

Looking for a heuristic which can be used for evaluating accounting principles: an institutionalist perspective.

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Introduction.

This paper deals with the question of how to think about or judge the functioning of the management accounting principles and methods we see in practice and with the question of how to adapt these accounting principles if necessary. Looking at matters from that perspective we are obliged to specify what we mean when we speak about accounting principles, we must determine how to judge their functioning, we should know if and how to adapt them. Furthermore, in line with the perspective of management we should determine what it means to look at practice.

In general we think that management is concerned with decision making and with planning and control. In this paper we will direct our attention to those situations where management can be seen as decision making. We will speak about accounting principles as the means through which information is acquired, processed and provided for management. For instance we will see cost accounting in function of operational decision making or in function of strategic decision making. Our intention to take the point of view of management of an organization implies that we cannot choose an aspect-driven approach. Management has to deal with all (un)expected aspects of a decision situation. Certainly, the provision of information on behalf of the decision process should never in some way or another by itself be limiting to aspects of a decision situation. As far as decision making is concerned, in the end management will not be interested in decision making in general, it will be their specific decision situation which draws the attention. (Although for this purpose it may be worthwhile, but not satisfying, to study decision making in general.) Therefore, in this paper we will think of management accounting as providing information for specific decisions. Although we will come to speak about decision making in general, eventually we will address specific instances of decision making in all relevant aspects. That is, we will engage in case research.

If we want to evaluate the role and quality of accounting principles in specific decision processes then we must have an idea of the decision making process, of the types of decisions and of the means for coordinating decisions that we are speaking about. We will take boundedly rational decision making for our starting point (Simon 1982). If we then investigate how boundedly rational decisions come about we can try to determine how accounting principles influence and facilitate decision making. By seeing accounting principles in function of decision making we have generated a manner for evaluating the functioning of these principles. To make matters more manageable we will discern a few types of decisions in such a manner that our current analysis, which is about management accounting for decision making, can be easily placed against the broader background of management accounting on behalf of the planning and control of strategy.

Somewhere in the process we must take the step from the description of decision making in general and the role of accounting principles in it to specific instances. That is, the step from the general theory to the specific case. When considering general models, especially mathematical models, we know how to tailor the model to specific situations. Estimation of the parameters of equations will mostly do the trick. In case of the theory we will unfold below we do not possess such clearcut methods. As we are dealing with case research we

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cannot limit ourselves to controlled circumstances in which a number of factors are constant. Therefore, we have to take refuge to less clearcut methods which are however more broadly applicable. It will lead us to a checklist of questions which can be used when we address specific instances of decision making i.e. cases. Using the checklist we can try to look at various aspects of a decision situation and the way in which accounting principles play a part. Knowing the goals of an organization and having a clue as to the functioning of accounting principles we can try to design changes in the latter so as to serve the organizational goals.

Accounting for decision making.

Assume that we were to say in this paper that accounting entails the providing of information for decision making within a firm or organization (Hogarth 1993, Atkinson cs 1997). And assume that we want to look for ways to describe the workings of accounting tools, to evaluate the usefulness of accounting tools and perhaps even for ways to adapt their design. In that case we come to meet points of discussion like: what do we mean with the word 'decision', what sort of decisions, decisions by whom, what role can accounting play in this respect etc.

Let us postulate a decision maker the nature of whom may depend on the circumstances. It may be a manager, a board of directors, a human being, a machine operator, the firm etc. Which nature the decision maker has depends on the decisions at hand. We will discern 3 types of decisions: strategic decisions, organizational decisions and operational decisions. Depending on the sort of decision we should define the relevant decision maker.

