

M@n@gement

ISSN: 1286-4892

Editors:

Alain Desreumaux, *U. de Lille I*
Martin Evans, *U. of Toronto*
Bernard Forgues, *U. de Lille I*
Hugh Gunz, *U. of Toronto*
Martina Menguzzato, *U. de València*

■ Markus Reihlen, Thorsten Klaas-Wissing,
and Torsten Ringberg 2007

Metatheories in Management Studies: Reflections
Upon Individualism, Holism, and Systemism,
M@n@gement, 10: 3, 49-69.

Accepted by Co-Editor Hugh Gunz

M@n@gement est la revue officielle de l'AIMS



M@n@gement is the official journal of AIMS

Copies of this article can be made free of charge and without securing permission, for purposes of teaching, research, or library reserve. Consent to other kinds of copying, such as that for creating new works, or for resale, must be obtained from both the journal editor(s) and the author(s).

M@n@gement is a double-blind refereed journal where articles are published in their original language as soon as they have been accepted.

For a free subscription to *M@n@gement*, and more information:
<http://www.management-aims.com>

© 2007 *M@n@gement* and the author(s).

Metatheories in Management Studies: Reflections Upon Individualism, Holism, and Systemism

Markus Reihlen . Thorsten Klaas-Wissing . Torsten Ringberg

Chair of International Management
RWTH Aachen
eMail: markus.reihlen@im.rwth-aachen.de

Chair of Logistics Management
Universität St.Gallen
eMail: thorsten.klaas@unisg.ch

School of Business Administration
University of Wisconsin-Milwaukee
eMail: ringberg@uwm.edu

Three metatheoretical positions, known as individualism, holism, and systemism, are salient in management research programs. The world views of individualism and holism in particular are a matter of controversy between social scientists, leading to serious shortcomings in the prevailing research programs. As we argue in this paper, neither view is adequate. A cogent alternative to both is systemism, which integrates the valuable insights of individualism and holism without their drawbacks. The paper illustrates the specific implications of each of these world views for knowledge management research.

INTRODUCTION: THE RIVALRY BETWEEN METATHEORETICAL POSITIONS

In the development of theories to describe and explain the behavior of economies, companies, and individuals, researchers have, consciously or otherwise, relied on metatheoretical ways of looking at human behavior. Metatheories in this sense are not theories, as such, relating to an empirical (real) object of investigation like enterprise, management behavior, or market transactions, but come into play at an earlier stage. Looked at generally, a metatheory is a collection of fundamental assumptions on which the investigation of research and technological problems is based. In this sense, metatheoretical assumptions are the nutriment for reflections upon theories (Bunge, 1999: 178).

The views embraced by management scholars are based on a variety of assumptions relating to at least three components (Bunge, 1996: 242-243). Firstly, they assume a view on the nature of socio-economic phenomena (ontological assumptions). Should we see firms as accumulations of individuals who coordinate their mutual relationships through contracts, as collective action-units with goals of their own, or as systems integrated into society, which are neither totally independent of, nor entirely determined by, their environment? Secondly, there are assumptions relating to what form of investigation is appropriate to the object in question (epistemological and methodological assump-

tions); these are partly determined already by the first set of assumptions, but this is not always necessarily the case. What is an appropriate method for investigating organizations? Should we rely on empirical facts, on our reason, or on intuition? Can we investigate organizations by studying their component parts, or via their global characteristics (e.g., social structures)? Thirdly, a metatheoretical perspective of this kind is tied up with assumptions relating to values and norms of social and economic actions (axiologic-moral assumptions). Should we see the freedom of the individual (maximization of individual benefit) or his/her responsibility to the community at large (maximization of collective benefit) as the primary goal of socio-economic action?

In the social sciences, a number of different, internally consistent metatheoretical world views have established themselves, and these are reflected in economic and management theories. In this connection, there has been, since the *Älterer Methodenstreit* (controversy over methods) between Menger (1883; 1884) and Schmoller (1883), a debate between individualist (otherwise voluntarist or atomist) and holist (otherwise collectivist, structuralist or determinist) positions, propagated by such prominent social philosophers as Weber, Popper, von Hayek, Marx, Durkheim, and Parsons (for an overview, see O'Neill, 1973; Vanberg, 1975). To date, leading social and economic research programs have developed along this dual track into individualist and holist approaches without, however, overcoming the reasons for their differences. This becomes immediately clear when one realizes that individualists basically want to explain socio-economic phenomena by using features of the elements of social systems, thereby losing sight of an important event, namely phenomena with emergent property features. Conversely, the holist position is equally problematic, as it focuses on the structures and thereby gives more prominence to collective than to individual features, thus leaving unexplained compositional features in the system. In the social sciences, and in particular in organization and management theories, efforts to integrate the two approaches have received recognition from different theoretical views (e.g., Giddens, 1984; Granovetter, 1985; Krohn and Küppers, 1990; Kauffman, 1993; Dosi and Nelson, 1994; Sikora, 1994; McKelvey, 2001). The emerging alternative "third way" between individualism and holism was more recently formulated into a coherent metatheoretical approach by the philosopher Mario Bunge (1979; 1989; 1996; 1998; 2000). His so-called systemism accounts for both individual agency and social context in explaining social systems and has become influential in philosophy. However, it has yet to gain a stronger foothold within management research which is still dominated by either individualistic or holistic approaches.

Our objective in this paper is to explore contradictory ontological, epistemological, methodological, and axiologic-moral assumptions of the two existing metatheories and show how systemism incorporates the advantages of the previous two. To demonstrate the application of each metatheory, we analyze particular contradictions within the knowledge management discourse. Systemism is introduced through a socio-cognitive approach that enables management researchers to

envision the synthesis of individualism and holism within a coherent and internally consistent theoretical framework. We present our ideas as a discussion of metatheoretical positions in the form of dialogues between a teacher and a student. After that, the central conflicts between existing theoretical positions will be brought out in a fictitious disputation between the teachers of each rival view.

DIALOGUE ON INDIVIDUALISM

Student: Please explain the fundamental essence of organizations (societies).

Teacher: Organizations are aggregates of people (along with means of production), whose interactions are regulated by institutionalized conventions. The essence of an organization is determined by individual features of its members, who are assumed to have a high degree of psychological and social autonomy. The co-existence of members is based on a small number of behavioral norms, which are derived from principles of mutual tolerance and recognition. The characteristics of an organization thus result from the sum of the characteristics of its members. This means: an organization has no characteristics other than those already present in its individual members. As such, the notion that there is such a thing as a community as an independent unit is simply false. An organization as a whole possesses no independent characteristics of its own that emerge from the whole (on the concept of emergence, see Bunge, 1979; Krohn and Küppers, 1992; Silberstein and McGeever, 1999). Thus an organization as a whole and/or a unit cannot interact with other organizations, exert influence on its members or develop in any manner that is disassociated from influence and coercion induced through activities, interactions and attitudes of organizational actors (Hayek, 1952; Popper, 1957; Buchanan, 1984; Bunge, 1996: 243-258).

Student: How then am I to analyze organizations in order to gain new insights into their essence?

