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Knowledge, Narrations and Könnerschaft

Revisiting the Management of Knowledge

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Abstract:

What exactly does knowledge mean? Despite considerable interest in knowledge management, little attention has been devoted to developing a sound conception of knowledge to serve as a basis for a theory of organizational knowledge or to suggestions as how to improve it in practice. As it stands, the conceptual foundation of knowledge has become so blurred that one wonders whether it has any clear meaning left at all. In this article, we discuss these conceptual flaws in the current knowledge debate and develop three requirements designed as a basis for qualifying knowledge from non-knowledge. Knowledge is conceived as communicative in nature and structurally bound to explicit examination procedures. We conclude by discussing those issues that we believe deserve special attention in advanced knowledge management. We also demonstrate that the conception of tacit knowledge is likely to confuse the knowledge debate, as it refers to skills (*Können*) and not to knowledge, as opposed to narrations that can be seen as latent knowledge due to their communicative character.

Introduction

During the last decade, knowledge has come to the fore in management and organization science. Much of this interest has been driven by the recognition that knowledge is a critical success factor in creating value for organizations and, more generally, for the whole post-industrial world. Knowledge is even considered as the most significant resource in the economy of the 21st century (Krogh and Roos 1996, Probst et al. 1997). Popular keywords such as the *knowledge-intensive corporation* (Starbuck 1992, Alvesson 1993, Spender 1996) or the *knowledge society* (Stehr 1994) not only refer to the high importance of knowledge, but also to the dramatic increase in the amount of knowledge available and its vastly improved accessibility (Schneider 2000).

Consequently, many practitioners and academics have realized that managing knowledge is one of the most significant challenges facing organizations today. The most fundamental prerequisite for managing knowledge is a sound conception of knowledge (Alvesson and Kärreman 2001, Tsoukas and Vladimirou 2001). Knowledge is a sophisticated conception; its management needs sophistication.

The growing recognition of the importance of knowledge does not, however, concur with an increasing clarity as to what the concept means. To the contrary, the concept of knowledge is becoming more and more sweeping and blurred. There is a huge tendency towards a continuous broadening in the scope of issues covered by the notion of knowledge: codified data, mental maps, the whole range of cognitions, unconscious assumptions, all kinds of skills and practices, talents, tacit feelings, emotions, routines, culture, norms and standards, and so on. If we follow this path of thinking, it is difficult to find any issue at all that lies beyond knowledge. Is knowledge everything?

This sweeping and unspecific understanding of knowledge sharply contrasts with the significant importance of knowledge considered necessary for creating sustainable competitive advantage. The aim of this paper is to point out that such broad and unspecific notions of knowledge cannot provide a template for reflective and successful knowledge management. This not only holds true for the academic discourse, but also for practical knowledge management. The latter manifests itself as a pressing problem in many corporations. Ever more organizations are confronted with knowledge overflow and the need for selection; knowledge management no longer means simply storing and gathering knowledge. But how can this selection be applied if there is no clear idea of what knowledge is? Or, in other words, high-quality knowledge can only be reached if effective selection processes are used.

Approaches to Knowledge in Knowledge Management

Considering the importance attributed to knowledge, the lack of attention given to knowledge itself is more than surprising. One rarely finds so many references to a conception but such little effort in clarifying its meaning. Some authors even insist on not making any clarification at all. In cases where the conception of knowledge is explicitly reflected, two different versions seem to emerge – the information-theory view on the one hand, and the phenomenological-compilative view on the other.

(1) In information theory, knowledge is differentiated from information, data and signs (Nonaka 1994, Rehäuser and Krcmar 1996). Knowledge is conceived as the final level in a hierarchy starting with signs, leading to data and information, all finally boiling down to knowledge. Signs represent discrete elements, whereas data consist of different signs that are related to each other and ordered by a special syntax. Information is organized around a body

of data. Knowledge as the final step in this hierarchy emerges when different items of information are combined to accomplish a specific task.

In this conception, information of all kinds can build knowledge. Knowledge is only actually formed on an *ad hoc* basis; that is, it is only formed in a concrete situation where various items of information are combined to achieve a specific task. Knowledge therefore refers to a combinative process that needs no special qualification. Consequently, knowledge in this line of reasoning cannot be generalized; it is bound to the specific context of an action (Carlile 2002).

(2) The second version of knowledge advocated in the literature does not differentiate between knowledge and information; it takes a completely different point of view. It focuses on possible determinants of successful action. Knowledge is actually used as an umbrella notion that is supposed to cover any kind of human skill or practice, emotion, norm, or whatever may cause effective action. A clear-cut definition of knowledge is avoided so as not to exclude possible, as yet unknown causes for successful action (Spinner 1994, p. 24). The definition of knowledge often quoted, as given by Davenport and Prusak, represents this pragmatic and compilative understanding of knowledge: "Knowledge is a flux mix of framed experiences, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers." (Davenport and Prusak 1998, p. 5).

The second version claims to draw heavily on the work of Ryle (1949) and Polanyi (1966). The underlying logic is as follows: a successful action is the outcome of the specific knowledge of an actor. Successful actions are therefore always assumed to stem from knowledge. In this conception, knowledge simply equals all possible causes of (successful)

action. Also, it makes no difference whether the actor applies the knowledge consciously or unconsciously. Furthermore, whether the actor's knowledge is explicit (understood) or implicit (not understood) makes no difference in the sense of tacit knowledge (Polanyi 1966, Nonaka and Takeuchi 1997). The latter, as is well known, refers to an individual's competence that, by definition, cannot be put into words. Narrations are assumed to transfer all these partly unconscious types of knowledge (Orr 1990, Boje 1991, Brown and Duguid 2001).

This conception draws, at least implicitly, on the idea that everyday life is based on everyday knowledge (Schütz 1981, Schütz and Luckmann 1984). Everyday knowledge is assumed to represent the subjective and intersubjective reality of a community (Berger and Luckmann 1966). According to this view, knowledge is no longer something special, something to be cultivated in special scientific institutions such as universities and scientific text books. Knowledge is considered to be simply a ubiquitous phenomenon.