Decision makers in organizations may be looked upon in a great number of ways. We may think that they can make non-rational decisions, quasi-rational decisions (Russell 1997), boundedly rational decisions, unbounded rational, procedural rational decisions etc. For the sake of consistency we should stylize the decision maker in some way or another. In this paper we will take for our point of departure boundedly rational decision making. *Rational* decision making means that a decision maker selects the best choice alternative from a set of possible choice alternatives (Hogarth and Reder 1986, Fushfeld 1996). So we will picture this as

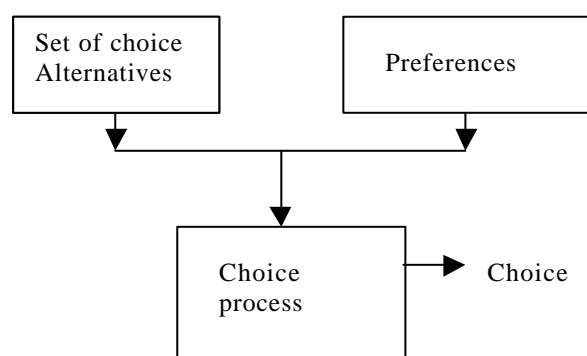


Figure 1

We may think of a rational decision maker as someone who knows it all and makes unboundedly rational decisions. That is his decision making is bounded only by nature's limitations. Of course this seems to be a rather unproductive notion as it cannot be a description of an existing entity nor can it be a prescription to decision makers as no one can meet the prescription. Therefore, we will take it that a rational decision maker

makes decisions which are *bounded* by a number of factors. First of all, the set of choice alternatives will be bounded. Not all possible alternatives are a part of the set. Decision makers have limited information processing capacities, make mistakes, take short cuts and do not possess all the time and money in the world to investigate all possibilities (Elster 1989). Besides, decision makers know that their past decisions limit their current decision room. Laws of course are of influence on the decision which are available to decision makers. For instance think of the liability laws in case of pharmaceutical industries or environmental laws. Furthermore, meso-economic conditions, the conditions on the markets, codetermine the decision space, like ethical rules and accounting principles. Accounting principles, in particular, shape the decision problem for a decision maker. Other accounting principles might define other concepts in which there can be thought about a problem, other accounting principles can provide other information, on another level of aggregation, about other aspects. For instance, Mouritsen and Bekke (1999) describe the importance of cost accounting for the definition of a decision space for specific circumstances in which time management can be applied as the a sole control instrument. Macintosh cs (2000) describe the way in which construed accounting concepts constitute the decision space of decision makers. In such instances accounting principles have a major role in describing the decision room for a decision maker in an organization. Secondly, the preferences of a decision maker are of importance for the decision made. However, preferences too are not given by nature for all time. Preferences are determined by cultural norms and values, by group values and the like. Furthermore, we can realise that the bounds which limit the set of choice alternatives of a decision maker and the bounds which influence the preferences interact in a complex manner. For instance, smoking or non-smoking habits influencing preferences of employees may eventually be incorporated in rules of conduct or even in law. The other way around, traffic rules may after some time be reflected in the behavioral norms of drivers (Posner 1997, Lindbeck 1997).

We can see the factors which limit the decision problem of the decision maker as rules which form the decision problem or, in different words, rules which are used for formulating the decision problem at hand.

