than passively receiving or stably holding input conveyed to us by an outer reality. All manifestations of life are constituted by individual cognitive, perceptive, and communicative actions (§§59–62). With this, in my view, brilliant turn, Schmidt links the different elements of his theory together. However, two questions arise.

« 6 » Firstly, if all manifestations of human life are defined as actions, and if, in accordance with the positions Schmidt quotes in §14, all actions entail the actor's responsibility for said action, then what is the epistemological status of responsibility? Would taking responsibility not also be an action, although one that is automatically entailed in another action, and that therefore itself entails responsibility? Or, as Glanville would put it: "Who guards the guards?" (Glanville 1990: 109). At this point, it seems that the moral aspects of this infinitely interlaced system might need some further elaboration – especially since it is not clear what moral (or ethical?) obligations a bodily function such as perception could entail in comparison to, say, a communicative one. Here, the meaning of the term "responsibility" becomes hazy at best.

« 7 » Secondly, in §12 Schmidt quotes positions in which language is defined as a communicative action first, and a matter of signs second. Can the communicative action really be separated in hierarchy from the semiotic nature of language, even for the sake of argument? Can there be communication without signs of any kind, or are the two mutually constitutive (see Schrott & Jacobs 2011: 27–31, 377f.)?

A challenging change of paradigm

« 8 » Schmidt's conception of action-oriented processes arrives quietly. However, the practicality, logic, and modesty with which it is presented cannot conceal that this approach poses major challenges to a number of scientific and scholarly fields that previously differentiated between acts in or

through language, other forms of communication and expression, and other forms of action. Austin's Speech Act Theory, several theories of fiction, the field of early childhood education, the broader field of rhetoric figuration and its effects, and ethnological discussions of knowledge transfer in different cultures, to name only a few, are among those concerned. However, this is not to be understood as criticism; the fierceness of a challenge should not be mistaken for proof of its fallacy.

« 9 » From a humanities perspective, I see special potential in one particular conclusion Schmidt draws from the idea that human action should be seen from a strictly process-oriented perspective. Process orientation, for Schmidt, means that we have to look at the observer as a whole, not solely at her cognitive abilities and her brain (§35). This claim is extremely significant at a time when the humanities are often regarded as outmoded, unproductive, and in need of redefining their role in the twenty-first century. If our perception, understanding, and knowledge are processes perpetually in flux, then the meta-discussions provided by the humanities, as well as their tradition of monitoring and describing human communication and emotional expression, must gain importance in constructivist discourse.

« 10 » I also consider Schmidt's hypothesis that truth is always assumed in any of our communicative interactions, unless an obstacle presents itself (§§54–55), to provide an excellent theoretical framework for a number of findings. Here, too, it would be an interesting challenge for topical studies to explore in detail which factors actually lead to the presupposition of truth in communication. I believe that this presupposition not only depends on the particular communicative situation, but also on a number of other aspects such as social norms, rhetorical standards, or the listener's personal preconceptions. This supposition is supported by cases in which adherence to certain conventions has rendered statements more likely to be taken at truth-value. To name one example: when Bruno Dössecker published his fake Holocaust memoir under the name of Binjamin Wilkomirski (1995), his fraud was discovered relatively late despite several signposts in the text indicating that Wilkomirski was an imposter (see Hainz

2007: 614, 616) – simply because questioning the truth value of someone's recollections of the Shoah is (for good reason) not socially desirable, and because we may generally expect unusual constructions from narrow survivors (see Sebald 1999: 31f.). This, too, supports Schmidt's point that the presupposition of truth is a communicative result depending on a whole process of observer-dependent actions.

« 11 » What remains a bit problematic to me is the (necessarily) curtailed way in which some other scholarly views are presented in the article. Firstly, I tend to disagree with Schmidt's claim that Rorty, whom he otherwise quotes among the influences on his work, "advocate[s] [...] abolishing epistemology" (§17). I suspect that Rorty's parting from epistemology was no more final than Schmidt's aforementioned parting from radical constructivism. Rorty harbours suspicions regarding representationalist epistemology, which is incompatible with his conversational view of knowledge – a view that seems rather close to, albeit not identical with, Schmidt's own. Instead of representationalist thinking, Rorty advocates the so-called epistemological behaviourism, which he describes as "[e]xplaining rationality and epistemic authority by reference to what society lets us say, rather than the latter by the former [...]" (Rorty 1979: 174) and as seeing "knowledge as a matter of conversation and of social practice, rather than as an attempt to mirror nature" (Rorty 1979: 171, see also Rorty 1999: 173). This position, again, seems similar to Schmidt's own conception of epistemology.

« 12 » Equally difficult to me is Schmidt's differentiation between expected expectations as pertaining to the domain of knowledge, and imputed imputations as pertaining to the domain of motives and intentions (§11). I fail to grasp why expected expectations should not equally apply to the domain of motives and intentions.

« 13 » Finally, I had some trouble with the claim that "[t]he traditional notion" sees "language as a sign system in which the signs refer to an outer reality" (§12). While they have a clear tendency toward assuming an outer reality (Saussure 1959: 65–67), semiotics based on (and including) Saussure have been much more invested in the discussion of individual, yet communally shar-

able, meanings than they are given credit for (see, e.g., Saussure 1959: 14; Saussure 2006: 12f.). Furthermore, even scientists who assume the existence of an outer reality tend to admit that many signs clearly do not refer to an outer reality and that this generally indicates that a semiotics dually linking signs to their real-world orientations must fail to give full credit to the matter (see Schrott/Jacobs 2011: 74–76). This objection notwithstanding, Schmidt's skilful dissolution of dualistic notions remains of utmost significance.

Finality and transience

« 14 » So, after this consideration, what does this article add to Schmidt's position? In a way, none of his claims come as a surprise. What he offers, however, is a combination of the arguments of three of his books, much as he promises in the preface (§1). His emphasis on a process- and action-based constructivism that allows for the creation of shared, if transient, systemic structures clarifies and strengthens his overall theoretical design. At the same time, Schmidt, true to constructivist tradition, claims "the finality of transience" and "the transience of finality" (§78) as pertaining to his theory as much as to any other.

« 15 » I tend to agree: "Maybe that's it" (§78) – at least for now. In-depth discussions in the concrete theoretical contexts of different disciplines will have to demonstrate what additional insights may be gained from Schmidt's rewritten constructivism.

RECEIVED: 1 SEPTEMBER 2011

ACCEPTED: 11 SEPTEMBER 2011

Christine A. Knoop studied German and French Literature and Theatre Studies in Munich and Paris, and did her PhD in Comparative Literature on authorship conceptions in the work of Milan Kundera at University College London. She currently works at the institute for Comparative Literature and the interdisciplinary research cluster "Languages of Emotion" of Freie Universität Berlin.

Some Neglected Semiotic Premises of Some Radically Constructivist Conclusions

Winfried Nöth

University of Kassel, Germany
noeth/at/uni-kassel.de

> **Upshot** • The paper examines some of S. J. Schmidt's key concepts from a semiotic perspective. It argues that not all of them are as incompatible with key notions of semiotics as the author claims and that, even though others remain indeed irreconcilable, some of the latter may contribute to extending radical constructivism beyond its own new horizons.

« 1 » Siegfried J. Schmidt's purpose is not only to rewrite radical constructivism but also to rewrite semiotics by questioning and redefining its key concepts. Unfortunately, Schmidt characterizes several basic terms of "traditional" semiotics in a way that must leave readers who are less familiar with modern semiotics convinced of the urgent necessity of rewriting the apparently outdated doctrine of signs. Since Schmidt does not specify whose semiotic concepts he finds outdated, the commentator takes the liberty of focusing on those of Charles S. Peirce (1839–1914), which are as traditional as they are forward-looking. The necessary restriction of space allows the discussion of only a few selected topics.

Against dualism

« 2 » A fundamental goal of Schmidt's endeavor is "to escape the seduction of dualism" (§31) and to avoid "dualist traps" (§42). The rejection of dualism is certainly a common denominator of radical constructivism and Peirce's philosophy. Peirce, too, never tired of attacking all kinds of this philosophical "seduction." "Dualism, in its broadest legitimate meaning," he wrote in 1892, "is the philosophy which performs its analyses with an axe, leaving as the ultimate elements, unrelated chunks of being" (CP 7.570). Dualists suffer from a horizon restricted to phenomena of secondness: the phenomenological category of dyads, oppo-

sitions, efficient causes and effects, actions and reactions (CP 1.333–336, 1905). They neglect phenomena of firstness, the category of monads, feeling, the merely possible, and everything that is not yet "posited," to use Schmidt's term. They also disregard phenomena of thirdness, such as time, evolution, continuity, mediation, generality, final causality, and law. To overcome dualism, Peirce adopts *synechism*, the doctrine of continuity.

« 3 » Schmidt, too, embraces the principle of continuity as an antidote against dualism when he recommends focusing "strictly upon processes instead of objects or identities" (§31). But his rejection of dualism is not as radical as his constructivism, for although he is against "strict dualisms, such as subject/object, language/objects, truth/reality or reality/perception" (§75), he nevertheless concludes that "we always need a dual perspective [...]: the perspective of acting performance – which is connected with the body and the acting situation – and the perspective of sense orientation – which is connected with society, language, and culture" (§75).

« 4 » This is like expelling dualism by the back door and letting it come in again by the front entrance; it reappears in a Cartesian guise when Schmidt postulates that the study of *acting* requires the dual "perspective" of the "body" acting in a situation and something "connected with society, language, and culture," which can only be a mind. Such a duality of body and mind, even if only postulated as a "perspective," is against the spirit of *synechism*, for "the *synechist* will not admit that physical and psychical phenomena are entirely distinct – whether as belonging to different categories of substance, or as entirely separate sides of one shield" (CP 7.570, 1892).

Representation and reference

« 5 » Schmidt rejects the notions of *representation* and *reference*, emphasizing his distance in relation to these key terms of semiotics by using quotation marks (§32). At the same time, he is convinced that, by means of "a consistent orientation towards processes" (§32), his new constructivism has finally resolved the problems caused by these terms. Against allegedly "traditional" theories of representation, Schmidt finds it

necessary to postulate that “sign relations are not determined by the representation of outer verbal facts but instead by self-reference in communication” (§68). Likewise, Schmidt emphasizes that language is not “a system of signs with stable references to outer world objects” (§63), not “a sign system in which the signs refer to an outer reality” (§12). Such implicit characterizations of “traditional” semiotic doctrines amount to an unfortunate caricature, which conceals the respects in which semiotics and constructivism differ by no means so fundamentally in all of their premises.

« 6 » Representation is both a traditional synonym of *sign* and it refers to a process likewise called *representation* (Nöth 2012). In the process of representation, a *sign* represents something else; Peirce calls it the *object* of the sign, but representation is only one side of the process whose other side is *interpretation*. The latter occurs when the sign creates a semiotic effect, called *interpretant*. Possible interpretants of signs are ideas, thoughts, imaginations, mental representations, emotions or actions. The process in which a sign represents an object and creates an interpretant is called *semiosis*.

« 7 » It is by no means true that the *object* of the sign is necessarily an external “world object,” as Schmidt believes. The *object* of the sign may be an idea and even an imaginary or nonexistent object (cf. Nöth 2007), in which case it is a truly “constructed object.” Some signs only represent qualities instead of “things:” for example, the word *red* represents the quality of redness. The word *sun*, by contrast, represents and may be used to refer to an external object, namely, the star of which the Earth is a planet (Nöth 2011). However, representation is always incomplete: no sign can represent its object (which Peirce calls its *dynamical* or *real object*) in all of its many details. What the sign represents is its *immediate object*, i.e., the necessarily incomplete mental image that we have of its real being.

« 8 » That signs do not represent external objects is not only a discovery of Peirce and the constructivists; the thesis has been defended no less emphatically by Ferdinand de Saussure. In contrast to Peirce, but very closely to the constructivists, the founder of structuralist semiotics argues that “the lin-

guistic sign unites, not a thing [*chose*] and a name, but a concept and a sound-image” (Saussure 1959: 66), and the Saussurean “concept” is a radically self-referential one since its value is determined by nothing else than other signs of the same system. Instead of being anchored in some outer reality, its value derives from nothing but the sign system. Nothing exists outside this system since thought, considered before language, “is only a shapeless and indistinct mass. [...] Without language, thought is a vague, uncharted nebula. There are no pre-existing ideas, and nothing is distinct before the appearance of language” (ibid: 111–112).

Reality

« 9 » Schmidt’s solution to the “nasty problem of representation” is that “processes do *not* represent ‘reality’” (§32). “Process” is an unfortunate term in this context. In ordinary language, a sunrise is a process, but Schmidt only deals with processes that “combine an agency (or action-carrier), the performance (or realization) of the process, and the process-result(s)” (§31). Physical processes thus seem to be excluded.

« 10 » If Schmidt’s unrepresentability of reality means the inscrutability of the *dynamical* or *real object*, his thesis is quite in accordance with Peirce, to whom reality and the real object are unknowable, too (cf. Ransdell 1977). However, although unknowable, Peirce holds that the reality of external things and facts is nevertheless *sensed* and *felt*. It is felt through the effects of “dynamical action, or action of brute force, physical or psychological” (CP 5.484, 1906), which shows in the form of the *resistance* that these forces put up whenever we try to ignore them: the resistance of the wall against which we run inadvertently, the hot oven that we touch by accident, or the other car that we hit in a car crash. Are such unmediated effects of reality, which the brute forces of external reality oblige us to experience, constructions of minds and bodies? According to Peirce, they are not. Only phenomena of thirdness can be constructed by minds. The experiential effects of secondness that occur as mere dualities of stimuli and immediate responses, of unmediated causes and immediate effects, are not “constructed.” This is the tenor of Peirce’s conclusion that “the reality of the

external world means nothing except that real experience of duality” (CP 5.539, 1902). To call effects of secondness “constructions of minds and bodies” endows the allegedly constructing subjects with more agency than befits them in a role in which they are not even agents but patients (cf. Nöth 2009).

« 11 » Evidently, radical constructivists argue differently: it would be a contradiction in terms if sign processes did represent reality at all since *reality* is not independent of but is *constructed* in the course of a sign process (§4). But what is the nature of this “reality” that sign processes cannot represent? Whenever Schmidt considers the “allegedly real,” he speaks of something *external* to the mind, of “something outside language” (§65). For Peirce, by contrast, the *exterior* must be distinguished from the *real*. In 1904, he writes that the *real* is “that which is such as it is regardless of what you or I [...] may think it to be,” whereas the *external* is “that element which is such as it is regardless of what somebody thinks, feels, or does, whether about that external object or about anything else.” In conclusion: “the external is necessarily real, while the real may or may not be external” (CP 8.191). This means, e.g., that “an emotion of the mind is real, in the sense that it exists in the mind whether we are distinctly conscious of it or not. But it is not external because although it does not depend upon what we think about it, it does depend upon the state of our thoughts about something” (CP 7.339, 1873).

« 12 » Schmidt finds any reflection on a reality independent of the cognizing human mind “unnecessary and epistemologically misleading” (§44) since he is convinced, like Saussure before him – albeit with constructivist arguments – that signs “do not refer to anything beyond our discourses” (§65). He leaves the answer to the unnecessary question of the reality in which we live to the actors acting in processes, for “if actors deem them real, they are *real-for-them*” (§40). This somewhat tautological sounding conclusion also follows from two other premises of Schmidt’s “strictly process-orientated” new radical constructivism: “Processes do not represent ‘the reality’ but lead to results we hold to be real.” And: “Without process-results there is nothing that might be represented” (§44).

«13» Whereas the reduction of the real (or the held-to-be-real) to the external blocks insights into the reality of what is internal to the human mind and body, such as thoughts, feelings, and mental representations, its reduction to “process-results” blocks insights into phenomena to which Peirce ascribes the *reality of thirdness* (CP 1.343–349, 1903). The latter are not results of past processes but have an *esse in futuro*, whether mental or physical. Not only are the results of processes real but also intentions, expectations, fears, beliefs, all of which anticipate future events, as well as the laws of nature, which represent our knowledge about happenings to come (CP 2.86, 1902). Language exemplifies the reality of thirdness insofar as the effects of words consist in the purposes of their use, which also become effective after their utterance; for a symbol “fulfills its function [...] solely and simply because it will be interpreted” (CP 5.73, 1903).

«14» Peirce’s objection against the neglect of the “reality of thirdness” is: “To say that the future does not influence the present is untenable doctrine. It is as much as to say that there are no final causes, or ends. The organic world is full of refutations of that position. Such action [by final causation] constitutes evolution” (CP 2.86, 1902).

Conclusion

«15» In the introductory lines of his “Proposal to rewrite radical constructivism,” Schmidt declares that it is his goal to “open up constructivist thinking to insights provided by neighboring philosophical approaches.” The present commentary has aimed at offering such insights from the perspective of semiotics, the general study of signs and sign processes.

«16» The choice of the semiotic counterpart to Schmidt’s new radical constructivism suggested itself (cf. Nöth 2000). Although Peirce cannot be called a precursor of constructivism, his approach to the study of signs has a number of general characteristics in common with Schmidt’s new constructivist approach to the study of communication and cognition. Both authors reject dualism, they have studied cognition, signs, and communication as processes with a focus on (semiotic) agency (albeit on different premises; cf. Nöth 2009); they approach

their object of study from pragmatic premises, and they are concerned with fundamental semiotic questions, such as reality, truth, representation, reference, language, and communication.

«17» Since this commentary had to be brief, its general tenor, in accordance with the exigencies of academic rhetoric, had to be mainly one of opposition. For this reason, the commentator, who has cherished great admiration for Schmidt’s multifaceted work since 1971, concludes by underlining with William Blake that “opposition is true friendship.”

RECEIVED: 6 SEPTEMBER 2011

ACCEPTED: 11 SEPTEMBER 2011

Winfried Nöth, Professor of Linguistics and Semiotics and Director of the Interdisciplinary Center for Cultural Studies at the University of Kassel until 2009, is Professor of Cognitive Semiotics at the University of São Paulo, honorary Member of the International Association for Visual Semiotics, and former President of the German Association for Semiotic Studies. Homepage: <http://www.uni-kassel.de/~noeth>

Investigating Process as Language and Social Interaction

Richard Buttny
Syracuse University, New York, USA
rbuttny/at/syr.edu

John W. Lannamann
University of New Hampshire, USA
john.lannamann/at/unh.edu

> **Upshot** • We largely agree with Siegfried J. Schmidt’s focus on process and his call to look at how the “heavy words” of philosophy – “reality,” “knowledge,” “truth,” and like – are used in our everyday life-world. As communication researchers, we examine two transcripts of conversation to sketch empirically how “the real” is reported in giving directions or used in an account to undermine another’s blame narrative. By this discursive turn we attempt to let the ontological

wind of out such terms as “real” and look at its indexical situated uses and how it works in constituting our life-world.

«1» As communication researchers, there is much for us to like about Siegfried J. Schmidt’s essay: the focus on process, taking communication as action or performance, taking the “life-world” as a methodological starting point, and so on. Taking a process approach has long been a staple of communication studies (Berlo 1960), though how a process approach plays out in research practice has had mixed results and points in several different directions. Early theorists such as David Berlo offered ideas on how to model communication in a way more compatible with human experience than the transmission model (Shannon & Weaver 1948). Small group communication researchers also identified the importance of process, though early attempts to create taxonomies of communication process were hampered by a mechanistic method that undermined the validity of the effort (Boremann 1990). More recently, scholars of language and social interaction have developed ways of “close looking” that yield interesting findings about the social processes through which people coordinate action and meanings (see Sanders, Fitch, & Pomerantz 2000 for a review). Consistent with this approach, our commentary is an attempt to give priority to the situated productions of meaning. Our goal is to add a communication-based illustration to supplement Schmidt’s philosophically rich account of the everyday process of making sense.