While the body of ideas behind this second conception of knowledge differs sharply from the first, there is one dimension where both views converge. In either view, knowledge can no longer be separated in any way from its specific context. It is only relevant in a specific context of an action and is only identifiable *ex-post actu.* If an action was successful, the driving force in all cases is assumed to be individual knowledge.

Whatever the details are, all these conceptions refrain from giving the term *knowledge* any specific contours; it is conceived more as an unspecified accumulation of information, sense-making elements and action drivers without any specific delineating borders. It is difficult to imagine any kind of information, cognition, emotion, or disposition that would not fit into this conception.

But is this a promising template? Is it really helpful to subsume any possible cognition, emotion, story, or information under the notion of knowledge? Or does the opposite hold true – if knowledge is everything, maybe it is nothing? [1]

The blind spot of this conception immediately becomes obvious when asking the reverse question: What is *not* knowledge? A closer look reveals that this conception of ubiquitous and all-encompassing everyday knowledge does not allow for any answer here – the reverse case of non-knowledge is logically excluded. This raises the question of whether a concept without any idea of what it excludes can be helpful. Actually, this broad conception of knowledge is likely to confuse the basis of knowledge management. As has been pointed out, knowledge management basically means the identification, generation, and transfer of a strategically critical and scarce resource. If knowledge is supposed to represent a scarce resource with a high value for both organizations and societies, it has to have exclusive qualities. Following the ubiquitous conception of knowledge misses exactly this point. Taken together, these sweeping conceptions of knowledge cannot provide a promising platform for organizational knowledge management. A much more distinctive conception of knowledge is required, one that allows for qualification, thereby leaving scope for other concepts such as skill, competence, and capability, which are considered to operate on a different logical basis and therefore have to be managed in a different way (see also Alvesson 1993).

Knowledge management is expected to provide orientation by nurturing a critical and scarce resource; we should refrain from conceiving it as a non-specific, non-selective catch-all for any kind of phenomenon.

[1] This is a paraphrase of Wildavsky´s (1973) legendary article: "If planning is everything, maybe it´s nothing."

Knowledge and the Philosophy of Science

The search for a definition of knowledge goes back a long way, and has been one of the most heavily discussed and reflected questions in the philosophy of science. There has been a continuous debate on how to specify knowledge, how to differentiate it from other concepts such as simple belief or quackery. Surprisingly enough, this long-standing tradition in the reflection on the nature of knowledge has not been taken into consideration at all in the debate on knowledge management up to now (see for further details Schreyögg 2001, Grandori and Kogut 2002, p. 224). This is even more surprising since in practical knowledge management, ever more questions emerge that come close to traditional philosophical issues, such as questions involving the quality, reliability and validity of knowledge generated in communities of practice and distributed throughout an organization.

The philosophy of science has always been concerned with the basic distinction between true or false knowledge and the underlying theories of truth. It is well known that the philosophy of science has not succeeded in reaching full consensus on all of these fundamental questions. On the other hand, science and humanities have become well-established in all modern societies; scientific knowledge, however defined, has gained a salient status. Factually, procedures have been established in all scientific areas for distinguishing knowledge, no matter what kind of philosophy is preferred. To be sure, the philosophies are in a state of flux, but there is a firm consensus that science, scientific articles and so on have to meet criteria that differ from non-scientific statements.

In the process of knowledge generation, science has operated with the true vs. false dichotomy from the very beginning. Assertions, hypotheses etc. have to be examined by agreed procedures as to whether they can be accepted (validated) or not (falsified) (Popper 1966, Kamlah and Lorenzen 1967, p. 116). Assertions proven true in the defined sense are

accepted as preliminary scientific knowledge, and are separated from other propositions – at least as long as no other argument becomes known that can prove the contrary. Only the use of an examination procedure can allow for a differentiation between knowledge and other propositions. Assertions that have successfully passed the examination procedure are marked as scientific knowledge. Since all these procedures are based on dialog and not on objective truth in the final analysis, it is always possible that statements that have previously been claimed to be true are proven false later on. In that case, one would call it *false knowledge* (Luhmann 1998b). The geocentric theory of the world may be taken as an example for that kind of false knowledge.

False knowledge should not – as for instance Popper (1972) did – be understood as non-knowledge. False knowledge has a clear role in the academic discourse, and is still seen as knowledge in order to mark the difference from knowledge claimed to be true. False knowledge has an important function in guiding further research toward making false knowledge known (Luhmann 1998b, p. 170). Actually, false knowledge only describes a temporary state, anyway; another observer may rehabilitate it as *true* knowledge with a new argument.

There is a tradition that different academic disciplines operate with different methodologies of achieving truth, which are sometimes said to be different philosophies of science (Lorenzen and Schwemmer 1973). It is quite well-known that there is an ongoing and unresolved debate on which theory of truth can and should be applied within and across disciplines (Habermas 1973, Puntel 1993, Habermas 1995; for a summary, see v.Werder 1994 pp. 222). This long-standing and far-reaching debate cannot be recapitulated here. Despite the vast differences in philosophies, the search for overall meta-criteria to distinguish scientific knowledge does not seem to be a hopeless task. Actually, all modern societies are used to operate scientific

knowledge on well-established procedures (such as the weather forecast, aircraft safety, and health issues). The reference to scientific knowledge has become so common that we are often unaware of this nexus. Attempting to define these meta-criteria in knowledge requirements seems pivotal. These requirements are (Toulmin 1958, Mittelstraß 1974, Habermas 1981a, Mittelstraß 1990, Lyotard 1999):

1. First of all, scientific knowledge is based on propositions, i.e. knowledge is communicative in nature and subject to scientific discourse.
2. There have to be reasons for the claims inherent in propositions. This implies that scientific knowledge cannot flow from assertions for which no reasons have been given.
3. Reasons have successfully passed an examination procedure that is accepted in the scientific community. In science, the modus for evaluation of knowledge in operation is the distinction between true and false.