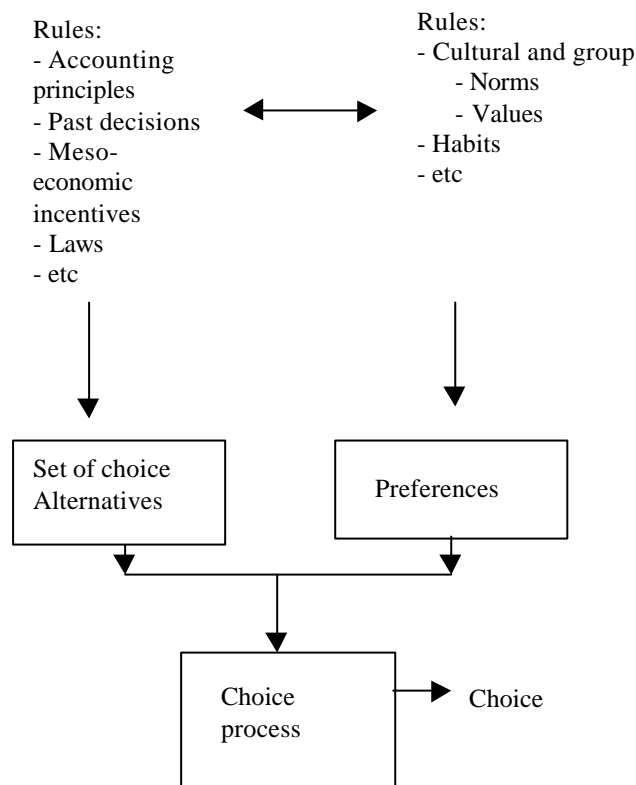


Figure 2

We will see decision making as a process consisting of at least two phases. Firstly, the decision problem is shaped or formulated by rules which result from a number of influences. Secondly, the given decision problem is solved and a decision is reached. In the course of it we have gotten a first idea of the connection between bounded rational decision making and accounting principles.

Rationality and rules.

If we want to know more about the characteristics of accounting principles and the information which they generate we will have to take a look at bounded rational decision making. We have seen that there are a number of factors which determine the decision problem a decision maker has to solve. Given enough degrees of freedom in determining the bounds to the decision problem we can explain any decision as rational or, if we like, non-rational. Thus, let us have a closer look at these factors. Understanding a decision then means understanding the way in which the decision problem comes about. The specific circumstance of a decision maker and the specific norms, values and habits which are used are crucial for understanding the decision made as being rational.

In figure 2 above we have named factors which limit the decision problem of the decision maker as 'rules'¹. There are two kinds of rules which bound the decision, one which determines the preferences and one which determines the set of available alternatives. Simply to make a distinction possible we will name the first kind of rules 'wired in rules' as they are of a psychological nature, and the last kind of rules 'infrastructural rules'.

There can be made other distinctions also. For instance we can discern rules originating from outside of the influence of the current decision makers in the organization like law, culture, the past, and rules originating from within the sphere of control of the current decision makers in the organization, like socio-organizational rules or accounting rules. In another way we can look for rules which can be adapted, rules which can only evolve and rules which cannot be changed. Depending on the time perspective rules can be adapted or not. In the long run all is variable, however not at will. For our purpose it is important to see whether rules can be designed at will or not. Designed is short run, evolving is long run. The norms and values change mostly through evolution and the infrastructural rules change mostly through design.

Now what can we say about accounting principles which, as we saw, shape the decision problem. It seems that accounting principles initially are infrastructural. Their design can evolve through conscious adaption (Vosselman 1996). Of course it may take a while to introduce changes to accounting principles in an organisation. Therefore, it seems that accounting principles in the course of their use become more or less wired in into the habits and even norms and values of members of an organization. So in the case of accounting principles we can see an interaction between the left hand side and the right hand side of figure 2.

Not only can accounting principles be of influence on norms and values, for instance when the use of an administered pricing rule or a decision algorithm is made a habit and even a norm within an organization or when actions which are ruled out as they cannot be accounted for become negatively valued within the organization, there can be an influence the other way around too. For instance, when the norms and values with respect to the preservation of the environment are of consequence for environmental accounting.