Teacher: As Popper (1962: 341) once explained: «the belief in the empirical existence of social wholes or collectives, which may be described as naïve collectivism, has to be replaced by the demand that social phenomena, including collectives, should be analyzed in terms of individuals». Given that organizations do not have an ontological essence, the question needs to be rephrased such that it inquires about how individual action can be effectively coordinated and appear as a united entity. That is, we need to look at individuals as separable elements within the system, for this is the source of enlightenment regarding socio-economic phenomena. A social phenomenon can only be explained as an entity by exploring knowledge about the dispositions, attitudes, interests and behavior of individuals, and registering them in individual terms. It is the relations between individuals that form the foundation for the perceived totality of the organization. We must therefore reduce the whole to its components (i.e., individual action), in order to draw conclusions from these components about the

behavior of the whole. This procedure could be called the “reductionist technique” (Müller-Merbach, 1992: 858; 1994). This approach is called “methodological individualism”, which seeks to explain socio-economic phenomena by laws which relate to individual behavior (Weber, 1922; Bohnen, 1975; Schanz, 1977; Lenk, 1987; Weede, 1992; Bunge, 1996).

Student: Please give me an example of such a procedure or way of thinking from the knowledge management discourse.

Teacher: The influence of individualism can be clearly recognized in for example decision theory, neo-classical economics, in new institutional economics and generally among liberalists. Leading individualists relevant to our age include Adam Smith (1848), Friedrich von Hayek (1952), Gary Becker (1976) and James Buchanan (1984). Individualists in the knowledge field emphasize an internalist (endogenous) way of inquiring into the nature of knowledge (Bunge, 1998). Individualism is inherent in theories favoring personal determinism according to which knowledge is the result of cognitive dispositional sources such as intelligence, acumen, creativity, reflection and the like. This theoretical position finds important protagonists in the literature. For instance, radical constructivists like von Glasersfeld (1995) argue that people operate in their own very private, self-constructed worlds. Social interaction allows for interpersonal communication, but this adaptation does not and cannot change the fact that the material of an individual's meaning is composed of or emerges from his or her subjective experiences (Glasersfeld, 1995: 137). In a similar vein, cognitive psychology (e.g., Newell and Simon, 1972; Anderson, 1983), postmodernism (e.g., Lyotard, 1986; Kilduff and Mehra, 1997), and rational choice theory (e.g., Becker, 1976; Coleman, 1990) argue that agents have a great degree of cognitive autonomy. While these researchers accommodate the framework of social context and interaction, actors are still portrayed as cognitively unique (Etzioni, 1988). This uniqueness of the individual is considered as the main source of value creation. For instance, in an analysis of forty-three German firms in the chemical, the electrical, and the mechanical industries, Ernst, Leptien and Vitt (2000) show that key innovations were tied to a few key scientists and/or product developers. This leads me to conclude that, in analyzing knowledge processes within and across firms, we should start with the assumption of the primacy of the individual.

Student: What social values and standards are reflected in the view of the world and investigation perspective represented by individualism?

Teacher: The individual and his or her self-interest enjoy the highest esteem. For a free development of personal interests to occur, a liberal (social) order is indispensable, for only thereby can people achieve things which are greater than their own intellect would allow. Institutions are only there to safeguard and promote the freedoms and interests of the individual. Accordingly, the starting point of the social order is the market, because it allows the free and self-regulatory harmonization of individual transactions (Bunge, 1989). At this point, I return once more to von Hayek (1952: 47-48), who hit the nail on the head

when he expressed the view that: «What individualism teaches us is that society is only greater than the individual to the extent that it is free. As soon as it is subject to direction or force, it is restricted to the dimensions of the individual intellect which controls or directs it».

DIALOGUE ON HOLISM

Student: Please explain to me the fundamental essence of organizations (societies).

Teacher: Organizations are totalities (systems) with characteristics of their own that cannot be explained by the characteristics of their actors (elements). For as Laszlo (1996: 5) aptly notes: «The large groups we thus come to know appear to establish their own “personalities”. Even if most of their individual members change, the groups’ characteristics tend to be preserved». An organization as a whole thus possesses fundamentally distinctive attributes, which give it a “supra-individual” identity. For this reason, the behavior of organizations and their members must be seen as an inseparable unit. The idea of individualism that organizations are to be seen as aggregates of individual decisions and preferences implies a view of people as under-socialized beings (see Granovetter, 1985). By contrast, in holism, individual decisions are understood as reflecting collective attributes. Organizations have a life and structure of their own, which cannot be explained by individual decisions but rather by a collective dynamic that emerges on its own based on the intersection of many different sets of opinions. Within holism, organizations are regarded as totalities with particular features that emerge from the totality itself, and that cannot be identified by studying the contribution of individual members. With organizations as autonomous and inseparable units, the interaction between organizations can only be seen as an interaction between one totality with that of another. Consequently, organizational developments and/or changes are also supra-individual phenomena, which establish frameworks that condition the behavior of actors (Durkheim, 1967; Geertz, 1973; Luhmann, 1984; Gergen, 1985; Willke, 1989). Thus, an organization and its inherent structures persist even as its members are replaced.

Student: Teacher, I just learned from individualism that, in order to understand social phenomena, we have to understand individual agency. How can you account for individual agency within your conception of a world of collectivities?

Teacher: Agency requires cognitive frameworks and intentions. As a holist I would raise the question: Where do these frameworks and intentions come from? Can we possibly assume that they are the results of cognitively free individuals? I believe not, because we would ignore the social origin of our intentionality and knowing. As the Russian psychologist Vygotski (1978) suggests, knowing is embedded in the cultural heritage of a society, without which the development of the individual mind is impossible. It is an illusion to think about a subject who is free of social determination.

Student: How then am I to analyze organizations in order to gain new insights into their essence?

Teacher: Look at the totality of the system in which you are interested, for this is the source of enlightenment regarding socio-economic phenomena and the behavior of the individual actor. Only an investigation of the totality can lead to proper insights into organizations because an examination of their elements provide few, if any, insights into emergent properties of organizations. This methodological perspective also represents the position held by Laszlo (1996: 4), when he says: «We feel that we can safely disregard the unique individuality of the members of such units as long as there are certain types of members in certain proportions and relationships. It does not matter who does this job or that—as long there is someone to do it». A total phenomenon, whether organizational or social or both, accordingly can only be explained by virtue of itself as a unit and not by recourse to its elements. The motives for the behavior of the individual members are, thus, ultimately to be understood by reference to the framework conditions, which are determined by the organization as a whole. This procedure could be called an “embedding technique” (Müller-Merbach, 1992: 860; 1994), for insights into the behavior of individuals can be derived from their place in the surrounding context. The way socio-economic systems function can only be explained as regularities which relate to the system as a whole. The approach to obtain insights is called “methodological holism” and stands in contrast to methodological individualism, which investigates micro-regularities. Rather, methodological holism is based on the view that behavior is explained by macro-regularities (see Schanz, 1977; Bunge, 1996, 1998).

Student: I have difficulties seeing myself conducting holistic studies. Isn't it a great advantage of methodological individualism that it reduces the social complexity to individuals who are observable within a social system? What else should I investigate in order to understand social wholes as you suggest?

Teacher: Reducing complexity is of no value in itself. We should not assume that mental processes are the result of free will, since this so-called free will is always embedded in social forces not of its own making. If you want to investigate social wholes, then study society-wide social forces such as the *Zeitgeist*, industry recipes (Spender, 1989) or thought communities (Fleck, 1979).