«2» Schmidt claims that focusing on process will allow us to get around the constructivism-realism debate. In the discipline of communication, social constructionism, rather than constructivism, has emerged as a dominant metaphor (Gergen 2009; Bartsaghi & Castor 2006; Shotter 1994; Shotter 2011). The appeal of social construction is that it locates the process of conversation, rather the private mental activities of an autonomous actor, as the locus of knowledge. Using construction as a root metaphor in theorizing renders communication a generative force in how identities and social relations come into being and are sustained through interactive processes. The various membership identity categories of society –

race, gender, and ethnicity – are conceived of as constructions arising from peoples' communicative practices. Race, gender, and ethnicity are not natural categories somehow discovered in the natural order of things. Rather, these categories emerge through history and people's discursive activities. Communication plays a central part in the constructing processes of these identities, social relations, and society's institutions.

« 3 » We are fellow travelers with Schmidt in his quest to dismantle the authority of object based thinking in favor of a process orientation. As Ernst von Glasersfeld suggests, radical constructivism can be understood as an effort to remedy Montaigne's observation that "Mankind's plague is the conceit of knowing" (Glasersfeld 1998). This is a worthy effort. But, working from a communication rather than a constructivist position, we would rather start with the conversation process instead of the cognizing subject. Or, to put it in the language of communication theorist Barnett Pearce, instead of locating persons outside of the process of communication, as if they were two separate, self-contained entities merely exchanging information, we think that a process oriented communication perspective must account for the construction of the persons *within* that process (Pearce 2007). We agree with Schmidt's argument that "the constructivists' concentration on brain and cognition should be deliberately extended to action, emotion, language, communication, and culture in order to respect not only biological but also socio-cultural acting conditions of human observers" (§35), but we would argue that "extension" is a dangerous metaphor because it suggests building "outward" from cognition instead of "inward" from the coordination of coordinations that is language and conversation.

« 4 » Attention to the process of constructing rather than the process of cognition has the benefit of avoiding any remnants of the dualism that Schmidt attempts to combat. He forcefully argues against such dualisms as subject/object, language/object, and reality/perception. But, perhaps because of the extension metaphor, several dualisms slip in through the back door. By adopting the stance that communication is "symbolic social action" (§69), Schmidt imports a concatenated series of dualisms – semantic vs.

performative, internal vs. external, social vs. performative – that in the end invite an understanding of the communicative process as one involving "encoding" (§70). This raises the two world problem (one that he criticizes earlier in the article, see §65), namely, the problem that encoding suggests that we have an internal world of symbols and an external world of objects waiting to be represented by the symbols (Stewart 1991). Emanuel Schegloff writes that "it is important to register that a great deal of talk-in-interaction – perhaps most of it – is better examined with respect to *action* than with respect to *topicality*, more for what it is *doing* than what it is *about*" (Schegloff 2007: 1). It is significant that from this perspective, the two-world problem of symbols and objects is completely irrelevant because the focus is on the work social actors do to make sense of emergent sequential action. Consider, for example, the role of silence. In an ongoing conversation, silence is punctuated by responsiveness and becomes meaningful only in its sequential context. It is not a representation. In fact, silence is all process. It is literally no-thing, but it becomes a difference that makes a difference during the emerging coordinated conduct of conversation (Bateson 1972). For the participants, this is not a process of outwardly representing an internal cognition. It is simply the process of doing making sense, a process of social construction.

« 5 » Schmidt calls on us to consider how the "heavy words" of philosophy – "reality," "knowledge," "experience," "truth," and so on – are used in our life-world. Instead of asking the age-old questions (e.g., What is reality? How do we know?), we need to make a discursive turn and examine how we use these heavy words in our communicative practices. Instead of ontological investigations, treating these heavy words as substantive things, his proposal is to look at these heavy words' meanings as arising from their use in ordinary language. In our everyday life-world, we use words such as "real," "know," and "true" in various ways. We need not take these terms as ontological entities, but rather we need to pay attention to how they work in our "language games," as part of our "forms of life" (Wittgenstein 1953).

« 6 » Given that we seem to get along pretty well in our life-worlds without need-

ing to stop and ask about meaning, representations, cognitions, etc., how, if at all, does philosophy matter to communication studies? What standing can philosophy have with it? We raise this question in a purposely naïve way knowing full well that several philosophers have a strong influence on the ways communication is theorized and studied, e.g., Wittgenstein (1953), Foucault (1969), and Habermas (1984). Philosophy has been a perennial companion to the human sciences, including communication, in that it offers questions and tools for reflecting on our ways of working: on assumptions, methodology, or framing basic concepts. Yet, we would argue that there is much to be gained by the close study of how people make their social worlds. This is consistent with Toulmin's call for practical philosophy (Toulmin 1988) and in our own field has been championed by Pearce who simply calls it a "communication perspective" (Pearce 2007).

« 7 » Schmidt's proposal is especially interesting to us as communication scholars because it opens up a space for discursive analysis to contribute to philosophy. A sub-field of communication studies, language and social interaction (LSI), has developed as a perspective and methodology for the study of language in use and social action. LSI is itself a collection of related approaches: discourse analysis, conversation analysis, and ethnography of communication, among others. A key aspect of these approaches is to examine the indexical use of a term in context, what action it is being used to perform, and how it is taken by others. This is similar to Schmidt's "strict process orientation" calling attention to the three-part relations of actors, performances, and results (see §31 and §36). Yet, we note that if we approach communication as a constitutive rather than symbolic process, then these three elements must be understood as fully reflexive and not separate from each other. Since actors become actors in the process of their performances, identity is not a "result" of performance but is, as the pragmatists point out, really a process of *identifying*. Results are actions in process.

« 8 » Intrigued by Schmidt's call to analyze the different ways we talk about reality by looking at the adjective "real" as used in

1 CT: 'hh Mid-City emergency.
 2 C: 'h Yes um (.) I would like to :: (.) 'port uh,
 3 'hhh uh break in.
 4 CT: To your home?
 5 C: Yes. (.) Well: (.) we're babysitting.
 6 CT: Okay what's the address there?=
 7 C: =It's forty one forty four (.) [eighteenth avenue.=
 8 CT: [uh huh,
 9 CT: Is this a house or a duplex
 10 (0.5)
 11 C: It's u::h h=
 12 CT: Is it a house or a dupl[ex
 13 C: [It's like 'hhh yea a
 14 C: duplex. We're- [ih-upstairs.
 15 CT: [Up 'r down.
 16 CT: And what's thuh last name there?

Figure 1: Transcript of a call to an emergency center (Zimmerman 1988: 92–93).

58 Koppel: Mayor Olmert uhm (1.0) ↑how do you respond to what you have just
 59 heard clearly it is – it is unacceptable (1.5) that a member of the Israeli
 60 Knesset, let alone an ordinary cit↑izen, has to worry about a mob
 61 coming and burning his house down.
 62 Olmert: Yes I absolutely (.) entirely agree that this is totally unacceptable (.)
 63 no member of parliament? whether he's an Arab or a Jew? should have to
 64 fear (.) and not any ordinary citizen should have to fear, either Arabs or Jews,
 65 ↑now, what is the real: account (0.7) who was attacked (0.7) and
 66 who was the attacker? we have a bit of a difference with Mr. Azmi
 67 Bishara...

Figure 2: Excerpt from a news panel discussion broadcast on the US television program *Nightline*.

16 communication, we searched through various transcripts we had on hand to locate different instances of “real” and “reality.” Space limitations do not allow for analysis of these terms but from an initial reading, various uses of “real” come into focus. One is that “real” is akin to the genuine or actual and is used to draw a contrast, e.g., “the real teachings not the distorted teachings” (emphasis in the original). Also, “real” is employed to give emphasis, to prioritize, as in “the real issue,” or “the real question.” From our casual examination of how conversants perform “the real” we find that when people use the terms “real” or “reality,” they are doing something quite different from reporting or describing. This contrast can be seen by comparing two conversational examples. The first involves reporting and describing, the second highlights how “the real” is used in conversation.

« 9 » Zimmerman provides the following transcript of a call to an emergency center (Figure 1). The call involves both reporting and describing. The routine, which he identifies as typical of an “interrogative series,” consists of a turn by turn collaborative performance involving the standard report format: “*Id like to report + categorization of problem*” (Zimmerman 1998: 92). We are struck by the cooperative quality of this performance. The report and ensuing descriptions are worked out without problematizing “the real.” The call taker and caller collaborate on building a working definition of the problem, but even when understanding becomes an issue, as it does in lines 10–14, the process is not focused

on getting a better picture of a “reality” but rather working out a way to go on together.

« 10 » In contrast, the word “reality” tends to be used when something is being contested. Here, we are interested in looking *how* the term is used, not *what* it represents. We find that the words “real” and “reality” are used in the performance of persuasion. This is consistent with Humberto Maturana’s observation that “experiences happen as a matter of fact, and as such they cannot be disputed; they can only be disbelieved, or one can claim that they are not properly distinguished” (Maturana 1988: 39). He separates two domains. One involves the experience of observing, which is similar to our example of reporting. The call taker experienced the caller’s utterances as matters of fact and even when there was a momentary problem with the word “duplex” in line 9, the subsequent utterances do not dispute facts. Instead, they are moves toward refining the distinctions, in this case distinguishing single family homes from duplexes.

« 11 » Maturana’s second domain involves accounting for the experiences that happen as a matter of fact. He refers to this as the domain of explanations. Explanations are second-order experiences because they are reflections of the observer and typically do not enter into the process of drawing distinctions unless there is a struggle over meaning. Maturana notes that “In this context, reality is not an experience, it is an argument in an explanation” (Maturana 1988: 39).

« 12 » In Figure 2, we see the use of “real” in this way. Here “the real: account” (line 65) from Buttny & Ellis (2007: 146) is an argument in an explanation. This excerpt is taken from a news panel discussion broadcast on the US television program *Nightline*. The discussion opens with Azmi Bishara, a Palestinian, offering a narrative of Israelis coming to burn his house down during the Second Intifada (not shown here). Following this narrative, the host, Ted Koppel, asks Ehud Olmert, the Israeli mayor of Jerusalem, to respond to this. We need to look at this “heavy word,” “real,” in its situated use as part of a larger process. Beginning with Schmidt’s notion of process, we examine the three-part relations he proposes: actors, performances, and results. The actors here are: Olmert, an Israeli Jew who is the Mayor

of Jerusalem; Bishara, a Palestinian who is a member of the Israeli Knesset; and Koppel, an American television host. Each of the actors' membership categories are displayed in talk and each situationally accomplished identity has potential implications for the possible positions or stances actors are able to negotiate in this exchange. From a communication perspective, the actors are not separable from their performances and the emerging results of the interaction.

« 13 » The second part of Schmidt's model, performances, points to the actions and interaction the actors engaged in with the use of "real." The use of "real" here needs to be seen for its part in "the real: account" (line 65), not merely its grammatical function as an adjective, but as an action. How does this action fit with other actions by the actor, how is it responsive to prior actions, and what does it project or lead to? Here Olmert is doing a variety of things in attempting to raise doubts about Bishara and open up a space for an alternative real story. In Olmert's answer, the locution, "what is the real: account," is designed to undermine the veracity of Bishara's blame narrative. Notice "real:" is performed or uttered with prosodic emphasis. Raising the question of "the real: account" implicates that Bishara's prior account of events was not genuine or real. Olmert proceeds to state this explicitly by suggesting a reversal of who is the attacker and who was attacked. What is noticeably absent from Olmert's defense and counter-accusation is that he fails to address any of the specific events cited in Bishara's narrative.

« 14 » Before turning to the third part of the process model, we need to consider a missing part of the process. What prior action or event makes this action practically necessary? In our case, Bishara's prior narrative of the Israeli mob is clearly taken as a criticism and blame of Israel which Olmert apparently feels compelled to defend. A criticism or blame of such magnitude projects a response of some sort from the accused. In addition, the moderator, Koppel, explicitly requests a response. This is rather obvious, of course, but the important point here is that our actions need to be seen as responsive to some prior action, event, or state of affairs. What we do and how we respond also displays how we understand and evalu-

ate the prior action of others. Performances always exist in the context of a before and after, which includes not only the politics of embodied action in the here and now, but also a political history worked out through the aggregation of other performances. Instead of thinking of the heavy word "real" as picturing an actual state of affairs, we can understand it discursively as a performance in a struggle over meaning.

« 15 » Examining the third part of Schmidt's model, what can we say about "the results" or consequences of Olmert's "the real: account"? Has Olmert's attempt to challenge Bishara's version of events succeeded? Once committed to a process model, it is difficult or even unwise to attempt to find closure. Meanings remain open to revision as the consequences of a particular action become the antecedent conditions for subsequent acts. In this case, Bishara criticizes Olmert for attempting to explain but not condemning the violent event. Olmert replies that he did condemn it, which implicitly surrenders his prior use of "the real account."

« 16 » Agreeing with Schmidt's argument, we see these cases as demonstrating that we need not posit some ontological entity as reality. As Trudy the bag lady reminds us in Lily Tomlin's performance of Jane Wagner's *The Search for signs of intelligent life in the universe*, reality is a "collective hunch" (Wagner 1986), but it goes unnoticed unless contested. Our life-world discourse allows us to sort out (at least much of the time) what is real from the unreal for all practical purposes. But when reality becomes the topic of attention, it is tempting to treat it as a thing rather than as a performance of an action. An LSI perspective offers various analytic tools for parsing the situated uses of "real" to help us understand the term as part of an interactive performance, not as a description of something that lies behind our language. Schmidt's process model is a good start, but since from a process approach knowledge cannot be understood apart from practical action, we find it useful to supplement his approach with the advances made by scholars of language in action and interaction.

RECEIVED: 1 SEPTEMBER 2011

ACCEPTED: 11 SEPTEMBER 2011

Richard Buttny is a Professor of Communication and Rhetorical Studies at Syracuse University, Syracuse, New York, USA. His scholarly interests include social accounting, metadiscourse, ethno-political conflict, and environmental communication. He has published *Social Accountability in Communication* (1993), *Talking Problems: Studies of Discursive Construction* (2004), and in various communication or discourse journals.

John Lannamann is an Associate Professor of Communication at the University of New Hampshire and is on the graduate faculty in the Program in Social Psychology at the University of Parma, Italy. His published work exploring the possibilities and limitations of social constructionist approaches to the study of human interaction has appeared in *Theory and Psychology*, *Human Systems*, *Family Process*, *Communication Theory*, *Communication Monographs*, *The Journal of Strategic and Systemic Therapies*, and a number of other scholarly journals and books.

Radical Constructivism's Tathandlung, Structure, and Geist

Stefano Franchi
Texas A&M University
stefano/at/tamu.edu

> **Upshot** • I focus my commentary on the fundamental metaphysical issue that Siegfried J. Schmidt's very stimulating paper addresses in §45 and particularly upon the relationship between the ontological status of the processes from which worlds emerge and the temporality of the objects to be found therein. I argue that Schmidt's emphasis on world-forming processes raises many questions concerning the temporal stability of objects and the relationship between objects and actors belonging to different worlds. I suggest that some classic as well as contemporary thinkers (e.g., Fichte, Hegel, Heidegger, Gadamer, Foucault, and Steven J. Gould) have faced similar problems and discuss how their answers could be integrated within Schmidt's revised radical constructivism.

« 1 » In §45, Schmidt draws the consequences from his previous discussions of processes (§§31ff.) and of the *Alltag(swelt)/Lebenswelt* (§§37–40) with respect to the ontological structure of reality. He makes a complex point, which I have divided into its four constituent parts for clarity:

- 1 | “One of the most important criteria for ‘real things’ is ‘stability over time.’”
- 2 | “Accordingly, speaking about objects should be understood as speaking about processes that render stabilities/ results relative to time and processes.”
- 3 | “In other words, if we use the concept ‘reality,’ it should be modeled as an everlasting process on the basis of actions and interactions, of language and culture.”
- 4 | “Metaphorically speaking, via language and our acting in our life-world, ‘the world’ has emerged – thus repeating an important constructivist insight.”

« 2 » I think the interaction between thesis 1 and 4 requires some reflection. Let us accept the first thesis: things are first and foremost stable entities that do not change over time (or at least do not disappear or otherwise mutate into different entities). Schmidt’s revised constructivism holds that “things” are fundamentally the result of processes humans carry out in their life-world – that is, on the basis of linguistically and culturally mediated interactions (thesis 4 sums up the point in the concept of “world emergence”). These processes must be conceived as concrete, human processes that are therefore embedded in *time* (and, relatedly, in *space*). We thus have two temporalities at stake: the temporality of the objects (their stability) and the temporality of the underlying process(es). What kind of relationship exists between the two?

« 3 » Let me approach the issue from the standpoint of the temporality of life-worlds’ processes. The first question to ask concerns how many processes of this kind exist. Is there just *one* underlying fundamental process (as thesis 3 seems to imply), or are there different, temporally and spatially situated, processes? I see three basic options: (a) there is just one process, (b) there are many processes, and (c) there is one fundamental process articulated in many subprocesses that are somehow *subsumed* under it. For reasons that will hope-

fully become clear in what follows, I will label the three possibilities, respectively, the Fichtean, Structuralist, and Hegelian options.

A. The Fichtean solution

« 4 » The first alternative would produce a simpler model, even though its metaphysical justification would be far from trivial. If there is just one fundamental process, then its temporal structure is rather simple: all we need to do is to posit its beginning – perhaps coinciding with the biological beginnings of humanity – and we can disregard its end. Being *one process*, it will last forever – or as long as there are humans around, presumably. This option solves the problem of things’ temporality quite nicely: since there is just one fundamental process, there is just one world that emerges from it, and things are guaranteed to be stable in it (as soon as they themselves emerge, that is, since it is plausible to think that the fundamental process will lead to progressively more refined and sophisticated interactions that will, in turn, produce more refined and sophisticated “things”). In other words: the temporality of “things” is a reflection of the fundamental process’s simple temporal structure. However, this solution raises two issues.

(a) How do we get access to this fundamental process, since there is no outside point of view, nor any alternative process that may offer a standpoint? One is reminded here of Fichte’s approach to the foundation of a philosophical system. Fichte (1988, 1982) claimed that any foundation (a system’s first unified principle, as he put it) must necessarily be extra-theoretical and be grounded in a fundamental activity (i.e., *das Tathandlung*) whose undeniable validity is given to the subject in his/her *praxis* (i.e. the subject’s experience of a free practical-political interaction with fellow human beings). Is this the direction Schmidt’s revised radical constructivism is going? The strong emphasis on the contingent aspect of every action (§§22–24) (not to speak of his use of terms such as *Setzungen* and *Voraussetzungen*) seems consistent with early Fichte’s analogous emphasis on freedom. Perhaps Schmidt’s framework will make appeal to a similar allegedly self-evident experience?

(b) A second issue concerns the explanatory power of this model. Its substantial univocity seems to be at odds with the pluralist claims advocated elsewhere in the essay. It seems to me that if a “world” and its entities are temporally, culturally, and linguistically situated (as claimed in thesis 3 above), then it is plausible to think that different linguistic/cultural settings (not to speak of different times and spaces) would allow the emergence of different worlds. In fact, “world” is a bit of a misnomer – it would be more appropriate to use always the plural form and speak of the emergence of “worlds.” If so, however, how do we account for the fact that *one* fundamental process may produce *many* worlds? Perhaps we would need an account of the precise conditions under which this may happen. Most importantly, we would need an account of how different worlds, being the emergent results of one fundamental process, may somehow reflect their underlying unity, and therefore allow for cross-world (i.e., cross-linguistic and cross-cultural) interaction.

