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What is the role of virtues for governing knowledge?

A management perspective

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1. Introduction: The case of knowledge governance

The series of interdisciplinary workshops on business ethics that this paper was written for has started out with looking at the governance of ethics from a general perspective. In my paper for last year's workshop[1], I have started out looking at governance by asking what it means to consider multiple dimensions of governance (finance, human resource, ethics, knowledge, etc.) simultaneously. In that paper, my emphasis was on the interdependencies between these different dimensions, on the impact of governance structures also on dimensions they were not designed to influence (for instance, of mechanisms of financial control on human resources), and on repercussions between different governance structures applied at the same time.

This year, a narrower focus has been chosen: 'What is the role of virtues[2] in governance?' Of course, the question is even broader than that. *Is* there a role for virtues in discourses and theories of governance? Moreover, the question is difficult to answer in the abstract. Governance has to address specific governance tasks. I will thus focus on one (out of many) concrete governance tasks. The present paper focuses on one 'object' of governance identified in its companion paper[3] – knowledge. In line with the topic of the workshop, it focuses on the question 'What is the role of virtues in governing knowledge?'

I have picked knowledge, rather than other dimensions that need to be governed, because knowledge is considered the strategically most important production factor in economics.[4] Governing knowledge is one of the great contemporary challenges that managers face. So far, however, not much of a theoretical framework for knowledge governance is yet available (see section 3). Rather than providing a literature review on knowledge governance, the paper describes the research questions on knowledge governance and attempts to identify the 'entry points' where virtues could potentially have an impact on the outcomes of knowledge processes, and therefore also, a role in knowledge governance.

2. Knowledge governance defined

There are many different definitions of governance. As a recent *Academy of Management Review* Special Issue on the topic demonstrates, cutting-edge interpretations of governance

[1] Becker 2004.

[2] As one of the representatives of management in this interdisciplinary workshop, I take the liberty to interpret virtues to be values with a moral dimension, and to leave the detailed discussion of this difference to my colleagues from other fields of specialization. In the following, my focus is mainly on values more generally.

[3] Becker 2004.

[4] Grant 1996; Spender 1996.

tend to emphasize the use of organizational resources. Daily, Dalton and Cannella[5], for instance, define governance "as the determination of the broad uses to which organizational resources will be deployed and the resolution of conflicts among the myriad participants in organizations". That is in contrast to the more narrow focus on agency problems, conflict of interests, protection of shareholder interests, and the particular attention to cases where "transaction costs are such that this agency problem cannot be dealt with through a contract"[6] which characterized many earlier definitions of governance (in particular corporate governance).[7] In contrast, even corporate governance is "not just a matter of defining incentive schemes to realign managers and workers to a simple and general objective, nor [..] just a choice of the optimal power structure, given technological conditions and human capabilities […] it is a genuine organizational problem, concerning investment strategies and the way people and assets interact".[8] Building on the work of Oliver Williamson (1975, 1985), in analyzing how organizational resources are deployed such that they attain certain objectives, many approaches to governance then focus on transactions, i.e. on influencing the way in which transactions are adapted, coordinated, and safeguarded.[9]

As mentioned, this paper considers one 'object' of governance, knowledge. Consistent with the above definitions of governance, we follow the Center for Knowledge Governance's (Copenhagen Business School) definition of knowledge governance: " 'Governing knowledge processes' … means choosing governance structures (e.g. markets, hybrids, hierarchies) and governance and coordination mechanisms (e.g. contracts, directives, reward schemes, incentives, trust, management styles, organizational culture, etc.) so as to favourably influence processes of transferring, sharing and creating knowledge. These structures are important because they define the incentives and coordinate the actions of organizational members in knowledge processes."[10] The key passage here is "favourably influence processes of transferring, sharing and creating knowledge". In my opinion, in order to be able to 'favourably influence' processes such as knowledge transfer requires an understanding of the causal mechanisms underlying such processes. For this reason, the road I take in this paper is to begin with looking at knowledge, rather than governance structures.

3. Open research questions and challenges in knowledge governance

Governance efforts address specific governance tasks. Let me start by identifying the specific knowledge governance tasks. A 2003 *Management Science* Special Issue on 'Managing Knowledge in Organizations' provides a good overview of the state of the art of open challenges for managers, and of open research questions pertaining to managing knowledge in organizations. In their article, the special issue editors identify the following 'emergent themes' on managing knowledge in organizations[11] (see appendix 1 for the full list of items):

- The importance of social relations in understanding knowledge creation, retention, and transfer

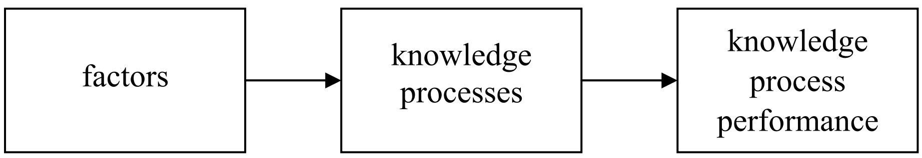
[5] Daily, Dalton and Cannella 2003, p. 371.
[6] Hart 1995, p. 678.
[7] Daily, Dalton and Cannella 2003.
[8] Lacetera 2001, p. 35-36.
[9] Jones, Hesterly and Borgatti 1997.
[10] Foss et al. 2003, p. 8.
[11] Argote, McEvily and Reagans 2003.