Student: Please give me an example of such a procedure or way of thinking from the knowledge management discourse.

Teacher: The basic holist ideas mostly have their origin outside the tradition of economic thought. The sociologists Émile Durkheim (1967), Talcott Parsons (1951)¹, and Niklas Luhmann (1984) are regarded as the chief pioneers of collectivism. It would be wrong, however, to seek the roots of collectivism solely outside the economic sciences. Already in the 1920s, Heinrich Niklisch (1932: 294-307) was developing basic collectivist ideas in his thoughts on business management. If we take the more recent knowledge management literature, holism is reflected in an externalist (or exogenous) way of inquiring into the nature of knowledge (Bunge, 1998). Externalists view knowledge as being con-

1. While it must be acknowledged that Parsons has made the attempt to take account of the principles of individualism through the development of a theory of action, Bohnen (1975: 64) thinks that no theoretical connection remains between these individualistic ideas and the collectivist ideas borrowed from Durkheim, which, however, left a considerable mark on his sociological thought.

structured, maintained, and transferred through social practices or discourses (making knowledge transfer dependent on individuals' membership of interpretive communities). This position is a variant of structuralism, which, until the mid-1980s, served as a major epistemological foundation within the social sciences, most notably cultural anthropology, social psychology, and sociology (Lévi-Strauss, 1966; Sahlins, 1976). More recently, holism has become an influential theoretical position in management studies under the heading of social constructionism (Scherer and Dowling, 1995; Mir and Watson, 2000). Especially researchers in the knowledge management field have adopted a (neo-)Vygotskian (e.g., Blackler, 1993; Spender, 1995) and situated learning perspective (e.g., Lave and Wenger, 1991; Brown and Duguid, 2001), emphasizing the social and interactive foundation of knowledge. Accordingly, human cognition is inseparable from specific socio-cultural contexts. From the social constructionist perspective, humans are embedded in a socially constructed reality; they are products of signifying activities, which are culturally specific and largely tacit. What can be considered as knowledge or reality is socially negotiated. The focus is «on the cooperative development and implementation of shared functional meanings that arise when two or more people interact» (Raskin, 2002: 17). Consequently, holists argue that our thinking and acting is largely driven by thought worlds (Dougherty, 1992) or a community of practices (Wenger, 1998). Organizations as systems possess a sort of communitized, collective expertise, a collective mind, and thus a capacity for organizational learning and innovation (Willke, 1998: 6). Therefore, we have to imagine knowledge less as being embodied in the heads of human beings, but more in the operational forms and practices of a social system. This knowledge on the part of the organization resides in the person-independent, anonymized systems of rules and informal norms, which define the way people within an organization operate. The question, which we have to ask ourselves in the context of organizational knowledge management thus consists of how organizations as collective entities acquire the ability to learn and to innovate as systems. The idea of the internalists—that thinking and acting are to be seen as the result of individual attributes—is regarded by externalists as an under-socialized view of human beings. To this end, we must devote our clear attention to the emergent development of a common experiential context, a collective mind, and an organizational system of meaning (Willke, 1998; Yanow, 2000).

Student: What moral standards are reflected in the view of the world and the investigation perspective represented by holism?

Teacher: The highest esteem is enjoyed by the social and organizational whole. The actions of the individual are valued according to their contribution to the collective (firm, economy, etc.); the norms are learned by the individual during the socialization process and adherence to them is maintained through social control mechanisms. The idea that a strong society is founded ultimately on a valid system of values and held together by close social ties presupposes a powerful state and, at company level, a powerful management to ensure that

the communal goals are adhered to. It follows from this that it is collective forms or frameworks that guide the actions of individual members. The community has precedence over the individual and shapes his or her feelings, his or her thoughts, and his or her goals and actions (see Etzioni, 1988; Bunge, 1989).

Student: As one who read Popper's (1963) *The Open Society and its Enemies*, I would argue that your position is anti-libertarian. Popper would call you "an enemy of the free society".

Teacher: How do you know which social arrangements will best serve the individual when the individual is portrayed as free of all particular determination? If individual liberty has any meaning, it has to be understood within the structure of social constraints. Liberty is not a fixed conception, isolated from socio-cultural forces. People cannot resist the socializing collectivity, as it forms their perception of freedom in the first place (Ogilvy, 1977).

DIALOGUE ON SYSTEMISM

Student: Please explain to me the fundamental essence of organizations (societies).

Teacher: Organizations are neither purely aggregates of individuals nor are they holistic entities. Rather, they are characterized by individuals as well as processes, structures and environmental constraints. Systems are distinguished both by the characteristics of their members and systemic or global characteristics, which cannot be reduced to any particular element. It includes, for example, a company's atmosphere and a prevailing management ideology, which emerge based on the intersection of the system's properties (i.e., individuals, processes, structures, etc.). To explain the behavior of organizations and individuals, insights from individualism and holism must be integrated. Accordingly, the behavior of a person is determined on the one hand by her formal and informal social network and on the other by her dispositions (i.e., skills, motives, preferences, experiences, and expectations). Systemic explanations embrace both individual (micro-level) and structural (macro-level) features of a system. If we look at just one of the two levels, then we expose ourselves to the justified criticism that we are propagating a one-sided explanation. The interaction between organizations is to be seen as an interaction between people, whereby people act in the name of the organization they represent. Routines, norms, and perceived structures of the organization not only act to constrain them: they are also what allows and empowers them to make binding decisions in the first place (Bunge, 1979, 1996).

Student: I'm not quite sure if I really understood your synthesis of individualism and holism. From my understanding, individualism is like rational choice theory, that would not deny the existence and influence of macro-variables such as interest rates, scarcity of resources, and political ideologies. However, individualism would conceptualize them as contextual constraints on individual action. So what is the difference between your systemic ontology and more moderate versions of indi-

vidualism like, for instance, Boudon's (1981) contextual or neo-individualism?

Teacher: Moderate individualism is coming closer to my systemic approach because it takes notice of structural feature of social systems. However, the concept is muddled in the sense that it attempts to explain social phenomena in terms of individual attributes and contextual constraints but without offering a comprehensive ontological framework within which the interaction between agency and structure is explained. Individuals are socialized with the cultural heritage that not only constrains but also enables individual action (Giddens, 1984). These systemic structures emerge or submerge through social interaction of individuals who engage in communicating, teaching, trading, or using power. As social scientists, we should not only study the nature of individuals, even if we do conceptualize them as contextualized actors, but also the factors (e.g., power, position, norms) that influence social interactions, and through which social ties and bonds emerge or submerge.

Student: How then am I to analyze organizations in order to gain new insights into their essence?

Teacher: If you wish to understand organizations, you must understand their individuals, their structures, their processes and their environment. These are the foundations on which the description, explanation and prediction of the behavior of organizations and their members are based. You must ask yourself by what needs, preferences, intentions, talents and actions members are driven; to what extent existing structures influence conservative and progressive behavior patterns; and to what extent the organization's socio-economic, political, cultural, and environmental factors affect individual behavior. This systemic approach thus combines the reductionist and embedding techniques by investigating individuals as both influencing and being influenced by systems (organizations) (Bunge, 1983, 1996; Giddens, 1984; Granovetter, 1985).