B. The structuralist option

« 5 » The radical alternative to the previous interpretation consists in allowing the possible (and possibly contemporaneous) existence of a plurality of such processes, each resulting in the emergence of a “world” and its related entities. This option seems to me to be much more consistent with both the general spirit and intent of radical constructivism as well as Schmidt’s text. Once accepted, it would follow that world-forming processes (I am using early Heidegger’s term (1995) for lack of a better choice) have their own temporal properties: they can start where none existed and, conversely, they may come to an end even when they had been flourishing. Similarly, “worlds” may come into existence as well as disappear. This last fact forces a reinterpretation of Schmidt’s thesis 1 about “things” stability over time. Given that (a) things always belong to a world and (b) that world may have temporally defined life spans, it follows that objects must always be considered intrinsically transient. In other words, “things” may indeed go out of existence at any time. I am not referring to the material destruction of an object, of course,

but rather to its ontological salience. This result, it seems to me, makes the “Structuralist option” most appealing, since it is remarkably consistent with our (cultural and scientific) history. As Schmidt hints, humans may indeed lose the ability to refer to things: as every traveler (and every philologist) knows, human interactions may fail completely when human beings who have been implicitly using a cultural framework are forced to speak (or are read) within a radically different one. I am therefore inclined to think that this option captures the spirit of Schmidt’s constructivism better than previous “Fichtean” one. If this is the case, however, I think a couple of important issues must be addressed.

(a) The first issue is “kinematic,” so to speak: given a plurality of possibly co-existing worlds, do we have any means of establishing the modalities of their interaction? Or, to be more precise: do we have any means of establishing if actors belonging to different worlds may interact at all? Since they belong to different worlds, do they have any “thing” in common (or do they have “anything” in common) that may provide the ground for a successful interaction? Is cross-world translation (very broadly understood) always, never, sometimes possible? Perhaps it is always possible, but mostly at a loss, as Gadamer claimed? Or perhaps it is never possible, and different worlds are truly incommensurable, as many Structuralists and Structuralism-inspired thinkers used to claim (e.g., the early Michel Foucault 1966)?

(b) The second issue concerns the “dynamics” of worlds’ interactions and transformations. How can we explain the temporal evolution of a world, up to and including its going out of existence? Is there an underlying dynamics (in the sense of Newtonian physics) that may explain this temporal evolution? If so, then the multiplicity of processes and the related multiplicity of emerging worlds may be only apparent: in fact, a process and its emergent world would become the surface manifestation of a deeper unitary phenomenon. This solution dissolves the Structuralist option into the “Hegelian” one that I will briefly discuss below. There are other alternatives, though. One may deny the existence of any underlying dynamics and claim that the temporal

transition between worlds (i.e., the demise of one and the birth of another) is truly contingent and only understandable after the fact, as it were. In other words, the essential contingency that Schmidt claimed for positings (§§22–24) would have to be generalized downward as an essential property of the process(es) wherein those positings occurs. Worlds’ evolution may be understood, then, only *a posteriori*, that is, historically. Choosing this option, it seems to me, would associate radical constructivism with thinkers of radical contingency. I am thinking, for instance, of *Discipline and Punish*, where Michel Foucault (1975) argued that there was no unified transition between the *ancien régime*’s conception of punishment and its modern equivalent. Rather it was the result of a disparate set of events that spanned the whole gamut from demographic change to development in military science to economic transformations. A similar, and even more radical point of view is presented in Stephen Jay Gould’s work (2002), where contingency and radical historicity are extended from the human domain (where it remained confined in Foucault) to the biological sphere. To use Gould’s metaphor (1989), replaying the “tape of life” would not necessarily produce the same results – indeed it most likely would not. Since only patient historical work can reconstruct worlds’ transitions, it follows that social as well as political and biological evolution is always completely opaque and utterly unpredictable to its actors. I am not sure that Schmidt would agree with this conclusion, though. At least, I could not find textual evidence for it.

« 6 » There are other possible approaches to worlds’ transitions, whose discussion I must omit for lack of space. I will just mention that later Heidegger’s concepts of *Gelassenheit* (1966; and relatedly, of *Ereignis*, 2000) as the proper attitude in order to adopt to prepare such transitions may represent the opposite standpoint. Instead of a contingent yet radically *immanent* dynamics, Heidegger envisaged a contingent yet radically *transcendent* alternative: worlds are created through transcendent appropriations that human beings can, at best, prepare. This solution seems to be the farthest from the spirit of radical constructivism, however, in spite of its theoretical proximity.

C. The Hegelian option

« 7 » I will conclude by briefly sketching a third possible interpretation of the temporality of the fundamental process. As mentioned above, we might imagine the multiplicity of processes and their corresponding worlds as surface manifestations of a deeper and truly unitary phenomenon. Hegel (1986) called it *Geist*, as is well-known, and his followers ever since have tried to provide alternatives, sometimes steering his concept in a materialistic direction, sometimes turning more decidedly toward a spiritual interpretation. For my purposes, however, it is important to stress that Hegel’s solution to the problem of worlds’ temporality requires three essential components: (a) an underlying process that is actively producing effects (e.g., the equivalent of *Geist*); (b) an account of how a specific world can turn into a very different one when the conditions of its functioning cease to operate (e.g., *dialectics* as a struggle between the real and the ideal); and (c) an account of how the discontinuous evolution of worlds that (a) and (b) produce will cumulatively converge (perhaps asymptotically) toward a richer and richer world (e.g., *Geist*’s own intrinsic tendency toward increasing self-manifestation. (c) is actually the most important element of the three: its absence would collapse the Hegelian option into the Structuralist one, since it is what guarantees partial commensurability between worlds.

« 8 » The Hegelian solution has many appealing features. Indeed, it combines the strengths of the other two by allowing unity (of process) and multiplicity (of worlds) to coexist harmoniously while, at the same time, providing the basic framework for understanding cross-world interaction. Moreover, and perhaps most importantly, it provides an account that, if successful, becomes fully understandable to the actors themselves, therefore providing essential guidance in everyday *praxis*. But is it a plausible account? In particular, is it plausible to find constructivist equivalents of the three Hegelian components I sketched above? I have serious doubts.

« 9 » I would be most grateful if Schmidt, whose contribution I found extremely thought-provoking – as the previous reflections will hopefully have con-

veyed – would indicate which of the various options I have listed he finds closer to his work. If any at all, that is. It is perfectly possible that I have completely misunderstood him, and our (failed) interaction would perhaps provide implicit support for one of my alternatives.

RECEIVED: 2 SEPTEMBER 2011
ACCEPTED: 11 SEPTEMBER 2011

Stefano Franchi is Research Associate Professor in the Department of Hispanic Studies, Texas A&M University. He works on Twentieth century European philosophy and the history of Artificial Intelligence and cognitive science. He is the editor (with Güven Güzeldere) of *Mechanical Bodies, Computational Minds* (MIT Press 2005) and (with Francesco Bianchini) of *The Search for a Theory of Cognition*. (Rodopi 2011). He is completing a monograph on contemporary alternatives to Hegel's theory of historical development, provisionally titled *Play and Passivity*.

Moving Forward from Radical or Social Constructivism to a Higher Level Synthesis

Hugh Gash

St Patrick's College, Dublin, Ireland
hugh.gash/at/spd.dcu.ie

> **Upshot** • Siegfried J. Schmidt's timely article offers a fresh look at radical constructivism with an emphasis on contextually and culturally located action as an expression of knowing. Perhaps it remains cautious in making connections with neighbouring philosophical approaches. Two areas that are largely unmentioned are the issue of viability and the conceptual analysis, which remained largely on the sidelines in von Glasersfeld's later work.

« 1 » Radical constructivism, as presented by Ernst von Glasersfeld (1996), emphasised two principles: that knowledge is actively built by the individual, and that the function of knowledge is adaptive and serves the organization of the experiential world rather than the discovery of ontological real-

ity. Von Glasersfeld applied his understanding of constructivist ideas as a philosophical clarification to work in cognitive psychology, linguistics, and education. This philosophical emphasis underplays the psychological and cognitive side of constructivism that originated in Ceccato's operational analysis (1961) of meaning with its cybernetic approach to process, though there were some papers that emphasised this type of analysis (see Gash & Riegler 2011).

« 2 » A similar conceptual model with an emphasis on action is brought out and highlighted in Siegfried J. Schmidt's proposal to rewrite radical constructivism as action in social contexts (§59–62). However, my reading of Schmidt's proposal is that the action proposed is primarily at the level of interpersonal action rather than the intrapersonal actions or operations outlined, for example, in von Glasersfeld's analysis of concepts of cause (1974a). In what follows, I comment on the helpfulness of this fresh approach to constructivism in relation to the points made above and suggest it remains cautious in its move to include other thinkers.

« 3 » Constructivism's emphasis on the organisation of the experiential rather than the ontological world has generated much discussion and when it is first met often remains a difficult idea to appreciate. Reality and truth remain vitally important to many people, and the epistemological problems associated with knowing a fully structured world that is independent of any experiencing and knowing subject remain ignored. As a result, arguments that attempt to trivialise constructivism are not infrequent in the educational sphere (Kirschner, Sweller & Clark 2006; Tobias & Duffy 2009; Larochelle & Désautels 2011) and in the humanities (Zimmerman 2006). These criticisms seem to have ignored the concept of viability, which seems to be an effective way to counter charges of relativism. In addition, Alexander Riegler (2007) suggests that order arises from internal considerations, based on work on formal networks. Given the varieties of interpretation surrounding reality and radical constructivism, it is not surprising that Schmidt raises this issue in the introduction to his paper.

« 4 » Schmidt suggests that reality may remain crucial in philosophy today (§2) because of the varieties of realities (§3) in

media-culture societies. An alternative is that living systems are hard-wired to find solutions to mismatches between what is expected and what is experienced. Another suggestion is that reality is a useful heuristic or cognitive shortcut people use to make sense of experience (Shweder 1977). One way to evaluate Siegfried Schmidt's article is to see how the constructivist procedures he outlines may contribute to discussions of difference between individuals or groups. In the case of reality, for example, Humberto Maturana (1988) has previously emphasised the importance of process in distinguishing between reality and "reality in parenthesis." In the latter case, the observer's cognitive processes were taken as part of the "reality" construed; in the former, these processes were ignored. Siegfried Schmidt's proposal to rewrite radical constructivism by moving from objects to processes follows this tradition. His work is timely, coming in the year following the celebration in this journal of von Glasersfeld's life and work. And Schmidt's approach differs in providing more helpful details to consider when there are differences in opinion. Disagreements arise between individuals or groups when the assumptions made differ (§23). The emphasis on process entails that reality is replaced by what we do to make something real (§16). These are helpful details for structuring discussions about differences in understanding between individuals or groups. Further, cultural issues are clearly involved in that the actions are part of the processes that occur in communities with cultural conditions (§35).

« 5 » A recurring difficulty in talking about systemic approaches to knowing is that the speaker describing process is caught up in the process in the act of communicating. Consequently, listeners with different points of view – that is, with different positions (choices) and presuppositions (§22) in Schmidt's article – have inevitably conserved and prioritised some other part of the system. Schmidt's discussion (§22–30) on ways of describing an individual's point of view in terms of presuppositions and choices allows a mechanism for the specification of the observer's point of view. One interesting measure of the success of this approach to resolving differences in perspective will depend on its viability. A function of art is to present ideas in new ways that capture the

imagination and I find that Schmidt's article achieves this aim. His proposal to "dissolve reality" by emphasising the role of cognitive process is, to my mind, an exciting metaphor. I hope that Schmidt's fresh approach will allow these debates to move to a higher level through its re-emphasis on process as that which constitutes objects (§31).

« 6 » One of Schmidt's aims is to link radical constructivism with recent developments in philosophy. Von Glasersfeld's (1974b) criticisms of philosophy were of classical philosophy and its unwillingness to deal with the dualism implied by matching experience with objects. In Ernst's last paper, written with Edith Ackermann (2011), he returns to the themes of his early papers in relation to the importance of cognitive activity in knowing and the importance of the knowing subject in organising experience. Yet, from the time of Theodore Mischel's (1971) book on genetic epistemology, philosophers were beginning to see connections between philosophy of science and epistemology (Kitchener 1987). A major stumbling block to integrating cognitive development with epistemology was the so-called "genetic fallacy," according to which development was irrelevant to the study of the roots of and the validity of knowledge. Hamlyn (1978) was one who championed this position. However, this view took knowledge to mean completed knowledge, and when one takes a long-term view of knowledge, as in the history of science, knowledge development becomes important to epistemology. So questions were raised about the different types of genetic progressions and sequences in knowing, and if "genetic" means a sequence of stages that are related to one another conceptually and rationally then this would constitute important epistemological information (Kitchener 1987). Perhaps with the broader platform offered by Schmidt for radical constructivism it will be possible to make further links with recent trends in philosophy and epistemology.

« 7 » I want to add a final point to Schmidt's discussion of action and its relation to knowing. This emphasis on socially and culturally embedded action is welcome and seems to link with the activity theory that developed from work by Vygotsky and Leont'ev. However, I have been struck by the work Ernst and others have done on op-

erational analysis as an unexploited tool for modelling emerging thoughts. This model goes unmentioned by Schmidt and may form a useful tool for future work in radical constructivism.

RECEIVED: 18 AUGUST 2011

ACCEPTED: 11 SEPTEMBER 2011

Hugh Gash has worked with constructivist theory in educational settings throughout his career. This work has included teaching, engaging with stereotypes and prejudice towards different others and with young peoples' ideas about heroes. Recent work was on teachers' and pupils' representations of teaching. Homepage: <http://staff.spd.dcu.ie/gashh/>

Life as a Process of Bringing Forth a World

John Stewart

Univ. de Technologie de Compiègne
js4a271/at@gmail.com

> **Upshot** • My suggestion is that the shift from objects to processes can be seen as grounded in the processes of self-generation common to all living organisms. Specifically human cognition is a subsequent evolutionary emergence.

« 1 » Siegfried J. Schmidt makes the point that as constructivists we should focus on *processes* rather than *objects*. I quite agree with this; but my comment is that whereas Schmidt's discussion is focussed almost exclusively on human knowledge and actions, it can be interesting to enlarge the discussion to the realm of the "lived worlds" enacted by all living organisms. What fits well here is that living organisms are *par excellence* processes and not "things." It is failure to properly appreciate this that has led contemporary mainstream biology to declare that "life does not exist."¹⁷ Living or-

17| Quoting the biologist Szent-Gyorgyi, Henri Atlan proclaims: "Life as such does not exist, no-one has ever seen it... The noun 'life' has no meaning, for such a thing does not exist" (Atlan & Bousquet 1994, my translation). The point,

organisms, then, are processes; but processes of a very particular kind, since they have the key property of *producing themselves*; this is the meaning of the term "autopoiesis" coined by Humberto Maturana and Francesco Varela (1980).

« 2 » In this approach, Maturana and Varela propose to consider that "cognition" is not the exclusive privilege of human beings, but is grounded in the biological facts of life. What is it that all living organisms – even the lowliest bacteria – "know"? Well, it is not so much a question of "knowing *that*," but rather of "knowing *how*" – knowing how to act in a given situation, on the basis of sensory input, in such a way as to remain viable.

« 3 » This approach is beautifully illustrated by the classical work of Jakob von Uexküll (1909), who describes and analyses the "world of the tick." The tick is a tiny animal that feeds exclusively on the blood of mammals. The tick is blind, deaf, and able not to fly but only to crawl slowly; how can such an animal catch a mammal immensely bigger than itself? The answer is the following. First, the tick climbs to the end of the branch of a bush and waits, for days, weeks, months if necessary, until it smells a whiff of butyric acid in which case it lets itself fall. (This makes sense when we know that butyric acid is emitted by the sweat-glands of mammals, and in this context only by them). If the tick falls onto a furry surface, it crawls until it comes upon a smooth surface (in context, this will be the bare skin of the mammal); whereupon it sticks its proboscis through the surface, and if it finds a liquid underneath at 37°C, it sucks up this liquid to satiety (in context, this liquid will indeed be the blood of the mammal). In this example, it is quite clear that the basic "knowledge" possessed by all living organisms is not a question of mental representations, nor of "knowing that..." in the form of propositional statements; the knowledge in question is literally *embodied*, in the form of the repertoire of actions (in the case of the tick, crawling, falling, crawling again, piercing a surface, and sucking a liquid); the repertoire of sensory inputs (olfaction that is specifically sensitive to bu-

of course, is that "life" is not "a thing," but a pure process.

tyric acid, tactile perception distinguishing furry versus smooth surfaces, temperature receptors detecting liquids at 37°C); and the correct correspondence between sensory input and the appropriate action (the succession of sensory-action cycles would not work if, for example, a smooth surface triggered falling, etc.).

« 4 » In Schmidt's article, a major theme is the question of "reality" (§§2, 3, 4, 9–12, 16, 19–20, 32–34, 42–46, 75). In the light of this biological approach to the question of knowledge, there is certainly no single pre-existing observer-independent "reality;" but it is equally clear that there is quite definitely what I call a "reality-principle" (which corresponds, it seems, to what Schmidt in §75 calls "reality-competence"), i.e. the organism must definitely use its sensory input to trigger appropriate actions, in a very tightly constrained way. What is at stake is the viability of the organism; failure to do this would radically lead to the death and hence the disappearance of the organism (the cessation of its activity of autopoiesis). This reaffirmation of the definite existence of a "reality principle" is of some interest for constructivist approaches; the reason being that in order to distance themselves from objectivism and the presupposition of a single pre-existing reality, constructivists sometimes come dangerously close to rank relativism, the "anything goes" motto of Feyerabend (1975). In order for any construction whatever to be viable, a set of constraints that will be quite precise in each case must be respected; otherwise the construction will just fall apart.

RECEIVED: 5 SEPTEMBER 2011
ACCEPTED: 11 SEPTEMBER 2011

After a PhD and an initial research career of 10 years in physiological and population genetics, **John Stewart** switched to the field of human and social science. In 1986 he met Francisco Varela, with whom he worked closely on a model of the immune system; subsequently he has worked in the field of cognitive science.

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On Making Process Practically Visible, or Moving Constructivism Beyond Philosophical Argumentation

Mariaelena Bartesaghi
University of South Florida, USA
mbartesaghi/at/usf.edu

> **Upshot** • Schmidt's "philosophical argumentation" in favor of an action orientation for communication rewrites constructivism in terms of process. Though in support of his proposal, a philosophical argumentation about process works best for illuminating the writer's own process and orienting readers to his own argument. I propose that arguments about the communication of social actors should make visible the social processes about which they argue.

« 1 » Schmidt's essay promises a revolution. Citing Ludwig Wittgenstein, Schmidt endeavors to *re-solve* constructivism's reality problem (§2) in terms of attention to process, the communication of social actors, and an action orientation. As an empirical communication scholar who studies the situated processes of social actors, I support his re-vision for constructivism. My support, however, can only go so far, as Schmidt's rewriting remains within the bounds of theory, or, as he puts it, philosophical argumentation (e.g., §§6, 17). Moving from one philosophical construction to another and from argument to argument actually re-writes very little; for re-vision to occur, "we do not need any new theories. We need to elaborate critically the spontaneous theory of language we already possess." (Shotter 2000: 129)

« 2 » Wittgenstein's own commentary about philosophical arguments suggests that they can do little to re-solve the practical, everyday communication problems of social actors:

“When philosophers use a word – ‘knowledge,’ ‘being,’ ‘object,’ ‘I,’ ‘proposition,’ ‘name’ – and try to grasp the essence of the thing, one must always ask oneself: is the word ever actually used in this

way in the language which is its original home? What we do is to bring words back from their metaphysical to their everyday use.” Wittgenstein (1953, n. 122)

« 3 » Inasmuch as what Schmidt presents in his article is another philosophical formulation about constructivism and our life world (§3), he does not “bring back words from their metaphysical to their everyday use.” As such, constructivism-as-philosophy stays separate from the material experience of living in communication, while theorizing it (Krippendorff 1996). For constructivism to elaborate how language and communication work as processes, I suggest a move from arguing about process to illuminating empirically how a communication process actually works. Two examples follow to explicate my point. Both examples situate constructivism as everyday application and illustrate how it can affect communication praxis by re-solving the problem of reality that Schmidt describes.