Rationality and coordination

If we realise that there are interacting rules which determine the decision problem of decision makers and that there are a great number of decision makers, in various phases of their decision proces who interact then we start to paint a chaotic picture of an organization. To be more precise, up to now we have given no reason why there should not result chaos. Apparantly, the decisions of various decision makers must be coordinated with respect to timing, type of decision, specific situation etc. In this we take the concept of coordination to mean "making several decisions that are jointly optimal" (Radner 1992). As we have stated above we look at the decision process as consisting of two phases. In the first phase the decision problem is shaped and in the second phase it is solved and a choice is made. It may be noticed that the eventual choice can be made in isolation by the decision maker, if the decision problem was formulated correctly. Stated in another way, if the decision problem is formulated such that a decision can be reached then the deciding can be done by a decision maker on his own. This means that interaction and coordination between decision makers should take place in the first phase of the decision process (Verstegen 1994, 1998). The influence of changes in evolving or designed rules must be situated in the phase in which decision makers form their decision problem. That is in the phase which comes before the choice phase on which economics traditionally focuses. It are precisely the rules, infrastructural or wired in, which account for the coordination between decision makers. Halpern (1998) shows how the way in which persons bond their choice problem will function as a coordinating device. So we can picture the decision process for two decision makers A and B including the coordination between them as (Verstegen, Duindam and van der Zijl 2000 p. 617):

¹ See also Burns and Scapens (2000).