Student: I learned from methodological holism that explanations should refer to structural features of a system like a dominant ideology or discourse. Methodological individualism taught me, on the other hand, that social phenomena should take recourse in individual properties like motivation, cognitive dispositions, and volitions. As you explained to me, systemic explanations should combine reductionistic and holistic explanations. I do see this as a great disadvantage to social theorizing, as the main causal relation is not clear a priori. Holists argue for the primacy of structure over action and individualists suggest the opposite. Both positions have the advantage that they propose unidirectional causal relations.

Teacher: Simplicity is neither a sufficient criterion for truth nor for effective actions. To explain the behavior of organizations and their members, the insights of individualists and holists must be truly integrated. To investigate organizations from a systemic view, researchers have to move away from a one-sided deterministic model of causation. One-sided determinism regards the locus of the causes either in environmental (e.g., cultural beliefs and norms, social feedback) or disposi-

tional determinants (e.g., creativity, experience, motivation) assumed to operate in a unidirectional manner. Systemic explanations favor a reciprocal conception of causation (Bandura, 1986; Bunge, 1996), which elucidates social processes in terms of individual mental processes and interaction with the social environment. The concept of reciprocity implies that cognitive and other personal factors, as well as environmental factors, influence each person interactively (Bandura, 1986: 23). The degree to which environmental or individual factors influence mental and behavioral processes varies according to individual dispositions, situations, and activities, each of which has to be investigated within a particular organizational setting. Systemic explanations are more comprehensive and complex than their individualist or holist counterparts, as they focus on both individual (micro-level) and structural (macro-level) features within a system (i.e., investigating people within socio-economic entities).

Student: Please give me an example of such a procedure or way of thinking from the knowledge management discourse.

Teacher: A systemic theory of knowing and knowledge management parallels research on socio-cognitive approaches to knowledge creation (Nonaka, 1994) and transfer (Ringberg and Reihlen, forthcoming). The latter includes the interaction between mental workings of the intentional subject and feedback from the socio-cultural environment. Piaget (1977: 4) supports this position in his description of cognitive systems as both open, in the sense that they undergo exchanges with the milieu, and closed, as they undergo epistemic cycles of cognitive schema development that are highly constructive and which largely take place within the mind, independently of external sensory input. In Piaget's terms, these socio-physical adaptive cognitive processes consist of cognitive assimilation and accommodation—assimilation being the conservative process in which individuals establish meaning by integrating new elements into existing cognitive structures, and accommodation being the more creative process that involves sense making of events that do not match well with an individual's existing interpretative frameworks, yet are too important to ignore. It is during the accommodation process that conceptual schemas are changed and new cognitive patterns inculcated, enabling the individual to adjust to (i.e., reframe the interpretation of) environmental feedbacks (Piaget, 1971, 1977; Glasersfeld, 1995). Whereas social structures provide the context and social feedback mechanisms, the mind, cognition, volition, emotion, and the senses (including neurological factors and faculties) remain indispensable for creating, challenging, questioning, conjecturing, categorizing, inferring, problem-solving, criticizing, and negotiating the meaning of environmental inputs. This point of view is also reflected in Vygotsky's (1978: 86) work, in which knowledge evolves within a «zone of proximal development», i.e., the twilight zone between what a learner can achieve through independent problem-solving and what can be accomplished with the help of the socio-cultural resources and social feedback (i.e., dialogue, mentoring, and teaching).

A socio-cognitive approach includes the Piagetian concept of subjective meaning construction linked with the social interactionist concepts

introduced by Vygotsky and Mead. Vygotsky (1962) and Mead (1967) argue that knowledge and learning are fundamentally co-constructions within a socio-cultural space. That is, the ongoing exchange between the mind and the environment in «communities of interaction» (Nonaka, 1994: 15) results in a steady increase in the complexity of individuals' mental dispositions. This follows DeGrandpre (2000: 724), who argues, that as a person experiences the consequences of his or her action in ecological context, the possibility of new knowledge arises. The relation of the individual and the social structure is therefore mutually complementary and co-evolving, where the development of either part not only depends on the other but is made possible through the productive existence of the other (Vogel, 2000; Heinrich, 2004).

Consequently, the dynamic processes involved in knowledge transfer can only be fully appreciated if researchers take into account both cognitive dispositions (individualism) and social feedback mechanisms (holism). This follows Cole and Wertsch (2002: 2), who point out that the development of the mind is constituted from the interweaving of biological processes and the appropriation of the social fabric that establishes networks of interaction. Knowledge processing, thus, is predicated on influences from both the socio-cultural environment and the intentional mind. In other words, once we acknowledge that people are both serfs and masters of cultural activities (e.g., on organizational culture) it follows that individuals are both involuntarily guided by, yet also intentionally influence, the very same activities.

Student: What social values and standards are reflected in the view of the world and investigation perspective represented by systemism?

Teacher: Systemism assumes that both the individual and the organization are embedded in a socio-economic framework. For this reason, systemism implies a liberal order on the one hand, in order to ensure that individuals can pursue their own interests, ideas and preferences. On the other hand, it always pleads for a restriction on individual freedoms whenever the selfish enforcement of individual interests is deleterious to long-term co-existence in a society. While individualism singles out personal freedom, and holism collective obligation as social values to be pursued, systemism combines the two into a society where personal freedom comes with social responsibility. What we need are individuals embedded within a community, who are capable of taking responsibility, a community which is far more integrated than each individual alone seeking to maximize his or her own benefits. On the other hand, such a community is far less socializing and restrictive than the holist vision of society (Etzioni, 1988; Bunge, 1989).

DISPUTATION OF THE TEACHERS

Chairman: Now that the basic positions have been laid out in their essentials I would like to invite the three teachers to discuss the systemic approach, located mid-way between individualism and holism. Is this a practicable and fruitful metatheoretical approach?

Individualist: The systemic integration appears, at first sight, worthy of consideration. Yet, after further consideration, a significant weakness reveals itself in the idea of emergence. It is noted that social systems can give rise to phenomena which are the results of social processes and not inherent in the individual. But is it not the case that the social structure is ultimately always derivable from the characteristics of individuals? For this reason, it seems to me to be more promising for the solution of sociological and management problems to only use psychological approaches. As Bohnen (1975: 86) argues, this enables us «to fall back once more on the basic ideas of the research program whose rules have determined the individualist-utilitarian tradition of sociological thought from the outset». I think that we can do without the concept of emergence entirely. Social systems have no emergent properties in and of themselves, as the latter consist entirely of individual inputs. In addition, a weakness of this kind of “emergent” viewpoint is that it makes systemic characteristics appear mystical, with emergent properties growing out of social processes that are unpredictable. Whereas individual behavior is predictable based on motives and/or professional background, I don’t see how you can make any scientific predictions of action patterns based on such ambiguous constructs as dominant discourse and norms in society, let alone organizational cultures in an industry.