– The ‘fit’ or congruence between properties of knowledge, properties of units, and properties of relationships between units does affect knowledge management outcomes
– The significance of where organizational boundaries are drawn for knowledge transfer
– How different types of experience have different effects on learning outcomes
– The effect of environmental factors on learning outcomes in firms
– The importance of embedding organizational knowledge in a repository so that it persists over time

Another source that takes stock of the state of the art on knowledge governance is the programmatic paper issued in 2003 by the founders of the *Center for Knowledge Governance* at Copenhagen Business School.[12] Here, the authors identify the following research challenges on knowledge governance:

– Could it be that governance through cultural factors is more prevalent in connection with such processes than in connection with more traditional production processes? And what are the differences between those cultural factors that support knowledge processes and those that support more conventional production processes?
– Explicitly designing the organization so that it supports knowledge processes requires changing the reward systems
– The role of psychological contracts and their implications for knowledge processes[13]

If one analyzes the above lists, they can be summed up in the following scheme:



Most of the nine issues identified above relate to the impact of particular factors, such as social relations, organizational boundaries, etc. on processes of knowledge creation, transfer etc. The assessment of research tasks by the founders of the Center for Knowledge Governance is that having “relatively little systemic knowledge about how organizational issues are related to knowledge issues” is one major gap in our knowledge of knowledge governance.[14] In particular, “there are no well-established research heuristics linking organization/governance and knowledge”.[15] Foss et al. therefore call for “clearly link[ing] characteristics of knowledge and of knowledge processes to organization in a discriminating manner”.[16] In the remainder of the paper, I attempt to provide such a link. I start with the characteristics of knowledge, and will then identify some ‘points of attack’ in these characteristics, which could provide hints at how to govern knowledge.

[12] Foss et al. 2003.
[13] Foss et al. 2003, p. 5.
[14] Ibid., p. 1.
[15] Ibid., p. 2.
[16] Ibid., p. 1.

4. Knowledge characteristics

As an 'object' of governance, knowledge has some characteristics that are very different from the other objects of governance (e.g., financial resources, human resources). This is true in particular for tacit knowledge. Designing governance structures that 'favourably influence' knowledge processes requires taking these characteristics into account.

(a) Knowledge is non-exclusive. It travels easily and it is difficult to exclude agents from the benefits of knowledge, leading to positive externalities (spill-overs).

(b) Knowledge is a non-rivalrous good. It is not used up when it is used, leading to the fact that it can be re-used an unlimited number of times, in principle. Furthermore, a basically in principle infinite number of people can use knowledge without anyone being deprived of it. The marginal cost of using knowledge can be close to zero.

(c) Knowledge is a production factor in the generation of new knowledge. Knowledge produces new knowledge. Knowledge is therefore cumulative and path-dependent.[17]

(d) Knowledge (in particular tacit knowledge) poses measurement problems (Wieland 2004), as becomes particularly salient in the case of team production.[18]

(e) Because tacit knowledge is personally held, no property rights on tacit knowledge can be acquired. It is only possible to acquire the rights to *use* the knowledge held by employees, who always remain the owner of their knowledge, and of the competence to generate it and to contribute it to cooperation (team production[19]). Tacit knowledge therefore cannot be accessed by the acquisition of property rights. The implication for governance is straightforward: (formal) contracts are systematically less important in governing knowledge. Rather, the holder of tacit knowledge has to be *motivated* to cooperate and share (transfer) his or her tacit knowledge.

5. Implications of knowledge characteristics – Inciting cooperation as the main problem of knowledge governance?

The main problem in governing knowledge processes is therefore inciting cooperation, that is, to motivate the people that hold knowledge to cooperate and release their knowledge, learn, use it in line with the corporate objectives etc. What kinds of incentives for inciting cooperation are available? Basically, one can distinguish intrinsic and extrinsic incentives. Employees are *extrinsically* motivated if they are able to satisfy their needs indirectly, especially through monetary compensation.[20] Motivation is *intrinsic* if an activity is undertaken for one's immediate need satisfaction. Intrinsic motivation "is valued for its own sake and appears to be self sustained".[21]

In the case of knowledge, extrinsic incentives seem limited in their effectiveness. First, it is difficult to measure knowledge. While codified knowledge can be observed, knowledge that

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[17] Carlile and Rebentisch 2003.

[18] Alchian and Demsetz 1972.

[19] Wieland 2004.

[20] Osterloh and Frey 2000, p. 539.

[21] As Osterloh and Frey (2000, p. 539) point out, although many economists admit the existence of intrinsic motivation, they leave it aside because it is difficult to analyze and control (e.g., Williamson 1985, p. 64).

is embodied in practice[22], for example how to conduct a symphony orchestra, is not easy to codify, or to measure. Even where due to its codification, the 'quantitative' aspects of knowledge can be 'measured', measuring its qualitative aspects is much more difficult. The problem is more aggravated still for tacit knowledge.[23]

In any case, inciting cooperation in knowledge processes poses non-negligible problems. Due to problems with measuring (tacit) knowledge *inputs*, it is often very difficult to provide explicit, monetary incentives for individual *efforts* in knowledge processes.[24] One is therefore constrained to design extrinsic incentives based on outputs. But in that case, the issue of team production presents well-known problems in attributing the rewards, distorting the incitements.[25]

Another problem with setting incentives that appeal to extrinsic motivation is that they work indirectly: for instance, in order to incite a certain behavior (such as writing a post-mortem analysis after a project is finished, in order to increase knowledge retention and make the experience acquired available within the firm), one can offer monetary incentives. The problem, however, is that actors often maximize the rewards, but not by producing the behavior originally intended (such as increasing the total time spent on the phone, where that is rewarded, by leaving the line open when taking short breaks etc., or increasing the number of calls by letting 'the line drop' and calling again, where the number of calls is rewarded).

