Chapter 9

KNOWLEDGE MANAGEMENT AND CULTURE

INTRODUCTION

What is culture, and what is its relationship to knowledge and knowledge management? “Cultural” barriers are often held responsible for failures to share and transfer knowledge in organizations. It is frequently said that knowledge management must undertake the difficult task of changing an organization's culture to achieve the knowledge sharing and transfer necessary to realize the full value of the organization's knowledge resources. But “culture” is one of those terms used loosely, in a multiplicity of ways, to cover a multitude of sins, so when we are told that the culture must be changed to solve a problem in KM we don't always know what that really means.
ALTERNATIVE DEFINITIONS OF CULTURE

Here are some alternative definitions of culture, summarized by John H. Bodley (2000) of the University of Washington from a longer list of 160 definitions compiled in 1952 by the great anthropologists Alfred L. Kroeber and Clyde Kluckhohn (1952):

• Topical: Culture consists of everything on a list of topics, or categories, such as social organization, religion, or economy. (We don't think this definition is very relevant for KM.)

• Historical: Culture is social heritage, or tradition, that is passed on to future generations. (This may be relevant to KM in that organizations may have traditions that are difficult to change. But to use this concept in KM, we need to be very specific about which traditions in an organization impact either KM practices or activities or knowledge processing activities, and we need to realize that “traditions” generally change very slowly and most frequently as a response to behavioral change.)

• Behavioral: Culture is shared, learned human behavior, a way of life. (This definition is used successfully in the analysis of cultures at a societal level. To use it at the organizational level, we need to distinguish shared, learned behavior among individuals in an organization that results from general socialization as opposed to shared, learned behavior that results from organizational socialization. This may be difficult to measure. But its measurement may be important because learned behavior resulting from organizational socialization may be much easier to change than learned behavior resulting from general socialization.)
• **Normative**: Culture is ideals, values, or rules for living. (One could map organizational ideals, values, and “rules for living,” but measurement is difficult. If you use behavior to measure these things, you have the problem of explaining KM, knowledge processing, and organizational behavior in terms of such behavior, rather than in terms of ideals, values, and rules for living. On the other hand, if you don't use behavioral measures, you pretty much have to do analysis of cultural products or surveys to develop measures [Firestone 1972]. In any event, ideals, values, and rules for living are emergent properties of social systems. They, like traditions, respond to changes in behavior but do not change very easily in response to organizational manipulation.)

• **Functional**: Culture is the way humans solve problems of adapting to the environment or living together. (This definition is difficult for KM, because knowledge processing tempered by knowledge management is the way humans solve such problems. So this definition does not explain or predict knowledge processing and knowledge management as much as it equates culture with these things.)

• **Mental**: Culture is a complex of ideas, or learned habits, that inhibit impulses and distinguish people from animals. (This is the “psychologized” version of the normative definition. As stated, it is debatable because certain higher animals—e.g., primates and dolphins—also have learned habits and ideas, so this definition may not distinguish people from animals after all.

  More important, this definition does not link the ideas or learned habits people have with any shared socialization. That is, ideas or learned habits resulting from individualized experiences are not distinguished from ideas or learned habits resulting from
shared societal or organizational experiences. The term culture can only coherently be applied to the second class of ideas.

When this idea is used in KM, it is important to recognize the importance of measuring such “subjective culture” as the result of shared organizational experiences, e.g., in “boot camps,” organizational ceremonies, committee meetings, performance reviews, etc. That is, when claiming that culture is a factor accounting for characteristic patterns of knowledge processing, it is necessary to show not only that attitudes, cognitive orientations, and other mental phenomena are affecting knowledge processing behavior, but also that such phenomena result from some shared experiences the organization is implementing.

- **Structural**: Culture consists of patterned and interrelated ideas, symbols, or behaviors. (We think this definition is too broad and doesn't distinguish between culture and other aspects of information, knowledge, or KM.)
- **Symbolic**: Culture is based on arbitrarily assigned meanings that are shared by a society. (This is a societal concept. Is it perhaps also useful at the organizational level for KM, but this usage seems to us to be marginal.)

The upshot of this brief survey of “culture” is that when someone says that knowledge can't be shared or transferred due to cultural barriers, one really has to ask for clarification to know which sense of culture is intended. Is culture really the barrier to effective KM it is frequently made out to be? The answer may well depend on what the questioner means by “culture."