Systemist: I think there is a fundamental misunderstanding here. Let me therefore first explain why we cannot dispense with the concept of emergence. Let us, for example, take the individualist understanding of the market, which as a rule is regarded as the place of economic exchange between those with something to offer and those with an interest in acquiring it. If we were to take the individualist proposal to its logical conclusion, we would have to view markets through the mind’s eye of psychological theories, and possibly decision and game theories. Markets consist of rules and regulations that are indifferent to who implement, enforce, and obey them. They exist detached from the personal characteristics of any one individual. The success of an entrepreneur depends for this reason not only on individual talent, available capital, and personal contacts (micro-variables), but also on market-entry barriers, interest rates, the availability of resources, exchange rates, business cycles and so on (macro-variables). If we refuse to acknowledge that these macro-variables are properties of systems, which we cannot simply explain by recourse to individual characteristics, we are unable to understand and explain the development and decline of systems. Thus, it is perhaps not surprising that neo-classical micro-economics is challenged by, and finds it difficult to account for, the influence of macro-economic fringe conditions on business behavior and thus largely ignores them (Bunge, 1996, 1998). Your second misunderstanding with respect to the concept of emergence lies in your understanding of it as something unpredictable. The problem here is that if we were to understand emergent properties as an epistemological category, the latter can be justifiably accused of being opaque, a quality which we as scholars cannot accept. Yet, on the other hand, we cannot easily dispense with the existence of norms,

rules, and regulations either. Luckily, this Gordian knot can be untied by regarding emergent properties as an ontological category. An ontological category differs from an epistemological category, as the former refers to the nature of things such as that organizations are composed of people, structures, and processes, and are embedded within an environment, whereas an epistemological category refers to our concepts of things which can be fuzzy or exact, testable or untestable, true or false. Thus, emergent properties like organizational culture or political order are neither unexplainable nor unpredictable phenomena; they are simply features of social systems emerging from the interaction of individuals.

Holist: I have no problems, of course, with the notion of emergent properties of a system, as it is a central element in my view of the world. However, to me, the systemic approach does not seem to be fundamentally differentiated from individualism. Although you introduce the concept of social structure, you do not take this construct to its logical conclusion. Paralleling Durkheim's perspective, ideas are manifestations of social conditions. He made this abundantly clear when he took religion as an example of a symbolic expression and preservation of social structures regardless of its enforcers' individual dispositions. He expresses it thus: «While it might be disputed that, without exception, social phenomena impose themselves on the individual from outside, any such doubts seem to be excluded in respect of faith and religious customs, moral rules or the whole array of laws, in other words in respect of the characteristic phenomena of collective life. They are all (...) proof of the fact that these kinds of action and thought are not the work of the individual, but of a force that transcends him.» (Durkheim, 1967: 72, authors' translation).

If we extend these ideas to knowledge management, then we have to understand organizations as meaning systems with specific convictions, values and symbols, which exist relatively independently of each individual. This implies, as recently suggested by Yanow (2000), that our analysis has to focus on how individuals learn collectively and interactively. What is required is to explore how collective meaning emerges from individuals' interacting with artifacts and the socio-cultural context. For this reason, systems preserve and reconstitute something like a collective mind, within which new members are socialized and which characterizes their thinking and behavior. This is what collective learning is all about: changing collective meaning systems. For me, your position is nothing other than moderate individualism.

Systemist: While I understand your position, which is based on the hypothesis that organizations have the capacity for collective cognition, or that all ideas are the product of social conditions, there are various reasons, which I shall try to explain, why I cannot share such a radically externalist position. You proceed from a one-sided relationship between action and structure. I would therefore like to take your own example, which attributes to organizations a communitized, collective entity which can learn with a supra-mind that exists independently of specific individuals. This hypothesis is dubious for a number

of reasons (Boudon, 1990; Bunge, 1998: 225-239; Ringberg and Reihlen, forthcoming). For one thing, organizations have no brains which can act in a cognitive fashion. I regard this as a great error on the part of the holists. Even a public debate, or a text in a book, only becomes a cognitive element when someone takes note of it and it thus triggers neuro-biological processes in the participant. Secondly, new inventions or discoveries do not arise unless extraordinary personalities break with established patterns of thought. Without them, technological or scientific revolutions would be inconceivable. Their motivational and cognitive problems cannot simply be explained by external social forces, as you argue. Moreover, your hypothesis takes no account of the recognition by almost every school of psychology—with the exception of classical behaviorism—that any external stimulus can trigger different ideas and cerebral processes across individuals. In your argument, you overlook that artifacts and collective meaning structures are still subject to individual perception and cognition. For instance, in an empirical study on computer-mediated knowledge management systems, Reihlen and Ringberg (2006) demonstrate that knowledge artifacts always depend on people's understandings and interpretations. Even within an interpretative community of consultants, these individuals had various interpretations of the same knowledge artifact. This leads us back to a valuable insight drawn from research conducted within an individualistic tradition, namely internalism, according to which, actors process external stimuli sometimes in an idiosyncratic and subjective fashion. Thus, people become builders of their own world (Baudrillard, 1985), creating and reshaping prevalent representations according to personal life stories (Derrida, 1976). As a result, the emphasis on systemic properties should not lead us to the mistaken conclusion that individual cognition, emotions, and volitions are merely surrogates for collective meaning systems, as favored by social constructionism. I plead therefore for the investigation that tacks back and forth between individuals and organizations (including their socio-cultural origin) without giving priority to one or the other party. Only through such an integrative approach can we account for how particular rules materialize and, not least, the differential meanings of these rules. It follows that different individuals perceive a very different organization, and that these perspectives are shared among subsets of an organization rather than assuming the existence of an overly strong community.

Individualist: In my opinion, this view goes hand-in-hand with a problematic ethical orientation on the part of systemism. Ethics is concerned with the moral evaluation of wrong social behavior. But who is to make such judgment and by which norms? For me, freedom is the highest good. Society must ensure that this freedom of the individual is sustained. However, your argumentation appeals to the presence of a higher social order or morality. The problem with this is that your morality is not my morality. Thus, it is an illusion to think that shared moral standards can be established in a society. Even if this were possible, I do not think it is desirable, as shared moral principles are restrictive and presuppose a higher authority, which I, as you can

imagine, reject. I prefer to go along with Hayek (1945), who emphasizes that knowledge in society and organizations is essentially dispersed. In other words, «knowledge [is] not given to anyone in its totality» (p. 520). This statement, of course, also holds for knowledge about moral standards; therefore I believe that a truly knowledge-creating social order is one which is not based on solidarity fostering a cooperative order that turns a productive community into a collective of group thinkers. Instead, we have to organize a free knowledge market where individuals are held together largely by economic relations and compete against each other based on their individual merits (Hayek, 1976: 112-113).

Systemist: I know that this position is very widespread among moral nihilists, hedonists, liberalists and ethical individualists. I agree with you to the extent that your criticism is at least partly correct, when it is applied to ethical holism, as it positively crushes the individual. Individualism teaches us that people need a measure of autonomy in order to take the initiative and to develop curiosity, creativity, and the urge to discover—which all ultimately form the foundation for knowledge creation and the development of original and unconventional ideas. Initiative and enterprise can hardly be steered from without, however, but are based in large measure on the intrinsic motivation (Deci, 1992) of actors. To put it differently, without a measure of individual freedom we have no social dynamics which are required for all progressive societies and organizations.