The examination criteria in use must be accepted by the scientific community – the criteria must not be arbitrary. This does not imply that truth can be discovered in any objective sense; rather, the fact that there has been a discursive examination procedure that this knowledge has passed successfully is decisive.

In the current era of constructivism, it goes without saying that these examination procedures can never be objective in the sense that they could claim to reach a final truth or represent the world as it really is. Since the linguistic turn, the majority agrees that scientific truth is essentially socially constructed. Nevertheless, any scientific community actually operates on examination criteria for testing and qualifying assertions and knowledge considered to be valid in that field.

What is Knowledge anyway?

Classical philosophical tradition and the world of positivism hold that only scientific criteria can be accepted for determining what knowledge is. According to the positivistic ideal, knowledge can only be generated and evaluated by scientists, as science is considered the only institution capable of deciding on the validity of knowledge (Popper 1966). Science, and only science, is legitimized to generate knowledge. This point of view has increasingly lost acceptance. Constructivism and the sociology of knowledge made the case that knowledge can be generated and evaluated in different functional systems, not only in the sciences (Gibbons 1994, Luhmann 1998b, Lyotard 1999). Any functionally differentiated society is represented by different functional systems such as commerce or the legal system. They all operate on their own logic (Luhmann 1975, p. 60, Luhmann 1998a, p. 746). Consequently, all these systems can be seen as generating and operating knowledge according to their own criteria developed in their own functionally specific discourse. As a result, scientific knowledge has lost its monopoly. It is only one among several types of knowledge used and generated in society (Luhmann 1998b, p. 342).

From that point of view, scientific knowledge represents a type of knowledge that fulfils criteria and evaluation processes of a specific subsystem known as science. Other knowledge types such as legal knowledge and business knowledge are expected to fulfill different requirements according to the rules valid for that subsystem.

There are good reasons to broaden the scope of knowledge beyond science. But how can we handle this differentiation? Why are suggestions from lawyers or tips from cooks knowledge – and not personal belief or quackery? Should we accept all suggestions, assumptions and so on as knowledge? As shown above, the recent literature on knowledge management urges

towards exactly this conceptual broadening, and we are supposed to accept all these items indiscriminately as knowledge. As shown above, practicing this idea this would be greatly misleading. We definitely need criteria for distinguishing what tips and recommendations are good, bad, successful, or misleading, otherwise we will loose orientation. So, once again, the question arises in identifying those convincing features that can bring about this badly needed differentiation – not in this case only for scientific knowledge, but for knowledge in general.

Any attempt at identifying the overall criteria for differentiating knowledge from other assertions is a daring endeavor prone to failure; many scholars would call it a "mission impossible." Is it not too presumptuous an endeavor? Yes and no. After all, we have to face the challenge that despite all the difficulties, knowledge management badly needs qualification criteria for fulfilling its function. What could those meta-criteria be? What are the criteria for knowledge that have to be fulfilled, no matter what subsystem or context of society served as the origin of the knowledge produced? Also, what are the criteria for knowledge that differ from system/discourse to system and are therefore *field-dependent* (Toulmin 1958, p. 15)? Let us take a pragmatic approach, starting with the philosophy of communicative practice and its implications for all practical discourses whatever the context is.

1. The most fundamental, field-invariant characteristic that can be identified is that knowledge represents some kind of statement or assertion (Toulmin 1958). This means that knowledge is communicative in nature; it cannot exist outside communication. Assertions can only be examined when they are subjected to discourse. There is no qualification without differentiation; there is no differentiation without examination; there is no examination without communication.

2. However, the communicative dimension, while necessary, is not sufficient for qualifying an assertion as knowledge. How can we differentiate, for example, useful and reliable recommendations from red herrings and nonsense? Again, we can refer to the essentials of any discursive practice. Statements, assertions and so on cannot be examined (discussed, reflected etc.), and therefore cannot become knowledge unless they are given reasons in whatever form. Since any assertion puts forward a claim, explicitly or implicitly, the proponent must supply reasons that support the claim (Toulmin 1958, p. 11). Discourse demands reasons.

3. Reasons can be good or bad. Knowledge therefore not only needs reasons, but *good* reasons. Reasons are called good reasons when they have successfully passed an examination procedure. The criteria in use stem form the field in question (Toulmin 1958, Mittelstraß 1974, Lyotard 1989, Mittelstraß 1990, Lyotard 1999). The examination criteria for knowledge are always *field-dependent* (Toulmin 1958). There are no universal standards to justify knowledge; instead, each discourse develops its own accepted standards.

Examination criteria and procedures in this sense are already well-established in society and organizations. Well-known procedures in organizations are, for instance, *issue assessment* (Dutton and Duncan 1987, pp. 283), *strategic issue diagnosis* (Dutton et al. 1983, pp. 312), *war rooms* (Ansoff 1980), *devil's advocate* (Mason and Mitroff 1981) and *dialectical planning* (Mitroff et al. 1982). They all specify more or less sophisticated examination procedures; from our point of view, this means procedures for generating and assessing knowledge.

According to the suggestions provided above, scientific and non-scientific knowledge do not differentiate that much in the first two requirements; the striking difference arises through the third requirement – the criteria used. The criteria in use stem from the specific discourse and the community in question (Luhmann 1998b, Koch 1999, Lyotard 1999).Corporations, for example, are accustomed to processing knowledge according to criteria relevant to earnings performance, profitable versus unprofitable (Vries 1996); in the legal system, knowledge building is usually based on a just vs. unjust distinction, as opposed to the true vs. false dichotomy in science.