Because it is difficult to measure knowledge, in particular tacit knowledge, extrinsic incentives are 'far proxies' that carry the risk of inciting reward-maximizing behavior without inciting the underlying behavior they were designed for. Providing extrinsic incentives for supplying (tacit) knowledge inputs therefore runs into severe problems. That has an important consequence: it means that "organizational economics may be a quite blunt instrument with which to attack issues of knowledge governance. … organizational economics assumes that all motivation fall in the extrinsic category".[26] To provide explicit, monetary incentives for individual efforts in knowledge processes is often difficult, for the reasons identified above. *The implication is that – broadly speaking – the tool-box of economics is not adapted to knowledge governance.* At the same time, knowledge governance is a core managerial (economic) problem – as many scholars have argued over the last decade, maybe the most important one. The *impasse* is therefore serious. Which alternatives are there?

Because of problems with measuring knowledge inputs, and because extrinsic incentives are indirect and incite some proxy rather than knowledge sharing, intrinsic incentives seem more appropriate to solve the problem of inciting cooperation in knowledge governance.[27] These problems are particularly severe for tacit knowledge, and intrinsic motivation is therefore crucial when tacit knowledge is involved.[28]

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[22] Orr 1990.

[23] Methods for assessing knowledge such as exams that are applied in schools and universities provide a good example of the difficulties related to measuring knowledge.

[24] Foss et al. 2003.

[25] Alchian and Demsetz 1972.

[26] Foss et al. 2003, p. 9.

[27] Osterloh and Frey 2000; see also Foss in his keynote lecture to the European International Business Academy in December 2003.

[28] Osterloh and Frey 2000.

6. Sources of intrinsic motivation

In the remainder of the paper, I will focus on intrinsic incentives. I mentioned at the outset that in order to design governance structures for knowledge governance, it will be helpful to have some understanding of the underlying causal mechanisms. A first step to uncover those is to ask ‘What are the sources of intrinsic motivation?’

In their article on the topic, Osterloh and Frey (2000) identify three sources of intrinsic motivation:[29]

i. carrying out an activity for its own sake,

ii. pursuing a self-defined goal,

iii. feeling required to fulfil the obligations of personal and social identities.[30]

How do these sources of intrinsic motivation generate intrinsic motivation? What are the underlying mechanisms? (i) Carrying out an activity for its own sake leads to intrinsic motivation because the activity is considered a value, and/or being in accordance with what the person considers right or appropriate to do. (ii) In pursuing a self-defined goal, it is often the fact that one has taken the decision freely and oneself, which provides pleasure and motivation. (iii) Finally, feeling required to fulfil the obligations of personal and social identities means that a person has internalized (made his or her ‘own’) some identity. That person’s self-understanding of his or her identity requires acting in accordance with what is expected of such an identity or role. The identity defines what is considered appropriate to do. Acting in accordance to the identity provides intrinsic motivation because having this identity is considered positive.

7. (Sources of) Motivation of human action

So, inciting people’s cooperation in knowledge processes, for instance to release and share the tacit knowledge they hold, is the crucial challenge of knowledge governance. Intrinsic motivation seems to be the most promising option. Several authors have, in fact, arrived at this conclusion before[31], and it indeed seems to be the frontier where knowledge governance theory is at.[32]

In what follows, I now attempt to go a step further. Based on the argument presented above, we now face the question ‘How to foster intrinsic motivation in order to incite people’s cooperation in knowledge processes?’ As we have already identified three sources of intrinsic motivation, we can focus on the more precise question ‘How can we address the sources of intrinsic motivation?’

At this point, I propose to adopt a broader perspective on motivation of human action. As will be shown below, setting the problem in a larger framework than the one the management discourse is usually framed in, can help identify additional answers to the questions just

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[29] Ibid.

[30] Ibid. The first two can be influenced by well-known human resources measures – but their reach for governance, and their leverage, is limited. For instance, due to restrictions and time lags involved in laying off employees, selection can only be applied to a small fraction of the employees involved in transactions.

[31] Foss 2003; Osterloh and Frey 2000; Wieland 2004.

[32] Note that Foss et al. are the founders of the Center for Knowledge Governance and have argued that the last time in December 2003.

raised. In a nutshell, the answer I will derive from the framework presented below is that intrinsic motivation arises when actors choose alternative courses of action according to whether they concord to certain values. The framework draws on two sources: James March's[33] distinction of different logics that decision-makers follow, and Max Weber's[34] distinction of motives of human action.