Raising selfish interests above the interests of others leads, however, to the weakening or dissolution of social relationships, which hold a society or organization together. Radical individualism is therefore morally and socially destructive because it would undermine any viable public life. Moreover, individualistic societies cause substantial coordination problems. Individual freedom opens up the possibility to define one's own goals, to act according to one's own convictions and values, and to pursue one's own interests. The appearance of unbridled individualism in a society is an indicator and cause of social disintegration, which, even from the economic viewpoint, does not lead to an efficient commonwealth, for we cannot do without cooperative elements in society. A limit must therefore be set to the selfish enforcement of personal interests (the credo of an individualistic moral system) where these stand in the way of lasting relations because actions motivated purely by self-interest lead merely to negative coordination; individuals then only allow other people's initiatives when these do not stand in the way of their own interests. Collective action however presupposes positive coordination, which seeks the ability of mutually dependent actors to work together as a team, and to adhere to collectively binding rules and procedures. The sharing of knowledge for the joint formulation and reformulation of problems can only be ensured by cooperative behavior where actors make their best individual contributions for solving complex issues (Scharpf, 1993). What counts for society as a whole also counts for organizations and in particular for "good" knowledge management practices. In a number of studies, it is shown that knowledge creation and transfer is strongly supported within a socio-cultur-

al context that stimulates social values such as fairness (Janssen, 2004), teamwork (Enberg, Lindkvist, and Tell, 2006), or transactive knowledge sharing (Wegner, 1986). The assumption that a society is, or could be, held together purely by economic relationships is rather problematic. Doubtless, economic relations between actors are an indispensable element of our social world, but they are not the only relevant ones. Alongside economic relationships, there are also political (e.g., power), religious (e.g., beliefs), and cultural relationships (e.g., learning, beliefs, sense of self identity, transfer of knowledge), many of which tie in with or become expressed as moral values and all of which play an indispensable role in the explanation of the essence even of what constitutes economic objects such as prosperity as well as the very investigation of firms and entire economies (Bunge, 1996, 1998). To summarize: to me, both individualism and holism are morally dubious. However, the two positions mark valuable opposite poles—individual orientation versus community orientation—which are both essential and worth preserving. My systemic view tries, therefore, to integrate the good aspects of both, without adopting their problematic points.

CONCLUSION

The individualism-holism debate has left deep rifts in the conceptual orientation of the social sciences, which have been difficult to bridge. From the point of view of management studies, theoretical and empirical research has proceeded along this dual track without overcoming, let alone seriously addressing, this dichotomy (e.g., Astley and Van de Ven, 1983; Earley and Gibson, 1998). It is certainly no exaggeration to say that progress in the social sciences in general, and management studies in particular, depends directly on resolving this philosophical dilemma, as it would enable researchers to combine the best of each intellectual trajectory for the investigation of socio-economic facts.

We can once more pick up the knowledge management field as our illustrative example. Individualists, as we argued, emphasize an internalist (endogenous) and holists an externalist (or exogenous) way of inquiring into the nature of knowledge. Whereas individualism is unconcerned with the social part, and holist research shuts out the cognitive part in knowledge production and transfer, management research would benefit from accommodating both (individual) mind and (collective) culture in its attempt to understand the processes involved in knowledge creation and dissemination. From a systemic perspective, we suggest that individuals are as much molded by biological as by socio-historical forces (Ringberg and Reihlen, forthcoming). In order to integrate the individual mind and the collective aspect of knowledge, we need to view culture and its social force as ultimately resulting from individual actions and interactions. Although individuals are never fully free to interpret the world around them because their thinking and acting are influenced by prior values, social norms (traditions), education, as well as by natural (e.g., biological) circumstances,

every individual is still an active interpreter of the world, taking into account the dynamic and ever changing scenarios that stem from the actual and potential actions or inactions of others. As a result, individual thinking and acting are not mutually independent but interdependent. In other words, cultural structure and the cognizing mind are interlinked and interdependent. Without the cognizing and socially acting individual, no social structure would exist because social systems emerge and are held together by individual actions and minds.

We do not intend to make any definitive judgment on any metatheory at this point, even though we favor systemism. Ultimately, the observer must make his or her own judgment. But the following should be remembered: a metatheoretical position can, in principle, be chosen in two ways. The first possibility consists of examining a particular metatheory to see to what extent it is compatible with one's own prior philosophical and ideological orientation. This represents a dogmatic approach. It is simple, but unscientific. The second, more laborious, way involves considering whether the metatheory in question provides a reasonable foundation for concrete research programs, which allow a profound description and explanation of socio-economic facts as well as fruitful recommendations for the formation of actual practice. A procedure of this kind presupposes a deeper argumentative approach to the available positions (Bunge, 1996: 9). The debate set out here is designed to clarify certain arguments, positions, and problems by presenting metatheoretical perspectives within a scholarly discussion.

Markus Reihlen is a Visiting Professor at the Chair of International Management, RWTH Aachen University. His current research addresses knowledge transfer processes within and across organizations. His most recent publications appeared in the *International Journal of Service Industry Management*, *Journal of Management Studies*, and *Research in the Sociology of Organizations*.

Thorsten Klaas-Wissing is a project manager and a research fellow at the University of St.Gallen, Chair of Logistics Management. After he received his Ph.D. from the University of Cologne, he worked for about 4 years as a management consultant before joining the University of St.Gallen. He recently co-edited (with W. Delfmann) *Strategic Supply Chain Design: Theory, Concepts, and Applications*, Köln: Kölner Wissenschaftsverlag, 2007.

Torsten Ringberg (Ph.D., Pennsylvania State University) is an Assistant Professor of Marketing at the University of Wisconsin-Milwaukee. He researches socio-cultural factors and their influence on the transfer of meaning in B-2-C, and B-2-C interactions (i.e., brand, communication, knowledge). His most recent publications appeared in *Journal of Marketing*, *Journal of Management Studies*, and *Research in the Sociology of Organizations*.