**CULTURE OR SOMETHING ELSE?**

Indeed, it is even possible that when people talk about cultural
barriers that they are not talking about culture at all. Thus, when organizational politics is opposed to knowledge sharing and transfer, that is not culture, and while it may be difficult to change, politics is easier to change than culture. Similarly, when the organizational incentive system affecting knowledge worker behavior must be changed to facilitate knowledge sharing and transfer, that is not “culture,” and it is certainly easier to change.

In fact, the claim that knowledge sharing and transfer do not occur because of culture sometimes sounds plausible because of the tacit assumption that we must somehow make knowledge workers altruistic before they will share and transfer, and that this, in turn, requires a fundamental change in “culture.” But the idea that we must make knowledge workers unusually altruistic to get them to share and transfer knowledge ignores the many examples of social systems and organizations in which collaboration is based on “normal” motivations including self-interest.

We believe that the problems besetting KM are not, primarily, cultural problems in the historical, behavioral, normative, or mental senses of the term discussed earlier (the only possibilities that apply). Instead, they are problems of structural organization and change that can be managed by political means. Structural changes can align individual motivational/incentive systems, whether of individual or cultural origin, with organizational incentive systems to affect behavioral changes without cultural change. In fact, in social systems, behavioral and structural changes frequently precede and cause cultural changes.

**What is culture, and how does it fit with other factors influencing behavior?**

As one can see from the above brief survey, there is great diversity
in definitions of “culture.” Is there a definition more or less consistent with previous usage that is also useful for KM? We will propose such a definition below and discuss its implications for the role of culture in KM and the relationship of culture to knowledge.

It will help in defining culture if we begin by noting that for every group and for the organization as a whole, we can distinguish analytical properties, structural properties, and global properties.
These distinctions were originally introduced by Paul Lazarsfeld in the 1950s (Lazarsfeld and Menzel 1961), and later used by Terhune (1970) in a comprehensive review of the national character literature. Analytical properties are derived by aggregating them from data describing the members of a collective (a group or a system). Examples of analytical attributes include:

- GNP
- GNP per capita
- Per capita income
- Average salary
- Total sales
- Sales per sales representative
- Number of accumulated vacation days
- Number of lost work days due to injury

Structural properties are derived by performing some operation on data describing relations of each member of a collective to some or all of the others. Examples of structural properties are:

- Extent of inequality of training
- Extent of inequality of knowledge base distribution
- Extent of inequality of knowledge access resource distribution
- Extent of inequality of knowledge dissemination capability
- Extent of inequality of power
- Intensity of conflict behavior
- Intensity of cooperative behavior
- Ratio of e-messages sent to e-messages received by an agent
Last of all, global properties are based on information about the collective that is not derived from information about its members. Instead, such properties are produced by the group or system process they characterize, and, in that sense, they may be said to “emerge” from it, or from the series of interactions constituting it. Examples of emergent global attributes include:

- Value orientations (reflected in social artifacts) (Kluckhohn and Strodtbeck 1961)
- Achievement orientation
- Self-realization orientation
- Power orientation
- Mastery over nature
- Lineality (preference for a hierarchical style in social organization)
- Extent of democratic organization of the knowledge life cycle
- Innovation propensity (the predisposition of an organization to innovate)

The classification of social system properties into analytical, structural, and global attributes is exhaustive. To define culture, let's first ask whether we should define it as an analytical, structural, or global attribute—or some combination of these?

Culture, first, is not an analytical attribute. Culture is not an arithmetical aggregation of survey results or individual man-made characteristics. It is not the percent of knowledge workers who trust their fellows, believe in systems thinking, believe in critical thinking, or are favorably disposed toward knowledge sharing. Why not? Because (a) culture influences behavior; statistical artifacts don't. And (b) the above attributes are social
psychological, not cultural. Second, culture also should not be defined as a set of structural attributes derived from relations among individual level attributes. Why not? Because “culture” refers to something comprehensive and regulative that accounts for and determines structure, and also because if we define culture as structural in character we are assuming that we can model the structural relations defining it. Do we want to assume that, or do we want to assume that culture is global in character and emergent, or some combination of the three types of attributes?

Third, the alternative of culture as a combination of attribute types may at first seem attractive, but the following considerations argue against it. (A) The character of analytical attributes as arithmetic aggregations of individual level properties is not changed by defining a construct that includes such attributes with structural and global ones. (B) Analytical attributes still are not reflective of process or system-level attributes that are regulative or comprehensive. At best they are indicators of conditions caused by structural and global level attributes and are not causal in themselves.