From his studies of human decision-making, March[35] concludes there are two main logics that decision-makers follow: the logic of consequences and the logic of appropriateness. *'Logic of consequences'* simply means that actions are motivated by expectations of their consequences. Roughly speaking, on the basis of the information available, actors form expectations and choose the alternative amongst the alternatives considered that promises the most attractive consequences. This procedure is familiar from many instrumental models of rational choice and political action.[36] When following a '*logic of appropriateness*', however, the decision-making process is of a very different kind. Decision makers following a logic of appropriateness are imagined to ask (explicitly or implicitly) three questions:[37]

– The question of recognition: What kind of situation is this?
– The question of identity: What kind of person am I? Or what kind of organization is this?
– The question of rules: What does a person such as I, or an organization such as this, do in a situation such as this?

As the three questions illustrate, to follow a logic of appropriateness means to match actions to situations. In such a logic, actions are driven by enacting identities, roles, and rules.[38]

To draw on Max Weber for the question we are interested in here is promising for a precise reason. As Richard Swedberg[39] carefully explains, Max Weber combined the role of interests (traditionally the domain of economics) and of social structure (traditionally the domain of sociology) in explaining economic behaviour. At the beginning of the 20th century, Max Weber was one of the driving forces of *Sozialökonomik*, a combination of economic and sociological perspectives on economic phenomena. As is well-known[40], in understanding the historical evolution of institutions such as the limited liability company, particular tax regimes or the successful business behaviour of Protestants, Weber was particularly interested in reconstructing when and how the possibility of rational calculation came about. Weber held this to be the main trigger of a qualitative transformation of huge dimensions, for example from a guild-based craft economy to an industrial economy – or the lack of it a major barrier. While analyzing a huge breadth of variables in depth, Weber did, however, pay special attention to the material, social, and psychological conditions for rational calculation to occur. (For instance, in order to calculate one needs to be able to have measuring units, standards, etc. One also needs to have an interest in rational calculation.) It is in this context that Max We-

[33] March 1994.
[34] Weber 1922/1972.
[35] March 1994.
[36] Rura-Polley and Miner 2000.
[37] March 1994, p. 58.
[38] Rura-Polley and Miner 2000, p. 3.
[39] Swedberg 1998.
[40] See Kaesler 1998; Swedberg 1998.

ber[41] addresses the motives of social action in *Wirtschaft und Gesellschaft*. Four motives driving social action are distinguished:

1. Instrumentally rational (*zweckrational*): Action is motivated "by expectations as to the behavior of objects in the environment and of other human being; these expectations are used as 'conditions' or 'means' for the attainment of the actor's own rationally pursued and calculated ends".[42] In other words, acting in an instrumentally rational kind, you would do something because you have a certain expectation, which is conducive to attaining your objective.
2. Value-rational (*wertrational*): Following this kind of rationality, action is motivated by "a conscious belief in the value for its own sake of some ethical, aesthetic, religious or other form of behavior, independently of its prospects or success effects".[43] In other words, one chooses a particular course of action because it is in accordance with the value one believes in, and that one considers the 'right thing to do' independent of its consequences.
3. Traditional (*traditional*): Traditional rationality means that one's behavior is driven by "ingrained habituation".[44] In response to a particular situation, one will do what one has done before in the same situation. This might, or might not, be supported by a belief that what one has done before is right.
4. Affectual (*affektuell*): Action is driven by affects, such as emotion. One chooses a course of action because one follows emotions of affects.[45]

Clearly, Weber spanned his net very wide. Instrumental rationality is the rationality assumption that underlies economics. Affect-driven behavior is the realm of psychology, but is considered theories on aesthetics in business, in marketing, and in other places. Traditional rationality is what we know under the guise of 'routines' or 'habits'. Value-rational behavior, finally, flags the research question of this paper. Weber's wide-ranging distinction of different motives driving social action reminds us that people can follow different motives. It also provides some more points of attack in order to get a deeper insight into the matter.

Note that March's and Weber's distinctions overlap and can be nested in each other. March's 'logic of consequence' is very similar to what Weber describes as 'instrumental rationality'. Weber's 'affect-driven behavior' is not a logic, neither one of consequences nor of appropriateness. Both Weber's 'value-rational' and 'traditional' driven action fall under March's 'logic of appropriateness'.

Fig. 1: March and Weber on motives of human behavior

March	**Weber**
Logic of consequence	Instrumentally rational (*zweckrational*)
Logic of appropriateness	Value-rational (*wertrational*)
	Traditional (*traditional*)

[41] Weber 1972.
[42] Ibid., p. 24.
[43] Ibid., p. 24-25.
[44] Weber 1972, p. 25.
[45] Weber 1972, p. 25.

Not a logic (not following reason)	Affectual (*affektuell*)

8. Identity as a lever to address the sources of intrinsic motivation

The March/Weber framework introduced in the previous section helps us provide a richer answer to the question of how to address the sources of intrinsic motivation. For a start, the answer given by March and Weber on how to address the sources of intrinsic motivation is: by leading actors to apply a logic of appropriateness instead of a logic of consequences (or in Weberian terms: value-rational instead of instrumentally rational behavior). It is when actors follow a logic of appropriateness, or Weber's value-rational, traditional, or affectual drivers of social behavior, that intrinsic incentives arise. All three sources of intrinsic motivation identified by Osterloh and Frey[46] are instances of the 'logic of appropriateness' and 'value-rational social action'. Carrying out an activity for its own sake means to attribute a value to the activity, independent of its outcome. In pursuing a self-defined goal, being able to choose the goal oneself has a value. When one feels required to fulfil the obligations of personal and social identities, finally, the identity defines certain values, which have been internalized. For instance, in the role of a father, one is expected to protect one's child.