REFERENCES

- Anderson, J. R. 1983
The Architecture of Cognition, Cambridge, MA.: Harvard University Press.
- Astley, W. G., and A. H. Van de Ven 1983
Central Perspectives and Debates in Organization Theory, *Administrative Science Quarterly*, 28: 2, 245-273.
- Bandura, A. 1986
Social Foundations of Thought and Action: A Social Cognitive Theory, Englewood Cliffs, NJ: Prentice-Hall.
- Baudrillard, J. 1985
The Ecstasy of Communication, in H. Foster (Ed.), *Postmodern Culture*, London: Pluto Press, 126-134.
- Becker, G. S. 1976
The Economic Approach to Human Behavior, Chicago, IL: University of Chicago Press.
- Blackler, F. 1993
Knowledge and the Theory of Organizations: Organizations as Activity Systems and the Reframing of Management, *Journal of Management Studies*, 30: 6, 863-884.
- Bohnen, A. 1975
Individualismus und Gesellschaftstheorie. Eine Betrachtung zu zwei rivalisierenden soziologischen Erkenntnisprogrammen, Tübingen: Mohr.
- Boudon, R. 1981
The Logic of Social Action: An Introduction to Sociological Analysis, London: Routledge & Kegan Paul.
- Boudon, R. 1990
On Relativism, in P. Weingartner and G. J. W. Dom (Eds.), *Studies on Mario Bunge's Treatise*, Amsterdam: Rodopi, 229-243.
- Brown, J. S., and P. Duguid 2001
Knowledge and Organization: A Social-Practice Perspective, *Organization Science*, 12: 2, 198-213.
- Buchanan, J. M. 1984
Die Grenzen der Freiheit. Zwischen Anarchie und Leviathan, Tübingen: Mohr.
- Bunge, M. 1979
Treatise on Basic Philosophy, Vol. 4: Ontology II: A World of Systems, Dordrecht: Reidel.
- Bunge, M. 1983
Treatise on Basic Philosophy, Vol. 5: Epistemology & Methodology I: Exploring the World, Dordrecht: Reidel.
- Bunge, M. 1989
Treatise on Basic Philosophy, Vol. 8: Ethics: The Good and the Right, Dordrecht: Reidel.
- Bunge, M. 1996
Finding Philosophy in Social Science, New Haven, CT: Yale University Press.
- Bunge, M. 1998
Social Science under Debate, Toronto: University of Toronto Press.
- Bunge, M. 1999
Dictionary of Philosophy, Amherst, NY: Prometheus Books.
- Bunge, M. 2000
Systemism: The Alternative to Individualism and Holism, *Journal of Socio-Economics*, 29: 2, 147-159.
- Cole, M., and J. V. Wertsch 2002
Beyond the Individual-Social Antimony in Discussions of Piaget and Vygotsky, retrieved 4 December 2007 from: <http://www.prometheus.org.uk/Publishing/Files/ColeAndWertschOnPiagetAndVygotsky.pdf>
- Coleman, J. S. 1990
Foundations of Social Theory, Cambridge, MA: Harvard University Press.
- Deci, E. L. 1992
Introduction: The History of Motivation in Psychology and its Relevance for Management, in V. H. Vroom and E. L. Deci (Eds.), *Management and Motivation*, 2nd ed., London: Penguin, 9-29.
- DeGrandpre, R. J. 2000
A Science of Meaning: Can Behaviorism Bring Meaning to Psychological Science?, *American Psychologist*, 55: 7, 721-739.
- Derrida, J. 1976
Of Grammatology, Baltimore, MD: Johns Hopkins University Press.
- Dosi, G., and R. R. Nelson 1994
An Introduction to Evolutionary Theories in Economics, *Journal of Evolutionary Economics*, 4: 3, 153-172.
- Dougherty, D. 1992
Interpretive Barriers to Successful Product Innovation in Large Firms, *Organization Science*, 3: 2, 179-202.
- Durkheim, E. 1967
Soziologie und Philosophie, Frankfurt/Main: Suhrkamp.
- Earley, P. C., and C. B. Gibson 1998
Taking the Stock in our Progress on Individualism-Collectivism: 100 Years of Solidarity and Community, *Journal of Management*, 24: 3, 265-305.
- Enberg, C., L. Lindkvist, and F. Tell 2006
Exploring the Dynamics of Knowledge Integration: Acting and Interacting in Project Teams, *Management Learning*, 37: 2, 143-165.
- Ernst, H., C. Leptien, and U. Vitt 2000
Inventors Are not Alike: The Distribution of Patenting Output among Industrial R&D Personnel, *IEEE Transactions on Engineering Management*, 47: 2, 184-199.
- Etzioni, A. 1988
The Moral Dimension: Toward a New Economics, New York: Free Press.
- Fleck, L. 1979
Genesis and Development of Scientific Fact, Chicago, IL: University of Chicago Press.

- Geertz, C. 1973
The Interpretations of Cultures: Selected Essays, New York: Basic Books.
- Gergen, K. J. 1985
The Social Constructionist Movement in Modern Psychology, *American Psychologist*, 40: 3, 266-275.
- Giddens, A. 1984
The Constitution of Society: Outline of the Theory of Structuration, Cambridge: Polity.
- Glaserfeld, E. v. 1995
Radical Constructivism: A Way of Knowing and Learning, London: Falmer Press.
- Granovetter, M. S. 1985
Economic Action and Social Structure: The Problem of Embeddedness, *American Journal of Sociology*, 91: 3, 481-510.
- Hayek, F. A. v. 1945
The Use of Knowledge in Society, *American Economic Review*, 35: 4, 519-530.
- Hayek, F. A. v. 1952
Individualismus und wirtschaftliche Ordnung, Erlenbach: Rentsch.
- Hayek, F. A. v. 1976
Law, Legislation and Liberty: A New Statement of the Liberal Principles of Justice and Political Economy. The Mirage of Social Justice, Chicago, IL: Routledge & Kegan Paul.
- Heinrich, J. 2004
Cultural Group Selection, Coevolutionary Processes and Large-Scale Cooperation, *Journal of Economic Behavior & Organization*, 53: 1, 3-35.
- Janssen, O. 2004
How Fairness Perceptions Make Innovative Behavior more or less Stressful, *Journal of Organizational Behavior*, 25: 2, 201-215.
- Kauffman, S. A. 1993
The Origins of Order: Self Organization and Selection in Evolution, New York: Oxford University Press.
- Kilduff, M., and A. Mehra 1997
Postmodernism and Organizational Research, *Academy of Management Review*, 22: 2, 453-481.
- Krohn, W., and G. Küppers (Eds.) 1990
Selforganization: Portrait of a Scientific Revolution, Dordrecht: Kluwer.
- Krohn, W., and G. Küppers (Eds.) 1992
Emergenz: Die Entstehung von Ordnung, Organisation und Bedeutung, Frankfurt/Main: Suhrkamp.
- Laszlo, E. 1996
The Systems View of the World: A Holistic Vision for our Time, Cresskill, NJ: Hampton.
- Lave, J., and E. Wenger 1991
Situated Learning: Legitimate Peripheral Participation, Cambridge: Cambridge University Press.
- Lenk, H. 1987
Zwischen Sozialpsychologie und Sozialphilosophie, Frankfurt/M.: Suhrkamp.
- Lévi-Strauss, C. 1966
The Savage Mind, London: Weidenfeld & Nicolson.
- Luhmann, N. 1984
Soziale Systeme: Grundriss einer allgemeinen Theorie, Frankfurt/Main: Suhrkamp.
- Lyotard, J.-F. 1986
The Postmodern Condition: A Report on Knowledge, Manchester: Manchester University Press.
- McKelvey, B. 2001
What Is Complexity Science? It Is Really Order-Creation Science, *Emergence*, 3: 1, 137-157.
- Mead, G. H. 1967
Mind, Self and Society: From the Standpoint of a Social Behaviorist, Chicago, IL: University of Chicago Press.
- Menger, C. 1883
Untersuchungen über die Methode der Socialwissenschaften und der Politischen Ökonomie insbesondere, Leipzig: Duncker & Humblot.
- Menger, C. 1884
Die Irrtümer des Historismus in der Deutschen Nationalökonomie, Vienna: Hölder.
- Mir, R., and A. Watson 2000
Strategic Management and the Philosophy of Science: The Case for a Constructivist Methodology, *Strategic Management Journal*, 21: 9, 941-953.
- Müller-Merbach, H. 1992
Vier Arten von Systemansätzen, dargestellt in Lehrgesprächen, *Zeitschrift für Betriebswirtschaft*, 62: 8, 853-876.
- Müller-Merbach, H. 1994
A System of System Approach, *Interfaces*, 24: 4, 16-25.
- Newell, A., and H. A. Simon 1972
Human Problem Solving, Englewood Cliffs, NJ: Prentice-Hall.
- Nicklisch, H. 1932
Die Betriebswirtschaft, 7th ed., Stuttgart: Poeschel.
- Nonaka, I. 1994
A Dynamic Theory of Organizational Knowledge Creation, *Organization Science*, 5: 1, 14-37.
- Ogilvy, J. 1977
Many Dimensional Man: Decentralizing Self, Society, and the Sacred, New York: Oxford University Press.
- O'Neill, J. (Ed.) 1973
Modes of Individualism and Collectivism, London: Heinemann.
- Parsons, T. 1951
The Social System, New York: The Free Press.
- Piaget, J. 1971
Genetic Epistemology, New York: W. W. Norton & Co.
- Piaget, J. 1977
The Development of Thought: Equilibration and Cognitive Structures, New York: The Viking Press.
- Popper, K. R. 1957
The Poverty of Historicism, Boston: Beacon Press.