Since there are no universal operating criteria for qualifying knowledge (requirement No. 3), assertions always have to match field-dependent criteria in order to become accepted as knowledge within a specific discourse. As a result, different knowledge communities (sectors) and, by implication, different types of knowledge based on field-dependent criteria will co-exist in any society. Common differentiations are: esthetic knowledge, scientific knowledge, economic knowledge, and spiritual knowledge. These different knowledge types can enhance each other, simply co-exist, or contradict each other. How to deal with conflicts between knowledge from overlapping or competing communities is an open question. This refers to another long-standing debate on the (in)commensurability of contexts (Toulmin 1958, Scherer and Steinmann 1999), a recapitulation of this debate is however beyond the scope of this article.

Despite all the differences, it should be pointed out that the varying forms of knowledge discourse are not, and cannot be, completely isolated from each other. Communities observe and react to each other (Weingart 1999). To this end, they have to be familiar with the criteria that the other communities use. It is also often the case that they need knowledge from other communities. This often implies that they simply have to trust in results from "foreign"

qualification processes; as an example, an electronic equipment firm usually accepts the results of academic research in physics without question.

The same holds true from an intra-organizational point of view. Managing knowledge often means applying different knowledge qualification processes simultaneously and according to the needs of the specific problem in question. Consequently, organizations are multi-criteria systems in many cases, applying different types of examination procedure and discourse at the same time. From a practical point of view, organizations therefore have to handle different knowledge streams at the same time; the relationship between these different discourses varies from time to time, with one stream temporarily dominating over another. Take, for instance, a pharmaceutical corporation that has to use scientific criteria to test the effects and side effects of their products, and at the same time business knowledge on the marketability of these products, legal knowledge on potential damages claims, financial knowledge on the return on investment, and so on.

To sum up, knowledge is neither just anything, nor is it boundaryless. It is not just anything since it has had to successfully pass an examination procedure. It is not boundaryless because assertions and only assertions can become knowledge.

What Lies Beyond Knowledge?

Any effort to specify knowledge raises at the same time the question to distinguishing knowledge from constructs excluded from the concept of knowledge such as competencies, narrations, and tacit knowing. As previously stated, this question can only be addressed if we actually draw an explicit distinction. Among all these related conceptions, two are salient and deserve special attention – the extremely popular concept of tacit knowledge, and the concept of narrative knowledge that has also increasingly attracted a great deal of attention in

organizational analysis (Boje 1991, Czarniawska 1997, Gabriel 2000, Tsoukas and Hatch 2001).

Is Tacit Knowledge Actually Knowledge?

The distinction between explicit and tacit knowledge plays undoubtedly a major role in the debate on knowledge management (Polanyi 1966, Nelson and Winter 1982, Franck 1991, Nonaka 1994, Spender 1996, Probst et al. 1997, Subramaniam and Venkatram 2001). Explicit knowledge is understood as that kind of knowledge that is verbal in nature, transferable and storable in archives. It is not bound to a specific person. Polanyi (1966) calls it "disembodied knowledge." Explicit knowledge refers to facts and rules that can be documented, or at least codified, and can be reproduced by applying specific construction rules. Ryle (1949) calls explicit knowledge "knowing what."

Opposed to that, tacit knowledge draws on all those aspects of individual proficiency which are non-verbal in nature and cannot be explicated. This is why Polanyi (1966, p. 4) stated: "We know more than we can tell." Tacit knowledge is supposed to be unconscious to the individual; it brings about an individual action in a way the actor cannot explain. He or she acts on the basis of something that he or she "knows," but cannot explain. Tacit knowledge is a special competence of a specific knower, and is therefore a strictly individual category. This is why it is often called "Personal Knowledge" (Polanyi 1958). It cannot be separated from the knowing individual. Tacit knowledge comes close to a personal skill or capability, something individuals can rely on in everyday life without being aware of it, let alone understanding it. Tacit knowledge is a bodily competence; Polanyi therefore calls it "embodied knowledge," an inseparable part of the actor's body (Franck 1992, p. 169). Ryle (1949) calls it "knowing how." As a logical consequence, tacit knowledge can only be

actualized within actions and cannot be removed from an actor's context (Cook and Brown 1999, p. 387, Neuweg 1999).

Tacit components are without doubt extremely important features in any action. But what are the reasons to equal this tacit competence with *knowledge*? For Polanyi, the reason is that it contributes to a successful individual action. From a methodological point of view, he refers to an *ex-post* attribution procedure that runs as follows: If an individual action was successful and if it is not possible to trace this action back completely to the use of explicit knowledge, then (in addition) the effective working of tacit knowledge is to be assumed. Tacit knowledge therefore is conceived as a kind of residual category; everything which cannot be explained by the existence of explicit knowledge is assigned to an unspecific rest that is unexplainable but nevertheless highly effective. The procedure is somewhat analogous to many cross-cultural studies, where any unexplained variance is assigned to the culture category.

The most important feature of tacit knowledge is its non-verbal nature. Polanyi points out that explicit and tacit knowledge are meant to be two completely different categories or dimensions.

Incidentally, this insight raises some doubts on the popular concept of the knowledge spiral suggested by Nonaka and Takeuchi (1995), which encourages knowledge engineers to convert tacit knowledge into explicit knowledge. Following Polanyi, tacit knowledge is not convertible into explicit knowledge; they represent two structurally different dimensions. A theory that explains how to drive a car is not nearly enough in developing the capability of driving a car. Driving cannot be learned by verbal explanations only; rather, it takes practical non-verbal experience to be acquired (Polanyi 1966, p. 20). These embodied capabilities cannot be verbalized. They have to be learnt as bodily practice. There is no way to convert

them into explicit knowledge. If Nonaka were right, the conception of tacit knowledge would only refer to a preliminary state of explicit knowledge that has simply not yet been discovered. It is actually explicit knowledge that is still tacit, not because of its nature, but rather because it has not yet been explicated. This idea does not concur with Polanyi's philosophy. He draws the distinction between explicit and tacit knowledge to mark the existence of two structurally different forms of knowledge. Converting efforts of this kind therefore cannot take a front seat in knowledge management (see for a similar argumentation: Franck 1992, p. 642, Tsoukas 1996, Cook and Brown 1999, p. 385, Brown and Duguid 2001, p. 204).