Under which circumstances, then, will actors be induced to apply a logic of appropriateness? As March explains, "the logic of appropriateness is tied to the concept of identity. An identity is a conception of self organized into rules for matching action to situations."[47] Two aspects of the notion of identity are noteworthy here.

First, *identities define values.*[48] When someone aspires to be an officer, for instance, he or she needs to behave in a somewhat authoritative manner, give clear orders, not tolerate contradiction and so on. Aspiring (accepting or internalizing) an identity automatically implies accepting a set of values, and orienting one's action towards these values (which is to say that when one has to choose a course of action in a particular situation, one will choose it by judging how appropriate the alternative courses of action are according to the set of values). An identity can be considered a bundle or pack of values that define the identity, or the role that someone assuming the identity will adopt. Assuming an identity then means internalizing these values.

Second, *individual identities have a social basis*. Individual identities are socially defined. Social defined identities are templates for individual identities in three senses:[49]

- "They define the *essential nature* of being an accountant, or manager, or plumber, permitting individuals to deal with identities as meaningful things. … labels through which cognition is organized.
- They are prepackaged *contracts.* Individuals accept them in return for receiving things they value. The social specification of what it means to act as an accountant details the terms of the contract by which an individual agrees to assume the accountant role. … Decision makers who fail in their contractual obligations are likely to lose legitimacy and authority.[50]

[46] Osterloh and Frey 2000.
[47] March 1994, p. 61.
[48] March 1994.
[49] March 1994, p. 63-65.
[50] Note the link to psychological contracts here. Foss 2003, Foss et al. 2003, Osterloh and Frey 2000 and Wieland 2004 all discuss such contracts. They gain particular relevance due to the parallel with incomplete contracts (Williamson 1985), which they seem to complement.

– They frequently come to be *assertions of morality*, accepted by individuals and society as what is good, moral, and true. An individual 'internalizes' an identity, accepting and pursuing it even without the presence of external incentives or sanctions. The identity is protected by a conscience and by such emotions as pride, shame, and embarrassment. Social reactions to inappropriate behavior include accusations of immorality and lack of propriety. Shame and guilt are important components of social control based on a logic of appropriateness. Decision makers can violate a logic of consequence and be considered stupid or naïve, but if they violate the moral obligations of identity, they will be condemned as lacking in elementary virtue."

Wieland[51] adds insight into how an important part of the social definition of identities works. Persons do, of course, pick an identity that they want to have or adopt. That decision alone, however, does not confer a particular identity. One cannot, in fact, confer an identity upon oneself. The crucial hinge of the argument is precisely the insight that an identity is in the eye of the beholder. Therefore, in order to assume a particular identity, it is necessary that interaction partners give signals that confirm the identity. That happens in social interaction.[52] Both in symbolic and non-symbolic form, persons do confer particular status to other persons. For instance, the fact of being treated with respect by the pupils confirms the identity of the teacher. In the Middle Ages, being the privilege of the king, the fact that everyone had to stop by the side of the road and kneel down was a confirmation of the king's status. Wieland[53] emphasizes precisely this mechanism: identity is formed by the allocation of status. He specifies how such a mechanism works. Status and esteem are not marketable.[54] It is impossible to give, or acquire, status by itself. It needs to be communicated 'attached to' something else. For instance, a gesture such as letting a person enter a door first, or an artifact (economic good) such as a two-year old rather than a brand-new company car, or the like. The crucial point is that actors have a general human need for esteem[55], both self-esteem and esteem by others. The esteem by others works by allocation of status. Because status can only be allocated attached to an economic good[56], the implication is that the status dimension is always present in each and every exchange transaction or – to be more general – in each and every interaction. The point is crucial. Actors always observe the interaction for the consequences it has for their own status. In order to influence intrinsic motivation, governance mechanisms need to be designed such that they primarily have a beneficial effect on the allocation of status or avoid negative repercussions of allocation of low status. In the present context, the conclusion is that the status consequences of governance mechanisms are central for knowledge governance, because they describe the mechanisms by which individual identities are socially defined. Again, individual identities play an important role in knowledge governance because they are the lever to bringing about intrinsic motivation and incite people to cooperation in processes such as knowledge creation, retention, etc.

[51] Wieland 1996.
[52] Perrow 1970; Ashforth and Gibbs 1990; Suchman 1995.
[53] Wieland 1996.
[54] Wieland 2004.
[55] Ibid.
[56] Wieland 1996.

9. Discussion

How can we address the sources of intrinsic motivation? The first part of the answer that has been given above is that the answer is not to be found in the realm of the logic of consequences. Extrinsic incentives are subject to considerable limits in inciting cooperation. The much more effective incentives are to be found in the realm of the logic of appropriateness. The second part to the answer is that there are three lines along which solutions can be searched and found. Here we can identify three practical approaches, one in each line of motivation.