- Popper, K. R. 1962
Conjectures and Refutations: The Growth of Scientific Knowledge, New York: Basic Books.
- Popper, K. R. 1963
The Open Society and its Enemies, 4th ed., Princeton, NJ: Princeton University Press.
- Raskin, J. D. 2002
Constructivism in Psychology: Personal Construct Psychology, Radical Constructivism, and Social Constructionism, in J. D. Raskin, and S. K. Bridges (Eds.), *Studies in Meaning: Exploring Constructivist Psychology*, New York: Pace University Press, 1-25.
- Reihlen, M., and T. Ringberg 2006
Computer-Mediated Knowledge Systems in Consultancy Firms: Do They Work?, *Research in the Sociology of Organizations*, 24, 307-336.
- Ringberg, T., and M. Reihlen Forthcoming
Toward a Socio-Cognitive Approach to Knowledge Transfer, *Journal of Management Studies*.
- Sahlins, M. D. 1976
Culture and Practical Reason, Chicago, IL: University of Chicago Press.
- Schanz, G. 1977
Grundlagen der verhaltenstheoretischen Betriebswirtschaftslehre, Tübingen: Mohr.
- Scharpf, F. W. 1993
Coordination in Hierarchies and Networks, in F. W. Scharpf (Ed.), *Games in Hierarchies and Networks: Analytical and Empirical Approaches to the Study of Governance Institutions*, Frankfurt/M.: Campus, 125-165.
- Scherer, A. G., and M. J. Dowling 1995
Toward a Reconciliation of the Theory-Pluralism in Strategic Management, Incommensurability and the Constructionist Approach of the Erlangen School, in P. Shrivastava and C. Stubbart (Eds.), *Advances in Strategic Management*, Greenwich, CT: JAI Press, 195-248.
- Schmoller, G. 1883
Zur Methodologie der Staats- und Sozialwissenschaften, in G. Schmoller (Ed.), *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich*, 7. Jahrgang, Leipzig: Duncker & Humblot, 239-258.
- Sikora, K. 1994
Betriebswirtschaftslehre als ökonomische Soziotechnologie im Sinne von Mario Bunge, in W. F. Fischer-Winkelmann (Ed.), *Das Theorie-Praxis-Problem in der Betriebswirtschaftslehre. Tagung der Kommission Wissenschaftstheorie*, Wiesbaden: Gabler, 175-220.
- Silberstein, M., and J. McGeever 1999
The Search for Ontological Emergence, *The Philosophical Quarterly*, 49: 195, 182-200.
- Smith, A. 1848
An Inquiry into the Nature and Causes of the Wealth of Nations, Aberdeen: Clark.
- Spender, J.-C. 1989
Industry Recipes: An Enquiry into the Nature and Sources of Managerial Judgement, Oxford: Blackwell.
- Spender, J.-C. 1995
Organizations Are Activity Systems, not merely Systems of Thought, *Advances in Strategic Management*, 12B, 153-174.
- Vanberg, V. 1975
Die Zwei Soziologien: Individualismus und Kollektivismus in der Sozialtheorie, Tübingen: Mohr.
- Vogel, C. 2000
Anthropologische Spuren. Zur Natur des Menschen, Stuttgart: Hirzel Verlag.
- Vygotsky, L. S. 1962
Thought and Language, 2nd ed., Cambridge, MA: MIT Press.
- Vygotsky, L. S. 1978
Mind in Society: The Development of Higher Psychological Processes, Cambridge, MA: Harvard University Press.
- Weber, M. 1922
Gesammelte Aufsätze zur Wissenschaftslehre, Tübingen: Mohr.
- Weede, E. 1992
Mensch und Gesellschaft. Soziologie aus der Perspektive des methodologischen Individualismus, Tübingen: Mohr.
- Wegner, D. M. 1986
Transactive Memory: A Contemporary Analysis of the Group Mind, in B. Mullen, and G. B. Goethals (Eds.), *Theories of Group Behavior*, New York: Springer, 185-208.
- Wenger, E. 1998
Communities of Practice: Learning, Meaning, and Identity, Cambridge: Cambridge University Press.
- Willke, H. 1989
Systemtheorie entwickelter Gesellschaften: Zusatz Dynamik und Riskanz moderner gesellschaftlicher Selbstorganisation, Weinheim: Juventa.
- Willke, H. 1998
Systemisches Wissensmanagement, Stuttgart: Lucius & Lucius.
- Yanow, D. 2000
Seeing Organizational Learning: A 'Cultural' View, *Organization*, 7: 2, 247-268.

APPENDIX: SYNOPSIS OF MARIO BUNGE'S SYSTEMISM (BUNGE, 1996: 267-268)

Ontology of systemism

1. Society is a system of changing subsystems.
2. Being a system, society has systemic, or global properties. While some of these are resultant (or reducible), others are emergent, though rooted in the individual components and their interplay.
3. Interaction between two social systems is an individual-individual affair, where each individual acts on behalf of the system he or she represents. The members of a social system can act severally upon a single individual, and the behavior of each individual is determined by the place he holds in society, as well as by his genetic endowment, experience, and expectations. And every social change is a change in the structure of a society, hence a change at both the social and the individual levels.

Epistemology of systemism

1. Social science is the study of social systems: their changing composition, environment, and structure.
2. Social facts are to be accounted for (described, explained, or forecast) in terms of social systems and their individual components – with their needs, wants, beliefs, intentions, actions, and interactions – in their natural and social environment. In turn, individual behavior is to be accounted for in terms of all the relevant features, biological, psychological, and social, of the individual-in-society.
3. Hypotheses and theories in social science are to be tested against environmental and social (in particular, demographic, sociological, economic, political, and cultural) data. However, some social data are built out of data concerning individuals, for these alone are directly observable.

Morals of systemism

1. Whereas all individuals can be valuable, the more valuable ones are those who render useful services to others.
2. Enjoying (biopsychosocial) well-being and helping others to live constitute the *summum bonum*.
3. The only legitimate function of a social system is to promote the (biopsychosocial) well-being of its members or those of other social systems, without preventing anyone from meeting their basic needs.