As for culture being a combination of structural and emergent attributes, our objection to this view lies in how we think we want to use “culture.” If we want to use it as an explainer or predictor of structural patterns, it is ill-advised to confound structure with culture, that is, to confound the “form” of a social system or organization with its predispositions or “spirit.” In other words, defining culture as a global attribute rather than as a combination of global and structural attributes appears most consistent with previous usage and also with our strategic need to use “culture” as a tool to account for “structure” in our models.
If culture is a global attribute of agents, we still must decide what kind of global attribute it is. The World 1-World 2-World 3 distinction of Popper's (1972, 1994), discussed in Chapter 1, is also important here. It suggests that we may distinguish three types of culture. A key characteristic of all three types is that each is man-made (or generalizing this concept, made by an intelligent agent). World 1 artifacts are material products, so World 1 products are material culture. World 2 culture we will call subjective culture (Triandis et al. 1972). And World 3 culture we will call objective culture.

The subjective culture of a group or organizational agent is the agent's characteristic set of emergent high-level predispositions to perceive its environment. It includes group or organizational level value orientations and high-level attitudes and the relations among them. It is a configuration of global attributes that emerges from group interactions—that is, from the organization and pattern of transactions among the agents within a group.

The objective culture of a group or organizational agent is the configuration of value orientations and high-level attitudes expressed in the agent's characteristic stock of emergent problems, models, theories, artistic creations, language, programs, stories, etc., reflected in its documents, books, art galleries, information systems, dictionaries, and other containers. It is a configuration of global attributes expressing the content of its information, knowledge, art, and music, apart from both the predispositions the group or its agents may have toward this content, and the material form of the artifact expressing the content. The objective culture of an organization is an aspect of the social ecology of its group agents, the cumulated effects of previous group interactions. As such, the perception of it by group agents (part of their subjective culture or psychology, depending
on the type of agent) influences their behavior.

Subjective culture affects behavior within groups or organizations at two levels:

- It affects agents at the decision-making level of interaction immediately below the level of the cultural group by predisposing these agents toward behavior (see Figure 9.1).
- It affects the behavior of the group itself by predisposing it toward behavior (see Figure 9.2).

The context of objective culture in social ecology and its relationship to interaction within a group or organization is also illustrated in Figure 9.2. The focus of the illustration is the decision-making agent at the bottom left. The agent may be an individual agent or a group level agent, depending on context. Looking at the right hand side of Figure 9.2, transaction inputs received from other agents and previous social ecology (the feedback loop on social ecology), determine the current social ecology (including objective culture) affecting an agent's decision. Next, transactions, social ecology, and previous decisions (the goal-striving outcome feedback loop) are viewed as “impacting” on the goaldirected typical agent, whose internal process then produces decisions which result in transaction outputs from agent (i) directed toward other agents j, k . . . n. These transaction outputs are inputs into the decision processes of these other agents. The interaction within and among agents j, k . . . n, illustrated by the Network of Agent Behavioral Processes at the top, finally, produces transactions directed at agent (i) at a later time, and thereby closes the loop.
What goes on inside the goal-directed agent (i)? So long as (i) is a group level agent and its components are also groups, then the interaction process may be viewed in the same way as in Figure
9.2, but specified at a lower level. But if one decides to move from a transactional to a motivational perspective on a group level agent (i), then the conception is somewhat different. Figure 9.3 presents a decision-making process in a pre behavior situation. Here, the pre behavior situation is filtered through the decision-making system of a group-level agent, specifically through value orientations and through attitudes existing at increasingly domain specific levels of abstraction. Subjective culture lives at the value orientation and higher-level attitude locations in this decision-making system. The interaction between the external world and the agent's predispositional reality “screens” produces a discrete situational orientation, a definition of the situation,” which in turn feeds back to the predispositional (including the cultural) levels in search of choice guidance. This guidance then determines the final situational orientation, which leads to behavior and to new feedbacks to the situational orientation, and to attitude and value orientation predispositions.

The predispositions in Figure 9.3 represent psychological attributes when the agent involved is an individual, but when the agent is a group, these are the group's characteristic set of emergent predispositions to perceive its environment, including group level value orientations and high-level attitudes and the relations among them. That is, the high-level emergent predispositions in Figure 9.3 are group subjective culture.
Moreover, as in the case of the individual agent discussed in Chapter 1, the availability, expectancy, and incentive elements of high-level predispositions in combination represent subjective cultural knowledge predispositions.