(a) Value-rational behavior. Utilizing this kind of motivation proposes to make creating, sharing, transferring and integrating knowledge a virtue. This would lead to intrinsic incentives for creating, sharing, transferring and integrating knowledge where people's behavior is driven by value-rationality. In practical terms, the issue would be to identify for whom this is the case (some people might be driven by that logic more than others)[57], and under which circumstances that is the case (people might follow a certain logic at times, and a different one at other times). Moreover, one needs to establish these values, which do not seem to be amongst the values that are commonly established (such as working hard, being honest, etc.) They might need to be established in a focused internal communication campaign. But people need to internalize these values. As we know, identities play an important role in the internalization of values. Another way to 'install' the virtue of creating knowledge, for instance, could be to attempt to 'offer' a 'prepackaged' identity (for instance, of the 'breakthrough scientist' or 'blockbuster inventor') for people to adopt. Such an identity would value involvement in knowledge processes.

(b) Traditional behavior. Knowing that sometimes (some) people's behavior is driven by tradition and habit (what they have done before, how they have 'always' done things), one can use this insight by creating the 'habit' of sharing knowledge. Thanks to Weber's distinction, we can identify various ways in which this can be done. The first possibility, following traditional behavior, is to simply get the first couple of times going. We know from previous research, as well as from our own experience, that lock-in will often take care of the rest and will install a habit that will not be changed easily.[58] A second possibility exists, however, along the lines of value-rational behavior. One could attempt to get the routines/habits accepted and legitimized. This would involve communication that portrays them as useful, etc.[59] At this point, legitimation is also often provided by social frequency, i.e. the fact that something occurs often legitimizes it as being 'normal'. When you do not know what to do because there are no clear standards to guide your behavior, you look around and observe what others like you are doing.[60] A final possibility is the self-legitimating power of habits and routines, which stabilizes routines once they have developed. There are two cases for this. The first is simply that there is usually less necessity to justify why one follows an already established practice, than why one breaks from it (or why one wants to do things differently). With frequent repetition, the routine/habit acquires a certain degree of legitimation just due to the fact

[57] There is an obvious link here to culture (national cultures, regional cultures, etc.). Cultures differ for instance with regard to the kind and 'degree' of rationality that its people are disposed to apply. They also differ with regard to the weight of tradition, and the role of esthetics and affect, as the works of Edward T. Hall, Geert Hofstede and others have documented.

[58] Betsch et al. 1998.

[59] Fuller and Dornbusch 1988.

[60] Rura-Polley and Miner 2000, p. 201.

that it itself is repeated frequently. The second is the legitimating power of organizational isomorphism, or in other words, the fact that the routines is frequent in a certain population (for instance, that it is copied by firms within an industry). This is a central hypothesis of the new institutionalism in sociology.[61]

(c) Affectual behavior. Along this line, one can use the insight that (some) people's behavior is (sometimes) driven by emotions, by making people feel 'positively' about carrying out knowledge processes. The task then would be to attach emotions to these processes. This is actually done in marketing, where the use of mobile telephones, for instances, also has emotional dimensions such as feeling 'trendy'.

10. Conclusion

It is time to sum up and answer the question this paper has set out to address. Is there a role for virtues in economic discourses and theories of governance? The answer is a clear yes. Virtues and values have a role in providing intrinsic motivation, which is important for instance for such governance tasks as governing knowledge. The main problem there is to incite people to cooperate and to release and share their knowledge in processes for instance of knowledge transfer or knowledge creation.

What is the role of virtues for governing knowledge? Virtues and values have an important role in governing knowledge. Extrinsic motivation is subject to strong limits in its efficacy in governing knowledge processes, for reasons identified above. Therefore, knowledge governance is a matter of providing and managing intrinsic incentives. Such incentives, however, are provided when one leaves the realm of a logic of consequences (calculation) and enters the realm of a logic of appropriateness – where appropriateness is defined as matching situations to suitable behavior. The definition of what is 'suitable' is often embodied in roles or identities. These, in turn, are defined by values (for instance, a knight needs to be valiant, otherwise he will not be recognized as a knight by others). Values therefore represent the lever, or the key to identities, which again are a lever of intrinsic incentives.

How can we 'favourably influence' processes such as knowledge transfer? Weber's framework of different motives of social behavior allows us to go further than what we have described in the previous paragraph, and to specify how efforts of knowledge governance can manage to favourably influence knowledge processes.[62] It allows us to do that because Weber has spelled out causal mechanisms underlying human decision-making, and has offered four alternatives (instrumental rationality, value rationality, tradition, affect). From the vantage point of an economist, the possible causal mechanisms are vastly enriched, allowing a much easier mapping onto real cases. The advice gained from the Weberian categories is first, to identify which of the motives of behavior dominates in a particular situation, at a particular point of time. Depending on that, different measures offer themselves for fostering intrinsic incentives and thereby influence the performance of the knowledge process favourably.

Where people follow value-rational behavior, this will be the case if the performance objectives of knowledge processes (such as for instance, innovative outcomes of knowledge creation) can be made a value, which people internalize. Role models or identity templates might be ways to achieve this. Where traditional behavior is dominant, one can either simply

[61] DiMaggio and Powell 1991; for empirical support see Deephouse 1996.