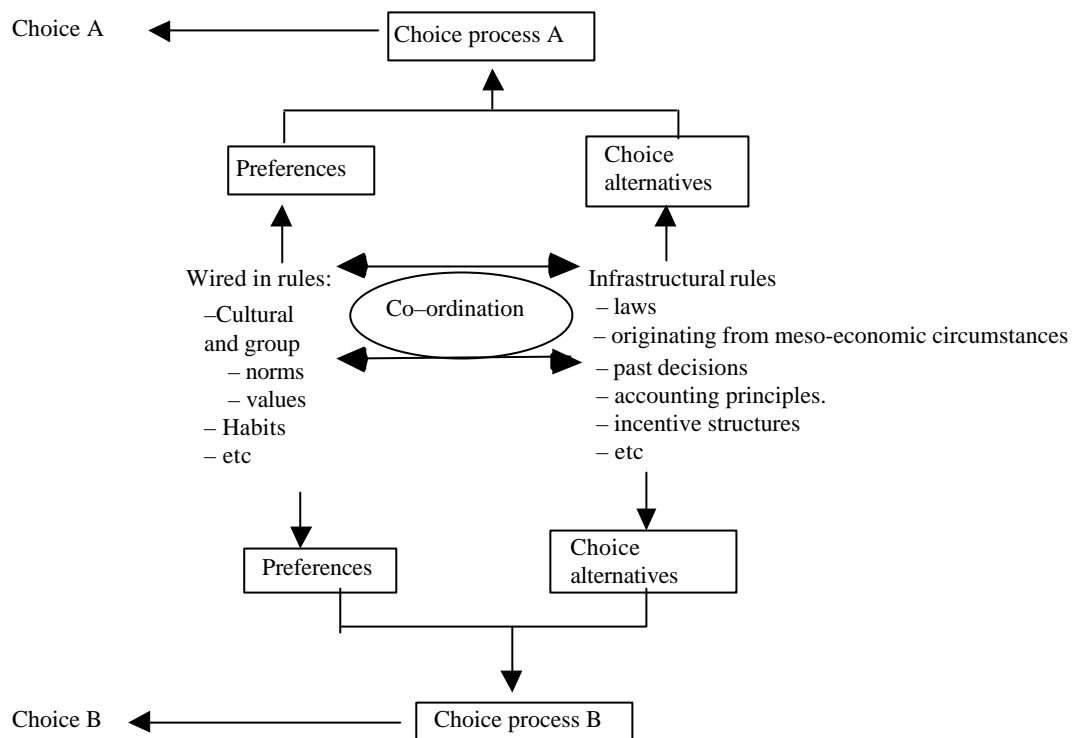


Figure 3

Coordination can happen on purpose and by accident. When a crowd or audience in a theatre applauds without being directed, after a while there will appear an ordering in the pattern of applause. This typically can be seen as a spontaneous ordering. Traffic rules can be seen as examples of coordinating principles which are designed on purpose. From this argument it appears that we can characterize the rules, wired in or infrastructural, not only by their role in determining decision situations, but also by their role and function in the coordination of decision making. We can think of technical aspects like the stabilising or destabilising effects, the speed with which the coordinating mechanism transports signals, the robustness of coordinating systems etc. However, we can also take the interdependency and coherence of various systems of coordination into account (Williamson 1996). For example, in the literature various studies can be found which emphasize the fact that the organizational design of an organization (resulting in infrastructural rules which can be used e.g. for management control) should reinforce the cultural rules which exist within an organization (Whitley 1999, Harrison and McKinnon 1999). To mention another example, the methods used to control employees should not interfere with the historically grown organizational values and norms.

There is a variety of rule-systems with a coordinating function. Often these are called institutions or constitutional systems². North (1990) defines institutions as *rules of the game* (our italics). Sjöstrand (1992 p. 1011) describes institutions as "a kind of infrastructure that facilitates (or hinders) human *coordination* and (re)allocation of resources"³.

² E.g. Vanberg 1992.

³ Sjöstrand mentions the infrastructural aspect of institutional rules. However, we must be aware of the fact that we have reserved a more restrictive content for this concept. We call only a part of the institutional rules 'infrastructural'.

The role of accounting in terms of coordination of decision making

Can the previous analysis be used to characterize accounting rules? Scapens (1994, p 301) states "The institutional framework (...) views accounting practices as institutionalized routines which enable organizations to reproduce and legitimize behaviour and to achieve organizational cohesion". Burns and Scapens (2000, p 4 and 6) write "Our paper begins with an assumption that, in many organizations, management accounting systems and practices constitute stable rules and routines." and "As argued by Scapens (1994), rules are necessary to coordinate and give coherence to the actions of groups of individuals." If we consider accounting principles to constitute an institution then what characteristics can we find out for these rules?

Looking at accounting rules in isolation we can say that they are more discretely then continuously evolving, more of influence on the set of decision alternatives than on norms and values, more designed on purpose than accidental. Accounting rules are of influence in the first phase of the decision process, the phase in which the decision problem is formulated (Lukka and Kasanen 1995).

However accounting principles operate in conjunction with other coordinating mechanisms, or institutions, like cultural rules, organizational-sociological rules, rules resulting from the meso-economic environment of an organization or firm, the past decisions of an organization, dressing rules, rules of ethical conduct etc. For example, we know from agency theory that the incentives agents experience, in monetary terms or in terms of risk, should match the pattern of available information (Baiman 1990 and many other examples). The design of the system of performance evaluation should therefore recognise the possibilities of moral hazard. We can also mention the interdependency of accounting methods and norms and values. The operationalisation of organizational targets into performance indicators on the level of the workforce should be done in a manner that conforms the group processes which are manifest within an organization etc. This means that the functioning of accounting rules should be seen conditional on the other coordinating mechanisms. (Hogarth 1993, Mangos and Lewis 1995). Hansen (1998) shows how the historically grown meso-economic conditions in Germany, among other things, were of importance for the evolution and development of tax accounting principles. Whitley (1999) shows the interdependency between cultural rules and the rules used for the purpose of management control. Sometimes accounting rules are of secondary importance for decision making, for instance when group behavior is the key factor in determining the problem formulation. On other occasions the importance of accounting rules for decision making is great. Attempts can be made to describe the type of problems for the solving of which accounting rules are of great importance like structured, frequent and relatively simple decision problems.

As said above it becomes interesting to look at the evolving design of accounting principles with their influence on the set of alternatives and their importance in the first phase of the decision process in mind. What are the criteria which drive the changes of the design? Transaction cost, production cost, risk, sentiments of the decision makers, the combination with other coordinating mechanisms, strategic determinants, the possibilities with respect to information systems etc? And does the design meet the criteria which are chosen? Neu (2000) tells us how accounting discourses and techniques could effectively serve as a means to rationalize colonial relations in Canada and how accounting techniques were being used as a model of colonial government. Of great importance for the evolving design of accounting rules is the extent in which the accounting principles can generate information which can be used in the specific decision at hand. (Burns and Scapens 2000). This means

that the specific situation of an organization is of great importance as are the specific preferences of the organization (Keating 1995, Scapens 1994, Vosselman 1996).