« 4 » In the course of a doctoral seminar, I tackled “questions concerning the existence, status, and accessibility of ‘the reality’” (§2) and made visible how, as Schmidt very well argues:

“a remarkable shift in the debate about *reality* replaces the question of what reality *is* with an analysis of the different ways we talk about reality.” (§16)

« 5 » I did so by relanguaging oppression as social interaction – by saying that oppression is not an objective entity that acts on people, but a dynamic of communicative action (§11). My students and I had just read Deborah Cameron's (1992) *Feminism and Linguistic Theory*, a study on the constitutive nature of communication and the dangers of separating language and linguistic philosophy from social life. Feeling the iron to be very hot, I struck in favor of an embodied constructivist position, and invoked my own experiential life-world.

« 6 » I said, “Before coming to the United States, I did not know that I was a woman. It was not until I came here that I was told that I was oppressed.”

« 7 » One student took my comment to refer to race. He said that though he might not feel oppressed, oppression still existed,

thus hanging on to the argument that reality still exists, no matter what our own constructions may tell us. (I said nothing, but I know that I looked puzzled on purpose.)¹⁸

« 8 » Following suit, another told me how unhappy she was that I would be willing to say something like this about women. She could not just wish oppression away. “It does not matter how I feel. Are you saying we can just *feel* differently and everything will be different?”

« 9 » Yet another looked elated. Willing, perhaps, to see that constructivism may indeed serve as practical theory if allowed to in-form our everyday lifeworld experiences, she announced to us that if we were to do a study of how women talk as opposed to how men talked we would probably find no difference at all. Her statement wrested constructivism from philosophy, and called for an examination of its propositions in everyday language, by means of empirical questions.

« 10 » As I responded to students’ confusion, disappointment, and downright anger, I was alternately frightened, hopeful, and confused by what I was doing. Because communication *is action*, speaking of oppression (or not) both upset and elated us. As students spoke into a process of claims and warrants, they did not argue philosophically about constructivism, but enacted it consequentially (Sigman 1995). My responses to their challenges showed that power, oppression, discomfort, defensiveness, and fear – ontologies that matter to us – are right where they matter, at some point at least: “heavy words” (§17) negotiated in social interaction. Schmidt writes about the contingencies of communication (§§56, 61). In the example above, I explored and problematized them.

« 11 » My next example illustrates what Schmidt writes about as

“the *reality model* of a society (...) defined as the collective knowledge that is at the disposal of individual members of a society, that emerges from acting and communicating, and that is systematized and sustained by practice and communication.” (§19)

18| As with any narrative, the use of direct and indirect reported speech enables the teller’s communicative actions.

« 12 » To do so, I draw from the conversations of local, state, and federal officials during nine conference calls that took place in August 2005, immediately before and during Hurricane Katrina’s landfall on New Orleans. My goal is to show how “a practical program” (§20) theorized by Schmidt can only happen practically: that is, by situating the reality model of social members empirically. This is especially so because reality models may look very different, depending on whose (or which) practices are systematizing and sustaining them.

« 13 » In post facto accounts of what went wrong with Hurricane Katrina, media, government testimony, and even academic discourse reconstructed events in terms of one particular reality model: the undoing of events as *a failure of coordination* (Bipartisan Committee 2005). Certainly, this model served important social functions: making sense of failure, allocating responsibility, moving on. What it did not do, however, was actually explicate coordination as a reality to those who “systematized and sustained it” as an in-the-moment dynamic of decision making. What did coordination mean to the participants in the conference calls? In the following two extracts, Colonel Jeff Smith (JS), the moderator, engages his interlocutors (noted as M, the Mayor of Grand Isle and SC: Tad, the leader of St. Charles Parish) about the need for “coordination” in accomplishing planned evacuations. I encode the ways in which coordination appears under various guises by using *italics*.¹⁹

“M: Mayor of Grand Isle; SC: Tad of St. Charles Parish, later in the call

JS: Saint Charles at this point in time everyone is ah (.) agreed on the nine and I want to point out that we are in no way are trying to remove any type of authority from your parish president but it would be ah nice if we could *all be on one sheet* where everybody would ah call for nine at the same time. Ah (.) is there some way that y’all may reconsider that, Tad?

19| Transcription notation:

(.) – an audible pause, like drawing a breath

(.3) – a timed pause, in fractions of a second

Underline – word or part of a word marks emphasis

CAPS – raised volume

SC: We could do that (.) we could just – we’ll – we’ll just gonna issue the order and we ah we can do it for nine *just for the sake of coordination*. But you know we are we are (inaudible) hours out on the plan so we’re already well inside that phase one and we’re actually two hours from stage two right as we speak.

JS: Tad, we appreciate that ah (.) we just think that it’s so important *that our citizens hear a unified voice* in these things and *it sounds like we do have a a consistence* so we certainly appreciate your willingness to ah (.) to go with the nine time frame.

PM: Parish Mayor (?), later still in the same phone call

JS: Mayor this is Colonel Smith (.) I ah (.) I think that what we wanted to accomplish for this particular call is to be unified that we were starting essentially the phase one evacuation at 9:00 o’clock today. We know that we have several hours to *coordinate* between you and President Broussard and the other parishes on the precise triggering a two and a three and whether we’ll call it a two and a three at the same time....Is that satisfactory to you (.) Mayor?

M: Yea (.) yes. Look (.) I believe in in in the plan that we all agreed to earlier, the state’s plan. I’m just trying to make sure – I’m VERY concerned right now because if if if the Governor and Aaron Broussard and Ray Nagin go out at noon and start talking about evacuations we are gonna to alert almost a MILLION people (.3) to hit the road (.2) and if we’re (.) if that’s not *coordinated* with contraflow and it seems like we’re way ahead of the contraflow timeline which is thirty hours ah (.) before land fall which would be sometime at daybreak on Sunday morning.”

« 14 » Schmidt correctly posits that the meaning of words comes from speaking them (§67). But different reality models emerge, depending on whose meanings and whose speech are taken into account.

« 15 » A close look at the different models invoked at different points of the phone call above show that an overarching reality model such as “coordination” is fraught with practical tension and divisive constructions. With respect to how to manage evacuations, “coordination” assumes a dichotomous meaning, as speakers use the word to argue their case as well as indirectly argue for and against what they see best. In both cases, it indexes a contextual meaning of coordination: easily strained, delicate

relationships and agreements in need of careful monitoring. In invoking coordination, speakers signal different goals with respect to what Jeff Smith refers to as “the plan” (inclusive we; everyone acting together) – a logic of communicative action that they maintain and reaffirm through strategies of indirect communication (avoidance; hedging; rhetorical questions) and violate through direct communication (questioning; expression of dissatisfaction and outright concern).

« 16 » In the end, the situated model of coordination upheld by Jeff Smith did in fact lead to delayed evacuations and toward what subsequently became known as the social reality model: failure of coordination. But while *failure of coordination* theorizes communicative action during Katrina, it does not get us closer to a practical program (§20) for understanding how different reality models play out in actual communication.

« 17 » Re-writing constructivism is not a matter of philosophical argumentation. I invite Schmidt to set argumentation aside and engage instead in empirical illustrations.

RECEIVED: 21 JUNE 2011

ACCEPTED: 15 SEPTEMBER 2011

Mariaelena Bartesaghi is Assistant Professor of Communication at the University of South Florida. Her work examines the process of institutional truth construction and authorization, in the relationship between talk and text.

Perceiving “Things” and “Objects” from Within Processes: Resolutions Situated in Practices

John Shotter

London School of Economics, UK
jds12/at/btinternet.com

> **Upshot** • Schmidt suggests a resolution to what he calls “the reality problem” by claiming that we can take *processes* as “the basis for the emergence of realities.” Schmidt’s resolution, however, seems to me to be merely a *theoretical* resolution – a re-conceptualization – whereas I think a more *practical reorientation* is required: we need to relate ourselves directly to our surroundings in terms of our living, bodily responsiveness, instead of indirectly in terms of a theoretical framework.

« 1 » In his paper “From Objects to Processes,” Siegfried J. Schmidt suggests that “philosophical problems similar to the reality problem cannot be solved but can only be resolved – an argument deeply rooted in Ludwig Wittgenstein’s philosophy” (§2), and he later notes: “A consistent orientation towards processes allows the two nasty traditional problems of ‘representation’ and ‘reference’ to be resolved. Processes do not represent ‘reality’; instead they produce real-for-us results” (§32). In my comments here, I would have liked resolutely to agree with him, for there are a great many sentences in his paper that I agree with. I am especially in agreement with him when he notes that “Perception and cognition are bound to the actor’s body, are performed in a situation connected with the body, and are insolvably intertwined with the experience, knowledge, emotion, and memories an actor has acquired during his life” (§15). For, as I see it, the shift away from trying to arrive at the solution to a problem in thought, towards arriving at a resolution of it through a re-orientation à la Wittgenstein, is crucial. Thus, along with Schmidt, I also want to suggest that a radical reorientation towards what is real for us is required. But when he says: “...

there is no acting without communication and no communication without acting, this means that the question of what reality ‘is’ is replaced by an analysis of what we ‘do’ to make something ‘real.’ In other words: processes form the basis for the emergence of realities” (§16, my emphasis), I begin to have worries.

« 2 » Seeking *solutions* to *problems* in arguments about conceptualizations cannot, as I understand Wittgenstein’s aim in his philosophical investigations, produce the kind of resolution of our difficulties we desire. “It is not our aim to refine or complete the system of rules for the use of our words in unheard-of ways,” he says. “For the clarity that we are aiming at is indeed *complete* clarity. But this simply means that the philosophical problems should *completely* disappear” (Wittgenstein 1953, no. 133). In other words, he is not concerned to “advance any kind of theory... We must do away with all explanation, and description alone must take its place” (ibid: no. 109). And what appropriate descriptions can do for us – if we can of course provide them – is *to bring to our notice* facets and subtleties of events occurring in our *relations to our surroundings* as they irreversibly unfold. His aim in his investigations is to produce “just that understanding which consists in ‘seeing connections’” (ibid: no. 122), that is, connections or relations within and among phenomena that we have not previously “seen.”

« 3 » To explicate further the importance of what Wittgenstein is claiming here – in talking of “seeing connections” – we need to note a remark he makes on:

“Two uses of the word ‘see.’ The one: ‘What do you see there?’ – ‘I see this’ (and then a description, a drawing, a copy). The other: ‘I see a likeness between these two faces’ – let the man I tell this to be seeing the faces as clearly as I do myself. The importance of this is *the difference of category* between the two ‘objects’ of sight.” (Wittgenstein 1953: 193, my emphasis)

« 4 » And, as Gilbert Ryle (1949) puts it, we make a “category mistake” when we fail to recognize that an utterance, say – as an *organized* collection of observable but disparate entities – is of a different logical type or category from the separate entities into which it can be analyzed. Such a mistake is

equivalent to trying to describe flowing processes in terms of their frozen products – we lose the relational nature of the unfolding facets of their flow.

« 5 » The most notable sphere in which we continually make such mistakes is in our attempts to *describe* human activities. For, as Ryle (1949) points out, we continually use “achievement-verbs” when we should be providing an “orchestrated” sequence of “task-verbs,” along with their criteria of satisfaction – that is, we talk of “getting it” when we really should speak only of “tryings.” It is the *way* in which a person looks or listens that in large part determines what they will hear or see. Hearing something, or seeing something, is an outcome of how they approach the tasks of listening or looking, what anticipations they bring, as a result of their developmental experiences, to the situation in which what they can hear or see is important. Ryle writes,

“Verbs like ‘spell,’ ‘catch,’ ‘solve,’ ‘find,’ ‘win,’ ‘cure,’ ‘score,’ ‘deceive,’ ‘persuade,’ ‘arrive,’ and countless others signify not merely that some performance has been gone through, but also that something has been brought off by the agent going through it. They are verbs of success.” (Ryle 1949: 125)

« 6 » The people achieving these performances are *responsible* for these performances, and “a person’s performance is described as careful or skilful, if in his operations he is ready to detect and correct lapses, to repeat and improve upon successes, to profit from the examples of others and so forth. He applies criteria in performing critically, that is, in trying to get things right” (ibid: 29).

« 7 » But descriptions only in terms of *achievements* preclude the possibility of error and the need for *judgments* in the execution of our tasks. Category mistakes or mistakes in logical type can occur, then, *when in the service of achieving general explanations*, we try to describe people’s activities (processes) in terms of their general outcomes rather than in terms of their unfolding, particular, sequential details in particular circumstances.

« 8 » As a consequence, instead of attending to something out in the world that can be *seen*, that can be *pointed out*, we end up talking of mysterious and imaginary entities, located somewhere in a Platonic world

of ideas, whose only function is to play a part in our abstract theorizing. We must return to talking always *from within* a context or situation. It is this noticing that the particulars before us can be *re-organized* in a way different from how they first appeared to us that is crucial to our being an agent in our own human affairs.

« 9 » Why have we not previously noticed these important connections and relations of our actions to their surroundings in the past? Because, as Wittgenstein (1953) sees it, we have sought the kinds of theoretical resolutions that Schmidt is still seeking in his article. While such resolutions may seem to satisfy the tensions that can arise in us as we discuss “reality” in our talk *about* it in our academic discussions in seminar rooms or conference halls, they will fail to work in our everyday practices. For such theoretical “resolutions” are founded in *idealizations* proposed by individuals as a positive conceptual foundation from which we can, we assume, unambiguously derive all the other characteristics of a *thing’s* nature (in the case here, the general nature of processes as proposed by Schmidt).

« 10 » Such an idealization is a “stripped down” and de-contextualized account of a supposedly self-contained “entity,” whose properties can be described as inhering solely within itself and that can exist as the entity it is in isolation from its surroundings. – As such, it “stands in the way of our seeing the use of [a] word as it is” (no. 305).

“The more narrowly we examine actual language, the sharper becomes the conflict between it and our requirement. (For the crystalline purity of logic was, of course, not a *result of investigation*: it was a requirement.)... – We have got on to slippery ice where there is no friction and so in a certain sense the conditions are ideal, but also, just because of that, we are unable to walk. We want to walk: so we need friction. Back to the rough ground!” (Wittgenstein 1953, no. 107)

« 11 » The ignored contextual details matter.

« 12 » There is a shift of focus away from a deliberate fixating on seemingly separately existing, self-contained entities that need to be inter-related with other such entities in terms of rules, laws, or principles of one kind or another – the thinking in terms of

categories that is very apparent in Schmidt’s article – towards attending to describable *aspects* that, so to speak, spontaneously make themselves known to us from within our engagement in an in-principle indivisible whole. This shift is the major revolution in our thinking about human behaviour that is implicit in Wittgenstein’s whole approach in his *Philosophical Investigations*. So, although he notes, “it is not a kind of *seeing* on our part; it is our *acting*, which lies at the bottom of the language-game” (Wittgenstein 1969, no. 204), this is not to be taken as a theoretical statement – as Schmidt seems to be claiming in §16 (quoted above). We need to ask ourselves what kind of acting was it that allowed us to learn our use of language – to learn our creative use of words in providing subtle descriptions of particular situations in ways that do justice to their uniqueness – in the first place?

« 13 » Clearly, we cannot have learned it by those around us offering what Schmidt calls “positings” (§22). While such a possibility might be available to us as intellectually active adults, as young infants we lack such well-defined forms of knowledge. If we are later to gain this kind of “knowledge” of the “things” around us, we must first be able to recognize them and move around in relation to them in our everyday practices as the “things” they “are,” that is, as the “things” they are taken to be by the others around us – such practical recognitions cannot be taught us at this stage by presenting us, linguistically, with *positings* requiring us to be selective by making “more or less conscious decisions” (§25). For the ability to say explicitly, “This is of type A (but not of Type B or X),” requires our already having come to know, *implicitly in our bodily activities*, what A-ness, B-ness, and X-ness is. This capacity to orient towards the “what-ness of things” in our surroundings in the same manner as those around us, and to *judge* that this is indeed an A and not a B or X, is something we acquire in the course of our spontaneous involvements with these others. It is something our parents teach us, spontaneously, in the course of their being attentive to what they sense as our “needs,” the unsatisfied tensions they can perceive us as feeling in the incipient intentions they can see us as *trying* to execute, as they feed, comfort, play, and otherwise actively interact with us. It is our

etc. lead to patterns of behavior that are not congruent with the rational models and corresponding expectations. For these writers (and politicians), reality is not a perpetual topic but an interval of additional argumentation and/or intensive implementation of powerful managerial tools to push more or less reflected objectives. But processuality is more than a strategy of argumentation: it is already the tacit moment of successful survival, even in chaotic settings. Therefore, an ideologically framed concept of reality, rationality, objectivity, and truth needs more archaeological and de-/constructivist effort to answer Schmidt's question: "Which acting potentials are opened by a perception?" – and which are closed?

« 5 » Each situation, both in practical life and in science, is complete. It includes all the influences that create that concrete situation. It may be a product, a sentence, an ideology, a formula, a model, an economic philosophy, etc. But nobody is able to describe any situation completely. Therefore we are forced to construct our picture of the situation, knowing or not knowing that it is abstract and concrete: abstract because we do not know really why we use the mosaic stones that we use and concrete because we have only the mosaic stones that we use. And we have no other choice. And each situation will be followed by another one, not identical, but unforeseeable, unpredictable.

« 6 » But we do not live alone. And to live together needs some reliability. That is why religions, rules, and other conventions became fabricated and successful (for a while). If there is no absolute truth or reality, no unmistakable language, and no picture that cannot be interpreted on the one hand, while, on the other hand, people have very different needs, beliefs, interests, objectives, and targets, which change, moreover, during one's life, it is difficult to find a common denominator. But some people have power to define their lives and lives of others. So some people try to dominate others and exploit them, for example in economic, sexual, and/or scientific practice.

« 7 » In the current economic crisis, politicians and managers in their companies are looking for strategies to overcome the problems. But these people, who have power, follow the old patterns of capitalistic "truth." They set objectives and do not un-

derstand that it is not clear which objectives, which potentials they are excluding. How is the blind spot constructed as a blind spot and through blind spots?

« 8 » Who determines the questions?

« 9 » How can we find the limits of our discourses?

« 10 » Could it be that even discourses, posing questions, and withdrawing points need too much time because we have forgotten this method?

« 11 » So let us try it. Remember Ralph Waldo Emerson: Life is a journey not a destination. Which stories can we tell that undermine and complement our traditions, emotions, abstract rationality, and mainstream ideologies?

RECEIVED: 12 SEPTEMBER 2011

ACCEPTED: 13 SEPTEMBER 2011

Ekkehard Kappler is the (emeritus) Chair for Managerial Accounting and Organizational Culture at the University of Innsbruck. His research areas include leadership and organizational development, managerial accounting and organizational culture, management and development of universities, management and development of non-profit-organizations, and basic research on business administration and methodology.

All Quiet on the Constructivism Front – Or is there a Substantial Contribution of Non-Dualistic Approaches for Communication Science?

André Donk

University of Münster, Germany

adonk/at/uni-muenster.de

> Upshot • In the 1990s the emergence of radical constructivism as a meta-theory inspired many scientific disciplines. Since more or less simple realistic concepts of the media as mirroring the world prevailed, communication science was challenged to re-think the relation of media and reality as well. Recently, criticism of constructivist media theory has grown, while those constructivist approaches

have not developed any further. Thus, the commentary examines the potential for Schmidt's process-oriented constructivism, which is interpreted as part of a non-dualistic paradigm, to revitalize the debate. I will argue that the idea of acting as a perpetual process of positings and presuppositions [Setzungen und Voraussetzungen] can especially be related to current research on media and memory.

« 1 » Questions concerning the status of "media reality" have been crucial in society and social sciences for decades. Do the media represent reality? And are these representations adequate, true or objective? Schulz (1976) and, especially, Merten, Schmidt & Weischenberg (1994) promoted the debate in Germany, stating that media construct a specific but not random reality, which cannot be understood as kind of a mirror image of *the* reality. These – at that time – new approaches were mainly based on two arguments. First, the experience of something as reality is the result of each individual perception. The quality of perceptions depends on their viability or acceptance and not on ontological references, i.e. there is no perception of the reality without an observer and without its subjective point of view (§§9–10). This holds true for individual actors and can be applied to collective actors such as the media in general – and especially to journalism – as the "distributor of reality" in our society. Second, media follow their own patterns of production: they select certain aspects of the perceived reality and present them along their own routines, etc.