[62] Note that the issue of how to define 'favourably' with regard to the performance of knowledge processes is an issue that I have not touched upon here, but that needs to be tackled in order to push this argument further.

push for a particular knowledge process being carried out a couple of times in a particular way. With a certain probability, people will then carry on this (hopefully favourable) way, without any incentives. Or one can support the legitimation of those routines, again, by providing a 'template routine' or by conferring legitimation in other ways, such as by awarding high status to those engaged in particular knowledge processes. Where affectual behavior dominates, the advice would be to attempt to make people feel 'positive' about carrying out knowledge processes.

Weber's distinction of motives of human behavior (nested in March) provides further lines of argument and sets of research questions that can inform our research on governance and knowledge governance. A first line of issues concerns the individuals whose behavior is driven by these four different motives. Obviously, acknowledging all these four might be present in an organization, opens our eyes to many things (as opposed to assuming that all behavior is instrumental-rational and calculative). For one, it makes us recognize that individuals following different logics and motives will have dispositions to make different kind of errors, and have different cognitive biases. For instance, in the case of sharing tacit knowledge, a person driven by instrumental rationalism, who attempts to calculate the 'optimal' effort in releasing his or her tacit knowledge, might decide not to share any at all due to problems in the measurement of the value of his or her tacit knowledge (and might be systematically biased to disclose too little). On the other hand, a person whose decision to share tacit knowledge is based on a value, for instance, to help those 'in need', will have another bias – in this case determined by the definition of who is considered 'in need' of the knowledge. The work of Reason (1990) on human error and of Kahneman and colleagues on biases in decision-making will find a fruitful anchoring point in Weber's four motives of social behavior.

Another line of inquiry regards the simple point that for each kind of behavior, the governance tasks are different ones. In the instrumental-rational mode, the governance activity consists in designing extrinsic incentives. In the value-rational mode, however, it is mainly concerned with providing role models and identities for adoption, which contain values that, when applied, will favourably influence knowledge process outcomes. For behavior motivated by tradition, finally, the task is to provide template routines and make sure they are either implemented a couple of times, or that they are legitimated. (Note how the object of legitimation also shifts in each motive: routines, persons, identities, etc.) For affectual behavior, finally, the task is to attach emotions to knowledge processes.

A third line of issues is triggered by the question: What happens if some of these motives are present in the same organization at the same point of time? What if some people are (at one point of time) deciding and acting driven by values, others by calculation, and yet others by tradition? What if the same people flip between the four drivers of behavior? Can we understand under which circumstances one applies one or the other? Can we say something about the interactions (e.g., about biases caused by value-rational behavior in the finance department interacting with biases caused by traditional behavior in the sales department)? Some works have made a start in that direction, such as Osterloh and Frey[63] on the crowding-out effect of extrinsic motivation on intrinsic motivation, and Wieland[64] on the simultaneity of governance dimensions. Others discuss individual aspects that could be explored more in this light, for instance, the influence of organization structure and other organizational charac-

[63] Osterloh and Frey 2000.
[64] Wieland 2004.

teristics on intrinsic motivation.[65] Much remains to be done still. The research questions raised here do, however, capture questions of prime importance for social science research and for managers alike.

Bibliography

Alchian, A.A. and Demsetz, H. (1972): Production, Information Costs, and Economic Organization. American Economic Review, Vol. 62, No. 5, pp. 777-795.

Argote, L., McEvily, B. and Reagans, R. (2003): Managing Knowledge in Organizations: An Integrative Framework and Review of Emerging Themes. Management Science, Vol. 49, No. 4, pp. 571-582.

Ashforth, B.E. and Gibbs, B.W. (1990): The Double-Edge of Organizational Legitimation. Organization Science, Vol. 1, No. 2, pp. 177-194.

Becker, M.C. (2004): Towards an integrated theory of economic governance – Conclusions from the governance of ethics. In: Wieland, J. (ed.): Governanceethik im Diskurs. Marburg: Metropolis, pp. 213-251.

Betsch, T., Fiedler, K. and Brinkmann, J. (1998): Behavioral routines in decision making: the effects of novelty in task presentation and time pressure on routine maintenance and deviation. European Journal of Psychology, Vol. 28, pp. 861-878.

Carlile, P.R. and Rebentisch, E.S. (2003): Into the Black Box: The Knowledge Transformation Cycle. Management Science. Vol. 49, No. 9, September 2003, pp. 1180-1195.

Daily, C.M., Dalton, D.R. and Cannella, A.A. (2003): Introduction to Special Topic Forum Corporate Governance: Decades of Dialogues and Data. Academy of Management Review, Vol. 28, No. 3, pp. 371-382.

Deephouse, D.L. (1996): Does Isomorphism Legitimate? Academy of Management Journal, Vol. 39, No. 4, pp. 1024-1039.

Foss, N. (2003): Knowledge and Organization in the Theory of the Multinational Corporation: Some Foundational Issues. CKG WP 1/2004.

Foss, N., Husted, K., Michailova, S. and Pedersen, T. (2003): Governing Knowledge Processes: Theoretical Foundations and Research Opportunities. Mimeo, 11. Sept 2003.

Fuller, B. and Dornbusch, S.M. (1988): Organizational Construction of Intrinsic Motivation. Sociological Forum, Vol. 3, No. 1.

Grant, R.M. (1996): Toward a Knowledge-Based Theory of the Firm, Strategic Management Journal, Vol. 17, Winter Special Issue, pp. 109-122.

Hart, O. (1995): Corporate Governance: Some Theory and Implications. Economic Journal, Vol. 105, No. 430, pp. 678-689.