There is a second argument that renders conversion approaches even more questionable. It stresses the complementary nature of explicit and tacit knowledge. Polanyi holds that the application of explicit knowledge is not possible without tacit knowing; referring only on explicit knowledge would necessarily lead to a failure (Polanyi 1966, p. 20). In other words, the tacit dimension forms an indispensable background for understanding and applying explicit knowledge. By implication, this tacit background is not convertible by its very nature.

To summarize, tacit knowledge is conceived as a personal skill or capability that forms the hidden background for an individual action. It is not understood by the actor and not consciously applied.

When applying the criteria for knowledge as defined above, it immediately becomes obvious that tacit knowledge cannot and should not be seen as knowledge. It does not exist in verbal form, cannot be reflected in discursive processes, and it cannot be examined by any interpersonal examination procedure. It refers to a hidden competence that does not at all match the dimensions of the knowledge construct. This insight is underlined by the fact that it

is not possible to differentiate between true and false tacit knowledge. It is conceptually bound to successful action; tacit knowledge is always true. There is no such thing as false tacit knowledge, so the category knowledge does not apply.

That conclusion does not intend in any way to call the importance of tacit "knowledge" into question. The importance often claimed for successful everyday practice in organizations cannot and should not be denied. Rather, our argument is that subsuming it under the notion of knowledge is likely to make the whole conception of knowledge too all-encompassing, and eventually meaningless.

Also, the background argument is important here. Doubtlessly, any knowledge is embedded in the background of everyday life (Habermas 1981b). What is important here is that knowledge should not be confused with concepts such as *Lebenswelt* or everyday practice. Knowledge represents qualified assertions that always have a *Lebenswelt* background, but are not identical with it (Habermas 1981b, p. 189). The differences between these concepts are essential to a meaningful theory of knowledge.

As a result of this discussion, we urge towards a replacement of the misleading term *tacit knowledge* by the term *skillfulness* or *practical proficiency* or the German word "*Könnerschaft*" to mark the structural distinction (see Ambrosini and Bowman 2001, Orlikowski 2002 for a similar proposition). Furthermore, Polanyi himself wondered whether tacit knowledge would not be better understood as *skillfulness* or *"Können"* (Polanyi 1966, p. 7, see for a similar argumentation Neuweg 1999, p. 135). The conception of skills has remarkably different implications for both theory and practice that differ in a significant way from knowledge. For example, management of skills means largely human resource

management, such as the identification of skilled individuals and the proper use of the bodily skills.

The importance of this differentiation becomes obvious when taking the relationship between knowledge and action into consideration. Effective, successful individual action needs both knowledge and *Könnerschaft* to be carried out in a successful way. A surgeon, for example, needs both knowledge about the human body and specific operation techniques and, very importantly, *Könnerschaft*, which means that he or she has the manual dexterity and training to use surgical instruments in a precise way, without trembling, to carry out the operation successfully. Successful deployment of knowledge cannot be realized without *Könnerschaft*. So the one needs the other, but they are not the same. They operate on a different logic and should therefore be treated differently.

Furthermore, the conception of tacit "knowledge" or embodied skills is individual by its very nature. Also using it on a collective level is not as easy as it appears in the mainstream literature on knowledge management. The question arises as to whether there is a collective body or embodied skills. There is obviously the danger of reificating the organization as a body. Collective concepts such as *core competencies* (Prahalad and Hamel 1990) or *social capital* (Bourdieu 1982, Tsai and Goshal 1998) might offer an interesting and promising starting point here, but a theoretical template for a genuine *collective Könnerschaft* is still missing.

Is Narrative Knowledge Actually Knowledge?

There is a second prominent type of knowledge that should be explored in order to attain more clarity in the knowledge debate. In many contributions, the concept of narration is considered to be closely related to tacit knowledge. The idea is that tacit knowledge is

activated and transferred through stories and narrations. The following chapter is designed to show that narrative knowledge has a different logical basis than tacit knowledge, and should therefore not be confused with the latter.

According to Lyotard (1999, p. 32), knowledge in the contemporary information society can be separated in two different forms – scientific and narrative. He starts with the thesis that scientific knowledge does not represent the whole range of knowledge of a society, but only a top-up to narrative knowledge (Lyotard, p. 76).

Narrative knowledge refers to contexts that are at variance with scientific knowledge. Narrative knowledge is depicted as a kind of storytelling knowledge. Some authors even go as far as to regard organizations as storytelling systems (Boje 1991, Gabriel 2000). Stories are told within organizations, they are accepted or turned down, re-told to members of special communities and to outsiders, and so on. Different stories contain ideas on various subjects, as summarized in the examples of "making-how," "living-how," "listening-how" by Lyotard (1999, pp. 64). The stories tell something about success or failure, effective or failed solutions to problems, about good luck, justice, beauty etc. By listening to the stories, the audience is supposed to learn new lessons. Narrations are assumed to transport two different aspects simultaneously: on the one hand, special know-how, and on the other hand, the justification of the implicitly transported claims; that is, the evaluative dimension is communicated at the same time. It is important to realize the wicked character of narration, which is both descriptive and prescriptive at the same time. Such processes of acquiring norms, standards, assumptions and so on, and simultaneously justifying them are also well-known from the debate on organizational culture (Kluckhon and Strodtbeck 1961, Schein 1985). In a sense, culture is always affirmative.

Narrative knowledge, in contrast to scientific knowledge, embraces all different kinds of discourses. All different kinds of statements, normative, descriptive, evaluative and so on coexist within one story and are not separated (Lyotard 1999, p. 68).