Do Global Properties Exist?

Regarding the critics of the collective properties view, the objections are at the level of ontological assumptions. None of the critics can explain group level attributes that suggest there are such predispositions by rigorously explaining them in terms of shared mutually held individual predispositions. In fact, the doctrine of emergence suggests that such an explanation will never be possible. Therefore, the claim that group level predispositions don't exist and that “there is no there there” is simply a bias on the same level as the bias of some materialists.
who believe that “mind” really doesn’t exist, and that mental phenomena will one day be explained entirely in terms of the brain.

We agree with Bateson (1972) and accept the idea of group-level consciousness. Recall the figure about the motivational system for both individuals and groups and the presence of situational orientations shown in Figure 9.3. Situational orientations with cognitive, evaluative and affective components cannot exist without thinking and, therefore, “mind.” The question is: How much consciousness is there?

**CULTURE AND KNOWLEDGE**

Based on the above account of culture and its relationship to behavior, and on the accounts of knowledge provided in Chapter 1 and the origin of the KLC in Chapter 2, a number of conclusions about the relationship of culture to knowledge are immediately suggested:

- First, there is an organizational objective culture that is part of the social ecology of every group and individual in the organization, and which therefore is a factor in the decision making of agents at every level of corporate interaction. Organizational objective culture is composed, in great part, of high-level generalized knowledge claims, or expressions about values, ontology, epistemology, value orientations and generalized viewpoints about the way the world works, some of them validated and surviving (World 3 knowledge), which is shared. But not in the sense that all agree with what it says or assent to it. Indeed, it may be contradictory in many and visible ways. But it is shared in
the sense that all members of the group have access to this objective culture and its World 3 content.

- Second, each group level agent, each team, each community of practice, each formal organizational group, each informal group has a group subjective culture, largely composed of knowledge predisposition (World 2) components of value orientations and high-level attitudes, which affects their group decision making. So the behavior of group agents is influenced both by their internal subjective and objective cultures and also by objective organizational culture, and all three types of culture are in large part composed of knowledge.

- Third, the most pervasive, but also the weakest subjective cultural predispositions in intensity, are the highest-level ones—those most far removed from situational stimuli. These are the most abstract value orientations and attitudinal predispositions in the hierarchy of Figure 9.3.

- Fourth, though value orientations and high-level attitudes are both the most pervasive and the weakest influences on immediate behavior, they are also the hardest knowledge predispositions to change in a short time. This is true because they emerge and are maintained as a result of reinforcement from behavior patterns in diverse concrete situations experienced by agents in the group or organization. These most abstract patterns of any subjective culture are self-reinforcing through time. To change them, one needs to break down the structure of self-reinforcement and the integration of the many, many subsidiary patterns supporting this structure.
CONCLUSION: CULTURE AND KNOWLEDGE MANAGEMENT

As we have argued in Chapters 2 through 4, we can distinguish KM processes, knowledge processes, and business processes. And knowledge processes may be viewed in terms of the KLC framework. KLC processes produce knowledge that is used in the other business processes of the enterprise. And these, in turn, produce business outcomes. Figure 9.4 illustrates this chain of influences.

Moreover, KM processes, knowledge processes, and business processes are performed by decision-making, behaving agents. As we have seen, agents, if they are groups, have an internal culture, both subjective and objective. At the same time, the objective cultural component of social ecology also impacts agent decisions. Finally, knowledge and KM processes are affected by culture through the influence it has on behavior constituting these processes. In turn, these processes are keys to producing new knowledge and consequently changes in objective and subjective culture.

Figure 9.4
From Knowledge Management Processes to Business Outcomes
So culture is pervasive in KM, knowledge processing, and knowledge outcomes. It is part of their context, and it is also, in the long run, produced by them. But many other factors (social ecology, situational factors, transactional inputs; see Figure 9.2), also contribute to the complex interactions associated with knowledge-related processes and outcomes. Thus culture is only a small part of all there is to KM, knowledge processing, or any other business process, and therefore there remain substantial problems in measuring and analyzing its precise impact on KM or KM's impact on culture. Culture is not so much an answer to difficulties in KM as it is an issue and a problem in itself. And prescriptions that suggest that we must “change the culture” to perform effective KM and to enhance knowledge processing are not solutions to problems, but only prescriptions for movement down the wrong track toward a single factor explanation of knowledge management and knowledge processing.
REFERENCES