Jones, C., Hesterly, W.S. and Borgatti, St.P. (1997): A General Theory of Network Governance: Exchange Conditions and Social Mechanisms. Academy of Management Review, Vol. 22, No. 4, pp. 911-945.

Kaesler, D. (1998): Max Weber – Eine Einführung in Leben, Werk und Wirkung. Frankfurt/New York: Campus.

Lacetera, N. (2001): Corporate Governance and the Governance of Innovation: The Case of the Pharmaceutical Industry. Journal of Management and Governance, Vol. 5, pp. 29-59.

March, J.G. (1994): A Primer on Decision-Making. New York: Free Press.

Orr, J.E. (1996): Talking About Machines. Ithaca, New York: ILR Press (imprint of Cornell University Press).

[65] Fuller and Dornbusch 1988.

Osterloh, M. and Frey, B.S. (2000): Motivation, Knowledge Transfer, and Organizational Forms. Organization Science, Vol. 11, No. 5, pp. 538-550.

Perrow, Ch. (1970): Organizational Analysis: A Sociological view. Belmont/CA: Wadsworth.

Powell, W.W. and DiMaggio, P.J. (1991, eds.): The New Institutionalism in Organizational Analysis. Chicago: University of Chicago Press.

Rura-Polley, Th. and Miner, A.S. (2000): The relative standing of routines: Some jobs are more equal than others. Madison: Mimeo, University of Wisconsin.

Suchman, M.C. (1995): Managing Legitimacy: Strategic and Institutional Approaches. Academy of Management Review, Vol. 20, No. 3, pp. 571-610.

Spender, J.-C. (1996): Making Knowledge the Basis of a Dynamic Theory of the Firm. Strategic Management Journal, Vol. 17 (Winter Special Issue), pp. 45-62.

Swedberg, R. (1998): Max Weber and the Idea of Economic Sociology. Princeton/NJ: Princeton University Press.

Weber, M. (1922): Wirtschaft und Gesellschaft. Tübingen: Mohr (Siebeck).

Weber, M. (1972): Economy and Society. Berkeley/CA: University of California Press.

Wieland, J. (1996): Ökonomische Organisation, Allokation und Status. Tübingen: Mohr (Siebeck).

Wieland, J. (2004): Governance und Simultanität – Wissen als kooperative und moralische Ressource. In: Wieland, Josef (ed.): Governanceethik im Diskurs. Marburg: Metropolis, pp. 253-277.

Williamson, O.E. (1985): The Economic Institutions of Capitalism. New York: Free Press.

Appendix

Emergent Themes on ‘Managing Knowledge in Organizations’ (Argote, McEvily and Reagans, 2003).

- The importance of social relations in understanding knowledge creation, retention, and transfer
  - In what ways might tie strength affect the creation and retention of knowledge?
  - How does the degree of asymmetry among the members of a dyad affects knowledge management outcomes?
  - How do informal networks affect the knowledge management process?
  - Are some network configurations more effective at creating and retaining knowledge than others?
  - Do certain network positions endow the occupants of those positions with differential advantages or liabilities relative to other positions in the network?
- Knowledge management outcomes are affected by the “fit” or congruence between properties of knowledge, properties of units, and properties of relationships between units
  - Which are the mechanism through which fit affects learning and knowledge management outcomes?
  - Does fit affect opportunities to transfer knowledge by making members more aware of other knowledge from which they would benefit?
  - Does fit affect ability by making the knowledge easier to understand?

  - Which are the dimensions of fit?
  - How can we specify a priori when components fit each other and when they do not?
  - Are there conditions under which having dissimilar components that do not fit each other would be more beneficial for learning outcomes?
- The significance of where organizational boundaries are drawn for knowledge transfer
  - Are organizational units more likely to benefit from internal than external knowledge?
  - Are organizational members more likely to value knowledge from external than from internal sources?
  - Under which conditions do organizational members value internal versus external knowledge?
  - Under which conditions is using internal versus external knowledge more (or less) likely to improve a unit's performance?
  - Which are the mechanisms through which organizational boundaries affect knowledge transfer?
  - Do boundaries affect member's social identity which in turn affects knowledge transfer?
  - Do boundaries affect the extent to which knowledge is understood and thus affect member's ability to transfer knowledge?
  - Do boundaries affect the rewards members receive and their motivation to transfer knowledge or do boundaries affect member's awareness of knowledge and the opportunities to transfer it?
- How different types of experience have different effects on learning outcomes
  - Which are the mechanisms through which experience affects learning outcomes?
  - Do different types of experience provide organizational members with a better understanding of the task and thus, increase their ability to manage knowledge?
  - Which are the conditions under which experience is most beneficial (or harmful) for learning outcomes?
  - How does experience translate into the development of capabilities at firms?
- The effect of environmental factors on learning outcomes in firms
  - How do "ecologies" of learning affect a focal firm?
  - How does learning by other firms affect a focal firm?
  - How does learning by populations of firms affect a focal firm?
- The importance of embedding organizational knowledge in a repository so that it persists over time
  - By which process is knowledge embedded in rules and routines?
  - What is the effect of such embedding on group and organizational outcomes?

- How do properties of units, properties of relationships, and properties of knowledge affect whether knowledge persists through time or whether it depreciates?