It should be stressed that narrative knowledge is expressed in words, and has the character of assertions, statements, and therefore is communicative in nature. These stories follow a specific grammar, which is sometimes referred to as the *narrative mode* (Bruner 1986) or even as *narrative rationality* (Weick and Browning 1986, Tsoukas and Cummings 1997). These structural features come close to the criteria of knowledge and make a clear-cut distinction from tacit (silent) know-how. But how could an examination and justification procedure apply? In Lyotard's view, narrative knowledge does not need any formal or explicit justification procedure; rather, it legitimates itself (Lyotard 1999, pp. 74). This self-legitimation of narrative knowledge is achieved through the constant transfer and retelling of the story; the story is accepted as such, and is taken for granted and passed on. The criteria that legitimate narrative knowledge are part of the narration itself, and therefore become more or less automatically accepted. Narrative knowledge does not explicitly demand legitimation – it is accepted through its own narrative practice.

This self-evaluation process puts narrations between knowledge and *Lebenswelt* (literally "life-world," the immediate living environment of a person). On the one hand, narrations have evaluation criteria to fulfill; that is, the narrative grammar has to be accepted in the field where the narration is told (Lyotard 1999, p. 65). But these criteria are not the outcome of any explicitly agreed evaluation process; rather, they are an implicit part of the practices of a community, that is, they tacitly apply. There are, however, narrations that are intuitively rejected in a narrative communication. The listeners simply do not believe in the story. That means there is such a thing as false stories.

It is perfectly clear that these procedures are not a full-blown examination procedure comparable to those usually required for distinguishing knowledge in other disciplines. The examination procedure remains tacit and therefore unreflected. Narrations do not come up with reasons, and they are not told in an argumentative manner (Weick and Browning 1986, p 249), they are just accepted or rejected without explicit reasoning. This does not concur with the idea of knowledge.

This conclusion changes, however, if we take a dynamic view: evaluation criteria that have not yet been reflected may be brought to the surface and made the subject of an examination process. This is possible due to the communicative character of the whole narrative process. As a result, one could consider narrations as a kind of latent knowledge. Calori (2000, p. 1035) suggested calling it contextual knowledge since, in its initial state, it is context-bound. Narrations in this sense can be seen as the communicative mode of the overarching life-world (*Lebenswelt*). Through an explicit reflection process, narrations can become knowledge (Habermas 1981a). Figure 1 illustrates this process. The basis is the life-world, parts of it can be made subject of reflection and can become knowledge.

(insert Figure 1)

Implications for Knowledge Management

What does all that mean for knowledge management? Let us start with narrations. Its importance for knowledge management has recently become apparent. There are various organizational practices and knowledge-generating processes that can be interpreted as narrative approaches for managing knowledge. The “communities of practice” concept is a popular example for such organizational practices (Wenger 1999, Wenger and Snyder 2000).

Within communities of practice, narrations on specific problem-solutions in the organization are activated, transferred and intuitively evaluated (Orr 1990, Brown and Duguid 2000, Lounsbury and Glynn 2001). Communities of practice therefore can be seen as institutions for cultivating narrations and the narrative capabilities of an organization.

However, we should be aware of the fact that the stories told in communities do not all represent approved and qualified knowledge. Not all stories are true. Narrations transfer experiences that might represent something useful for the whole organization or not. The narrative mode does not imply reflexive examination procedures to determine whether or not the experiences can be qualified as being something just or unjust, profitable or non-profitable, or according to whatever dichotomy is to be applied. The narrative mode has no explicit validation process; the community accepts the story because it fits the implicit agreement among the experts that the story is worth telling. From a methodological aspect, however, this is not a blind alley; the story can be made subject to an explicit validation process. The organization can establish examination procedures such as "issue assessment" or "war rooms," and thereby check the stories. This is a possibility, but not a necessity. In many cases, organizations manage problem-solving procedures quite successfully on the basis of narrations. So we would not argue for a general superiority of knowledge over narrations or latent knowledge in terms of effectiveness. The specific advantage of narrations, which is at the same time also their disadvantage, is that they stick closely to the particular context, local circumstances and timely events (Tsoukas and Cummings 1997, p. 667, Calori 2000, p. 1035). Stories are closely linked with a particular problem situation. Potentially, they can close the gap between more generalized discursive knowledge and a specific action within a concrete context. Narrations can combine generalized and particular knowledge. The narrative mode and narrations are therefore considered as being the best way of becoming practically wise (Weick and Browning 1986, Tsoukas and Cummings 1997).

Whatever the procedure, narrations are in any case obviously assumed to transport a lesson for general application; their validity is not thought to be bound to a specific situation. This is eventually the very reason for telling the story; otherwise, it would be meaningless in the context of knowledge management. Knowledge strictly bound to one specific case would not be worth telling.

This brief discussion has, at the same time, shed light on an issue of more general importance. As mentioned, the bulk of the recent knowledge management literature conceives knowledge as being strictly bound to time, space and the individual. Besides the fact that the distinguishing feature of knowledge has been its generalizability, as manifested in text books, encyclopedias and so on for centuries, the discussion of the narrative reveals how misleading and confusing the individualization of knowledge is. Finally, the idea of knowledge management would not make any sense if the generalizability of knowledge were not assumed.

All the questions raised in this paper finally converge in the question of selection. Knowledge management has to become more quality-oriented. It also has to focus on the process of knowledge qualification. Knowledge management cannot limit itself to only managing the *context* of knowledge generation; it must make knowledge itself subject to its management efforts. To neglect the content is a risky business. The danger arises that all features are accepted as knowledge – even obsolete, misleading and non-generalizable content. This risky knowledge policy is not advisable for any organization. Effective knowledge management badly needs a qualifying selection process – a task that does not apply to tacit know-how because of its embodied nature.

This discussion refers back to our opening statement highlighting the strategic importance of knowledge. Critical knowledge assets demand sound examination procedure, otherwise there is no way to guarantee high quality in knowledge.

Beyond building theories, we hope that these reflections provide guidance for empirical studies into the role that examination procedures play in successful knowledge communities towards creating valuable assets. Although the existing empirical base is thin, we hold that significant progress is quite possible. In fact, the selection issue is much more often in use than reflected in knowledge-management literature. We should not refrain from issues that are as complicated as truthful and untruthful narrations. Knowledge management is in need of it.