« 2 » Thus, the application of constructivism in communication science suggested altering research from investigating the realism of media to investigating the ways media construct realities. This change in research paradigms was an innovation as well as a provocation (see also Scholl 2010). While the reception on the one side led to fruitful debates, new models, and new conceptualizations, on the other side a widespread criticism emerged: constructivism "attacks the immune system that saves us from silliness" (Devitt 1991: IX; see also Bentele 2005). Wolfgang Donsbach, in his presidential address to the annual meeting of the International Communication Association in

2006, declared the debate about the status of reality as “superfluous” (Donsbach 2006: 444): “Everyone knows that constructivists are probably right in stating that every perception is subjective. But so what? Should that keep us from doing research? Or does it give us any guidance in how to do research? No [...]” Constructivist approaches were regarded as an expression of post-modern ‘anything-goes’ or as a “rollback strategy against empiricism” (ibid). So, can Schmidt’s offer to rewrite radical constructivism enhance this debate and clarify the positions? Can it contribute to innovative theory building and empirical research in communication science?

« 3 » The new position Schmidt introduces is based on Josef Mitterer’s (1992) non-dualistic philosophy. Following Mitterer, realism and constructivism both rely on the assumption of a given reality. Even in constructivism, perceptions are always perceptions of something that ontologically exists (Weber 2008). Every observation of this reality thus has its reference – regardless of whether this reference can be adequately perceived. But what came first, the real object or its construction? Furthermore, the assumption of a given reality seems counter-intuitive or even misleading for constructivism. Non-dualistic approaches try to solve this chicken-and-egg problem as they reject the idea of any reality beyond the reality of discourse (Weber 2002: 33). Following that assumption, “real” objects are hence regarded as language-based operated descriptions. These descriptions *so far* can be assumed to be common knowledge, or accepted and shared descriptions. These descriptions *so far* can be altered as new, progressive or competitive descriptions gain more acceptance. In consequence, descriptions do not fail because of their incorrect representation of objects but because of new descriptions. This means that the difference is not between object and description(s) in non-dualism but between descriptions (Scholl 2008). Schmidt relates this non-dualism by focusing strictly on processes.

« 4 » Schmidt integrated concepts of non-dualism in his socio-cultural constructivism from early on, as shown in his approach in *History and Discourses* (2007) that states that any human action is contingent: it is a process of positioning oneself in a cer-

tain way in a given context, based on a presupposition (§22). From a logical point of view, and this can be regarded as Schmidt’s main and “self-founding argument” (§24), there is no beginning without a presupposition. In other terms, reality *from now on* is based on reality *so far* and evolves in communicating contexts. On an epistemological level, this approach opts for a strict orientation to processes as entities. As people gain knowledge about presuppositions – or accepted descriptions *so far* – in their socialization, they become enabled to act and communicate. Thus Schmidt emphasized the importance of collective memory in communicating processes (§§38, 49–50). This idea has been neglected in communication and media research; I will refer to this point very soon.

« 5 » So, is non-dualistic constructivism in the sense of strict process-orientation an answer to the above-mentioned criticism within communication science? At first glance, one might argue that it is not, as it reacts to philosophical questions concerning the status of reality. If scientists regard epistemological discussions about something as a reality as superfluous, those objections may not be rebutted by the rejection of a reality, which lies beyond the descriptions of actors. However, process-orientation and non-dualism function as discursive deceleration: realists are challenged to accept the axiom that descriptions work as reality for actors in certain situations means that debates from now on can concentrate on the empirical question of what people claim or believe to be real (§44–46), why, and with what effects – and what media influence on those processes can be analyzed. Questions of whether there is a reality or not no longer seem relevant.

« 6 » If classical dualistic concepts such as truth, perception or reality are no longer regarded helpful for research, new questions for communication science might arise:

- First of all, the focus on processes and processing means that empirical analysis should give attention to communication – in everyday life and for all sorts of publics, regardless whether they are mediated or not.
- Truth is conceptualized as successful communication or viable problem solution (§75), but what does that mean

for truth as a concept of media quality? Journalism should feel devoted to being objective; that is to say, true. Journalistic truth from a non-dualistic perspective is no longer absolute; it is more kind of a strategic ritual in media production (sensu Tuchman). Thus, journalism has to be questioned and contested; media criticism has to challenge media’s descriptions *so far*, i.e. the different “reality-claims” of different media outlets need to be compared.

- If communication science no longer concentrates on dualistic questions concerning the status of communicated realities – either in the everyday life of actors or in the media – it has to focus on the consequences of those perceptions and constructions. What especially ethical consequences can be described? One cannot give a complete and satisfying answer to that question here. But, at least, the debates about the realities media construct can no longer centre on reality-adequacy. Instead, it has to be explicitly argued why descriptions *so far* are regarded as problematic and how far these descriptions should be altered.
- Discourse theory and, especially, concepts of deliberation reflect some ideas of a non-dualistic approach to communication science. In both there is the idea of the evolution of interpretative communities, which negotiate versions of reality and truth *so far* and might arrive at new version of reality and truth from now on. While discourse theory (sensu Foucault) emphasizes the role of power and thus of dominant and suppressed realities, the deliberation approach holds for argumentation and consensus (Habermas 2005, 2006). Regardless of which concept will be preferred, the communication processes within those interpretative communities, the struggle for viable constructions, and the role of the media have to be analyzed.
- Emphasizing the role of collective – or public (Donk 2009) – memory, communication science can investigate the media-facilitated versions of history, which build the pool of society’s presuppositions. Especially, journalism offers orientation for any given society and its members; i.e. journalism does not only

report on recent topics. Rather, a variety of journalistic commemorative or historic references with a certain focus on the reporting of national anniversaries can be detected (Zelizer 2008). For journalists, national anniversaries provide an opportunity to recall historical events following regular intervals, which can be contextualized and interpreted in recent categories of the present time. On the one hand, journalism covers social and political rituals of memory. By doing so, journalism connects commemoration with social values, relates narrations with social-cultural meanings, and fosters an imagined community. On the other hand, news coverage provides the narrations and myths for generational collective memories inside and beyond national boundaries. Taking into account that national anniversaries especially can serve as crucial political instruments because they support the constitution of national identities and have a legitimizing function, communication science has to question, analyze, and discuss this possible legitimizing function of mass media within the process of journalistic commemoration in both national and globalized contexts, and to explore its perception. The conflicting and even changing descriptions of society's past (Misztal 2005; Zelizer 2010) can be observed in media coverage and public discussions. Those communications reveal which descriptions are contested, no longer accepted, and thus changed. Investigating the changing of our cultural presuppositions in the form of our images about a shared past gives insights into the changing of society.

« 7 » Coming back finally to our question of whether there is a substantive contribution of non-dualistic or process-oriented constructivism to communication science, the answer is ambivalent. This approach will not reconcile anti-constructivists with constructivists. But Schmidt can contribute to relevant discussions about media ethics, media criticism, and media's memory as social presuppositions and thus descriptions of collective history so far. Especially, digitization and globalization may contest and alter the forms, contexts, and, ultimately, the

publics (local vs. national vs. transnational vs. global; short term vs. long term) of social memories.

RECEIVED: 24 AUGUST 2011

ACCEPTED: 11 SEPTEMBER 2011

André Donk is scientific staff member at the Department of Communications at the University of Muenster. His research focuses on the digitization of sciences, media, and memory, political communication, and media theory.

How a Process-oriented Approach in Radical Constructivism Affects Empirical Research

Armin Scholl

University of Münster, Germany
scholl/at/uni-muenster.de

> **Upshot** • Radical constructivism should be strictly process-oriented to avoid hidden ontology. S. J. Schmidt provides such a strict process-orientation from a very philosophical viewpoint that, however, still lacks access to empirical research. The purpose of this commentary is to show a way to apply Schmidt's philosophical framework to empirical research.

The problem of (seemingly) neglected empirical research

« 1 » Radical constructivism (RC) was established with the help of empirical research. Most of the fathers and mothers of RC started their careers in the field of natural sciences. They subsequently developed the philosophical (epistemological) implications of their empirical work and elaborated the epistemological spin-off towards a coherent philosophical system. The emerging discourse of RC not only included an alternative epistemological and anti-ontological standpoint against mainstream ontology and realism but also a logical system of its own, such as self-referential calculus (sensu Varela), logic of distinction (sensu Bateson or Spencer Brown) or second order cyber-

netic programming (sensu von Foerster or Glanville). Siegfried J. Schmidt's origin, too, is empirically based. In his early studies he tried to introduce empirical research to the field of linguistics and literature (empirische Literaturwissenschaft), which, until then, was dominated by hermeneutic methods.

« 2 » However, the more autonomous the theoretical and philosophical efforts of RC have become, the more strained has become the connection to empirical research, which is still characterized by the use of conventional methods developed within the framework of mainstream realism (such as critical rationalism and analytical philosophy sensu Popper). As I argued in a former article (cf. Scholl 2011), the claim of universality of RC will not be challenged by this gap between meta-theoretical (logical, philosophical, epistemological) development and empirical (practical) tools or methods. For the practical use of methods and technical tools, it should not be important whether the researcher follows a constructivist or a realist approach. The difference between constructivists and realists should become visible when it comes to the interpretation of empirical results and their relationship to the hypothesis in question.

« 3 » Observing the originators of RC and their later works (e.g., Maturana, von Foerster, and von Glasersfeld), one has the impression that they became philosophers and drifted further away from empirical research. Schmidt's target article for this issue seems to be far from empirical research or from methodological topics, too, as it is based on the self-justification of a rewritten RC.

« 4 » The aim of my article is to discover some philosophical implications of Schmidt's approach for empirical research, which of course cannot be a way back to the roots of his work because this would end up in a circular argumentation. Instead, I prefer the metaphor of a spiral, which includes circular "elements" and progress. This progress is not necessarily linear but can also be dialectic, which is typical of the history of science, including all its errors, dead ends, setbacks, and "indirect" progresses. The specific question that I try to answer is about what we can learn for empirical research from Schmidt's very philosophical approach – a question that Schmidt himself has al-

ready studied intensively (Schmidt 1998). As I work in the field of social sciences, I will concentrate my efforts on this field. I will elaborate the topic of process orientation, which seems to be relevant for and to affect the practice of empirical research.

The relevance of process-related thinking to constructivist epistemology

« 5 » Schmidt's approach to histories and discourse elaborated and pursued in his latest books (2007, 2010a) and in the target article of this issue spins on the spiral of relativism: one of the core ideas of RC conceives of knowledge as strictly observer-related rather than as a true relationship between the knowing subject and the known object. Therefore, RC exponents (such as von Glasersfeld) prefer the verb "knowing" to the noun "knowledge." As the observer experiences an individual socialisation, this relationship becomes dynamic. As the observer is not an isolated individual but lives in a social and societal context and interacts with other individuals, the relationship becomes social, too. However, it does not suffice to change the direction from object to subject because this may lead to the implication that the observer (subject) will become an ontological object, too. Therefore, Josef Mitterer (1992) has radicalized the relationship between subject and object towards a non-dualizing perspective.

« 6 » Schmidt transfers the non-dualizing approach to a strictly process-related model. Of course, the process should not be mistaken as an ontological "object" itself nor as a logical prerequisite (sensu Kant's a priori). Rather, Schmidt emphasizes its inherent dynamics. The notion of the dynamics of a process, by the way, is not redundant nor does it include a tautological argument: the process itself initially only describes the form of a relationship (which can be distinguished from a static form), whereas the dynamics of this process qualifies the components of the process. To complete the form of a process it is necessary to assume a strictly complementary and auto-constitutive relationship of an actor/observer (in Schmidt's words "agency" or "action carrier"), a performance/operation/realisation, and an outcome/result/"object." Ironically, a dynamic interplay such as this is expressed

in a cascade of nouns. Is this a hint that processing needs objects to be observable as a process at all? Indeed, within a logic of distinction (sensu Spencer Brown) one has to ask the question: What is the other side (or the opposite) of the process?

Empirical research as a process and as an investigation of processes

« 7 » This other side of the dynamic aspect within a process should be the static aspect, which Schmidt calls the result (or outcome) of the process. A process can only be observed (as a process) if the observer manages to adhere to such an outcome. Of course, such an outcome or result of and within the process does not need to be considered a "real" object; but this phenomenon should last long enough to be observable or recordable. Empirical research thus operates as a stopper of the process in order to observe it, which is only possible when the process comes to a stop and takes the shape of an object (sensu Spencer-Brown, Luhmann or Glanville). The empirical observation, no matter whether a (non-)participant observation of people and their actions, a survey among people about their attitudes or the analysis of a text or document, is itself a process of intervention in a process going on (cf. Merten 2005). Methodologists working within the framework of a realistic epistemology make every effort to separate both processes – the process of observation (= research) and the process under observation (= reality) – but from a constructivist perspective, both processes interfere with each other and are intertwined in a way that they cannot be separated. Instead, the self-organization of scientific (or any other) observation is the interference of both processes.

« 8 » Such kinds of spiral-formed processes of self-organizations can be observed in any societal processes. Klaus Krippendorff (2005) reconstructs the process of public opinion formation as interfering processes including people's opinions, the observation of people's opinions by polls and their very specific measurement of people's opinions, and the observation of public opinion polls by politicians and parties, etc. A similar logic is used in chaos theory, which posits the interplay of chaotic (dynamic, processive) and structured (organized, process-result-

ing) phases, which themselves are considered a process, etc. Stefan Frerichs (2000) analyzes the news-making process as such an interplay including phases of temporarily chaotic situations, when the information about an event (e.g., a plane crash) is sparse and uncertain and the sources are unconfident, on the one hand, and the well-organized and professional procedures of news gathering on the other hand that result in an acceptable and communicable news item. Although there seems to be a linear process from chaos to organization (when the news is published), the process may at any time go the other way, from a well-structured phase to chaotic uncertainty. Maybe new information emerges that is inconsistent with information gained so far; the structure of the media coverage then turns to chaotic polyphony or even cacophony.

Meta-theoretical implications

« 9 » In all of these cases we – as (scientific) observers – suppose that the observed processes continue while being observed. However, only the intervening (empirical) stoppage of the processes under observation makes them observable and makes us believe that we observe ongoing processes. With the help of empirical research we permanently (sic!) construct empirical results of this process of investigation of observed processes. The empirical results are temporarily static and stable as long as the observing process continues and as long as we are in consensus with other empirical researchers. Empirical research that aims to model and that observes processes operates, itself, within a (research) process. However, empirical research has to fix certain aspects and clues of the process under observation. And it has to do so in a static way: the observed results of the process under study have to be observed within a certain period of collecting and analyzing data and have to be communicated by writing them down and publishing them in a scientific journal or book. Thus, the process of research includes fixed points, which form the process by constituting the tempo and rhythm of the process of investigation as well as the process under study. According to Schmidt, we should figure out the relationships between process and steadiness, dynamic and static aspects of processes, or enduring and changing aspects of steadiness

within the strictly complementary logic of positing and presupposition.

Methodological implications

« 10 » Empirical researchers obviously always catch a glimpse of the processes under study. If we ask questions within a survey, the answers cannot be considered stable representations of the respondents' attitudes but only utterances in a certain social situation at a certain moment with respect to a certain thought emerging at that moment and in that situation. The same should be true for other methods used in the social sciences, such as (non-)participant observation, analysis of texts and documents, etc. Thus, the results of empirical research are very elusive. Can they still be used to test such abstract and permanent systems of thoughts and arguments as scientific theories?

« 11 » Both qualitative and quantitative methodological approaches use their own techniques to avoid the impression of investigating only sporadic or accidental results, which need not be discussed here (statistical aggregation, ethnographic research design, etc.). However, a strictly process-oriented perspective provided by RC in general and by Schmidt's philosophical considerations in particular forces the empirical researcher to reconsider the value of the outcome of empirical research. I understand Schmidt's strictly complementary logic of a three-part relationship between actor, performance, and results as a hint or advice to look for condensation, concentration, and coherence of single empirical results (in methodological terms: reliability). In order to gain temporarily stable observations, we have to make use of the dynamics of the process of investigation interfering with the process under study in a reflective manner rather than consider the process of investigation a representation of the process under study. Empirical research in this perspective can be characterized a permanent interplay of rather chaotic, elusive, detailed, specific, and fragmented dynamic observations with more organized, stable, general, abstract, and integrated static observations.

RECEIVED: 29 AUGUST 2011

ACCEPTED: 12 SEPTEMBER 2011

Armin Scholl is professor at the Department of Communication Science in Münster, Germany. His research and teaching focus is on communication theory, empirical methods, journalism research, counter-public and alternative media, and the media coverage of environmental issues. He has conducted two representative surveys on "Journalism in Germany" (1993 and 2005). His homepage is http://egora.uni-muenster.de/ifk/personen/arminscholl_en.shtml

Faith as Ethically Basic to the Task of Constructing

Edmond Wright
Independent Researcher, UK
elw33/at/hermes.cam.ac.uk

> **Upshot** • The aim is to show that, although Schmidt's thesis must in most respects be warmly welcomed, there is an unexpressed implication concerning the dialogic structure of language that, when drawn out plainly, reveals a further valuable move open to the theory. I offer it therefore as a clarification of his theory with which I hope Schmidt may agree. He has already stressed the differences in understanding between one agent and another; it is because of this that, in order to communicate, agents must *play without believing* the mutual hypothetical projections of "truth," "sincerity," "objectivity," "reference," and other ideals of social "reality." In the language process it is faith upon which this rests rather than blind trust. It is argued that only faith can properly take account of the risks of contingency.

Dialogue and difference

« 1 » The target of the criticism can be simply put: the fact that language is a social act, repeatedly asserted throughout, may be said to have one aspect that is not sufficiently explored. It involves the motivations of those engaged in dialogue. Siegfried J. Schmidt argues convincingly that language is dialogic in the sense of bringing together more than one contributor, the aim of one or more of whom is, hopefully, to adjust and update the concepts and percepts of others.

What is hopefully updated is the action-schemata of those addressed, so that their perceptions are now motivated in a more successful direction.

« 2 » One could say, to use a metaphor from perception that Gregory Bateson (1980: 77–81) employs, that it is a stereoscopic mode of encounter with the real. It involves the realization that the understandings of hearer and speaker are distinct though overlapping, a division that endlessly permits readjustments of the so-far socially agreed selections we together call "reality"²⁰ in the same way that the two eyes, with their differing perspectives, enable the brain to set up a 3-D view. Schmidt correctly insists on the continuing development of the "collective knowledge" enshrined in language, stating that a "balance" is what is aimed at when differing evaluations of language-members are assessed in dialogue (§71). It might be said that, to use Saussure's terms (Saussure 1983, Ch. 3), the "synchrony" of what has been agreed so far has been subjected to a "diachronic" amendment. To express the distinction in Schmidt's way, one can say that the synchrony represents "the *status quo* of shared knowledge," and that the change results from the incessant "search for discontinuities" (Schmidt 2007: 12, 92). The "models of reality" that result are "constantly co-tested," for the models are inescapably "affectively and morally charged" (ibid: 33). This acknowledgement of the part played by motivation in perception is largely absent from the current Anglo-American philosophical investigations of perception,²¹ in some of which it is given that objects that are the focus of perceiving (see McDowell 1994 as an example).

« 3 » So Schmidt rightly identifies the current of collective knowledge as characterized by continual redirectings of its flow,

20 | Even in the case of a deliberate lie, a perceptive hearer may garner from the liar's utterance guidance of which the speaker is unaware (for a discussion of an example, see Wright 2005: 144).

21 | I have a rough way of initially checking the reliability of any contemporary Anglo-American book on the philosophy of perception: I look in the index to see whether any of the following terms are discussed in it – "motivation," "pain," "pleasure," "fear," and "desire." It is surprising how many fail the test.

after which it settles to a “balance:” periods in which the focus upon some commonly constructed “entity” sufficiently matches the expectations of members in the social group. As Schmidt puts it, the speaker “deems the partner’s reaction to be correct or at least sufficient” (§13). The situation is one he describes as an “operative fiction” [38]: that is, in order to keep co-operative actions in harness, the agents have to work on the *assumption* that each has a sufficiently similar perception-schema with regard to what has been mutually constructed so far.