References

Alvesson, M. 1993. Organizations as rhetoric: Knowledge-intensive firms and the struggle with ambiguity. *Journal of Management Studies* **30** 997-1015.

Alvesson, M., D. Kärreman 2001. Odd couple: Making sense of the curious concept of knowledge management. *Journal of Management Studies* **38** 995-1018.

Ambrosini, V., C. Bowman 2001. Tacit knowledge: Some suggestions for operationalization. *Journal of Management Studies* **38** 811-829.

Ansoff, H. I. 1980. Strategic issue management. *Strategic Management Journal* **1** 131-148.

Berger, P. L., T. Luckmann 1966. *Die gesellschaftliche Konstruktion der Wirklichkeit*, Suhrkamp, Frankfurt a.M. (The social construction of reality)

Boje, D. M. 1991. The storytelling organization: A study of story performance in an office-supply firm. *Administrative Science Quarterly* **36** 106-126.

Bourdieu, P. 1982. *Die feinen Unterschiede*. Suhrkamp, Frankfurt a.M.(Distinction)

Brown, J. S., P. Duguid 2000. *The social life of information*, Harvard Business School Press, Boston MA.

Brown, J. S., P. Duguid 2001. Knowledge and organization: A social-practice perspective. *Organization Science* **12** 198-213.

Bruner, J. 1986. *Actual minds, possible worlds*. Harvard University Press, Cambridge MA.

Calori, R. 2000. Ordinary theorists in mixed industries. *Organization Studies* **21** 1031-1057.

Carlile, P. R. 2002. A pragmatic view of knowledge and boundaries: Boundary objects in new product development. Organization Science **13** 442-455.

Cook, S. N., J. S. Brown 1999. Bridging epistemologies: The generative dance between organizational knowledge and organizational knowing. *Organization Science* **10** 382-400.

Czarniawska, B. 1997. *Narrating the organization: Dramas of institutional identity.* The University of Chicago Press, Chicago.

Davenport, T. H., L. Prusak 1998. *Working knowledge*, Harvard Business School Press, Cambridge MA.

Dutton, J. E., R. B. Duncan 1987. The creation of momentum for change through the process of strategic issue diagnosis. *Strategic Management Journal* **8** 279-295.

Dutton, J. E., L. Fahey, et al. 1983. Toward understanding strategic issue diagnosis. *Strategic Management Journal* **4** 307-323.

Franck, E. 1991. *Künstliche Intelligenz. Eine grundlagentheoretische Diskussion der Einsatzmöglichkeiten und -grenzen*, Mohr, Tübingen.

Franck, E. 1992. Körperliche Entscheidungen und ihre Konsequenzen für die Entscheidungstheorie. *Die Betriebswirtschaft* **52** 631-647.

Gabriel, Y. 2000. *Storytelling in organizations*. Oxford University Press, Oxford.

Gibbons, M. 1994. *The new production of knowledge: The dynamics of science and research in contemporary societies*, Sage, London.

Grandori, A., B. Kogut 2002. Dialogue on organization and knowledge. *Organization Science* **13** 224-231.

Habermas, J. 1973. *Erkenntnis und Interesse*, Suhrkamp, Frankfurt a.M.

Habermas, J. 1981a. *Theorie des kommunikativen Handelns, Bd. I.* Suhrkamp, Frankfurt a.M. (Theory of communicative action)

Habermas, J. 1981b. *Theorie des kommunikativen Handelns, Bd. II*, Frankfurt a.M.

Habermas, J. 1995. *Vorstudien und Ergänzungen zur Theorie des kommunikativen Handelns*, Suhrkamp, Frankfurt a.M.

Kamlah, W., P. Lorenzen 1967. *Logische Propädeutik, oder Vorschule des vernünftigen Redens*, BI-Verlag,Mannheim/Wien/Zürich.

Kluckhon, F. R., F. L. Strodtbeck 1961. *Variations in value orientations*, Evanston.

Koch, J. 1999. Postmoderne Organisationstheorien in der Perspektive Lyotards. G. Schreyögg,ed. *Organisation und Postmoderne*. Wiesbaden. 85-126.

Krogh, G. v., J. Roos 1996. *Organizational epistemology*, Sage,London.

Lorenzen, P., O. Schwemmer 1973. BI- Verlag, *Konstruktive Logik, Ethik und Wissenschaftstheorie*, Mannheim.

Lounsbury, M., M. A. Glynn 2001. Cultural entrepreneurship: Stories, legitimacy, and the aquisition of resources. *Strategic Management Journal* **22** 545-564.

Luhmann, N. 1975. *Soziologische Aufklärung 2. Aufsätze zur Theorie der Gesellschaft*, Westdeutscher Verlag, Opladen.

Luhmann, N. 1998a. *Die Gesellschaft der Gesellschaft, 2 Bd.*, Suhrkamp, Frankfurt a.M.

Luhmann, N. 1998b. *Die Wissenschaft der Gesellschaft*, Suhrkamp, Frankfurt a.M.

Lyotard, J. F. 1989. *Der Widerstreit*, München.

Lyotard, J. F. 1999. *Das postmoderne Wissen. Ein Bericht,* Passagen-Verlag, Wien (Towards the Postmodern).

Mason, R. A., I. I. Mitroff 1981. *Challenging strategic planning assumptions - theory, cases and techniques*, New York.

Mitroff, I. I., R. A. Mason, et al. 1982. Policy as argument - A logic for ill-structured decision problems. *Management Science* **28** 1391-1404.

Mittelstraß, J. 1974. *Die Möglichkeit von Wissenschaft*, Suhrkamp, Frankfurt a.M.

Mittelstraß, J. 1990. Gestörte Verhältnisse? Zur gesellschaftlichen Wahrnehmung von Wissenschaft. J. H. Schuster, ed. *Handbuch des Wissenschaftstransfers*. Springer, Berlin. 42-55.