Change of meaning

« 4 » It is here that one can refer back to what Schmidt quoted from Peter Janich at the beginning of his article: “The present widely-ramified discussion about reality contains some riddles” (Janich 1995: 460; Schmidt’s translation). As I pointed out at the start of my book on narrative and perception (Wright 2005: 1–2), references to riddles and conundrums are always turning up in philosophical discussion but rarely (outside the philosophy of humor) are they subjected to analysis, and even more rarely do they form any kind of analogy for what characterizes language. Since their mundane purpose is so obviously non-serious, it is mistakenly believed by many that the structure of a riddle can have no relevance to the serious study of language.

« 5 » Let us take an example of a diachronic development in language. The scene is an English classroom some time at the end of the seventeenth century. It so happens that a master and a pupil are at odds, and they have been for a number of days. It has now come about that the pupil attempts to wreck the lesson whenever he can. On this occasion, having been asked a question, he has decided to give an utterly *irrelevant* answer, and it is also couched in a most *insolent* tone. The master retorts as follows: “That, boy, was an impertinent answer!”

« 6 » Now note the difference in the understandings of the common word “impertinent.” For the master it meant *irrelevant*, and the context certainly upheld that interpretation, for had not the pupil just given an irrelevant answer? However, for the pupil himself, and no doubt for some of his classmates, the context was one in which he had just given an insolent answer – and, indeed,

that had been his main intention – so his interpretation of the word was *cheeky, insolent, disrespectful*. Furthermore, he and those classmates were not very familiar with the word; perhaps they had heard it before but had not given it much attention.

« 7 » What is the significance of this incident with regard to, first, diachronic change in language? It must be obvious to you that the meaning *cheeky, insolent, disrespectful* is now the dominant dictionary (i.e., synchronic) meaning – the Oxford English Dictionary now gives this as “the chief current sense in colloquial use.”

« 8 » Secondly, what is the significance for the present discussion? Note that neither the master nor the pupil was aware that, although they were using “the common language,” the word had different meanings for each of them. Everything in the context, including their own intentions, corroborated their private interpretation. The “operative fiction” was in progress and both language partners were regarding “the coupling action” as having achieved “balance” and “success” (§71), but their understandings did not match. This has the structure of a riddle, for in a riddle the operative fiction as exposed for what it is: an interim projection of a *common* focus, one that enables the *difference* in perspective to become, to the hearer, surprisingly salient. Take the Riddle the Sphinx proposed to Oedipus: “What is it that goes on four legs in the morning, two legs at noon, and three legs in the evening?” – Oedipus gave the answer “Man” (“morning” is, metaphorically, childhood, “noon” maturity, “evening” old age; “legs” includes *arms* and *a stick* as semantic variants).

« 9 » It is important to note that, in a key respect, this incident concerning the word “impertinent” was not an odd freak. Such mismatches exist *every time a speaker speaks to a hearer*, the reason being that, as Colin Grant says, “a penumbra of unselected information” always remains (Grant 2007: 2). Since that applies to both parties in a dialogue, and, in addition, what is vague for one may not be for the other, there is no possibility that a perfect match of perceivings and understandings can ever be achieved (Wright 2005: 114f; also Wright 2008: 341–366, for support from the philosophy and psychology of perception for this judgment). The dialogic situation is always ste-

reoscopic in Bateson’s sense; although, when agreement is arrived at, the failure of perfect superimposition is concealed.

« 10 » Why is it tempting to fail to acknowledge this feature of language? The answer is that we would not even have the chance of a sufficiency of overlap upon the contingent flux of the real as regards our co-operative actions unless we *played the game of singular reference*. There would be no Glaserfeldian “viability” unless we imagined the “transcendentals.” “Truth,” “objectivity,” “sincerity,” and the rest can only be *imagined* together. Such “transcendentals” have to be *performed* in the dramatic sense of the word (Wright 2011, Ch.10). Mismatches can always emerge, and, worse, portions of the real that no one has ever tried to domesticate into “reality” can make themselves felt. So for two agents to insist on the singularity of some reference that they are attending is only a pragmatic means of achieving (if possible) some measure of co-orientation.

« 11 » Schmidt repeatedly speaks of “co-orientation” in dialogue being no more than “sufficient.” There is a hint of theoretical un-sureness when he says,

“Regarding the social aspect, understanding is attributed to communication partners in social interaction if the speaker deems the partner’s reaction to be correct or at least sufficient.” (§13)

« 12 » The word “correct” really belongs within the “reality” of talk; the word “sufficient” belongs within the theory. To use a word like “correct” within the life-world is on a par with “true,” “objective,” and “sincere.” Each one of these “transcendentals” is an earnest of the *faith* that partners should endeavour to maintain – or, better, an earnest of *love*. Love, because when a mismatch or an unintended consequence becomes salient in the dialogue to one or other or both, it behoves the discoverer(s) to acknowledge openly whatever advantage or disadvantage, pleasure or pain, joy or suffering that the semantic difference brings with it. The “transcendental” then has to be re-negotiated, if at all possible. The faith is not a religious one in the old sense – better to take the “God” and “the Good” as mutually imagined. This makes the Life-World the greatest of performances. The mismatch between partners may indeed be such that they can

laugh together at their being caught out in an epistemological riddle, and thus effect a comic resolution of their conflict, but the mismatch can be tragic, demanding sacrifice from one or both. Colin Grant hopes for “tolerable uncertainty” (Grant 2007: 180); he is quite right to hope, but sometimes certainty is intolerable.

« 13 » Schmidt is well aware that surprising contingencies are always possible, and many of these can be unexpectedly pleasant, but expectations can turn out to be great expectations, and, as for Pip, they can present a road ahead that was not calculated for. At one place in *Histories and Discourses* Schmidt does say that “one can shoulder responsibility only for predictable consequences,” but that, too optimistically, is to cling to “reality” as one has personally assessed it (Schmidt 2007: 139). In “From Objects to Processes” he amends this by saying that sometimes we have to take “responsibility for unintended consequences” (§60). Sophocles’ *Oedipus Rex* explores this tragic implication into the realm of sacrifice. Language is based not on a blind trust in the meanings so far blessed by the “shared common knowledge” but on an open-eyed faith that knows that language, being a game, and thus a performance, is always also a riddle, and not always one with a standardly “happy” solution.

RECEIVED: 4 SEPTEMBER 2011

ACCEPTED: 11 SEPTEMBER 2011

Edmond Wright is a member of the Board of Social Theory of the International Sociological Association, and was sometime a Fellow at the Swedish Collegium for the Advanced Study of the Social Sciences, Uppsala.

He has edited *The Ironic Discourse* (Poetics Today 4, 1983), *New Representationalisms: Essays in the Philosophy of Perception* (Avebury 1993), *Faith and the Real* (Paragraph 24, 2001), and *The Case for Qualia* (MIT Press 2008), and has co-edited with his wife Elizabeth *The Zizek Reader* (Blackwell 1999); he is author of *Narrative, Perception, Language, and Faith* (Macmillan, 2005) and *Avatar-Philosophy (and -Religion) or FAITHHEISM* (Imprint Academic 2011).

Making a Difference

David Krieger

Institut für Kommunikation
& Führung IKF, Switzerland
david.krieger/at/ikf.ch

> **Upshot** • The critique of Western metaphysics, the definition of the sign as an inseparable unity of signified and signifier, the insight that language is a form of life, the deconstruction of the subject, the banning of human beings from the social system, and the appearance of non-human actors have made the traditional distinctions between real/unreal, subject/object, society/nature, and thought/action obsolete. The global map of meaning has to be redrawn. Siegfried J. Schmidt takes on this task in the name of a rewriting of radical constructivism. But is rewriting enough? Do the new differences introduced in place of the old ones “really” make a difference?

« 1 » Throughout his long and influential career as one of the leading thinkers within the constructivist movement, Siegfried J. Schmidt has consistently argued for an embodied, social, and historical understanding of knowledge. The shortcomings of a solipsistic, individualistic, psychological, and purely cognitive understanding of basic categories such as reality, truth, knowledge, consciousness, meaning, etc. led him early on to question the meaning of the word “radical” in what has long been propagated under the banner of “radical constructivism.” The text presented here represents the fruit of many years of reflection and, as such, an opportunity to ask fundamental questions about the entire constructivist enterprise, as well as the success of Schmidt’s rewriting thereof.

« 2 » After Heidegger answered the question of being with the difficult and somewhat mystic statement that “it is language that speaks;” and after Saussure quietly pulled the rug out from under the feet of all dualists with his definition of a sign that it has its signified within it; and after Wittgenstein dismantled the distinction between subject and object with his refutation of a private language, with the result that lan-

guage is a socially corrigible rule-governed activity; after the flamboyant deconstruction of the autonomous, rational subject of European epistemology by Derrida; after Luhmann proclaimed that society does not consist of human beings, but of communications; and finally, after Latour showed that non-human actors participate in and form the networks of which society consists – yes, after all this – it would seem not at all surprising that discussions about objects and subjects and of how they epistemologically relate to each other and their relative ontological status have ceased to be relevant, or even understandable.

« 3 » What Schmidt tells us is only common sense in a post-modern, global, network society. But it is important for professional philosophers to be called back to common sense now and again. I am grateful for this appeal to think differently about all those old problems of the modern Western philosophical tradition. And it is only with great respect that I tentatively ask whether the differences that are introduced really make the difference they intend to.

« 4 » If “a strict process-orientation in philosophical argumentation allows us to avoid ... obviously unsolvable problems” (§17, §44) then let us suppose that there has emerged a system of meaning that has much greater ordering power than the laws of physics or genetic coding, and this is why it can use matter and life for its own purposes and is not subject to their limitations. Meaning moves mountains and the unexamined life is not worth living. Let us further suppose that the system of meaning, like all systems, *constructs* itself by a *process* of selecting and relating elements in order to enable and steer its operations. Selection makes a difference. It implies not only inclusion, but also exclusion. Like every system, the system of meaning constructs itself by distinguishing itself from the environment (self/other), in other words “processes require actors” (§5). The first process makes the first difference and with it an agency and a result (§31). The system of meaning emerges by making meaning, that is, by making a difference that makes the difference between itself and its environment. This means it must make meaning by excluding meaninglessness. Since the system of meaning can only operate with meaning, it must give

the meaningless a meaning. Meaning begins with a paradox. It has its boundary within itself. The outside is inside. There is no God without the Devil who has somehow been willed by God, and no Being without Nothingness that somehow "is." As theologians have always known, it is best to cover up this embarrassing contradiction at the foundation of the world by shrouding it in mystery.

« 5 » So let us concentrate on what God created, namely reality. Reality is how God, Being, Maya, the Ancestors, or whatever, *arbitrarily* and *contingently* spells out whatever He, She, It, They are. These are myths, or as Schmidt would say, "reality models" (§19). This is a body of knowledge that distinguishes between what belongs in the world and what does not, what works and what is bound to failure, what is good and what is bad. It is always already there. It emerges through the ongoing operations of the system of meaning, that is, processes of differences that make differences. These operations are often steered by an important difference between "we" and "they." Schmidt speaks of "cultural programs" (§20). The difference this distinction makes determines the success or failure of communication. Intercultural communication is a problem. When "we" run up against cultural boundaries, differences between, for example, men and women, fathers and sons, teachers and students, bosses and workers do not seem to make a difference anymore, or at least, they do not fit and function smoothly together. One cannot even say "hello" without offending or being misunderstood by "them." Once it became clear in the post-colonial world that these problems could not be solved by forcing the They to become the We, intercultural communication, like all communication problems, became a problem to be solved by constructing new differences that make new differences, or, as Schmidt might say, "enable and schematize options for actions" (§20). Here a *pragmatic* constructivism makes a difference because it is the only viable alternative to fundamentalism, relativism, and post-modern cynicism. Actors become "tourists" and "foreigners" instead of "barbarians" or "madmen;" "strange gods" become "ethnologists;" "white demons" become "businessmen." Schmidt speaks of these processes as "histories" and "discourses."

« 6 » Processing differences is hard work. It is negotiating, translating, enrolling, and displacing boundaries of the real, the true, the good, the normal, etc. And of course, every difference supposes, presupposes, and implies everything else (§23–27). As Wittgenstein pointed out, one cannot speak just one word: to know a word is to know an entire language. But who is doing the work? At least four kinds of actors, all interdependent, have already appeared: the *system*, however it names itself as a whole; the *culture*, however it integrates the social roles it is made up of; the *social roles*, the "personae," whatever they may be; and, in some cases, *individuals* who may or may not understand themselves in distinction to many other things as "humans." What more do we need? Do we need observers? Do we need to talk about objective reality, about subjects, consciousness, reflexivity, etc? I think the point of Schmidt's fascinating and fruitful rewriting of constructivism is that we do not; we can simply "*dissolve* the debate" (§5). Perhaps we do not even need to move from objects to processes. Perhaps we do not need to call up old ghosts who are no longer "real-for-us" (§42) and negotiate their passage once again. We do not need to shift epistemological orientations from "objects of knowledge to the knowledge of objects" (§9), or substitute the adjectives for substantives (§42), or discover "cognitive as well as social/communication components" (§47) in something called "knowing" (§47 ff.), which in turn requires talking about "reflexive operations" (§51). We can simply leave these things behind and turn to making those differences that make a difference, or as Schmidt himself concludes: "The decisive question... is which acting potentials are opened by perception" (§76). My perception of Schmidt's rewriting of constructivism opens up the potential of *constructive* commentary instead of critique, new-thinking instead of contra-arguments, branching out to other problems and involving other actors instead of locking in to an exhausted and perhaps purely academic discussion. If we find ourselves in a position today to do this, then this due to the constructive work of Siegfried J. Schmidt.

RECEIVED: 4 SEPTEMBER 2011
ACCEPTED: 11 SEPTEMBER 2011

David Krieger was born 1948 in the USA. He completed his doctoral work at the University of Chicago on intercultural communication. Currently he is co-director of the Institute for Communication and Leadership IKF in Lucerne Switzerland. He has published on systems theory, semiotics, communication theory, and actor-network theory.

Does Schmidt's Process-Orientated Philosophy Contain a Vicious Infinite Regress Argument?

Stefan Weber

University of Applied Arts, Vienna
weber.mediaresearch/at/t-online.de

> **Upshot** • This commentary asks if Schmidt's latest process-orientated philosophy is based on a vicious infinite regress argument. The commentator uses recent literature on the distinction of vicious and benign infinite regresses (from Claude Gratton and Nicholas Rescher) and tries to show that – taken verbatim – there is a serious logical problem in Schmidt's argumentation.

« 1 » One of the crucial points in Siegfried J. Schmidt's latest process-orientated philosophy is the question of whether it contains a vicious infinite regress argument in its logical foundation. When Schmidt claims that "every single positing that we make here and now has been preceded by other positings we (can) more or less consciously relate" (§23), this argument strongly calls to mind the pattern of a classical vicious infinite regress chain endlessly going backwards, like "every intelligent act is preceded by an intelligent act" (Gratton 2010: 3). In both variants, the ordering term "precede" indicates that the chain endlessly goes back in time – which leads to the well-known contradiction that time does *not* endlessly go back (neither for individuals nor for the whole universe, neither ontogenetic nor phylogenetic). An infinite regress is vicious if it leads to contradictory, unacceptable results (which is the case in both arguments). Rewritten in the terms of

Claude Gratton, Schmidt obviously wanted to say:

- 1 | *Regress formula*: Every single positing is preceded by at least another positing, mostly even by many other positings (called presuppositions).
- 2 | *Triggering statement*: Act₁ is a positing.
- 3 | *Infinite regress*: Act₁ is preceded by at least another (therefore prior) positing, for example act₂. Act₂ is preceded by at least another (therefore prior) positing, for example act₃. *Ad infinitum*. (Cf. Diagram 1 in Gratton 2010: 3)

« 2 » However, (3) leads to the conclusion that “[o]ne has performed infinitely many [...] acts” (Gratton 2010: 3). We must admit at the same time that *no* human *ever* has performed infinitely many acts. So there is a contradiction here that logically leads to the consequence that the regress formula (1) is wrong. Does that mean that Schmidt’s whole new philosophy cannot fulfill its promises? No, because Schmidt uses a rhetorical trick: he *limits* his infinite regress argument by reducing the interplay of presupposition and positing to the time span “[a]s far as we can judge within our lifetime” (§23). But what does that mean? That the infinite regress apparently going endlessly backwards is interrupted, that our memory limits the regress within our lifetime (that the “end” of our memory going backwards is the “regress breaker”)? We are now at the core of the problem of the beginning of the mutual elaboration of presupposition and positing.

« 3 » There only seem to be two possibilities: either we do *not* limit the infinite regress chain, then the statement, “Every single positing is preceded by other positings,” implies a contradiction with the limitedness of our past life (and even, if we expand the domain, seen cosmologically, to theories of the “beginning” of the universe, such as, for example, the Big Bang theory), or we *do* set a limit. Then immediately the question of the beginning arises (again): *When exactly* was the first conscious act (“as far as we can judge within our lifetime”) that we can meaningfully call a positing (and presupposition at the same time)? Was it the time when “I” expanded into a morula? My first drinking out of the amnion? My first playing with fingers in my mother’s womb? My first cry after birth? Or is my first conscious act/positing

“as far as I can judge within my lifetime” somehow connected with language-triggered memory? (In this case, we could not speak of any positings before the second or third year of my life).

« 4 » Please note the serious logical problem also hidden in the following statement: “Every positing – in the cognitive or the practical domain – draws upon at least one presupposition.” (§24) It is one of Schmidt’s most inspiring ideas that we *always come too late*. When we start to speak, the world has already been here²²; when our self-consciousness and our self-concept arise, many things have already happened that influenced this constitutive process, and so on. (And for some people, when they first start to think deeply about their future, too many wrong decisions have already been made in the past). So we are always too late; we literally always “wake up too late.”

« 5 » If we apply this to the problem of the first positing, we can clearly see that neither “I” as a morula nor “I” as a blastula have anything to do with the (search for the) “beginning” of, in this example, myself as myself. The morula is prior to the blastula, and also before the morula there was a cell cloud, and so on. The search for the beginning here, in the early stage of “my” development as a human being, seems useless.

« 6 » But if *every* positing draws upon *at least one* presupposition, this chain again *endlessly goes back* in time (and transcends the beginning of my life in the form of cell clouds). We can, for example, argue: The fact (positing, process, whatever) that I turned into an early embryo is (in the regular case) drawn upon at least one presupposition: that my parents had sex together. The fact (positing, process, whatever) that my parents had sex together is drawn upon at least one presupposition: that they loved each other or at least found each other in some way attractive or wanted to have a baby, and so on. This regress goes back endlessly as the (also vicious)

22| This is a claim that Mitterer’s nondualism would interpret this differently: in his thought-provoking concept, the world that already has been there is only conceivable *after* the description “world;” so there is a new, more radical language-dependency of all statements and perceptions. But this is another topic; see Mitterer (1992) and Riegler & Weber (2008).

regress of reasons (Gratton 2010; Rescher 2010). We will come to the (very early) stage when we can say: The fact (positing, process, whatever) that the universe came into existence is drawn upon at least one presupposition. But... Which one? That God created it?

« 7 » There is an inspiring answer that Hawking gave to this problem: the curvature of time in the “beginning” of the universe to avoid the question of what was prior to the beginning. It would be interesting to apply this theory to Schmidt’s process-orientated philosophy in order to avoid it being constructed upon a vicious infinite regress argument. Another option would be that Schmidt does not care about classical (dualistic!) infinite regresses at all – just as Luhmann included paradoxes in his theory. A third hope would be a universe not starting with the Big Bang, but endlessly going backwards. Within this universe, no vicious infinite regress arises.

RECEIVED: 7 SEPTEMBER 2011
ACCEPTED: 11 SEPTEMBER 2011

Stefan Weber is a media theorist and journalism researcher from Salzburg (Austria) currently teaching at the University of Applied Arts (Vienna) and working in Dresden and Salzburg. His habilitation deals with the adaptation of Josef Mitterer’s nondualistic philosophy for media science. He has written nine books and more than 50 articles. On his current web sites, <http://plagiatsgutachten.de> and <http://de.antiplagaustria.wikia.com>, he is occupied with the problem of text plagiarism.

The Missing Links in S. J. Schmidt’s Rewriting Operations: An Austrian Contribution

Karl H. Müller
WISDOM, Austria
mueller/at/wisdom.at

> **Upshot** • The subtitle of “An Austrian Contribution” emphasizes a basic distinction between German and Austrian traditions in the philosophy of fields of science. In Siegfried J. Schmidt’s genu-

inely German way of writing, one can observe a high emphasis on terminology and a specific arena of heavy philosophical problems that have to be solved in a strictly philosophical manner, whereas the Austrian tradition places its importance on scientific progress, especially in the natural sciences, and on the clarifying, mediating, and self-reflecting role of philosophy within the overall context of scientific evolution.

« 1 » For decades, Siegfried J. Schmidt and I have used the metaphor of an Echernacher saltation procession (“Springprozession”), in its characteristic moves of two jumps forward and one jump backward, for our mutual efforts in keeping constructivism (RC) radically alive. The dramaturgy of Echernach seems especially appropriate in the case of Schmidt’s most recent rewriting efforts. In order to be predominantly critical, I will be very short in characterizing the two moves forward and will focus my discussion mainly on the jump backward and its dimensions and scope.

Two jumps forward

« 2 » The two jumps forward can be described in the following way. The first jump forward results from a “processification” of objects, substances, and other heavy qualities, which in the course of Schmidt’s rewritings become processualized and observer-/actor-/life-world-dependent. The second jump can be characterized as the success of a homogeneous terminology for a heterogeneous class of heavy philosophical problems that could all be analyzed further and in detail with the help of this new unifying terminology.

« 3 » These two jumps produce a remarkable achievement, namely a contemporary version of RC that can be applied simultaneously to a large class of heavy philosophical problems and that can be utilized for empirical research in areas such as media science, communication studies or social systems analysis in general. As such, it can serve as a reference point and as a standard for the current potential of RC, especially in the philosophical domain.

« 4 » At this point, the review could end in a positive tone of congratulation and praise of a double achievement in

transforming RC for contemporary fields in both science and philosophy. However, one can question the scope and the dimensions of the first jump. Looking back at classical RC as a collection of overlapping research programs developed independently by Heinz von Foerster, Ernst von Glasersfeld, Humberto R. Maturana and Francisco J. Varela, Gordon Pask, Ranulph Glanville, and Bernard Scott or other efforts by researchers such as Stafford Beer or Jean Piaget,²³ one of the unifying and underlying common themes of all these approaches was their process-orientation and their de-objectification of pre-given natural or social configurations. In this sense, the first jump forward produced a significant rewriting of RC but did not cover new ground because it stayed within the familiar process-territories of traditional RC-approaches. Nevertheless, the first two jumps accomplished a unified and homogeneous form of operationalization for RC that can be considered as a genuine comparative advantage.

The jump backward

« 5 » Due to the inevitable rhythm of Echernach, one can also note a backward jump in Schmidt’s rewritings of RC that can be summarized under the heading of “missing links.” In a nutshell, with the two forward jumps Schmidt has lost contact with previously established links to two highly-relevant areas that were fully co-present within the traditional RC approaches.

« 6 » The first area of missing links is mainly due to the highly abstract and general new vocabulary, which uses “positings,” “presuppositions,” and “consciousness” as its primary operational terms. But the cognitive and operational differences between writing a scientific autobiography, constructing a research design, developing a risky assumption, validating a theoretical statement or trying to invent a measurement process for a hitherto unmeasured process are enormous at best and too complex to handle at worst. Even restricted to the arena of scientific operations alone, it would be simply necessary to cluster scientific conscious positings and presupposi-

23| For different mappings of RC, see especially Müller (2008, 2011).

tions into various groups and describe their heterogeneous compositions.²⁴

« 7 » The second domain of missing links lies in the area of theories, models, mechanisms, and the long-term evolution of both operators and operations. It may look very good to be equipped with a new terminology of “conscious positings” and “presuppositions” plus “life-worlds” with their general “reality programs” and specific “culture programs” as the main conceptual ingredients, but this new Schmidtian terminology, at least in the present article, never comes to the point of making risky empirical or historical assumptions, of producing illuminating explanation sketches or of providing innovative cognitive mechanisms.

« 8 » Schmidt would reply instantly that he is dealing with an extraordinarily heavy load of philosophical problems that have to be solved within their own territory. But traditional RC never played in the major or minor philosophers’ leagues in the first place. It is difficult to see why it should be transformed exclusively to a philosophical program in which RC would lose much of its previous strengths and have very little to gain because RC – as an exclusively philosophical program – would have to compete with a sophisticated number of alternatives in contemporary epistemology, ontology or semantics.²⁵

Conclusion

« 9 » Shifting into a self-referential mode, I am practically certain that my critical comments have missed something genuinely important in their two jumps forward and especially in their single jump backward. Most importantly, the current proposal by Schmidt should not and cannot be seen as a final and comprehensive presentation of a new version of RC, but as a building block towards establishing such

24| During its formative years even conventional philosophy of science, for example, was strong in emphasizing necessary operations for scientific tasks such as defining, explaining, inductive inferring, validating, etc.

25| See, for example, Laudan (1981, 1990, 1996), who develops powerful arguments independent from RC against scientific realism, the relevance of truth, etc.

a new RC research program, where additional elements such as appropriate empirical research designs, applications, and in-depth philosophical analyses would be produced in due course. Thus, there is an important temporal restriction inherent in my remarks. This comment so far does not provide any inductive support from now on for Schmidt's future efforts in rewriting RC.

« 10 » Towards the end of these comments it could be useful to point to the larger philosophical traditions in which RC of the Siegen/Münster and of the Viennese variety are embedded. Historically, one can observe an interesting division between a German style of philosophy-science integration and an Austrian style. The German style emerged in the second half of the 18th century with philosophers such as Immanuel Kant, Johann Gottlieb Fichte, and, most importantly, Georg Friedrich Wilhelm Hegel, where, generally speaking, philosophical operations or positings assumed priority, and scientific results and methods entered only where they were seen to support a philosophical argument. The Austrian tradition, with the comparative advantages of an absolute late-comer, started only in the second half of the 19th century and reached its culmination points with Ernst Mach, Ludwig Boltzmann, and the Vienna Circle. Here, the processes and dynamics of the natural sciences assumed priority and philosophical reflection moved in as an organizer and mediator.

« 11 » The present discussions can be interpreted along the fault lines of these older divisions. Schmidt has presented a truly Germanic piece of RC-rewriting that aims to operate strongly in the philosophical domain. My critique is very much grounded in the Austrian tradition, with its strong emphasis on the advances in the natural and, one should add, the social sciences on the one hand and on a healthy caution regarding the virtues and necessities of academic philosophy altogether on the other.

« 12 » In light of this old German-Austrian controversy, the essential question for Schmidt's rewritings can be phrased in the following way: Are the advantages of the new Germanic style of RC sufficiently strong to compensate for the missing links?

« 13 » And the answer to this question can be given in a purely Schmidtian way: Maybe. But maybe not.

RECEIVED: 9 SEPTEMBER 2011

ACCEPTED: 11 SEPTEMBER 2011

Karl H. Müller is head of WISDOM (Wiener Institute for Social Science Documentation and Methodology), Austria's infra-structural centre for the social sciences, and President of the Heinz von Foerster Society. Among his recent publications see *An Unfinished Revolution? Heinz von Foerster and the Biological Computer Laboratory 1958 – 1976* (2007, together with Albert Müller), *Gordon Pask, Philosopher Mechanic* (2007, together with Ranulph Glanville), *The New Science of Cybernetics* (2 volumes 2008, 2011), and *Modern RISC Societies* (together with Ivan Svetlik et al.).

Response

Siegfried J. Schmidt

Introduction

« 1 » The commentaries on my target article "From objects to processes: A proposal to rewrite Radical Constructivism" clearly demonstrate the context-dependency of reception processes: 16 authors have produced 15 different readings from rather divergent perspectives resulting from different academic and intellectual backgrounds. This result is not at all surprising for a constructivist. Accordingly, I shall not comment on the result but rather try to classify the argumentation strategies of the respective authors.

« 2 » As far as I can see only **Christine Knoop's** commentary takes my article as an incentive to discuss epistemological questions in the light of my arguments.

« 3 » Other commentaries refer to traditions and premises that might be relevant to my argumentation: **Winfried Nöth** emphasizes the semiotics of de Saussure and Peirce; **Richard Buttny & John Lannamann** analyse the links between constructivism and social constructionism; **Stefano Franchi** presents a comparison of some of my arguments with those of philosophers from Fichte to Foucault; **Hugh Gash** reminds me of issues I did not mention in my article, i.e., the issue of viability and von Glasersfeld's conceptual

analysis; and finally, an interesting connection between my shift from objects to processes with biological processes of self-generation is discussed by **John Stewart**.

« 4 » Some commentators shed doubts on my philosophical orientation. **Mariaelena Bartesaghi** and **John Shotter** recommend that I move from merely philosophical argumentation to empirical illustrations. In their eyes we need no new theory of language; instead we should relate ourselves directly to our surroundings. (As described below, Karl Müller even doubts whether radical constructivism should align with philosophy at all).

« 5 » Other commentators are concerned with specific disciplines: **Ekkehard Kappler** as a representative of the field of economics is looking at problems connected with a process-orientation in politics and economy under power aspects; **André Donk** analyses the applicability of my approach to current research in media and memory; and **Armin Scholl** discusses some consequences of my argumentation for empirical research, in particular in media science.

« 6 » Four commentaries provide a great deal of criticism. From the perspective of media and communication sciences, **Edmond Wright** suggests taking into consideration non-propositional dimensions in/of communication, such as faith. **David Krieger** doubts whether re-writing constructivism is enough. **Stefan Weber** challenges my approach because in his view it contains a vicious infinite regress argument. And **Karl Müller** asks whether my paper is an example of the German way of thinking, which, even though it is in a line with that of great philosophers, may be outdated. In addition, he doubts whether it provides arguments that have not already been produced by constructivist authors in the past.

« 7 » Let me now reply to each commentary in greater detail.

Epistemology

« 8 » **Christina Angela Knoop** realizes very well the characteristic of my dealing with radical constructivism, which she describes as the "...constant attempt to overcome old assumptions by developing them and, true to constructivist theory, to reflect that overcoming traditional theories is achieved by reconsidering them from previously ne-

glected perspectives.” (§1) “In that sense, the return to the promise to rewrite constructivism indicates a perpetual intellectual necessity rather than a mere repetition.” (§2) Indeed, that is what I try to do.

« 9 » One strategy in this approach is linking systems theory to constructivism in order to overcome more traditional constructivist ideas, e.g., with regard to the problem of shared knowledge in the framework of a theory of communication.

« 10 » Now let me comment on her critical remarks. Knoop doubts the success of renaming “reality” as “real-for-us-results” because renaming normally does not solve epistemological problems, which tend to return under different headings. I accept this argument. On the other hand, I do need a terminological tool that indicates the shift in perspective and argumentation regarding reality. And this new tool might at least serve the purpose of irritating the traditional concepts of “reality” as an ontological given.

« 11 » A very difficult question Knoop raises is that of responsibility (§6). Can bodily functions, she asks, be connected with responsibility? And what is the epistemological status of responsibility? My answer to the first question is “no.” My answer to the second questions relies on Heinz von Foerster’s argument that since we have to abandon the idea and the goal of objectivity, we have to accept our responsibility for our actions. I would like to add the argument that since our actions are positings, and as such are contingent, we get no legitimation from outside our acting community; accordingly, we always have to take into consideration the consequences of our actions.

« 12 » Knoop’s question of whether or not communication can be separated from the semiotic nature of language (§7) may be answered with two arguments. Firstly, historians assume that communication began in the history of mankind even before the development of language. Secondly, it is only in the functional context of social communicative actions that signs become operationally meaningful.

« 13 » The difference between expected expectations and imputed imputations Knoop puts into question (§12) does not categorically separate both domains from one another, but indicates that in communication we operate on two levels: the level

of knowledge and the level of motives and intentions. Of course, both may be mutually inclusive; nevertheless, I think it is plausible to distinguish the two levels from one another.

« 14 » Finally, Knoop criticises the way in which I present some other scholarly views – Rorty is quoted as an example. I apologize for this; and appreciate all the more the way Knoop has presented and discussed my ideas.

Philosophical traditions

« 15 » Winfried Nöth’s commentary ends with the remark: “opposition is true friendship.” (§17) His article is an excellent example of this conviction.

« 16 » Nöth criticizes some of my objections to key notions of semiotics, stating that they need a correction. He demonstrates such corrections by a reference to the semiotic theory of Charles S. Peirce. Let me give some details.

« 17 » Nöth interprets my argument that we need a “dual perspective” in our observation of communication, viz. a perspective of performance and a perspective of sense orientation, as a relapse into dualism. I can only repeat that “dual” denotes observer perspectives and does not imply a re-introduction of the dualism of body and mind. The acting body and the actor’s sense orientation cannot be separated from one another in the process of communication.

« 18 » I accept Nöth’s critique that I have restricted the topic of reference to the relation between signs and world object. Of course the object of a sign may be an idea or an imaginary object (§7). He emphasizes that Ferdinand de Saussure, the founder of structuralist semiotics, has already argued, that “...the linguistic sign unites, not a thing [*chose*] and a name, but a concept and a sound-image.” (§8) Linguistic signs, de Saussure argues, are radically self-referential since their value is determined by nothing else than other signs of the same sign system.

« 19 » Nöth remarks that in my definition of processes as dynamic three-part relations, physical processes are excluded. He is right. I should have explained more clearly that I am only considering contingent actor-bound processes in society.

« 20 » Nöth’s discussion of my concept of “real” – as opposed to Peirce’s concept –

needs some correction. Peirce argues that although real objects are unknowable, their reality can be sensed and felt via their resistance. He criticizes my argument that what actors deem “real” is real-for-them. This critique neglects that (in §45, 46 of my article and elsewhere) I have explained that this deeming is embedded in specific contexts and situations, relies upon criteria that emerged in similar situations, and is corroborated by past experiences, etc. – in sum, by what I have called “reality-competence” (§75).

« 21 » From his article I have learned how close together Peirce and constructivism actually are. Both reject dualism, study signs and communication processes with a focus on agency, base their approach on pragmatic premises, and are concerned with fundamental questions, such as reality, representation, reference, language, and communication.

« 22 » This is a good reason to study Peirce’s writings once again from Nöth’s perspective.

« 23 » The commentary of Richard Buttny & John W. Lannamann offers a very welcome proposal to develop further the argumentation in my target article. Based on the ideas of social constructionism, the authors argue for the priority of the situated productions of meaning, and they illustrate their proposal via an analysis of two discussions concerning the way people talk about reality.

« 24 » I have only two objections.

« 25 » Firstly, the authors advocate the social constructionist argument that the locus of knowledge is the process of conversation rather than the private mental activities of an autonomous actor (§2). For this reason we should start with the conversation process instead of the cognizing subject (§3).

« 26 » One of the intentions of my paper – from my point of view – has been to avoid an alternative between cognition and communication. I am convinced that we need both perspectives, and it does not matter where we begin our observations as long as we keep in mind that the mental activities of biologically autonomous actors are imbued with socio-cultural orientations. They are subject-bound but not subjective in the usual meaning of the word. On the other hand, communication needs performers who invest their cognitive operations into the so-

cial process of communication and produce follow-up operations.

« 27 » Secondly, the authors quote my argument that constructivist reflexions should be extended from the concentration on brain and cognition to action, emotion, language, communication, and culture (§3). They conclude from this argument that I am tacitly re-importing a kind of dualism and advocating an understanding of communication “as one involving ‘encoding’” (§4). Let me answer these arguments. Firstly, I have used “extended” in order to propose a broader perspective of observation beyond the boundaries of neurobiology. In no respect did I intend to introduce a dualism between outward and inward, as the authors assume. The same holds true for my use of “encoding.” In §70 of my paper I have argued that semiotic materialities “condense (or encode) social experiences” gained in contact with semiotic materialities. The aim of this argumentation has been exactly to avoid the two world problem, whereas the authors aver that my use of “encoding” “...suggests that we have an internal world of symbols and an external world of objects waiting to be represented by the symbols.” (§4)

« 28 » To sum up: meaning is a matter of communication, not of reality. Therefore I fully agree with the authors “...that we need not posit some ontological entity as reality.” (§16) The authors ask what the contribution of philosophy to communication studies is: this insight is such a contribution, as well as the insight that cognition and communication are but two sides of the same coin.

« 29 » The commentary of **Stefano Franchi** is a good example of the context- and presupposition-dependency of our thinking and arguing. Whereas I try to argue in a more or less self-evident manner aiming at plausibility, he is interested in the question of whether and how my arguments could be integrated within the philosophies of Fichte, Hegel, Heidegger, Gadamer, Foucault or Gould. To his final remark, “It is perfectly possible that I have completely misunderstood him...” (§9), I would like to answer: no; but we simply live in different philosophical worlds²⁶ and follow different aims

26| While Stefano Franchi reads my article from the perspective of traditional philosophy, Karl Müller shares the tradition of RC with me.

and intentions. In sum: I did learn a lot from Franchi’s article, but the differences between our positions are evident.

« 30 » Franchi’s main topic is the temporality of the world. He quotes my argument that an important criterion for “real things” is stability over time, and he concludes that there must be two different temporalities, viz. the temporality of objects and the temporality of underlying processes. I cannot go into the details of his sophisticated argumentation; instead I will try to explain my argument. By “stability,” I mean actors’ experience gained in specific processes that process results can be repeated or reproduced, respectively. In other words, stability has to prove its mettle in processes in space and time. There are no different temporalities of objects and processes.

« 31 » Regarding processes, I do not establish a difference between underlying processes and a plurality of processes. All ongoing processes form a framework of interactive dependencies (= *Wirkungszusammenhang*). Each process leads to results that can be interpreted as real or not. Accordingly, we have to assume that there are as many results or worlds as there are processes.

« 32 » The question of how actors can cooperate and communicate despite the plurality of worlds they live can be answered by the argument that they all dispose of common knowledge gathered in the course of their respective socialisation. Although this cognitive disposition cannot be directly observed, it works as an operative fiction serving the purpose of coordinating cognitive and communicative processes of cognitively autonomous actors. The most important operative fiction is what I call “culture program,” i.e., the system of interpretations of the world model of a society. This program allows actors to make invisible the fundamental contingency of their positings and presuppositions by providing essential guidance in everyday praxis.

« 33 » At the end of my reply I might ask myself whether I have misunderstood Franchi as well; nevertheless I appreciated his brilliant contextualisations very much.

« 34 » In his commentary on my target article, **Hugh Gash** makes the criticism that

So I am even more surprised that the latter rejects philosophy as a reasonable way of arguing.

two topics are largely unmentioned in my paper, viz. the issue of viability and a conceptual analysis: two topics I might have learned from Ernst von Glasersfeld’s work.

« 35 » Gash is right with regard to the conceptual analysis. Indeed, in my article, I have concentrated my argumentation on interpersonal actions instead of intrapersonal operations (§2). I am grateful for this comment, especially because in §6 Gash presents a short but clear report on the “... importance of cognitive activity in knowing and the importance of the knowing subject in organising experience.” In addition, he emphasizes the important relation between knowledge development and epistemology established by genetic epistemology. Accordingly, I accept his proposal to apply von Glasersfeld’s operational analysis to future work in constructivism.