Nelson, R. R., S. G. Winter 1982. *An evolutionary theory of economic change*, Harvard University Press, Cambridge, MA.

Neuweg, H. G. 1999. *Könnerschaft und implizites Wissen. Zur lehr-lerntheoretischen Bedeutung der Erkenntnis- und Wissenstheorie Michael Polanyis*, Waxmann, Münster.

Nonaka, I. 1994. A Dynamic Theory of Organizational Knowledge Creation. *Organization Science* **5** 14-37.

Nonaka, I., H. Takeuchi 1995. *The knowledge creating company: how Japanese companies create the dynamics of innovation*. Oxford University Press, New York.

Orlikowski, W. J. 2002. Knowing in practice: Enacting a collective capability in distributed organizing. *Organization Science* **13** 249-273.

Orr, J. E. 1990. Sharing knowledge, celebrating identity: Community memory in a service culture. D. Middleton and D. Edwards, eds. *Collective remembering*. Sage, London. 169-189.

Polanyi, M. 1958. *Personal knowledge. Towards a post critical philosophy,* University of Chicago Press, Chicago.

Polanyi, M. 1966. *The tacit dimension*, Peter Smith Publ.,London.

Popper, K. R. 1966. *Logik der Forschung*, Mohr, Tübingen

Popper, K. R. 1972. Die Logik der Sozialwissenschaften. T. W. Adorno, R. Dahrendorf, H. Albert, J. Habermas and K. R. Popper. *Der Positivismusstreit in der deutschen Soziologie*. Darmstadt. 103-123.

Prahalad, C. K., G. Hamel 1990. The core competence of the corporation. *Harvard Business Review* **68**(3) 79-91.

Probst, G., S. Raub, et al. 1997. *Wissen managen: Wie Unternehmen ihre wertvollste Ressource optimal nutzen*, FAZ-Verlag, Frankfurt a.M./Wiesbaden.

Puntel, L. B. 1993. *Wahrheitstheorien in der neueren Philosophie. Eine kritische systematische Darstellung*, Wissenschaftl. Buchg., Darmstadt.

Rehäuser, J., H. Krcmar 1996. Wissensmanagement im Unternehmen. G. Schreyögg and P. Conrad, eds. *Managementforschung 6. Wissensmanagement*. DeGruyter, Berlin1-40.

Ryle, G. 1949. *The concept of mind*, London.

Schein, E. H. 1985. *Organizational culture and leadership: A dynamic view*, Jossey Bass, San Francisco et al.

Scherer, A. G., H. Steinmann 1999. Some remarks on the problem of incommensurability in organizations. *Organization Studies* **20** 519-544.

Schneider, U. 2000. Work under Construction: Management als Steuerung organisatorischen Wissens. G. Schreyögg, ed. *Funktionswandel im Management: Wege jenseits der Ordnung.* Duncker&Humblot, Berlin.

Schreyögg, G. 2001. Wissen, Wissenschaftstheorie und Wissensmanagement. Oder: Wie die Wissenschaftstheorie die Praxis einholt. G. Schreyögg, ed. *Wissen in Unternehmen. Konzepte, Maßnahmen, Methoden*. Schmidt-Verlag, Berlin.

Schütz, A. 1981. *Theorie der Lebensformen*, Suhrkamp, Frankfurt a.M.

Schütz, A., T. L. Luckmann 1984. *Strukturen der Lebenswelt, Bd. 2*, Suhrkamp, Frankfurt a.M.

Spender, J. C. 1996. Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal* **17** 45-62.

Spinner, H. F. 1994. *Die Wissensordnung*, Westdeutscher Verlag, Opladen.

Starbuck, W. 1992. Learning by knowledge-intensive firms. *Journal of Management Studies* **29** 713-740.

Stehr, N. 1994. *Knowledge societies*, Sage, London.

Subramaniam, M., N. Venkatram 2001. Determinants of transnational new product capability: Testing the influence of transferring and deploying tacit overseas knowledge. *Strategic Management Journal* **22** 359-378.

Toulmin, S. 1958. *The uses of argument*. Cambridge University Press, Cambridge.

Tsai, W., S. Goshal 1998. Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal* **41** 464-476.

Tsoukas, H. 1996. The firm as a distributed knowledge system: A constructionist approach. *Strategic Management Journal* **17** 11-25.

Tsoukas, H., S. Cummings 1997. Marginalization and recovery: The emergence of Aristotelian themes in organization studies. *Organization Studies* **18** 655-683.

Tsoukas, H., M. J. Hatch 2001. Complex thinking, complex practice: The case for a narrative approach to organizational complexity. *Human Relations* **54** 979-1013.

Tsoukas, H., E. Vladimirou 2001. What is organizational knowledge? *Journal of Management Studies* **38**(7) 973-993.

v.Werder, A. 1994. *Unternehmensführung und Argumentationsrationalität: Grundlagen einer Theorie der abgestuften Entscheidungsvorbereitung*. Schäffer-Poeschel, Stuttgart.

Vries, M. d. 1996. Routinen, Bewertung und Grenzziehung. Bausteine des Wissensmanagements in Organisationen. *Wittener Jahrbuch für ökonomische Literatur*. 99-117.

Weick, K. E., L. D. Browning 1986. Argument and narration in organizational communication. *Yearly Review of Management of the Journal of Management* **12**(2) 243-259.

Weingart, P. 1999. Neue Formen der Wissensproduktion: Fakt, Fiktion und Mode. *TA-Datenbank-Nachrichten* **3/4**(8) 48-57.

Wenger, E. C. 1999. *Communities of practice: Learning, meaning andiIdentity.* Cambridge University Press, Cambridge.

Wenger, E. C., W. M. Snyder 2000. Communities of practice: The organizational frontier. *Harvard Business Review* **78**(1)139-145.

Wildavsky, A. 1973. If planning is everything, maybe it`s nothing. *Policy Sciences* **4** 127-153.