« 36 » Quite another case is the issue of viability. Gash briefly mentions it when he quotes criticisms of von Glasersfeld’s works that “... seem to have ignored the concept of viability, which seems to be an effective way to counter charges of relativism.” (§3) Since Gash does not explain his reading of “viability” in his commentary, I assume that he agrees with von Glasersfeld’s concept of viability. In this case, Josef Mitterer’s (2001: 122f.) critique of this concept also applies to Gash’s reading. Mitterer argues that “viability” necessarily implies a dualistic epistemological position. The use of this concept clearly shows that a/the hidden reality is still regarded as operating as an arbiter that separates valid from invalid operations in the actual world, but is unable to explain who or what is responsible for their failure.

« 37 » To avoid this problem in my non-dualistic approach, I have replaced the idea of viability with the idea that process-results we regard as real must be socially accepted, i.e., that the experience of something as real presupposes an action and communication community that over time has developed criteria for the assessment of something as real (§44). Thus, the reality-question is moved out of the theoretical domain and situated in the contexts of our daily-life practices; by this manoeuvre I try to avoid the problems of relativism.

« 38 » Finally, Gash is right with his remark that my discussion of action and its relation to knowing may be linked to the

work of Vygotsky and Leont'ev. I did not mention this link in my paper because there was no space to report substantially on this connection.

« 39 » In his short commentary, **John Stewart** develops the argument that the shift from objects to processes I recommend in my target article can be seen as grounded in the process of self-generation common to all living organisms. Accordingly, the focus on human knowledge and actions, prevailing in my article, can be enlarged to the realm of the “lived world” enacted by all living organisms. I very much appreciate this idea, which is based upon the argument that living organisms are, *par excellence*, processes and not things, and that life is but pure process (§1).

« 40 » Cognition, Stewart argues together with Maturana and Varela, is not the exclusive privilege of human beings. Instead, all living organisms dispose of knowing, viz. of knowing *how* (§2).

« 41 » Stewart's position on the question of reality refers to von Glasersfeld's notion of viability. He introduces the notion of a so called “reality-principle,” which allows organisms to explore what is successful and what is a failure. He regards this principle as equivalent to what I call “reality-competence” in my paper (in §75). Stewart claims that the reality-principle definitely exists – otherwise organisms would disappear. At the same time, that principle can avoid the relativism and “anything goes” mentality to which constructivists sometimes come dangerously close (§4).

« 42 » In my answer to Hugh Gash's commentary above, I have explained why I do not accept the argument of viability as, so to say, an answer given by nature or reality. Therefore I see a difference between Stewart's reality-principle and my reality-competence, which results from experience and communication during our life time. This competence, which has emerged in us – as in all living organisms – via the interaction of the biological and socio-cultural conditions we are living in, orients all our actions; we cannot but “carry” it with us.

« 43 » Perhaps this argumentation can help us to avoid dualistic tendencies in our talk about reality.

Disciplinary dimensions

« 44 » In her commentary, **Mariaelena Bartesaghi** proposes to move constructivism beyond philosophical argumentation. This proposal is motivated by Shotter's argument that “...we do not need any new theories. We need to elaborate critically the spontaneous theory of language we already possess” (§1) – whatever theory this may be. Referring to Wittgenstein, Bartesaghi recommends bringing words back from their metaphysical use to their everyday use. In her view, constructivism (and especially my version of constructivism) “...stays separate from the material experience of living in communication, while theorizing it.” Therefore she suggests “...a move from arguing about process to illuminating empirically how a communication process actually works” (§3). This suggestion is then implemented by an analysis of two examples of reported communication which – at least in part – illustrate quite clearly some of my theoretical assumptions.

« 45 » Nevertheless, at the end of her article Bartesaghi claims that “re-writing constructivism is not a matter of philosophical argumentation” and she invites me “to set argumentation aside and engage instead in empirical illustrations.” (§ 17)

« 46 » While I am generally in favour of Bartesaghi's proposal to proceed from theoretical argumentation to empirical illustrations, I cannot subscribe to her ideas concerning the relation between theory and practice. Her claim that we do not need new theories is by no means convincing. Her own proposal and procedure rely upon a new theory of language as compared with traditional, pre-Wittgensteinian theories of language. In addition, every empirical analysis of communication is oriented by a theory of language, be it implicit or explicit. We must know what we are looking for, we need an efficient vocabulary as well as methodical instruments, and we must have an intention that guides our analysis.

« 47 » Let me come to Bartesaghi's second argument. I have tried to re-write constructivism as an epistemological theory in order to overcome some dualistic and realist remnants. What else could I do but argue philosophically? The next step – and here I agree with Bartesaghi – should be to set the theory to work in order to find

out whether or not it allows for plausible empirical results and improves our social practice. Finally, in my paper I have tried to show how my epistemological assumptions change our everyday implicit theories, e.g., of reality, truth or communication. An acceptance of this approach would inevitably lead to changes in our social life – to empirical changes.

« 48 » In the upshot to his commentary, **John Shotter** clearly marks the basic difference between his approach and mine. Whereas he regards my resolution of “the reality problem” as a merely theoretical resolution, he requires a more practical re-orientation: “we need to relate ourselves directly to our surroundings in terms of our living, bodily responsiveness, instead of indirectly in terms of a theoretical framework.” Accordingly, he only accepts those of my arguments where I emphasize the role of the body and performance in perception and cognition, but he deeply doubts whether or not my theory can improve our daily life at all (§1, 9). Following Wittgenstein in his *Philosophical Investigations*, he holds the view that description must replace explanation, and talking *from within* a context or situation (§8) must replace talking *about* our everyday practices in abstract theorizing.

« 49 » As far as I can see, Shotter's critical remarks on my paper are motivated by several reasons. First of all, he seems to be no longer interested in philosophical problems at all, but instead looks for means to improve our daily practices, whereas I am still interested in philosophical problems. My interest is motivated by the observation that philosophical problems still influence our daily life because they have been imported in more or less trivial forms into our everyday philosophy – let me just mention the problems of reality or truth. Shotter claims that we should talk from within a situation – whatever that may mean. I still maintain the distinction between participation in and observation/description of a situation as different processes that both occur for good reasons.

« 50 » My argument that whatever we do we do in Gestalt of a positing does not imply any degree of consciousness, as Shotter seems to assume (§13). Instead, it simply points to the fact that positing realises

a selection far from well-defined forms of knowledge – we do what we do and nothing else at the same time.

« 51 » Finally, of course I subscribe to Shotter's intention to ameliorate our practical life; but I still ask myself where our aims, categories, and criteria come from if not from conceptual reflexions. I fully agree that theories cannot simply be applied in practice, and that theory and practice belong to different dimensions or areas. But I would claim that every theory is a form of practice, too, and that there is no practice without some kind of theory.

« 52 » A "...focus on the *just-happening* events occurring within the *spontaneously* responsive involvements of growing and living forms" (§15, his emphasis) will for sure be fascinating. But I have worries about whether or not this perspective will be sufficient. Therefore I shall continue my interest in philosophical problems, and I shall be glad when I happen to resolve a philosophical problem, especially when it bears upon our daily life.

« 53 » Ekkehard Kappler's "...and so on and so on and so on..." is the formula for the never-ending process of life. Each situation of this process is abstract as well as concrete. That is to say, on the one hand we use the mosaic stones we have at hand; on the other hand we do not really know why we use these ones. In addition, each situation is followed by another one that is not identical, and that is unforeseeable and unpredictable.

« 54 » The case is even worse because we do not live alone. Living together requires the fabrication of reliable rules of different kinds. But even then, people have different needs, beliefs, and targets that change during their life and that make it very difficult to find a common denominator.

« 55 » This is the situation where and when power comes into play. "So some people try to dominate others and exploit them, for example in economic, sexual, and/or scientific practice" (§7). Politicians and managers who have the power mostly follow old patterns of capitalistic "truth."

« 56 » In this situation some important questions have to be reformulated, e.g.: Who determines the questions? How can we find the limits of our discourses? Keeping in mind that life is a journey not a destination, I agree with Kappler's model of "so on and

so on..." But I must confess I was surprised that he – in his open peer commentary on my target article – does not mention my paper at all.

« 57 » In the 1990s, André Donk avers, radical constructivism as meta-theory inspired many scientific disciplines, including communication science. Two arguments especially played an important role: (a) media do not mirror "the reality," but construct realities; and (b) media follow their own patterns of production, selection, and presentation (§1).

« 58 » In the last decade this provocative innovation has been mostly replaced by a wide criticism that re-emphasized the claim of journalists to tell the truth and blamed constructivism as strategy against empiricism and a post-modern philosophy of "anything goes."

« 59 » Regarding this situation, Donk intends to find out whether or not my rewriting of radical constructivism is an appropriate contribution to innovative theory building and empirical research in communication science (§2).

« 60 » In general, Donk argues that my position can be helpful, first of all because of my idea to conceptualize acting as a perpetual process of positings and presuppositions that can be related to current research on media and memory. If classical dualistic concepts such as truth, perception or reality are reinterpreted in a non-dualistic way, new questions for communication science might arise. Among those questions are a concept of media quality and the different "reality-claims" of media outlets; an analysis of the ethical consequences of journalistic activities; an answer to the question of how versions of reality and truth are elaborated or oppressed, and how the media influence these power plays (§6).

« 61 » In media research, the importance of collective memory has been neglected. In my book *Histories & Discourses* (2003), I have emphasized the importance of collective memory as the precondition for communication among cognitive autonomous actors. Donk makes use of this concept and explains how media create versions of history that build the pool of society's presuppositions. Journalism connects commemoration – especially anniversaries – "...with social values, relates narrations

with social-cultural meanings, and fosters an imagined community" (§6). Therefore the conflicting and even changing descriptions of a society's past can serve as a platform from which we can observe changing processes in a society.

« 62 » The general question of whether a process-oriented constructivism provides a substantive contribution to communication science is answered ambivalently by Donk. On the one hand, he doubts whether this approach will reconcile anti-constructivists with constructivists. On the other hand, he claims that my approach can contribute to relevant discussions about media ethics, media criticism, and media's memory as a constitutive part of collective history (§7). Regarding the first answer, I would like to remark that of course I cannot convert anti-constructivists; yet I have deliberately tried to facilitate the dialogue between the two camps. Let us see what will happen.

« 63 » In his commentary, Armin Scholl concentrates on the question of how the ideas developed in my target article as well as in earlier publications may be applied to questions of empirical research. He rightly remarks that in my article I neglect this question. So I appreciate even more his effort to close this gap.

« 64 » Armin Scholl emphasises that, unlike that of traditional Radical Constructivists, my argumentation does not rely upon empirical research but is primarily philosophical. This change is indeed part of a deliberate decision of mine that has two reasons: (a) grounding epistemological reflections in scientific theories contradicts the constructivist claim that everything is but a construction; (b) constructivist discourses are deeply embedded in rather different historical as well as contemporary philosophical discourses. Accordingly, the acceptance of constructivist discourses might be supported by a clear analysis of the links and the differences between the different discourses. Based on such an analysis, a further development will become possible; and this has exactly been my aim in rewriting constructivism in the direction of a non-dualist process-oriented approach.

« 65 » In his paper, Armin Scholl develops an explicit description of the relation between process and object. On the one hand, only by intervening in ongoing

processes are we able to constitute objects, which is to say that objects can be described as stabilized process results; on the other hand, only the reference to such objects allows us to observe ongoing processes. Scholl elaborates from these ideas his concept of “empirical research.” The main idea is that empirical research has to stop processes in order to make them observable. The phenomena under observation should or must have a duration that is long enough to render them observable or recordable.

« 66 » In his application of my arguments regarding a strict process-orientation of epistemology, Armin Scholl comes to the important conclusion that the process of observation and the process under observation cannot be separated from one another. Instead, both processes interfere and are intertwined in a way that cannot be separated. Accordingly, he concludes, the self-organization of scientific observation is the interference of both processes. Empirical research should therefore be conceived of as a process of interfering and not as a mode of representing an outer reality. Thus, arguing on the basis of a process-oriented non-dualistic approach, researchers have to reconsider the value of the outcome of their research.

« 67 » In sum: Armin Scholl happens to repair the missing application of my process-oriented approach to problems of empirical research. I can only hope that the kind of close reading and open-mindedness documented in his commentary will have followers in other areas of scientific discourse.²⁷

Critical challenges

« 68 » In his commentary, Edmond Wright announces a clarification of my theory as presented in my target article. His offer is summarized in his upshot as follows:

“...in order to communicate, agents must *play without believing* the mutual hypothetical projections of ‘truth,’ ‘sincerity,’ ‘objectivity,’ ‘reference,’ and other ideals of social ‘reality.’ In the language process it is faith upon which this rests rather than

27 | It should be clear that the difference between Scholl and Barthesagi is the former’s intention to apply my ideas, while the latter wants to replace them.

blind trust. It is argued that only faith can properly take account of the risks of contingency.”

« 69 » In his view, my concept of language as a social act does not sufficiently explore the motivations of those engaged in dialogue. In addition, the “operational fiction” of shared collective knowledge that actors mutually impute cannot prevent words having different meanings for each actor. According to Wright, there will never be a perfect match, neither of perceivings and understandings nor of meaning attribution (§9). Only if we *together* imagine the transcendentals “truth,” “objectivity,” “sincerity,” etc. can we hope for successful communication. “Each one of these ‘transcendentals’ is an earnest of the *faith* that partners should endeavour to maintain...” (§12) If a mismatch becomes salient in a dialogue, the transcendental has to be renegotiated – if possible.

« 70 » I have to accept Wright’s critique; but I would like to mention that in chapter 2 of my book *Die Endgültigkeit der Vorläufigkeit* (Schmidt 2010a: 31), I have quoted Wright’s argumentation that below the level of communication as a propositional event we have to respect a basic level of orientational factors such as trust, faith, hope, and pre-supposing.

« 71 » Wright criticises my argument (§13) that communication partners attribute understanding if the speaker deems the partner’s reaction to be correct or at least sufficient by claiming that the word “correct” belongs within the talk of “reality,” whereas “sufficient” belongs within the theory. I do not agree. In my argument, the meaning of “correct” is that the partner’s reaction fully fits the expectations of the speaker, whereas “sufficient” means acceptable for the moment.

« 72 » I suppose this disagreement results from what Colin Grant calls “a penumbra of unselected information” accompanying all our communication.

« 73 » By the way, faith does not only ground the imagination and performance of transcendentals but also the attribution of common knowledge to our communication partners. Niklas Luhmann was even convinced that without trust in our communication partners gained by experience, no communication would be possible at all.

« 74 » David Krieger holds the view that after the philosophical revolutions achieved by authors such as Heidegger, de Saussure, Wittgenstein, Luhmann, Derrida or Latour, the “global map of meaning” has to be redrawn. This map of meaning or “system of meaning” is composed of differences that make differences (§5). A speaking example is intercultural communication, where new differences clearly make new differences that influence our behaviour.

« 75 » Starting from this point of view, Krieger asks whether or not my rewriting constructivism is successful. Do the differences introduced in my paper really make the difference they intend to do? (§3)

« 76 » Krieger then explains how the system of meaning emerges by making meaning (§4), an argumentation that leads him to the question: “Who is doing the work?” – I guess Krieger means the work of difference management. This question is answered by him as follows: there are four kinds of actors doing this work: namely the system, the culture, the social roles, and individuals. In his view, nothing else is needed; neither talk about objective reality, nor about consciousness, nor reflexivity.

« 77 » He then reads my paper as an invitation to dissolve the debate about these and similar topics. And Krieger even goes a step further. In his view we neither need observers – a shift from objects of knowledge to the knowledge of objects, from objects to processes; nor do we need the substitution of adjectives for substantives, or reflexive operations when talking about knowing. Instead, we should turn to those differences that make a difference (§6).

« 78 » I appreciate Krieger’s positive evaluation of my paper but I find it difficult to follow the consequences of his rewriting of my paper. How can we “...simply leave these things behind” (§6) without giving up crucial distinctions such as objects/knowledge, object/process or object/observer? In my paper, I did not intend to abandon fruitful distinctions that make a difference. Instead, I tested whether or not it is possible or helpful with regard to problem solving to switch from ontologically independent objects or entities to processes that yield what is real-for-us in specific situations in time and space.

« 79 » The unity of the distinction between actor, process, results, and consequences is my starting point as well as the result of my argumentation. This is the essence of my argumentation. If this is compatible with what Krieger calls a “pragmatic constructivism” (§5), then I agree with his rewriting of my rewriting.

« 80 » In his commentary, **Stefan Weber** avers that my process-oriented philosophy may contain a vicious infinite regress argument that renders my approach problematic. The argument he criticises claims that whatever we do we do in Gestalt of a positing that draws upon at least one presupposition. He asks: “*When exactly* was the first conscious act (‘as far as we can judge within our lifetime’) that we can meaningfully call a positing (and presupposition at the same time)?” (§3, his emphasis) and traces this question back to the beginning of the universe and personal lives.

« 81 » When I developed the mechanism of positing and presupposition I wanted to solve two problems.

« 82 » The first was the problem of beginning. How could I start my argumentation without drawing upon an objective or even absolute basis such as, e.g., reality, sense, society, God etc.? My answer was: I need an assumption that cannot be contradicted. In my view, the argument that all we do we do in Gestalt of a positing cannot be contradicted for purely logical reasons, because a contradiction would itself be a positing. Therefore I used this argument as a starting point not as a beginning in an emphatic sense.

« 83 » The second problem was to avoid an ontologisation of positings. I think it is reasonable to assume that positings happen in time and space. If this is the case then we have to assume that they do not happen in Gestalt of absolute singularities but are embedded in what has happened before and what will happen afterwards if the performance of positings is a living being.

« 84 » As far as I can see, Weber’s speculations about lifetime and endlessly-going-back processes, God or the big bang that he raises against my argumentation in order to prove its falsity are not convincing. Our life can be described as a chain of positings, coming from the past and going to the future without interruptions as long as we live.

« 85 » **Karl H. Müller**’s commentary relies upon two premises. (a) Whereas the German tradition and writing is oriented towards philosophy, the Austrian one is oriented towards scientific progress especially in the natural sciences. (b) Müller’s own Austrian thinking is interested in the advances in the natural and the social sciences and is imbued by a “...healthy caution regarding the virtues and necessities of academic philosophy altogether” (§11). Therefore he is rather sceptical of attempts to transfer radical constructivism to a purely philosophical program.

« 86 » Accordingly, his critique of my process-oriented version of constructivism is rather fundamental. First of all, Müller qualifies my process-orientation as a novelty, but as a novelty on familiar grounds since all the leading constructivists have elaborated process-oriented approaches.

« 87 » The second criticism is a bit harsher. My terminology “...never comes to the point of making risky empirical or historical assumptions, of producing illuminating explanation sketches or of providing innovative cognitive mechanisms” (§7), whereas all this happened in traditional radical constructivism.

« 88 » Contrary to Müller’s mistrust of philosophy, my intention has been to construe a non-dualistic *philosophical* version of constructivism, including a homogeneous terminology. So I have to bear the consequences. Although I cannot repeat all versions of process-orientation in radical constructivism in a short article, my own process-orientation is based on them.

« 89 » The point is not whether or not radical constructivism should be transformed into a philosophy proper. Radical constructivism has always been a special type of philosophy; and as such it is in need of rewritings in order to remain interesting. Of course, my proposal is nothing else and cannot be anything else but one proposal that is far from being final. And of course my proposal cannot refer to all authors who have previously articulated “similar ideas.” My intention has been to develop an argument, viz. the argument that a strict process orientation can help us to dissolve nasty epistemological questions.

Conclusion

« 90 » I have learned from the commentaries that the intended and the factually realised readings of a paper can differ remarkably – a lesson in constructivism. Of course, I might have extended, clarified, and contextualized my ideas; but I think the essence of an argumentation must be contained in itself – if it can be related to previous argumentations so much the better.

« 91 » Above all, though, I would like to thank all the authors for having read and commented on my paper. All commentaries gave me an opportunity to rethink my argumentation, which I have appreciated very much.

RECEIVED: 21 SEPTEMBER 2011

ACCEPTED: 13 OCTOBER 2011

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