Adapting accounting principles.

Suppose that the specific decision situation at hand suggests that we had better adapted an accounting rule, should we then go on and change it? This would be a somewhat preliminary conclusion as we should realise that an accounting rule is part of an accounting system and that an accounting system interacts with other systems for coordinating decisions. Besides, up to now we did not give attention to the fact that accounting rules are not designed for one decision situation in isolation. Accounting rules are expensive to implement, an organizations need time to get used to them and accounting principles are to be used in decision situations to come. Therefore, if we consider from an institutionalist perspective to influence the evolving design of accounting principles we should take notice of the changing environment, of the evolution of other coordinating systems, of decision situations to come, of uncertainties etc. Designing changes for coordinating rules cannot be seen as looking for an optimum solution to a rule-choice problem. There are far too many unknown variables and there is too much uncertainty to enumerate the possible choice alternatives and select the best. (Burns and Scapens 2000). Besides, if we try to reach optimum rules which bound decision problems, there is an infinite regress problem lurking in the background (Verstegen 1994). Instead we have to deal with rules that are an element of an evolving combination of coordinating systems. (See e.g. Hansen 1998).

Fortunately, there is some ground to stand on. Firstly, the coordinating systems do not evolve all at the same time and in the same pace. For instance, from the point of view of adapting accounting rules, the cultural norms and values are relatively stable, as are laws. Secondly, within the above institutional environment the evolving design of accounting rules is the consequence of the interaction between the actions of the agents within an institutional system and the coordinating system itself. Routines used by decision makers are institutionalized in rules. Such processes of institutionalization are described and can serve as a conceptual framework for thinking about and analyzing the evolving design of accounting rules.⁴ Thirdly, for our argument we will take the goals of an organization given. Thus, when we evaluate accounting rules in their function of providing information for decision making then we should see decision making in its turn in function of reaching the goals of the organization. That is, accounting rules are used for the provision of information for a number of decisions, all of which stand in function of the goals of an organization. As the changing of accounting rules will take time and money and will interact with other coordinating systems, it should bring the goals of an organization into reach.

Research heuristic.

When looking at the role of accounting rules and at their possible improvement we should firstly take refuge to case research as the specific characteristics of a decision situation have great consequences for the information needed (Lawson 1997, Yin 1989). This situation should be analysed in terms of type of decision, the information needed and the accounting principles which can provide for it. Furthermore we should look at the coherence between accounting principles and other mechanisms of coordination like cultural rules, group behavior and the influence of economic incentives on the decision maker. Although at this point we do not possess a neatly formulated theory which we can specify in a controlled manner we should make a step to the specific situation

⁴ See for instance Bruns and Scapens (2000).

which the decision maker faces. The fact that we are engaged in case research implies that we cannot limit ourselves to situations in which some factors are constant or even absent. Our device for studying a specific situation should be designed so as to fit a great number of cases in variable circumstances. Besides we should look for an approach which deals with all cases in a similar manner so as to reach a form of comparability.

We should look for a flexible method which does not rely on a *ceteris-paribus* clause. The above theoretical structure certainly has not evolved enough to look at it as a theory which can be given specific content and tested. It merely gives relations between a number of concepts and between a number of entities we see in practice. Therefore, we should not try to reach a description of reality which can lead to the testing and corroboration or rejection of a theory consisting of hypotheses. Rather we should try to distill a heuristic which can guide the research for the accounting principles that exist in reality and their improvement.

Viewing accounting principles in this paper as part of an institutional framework we can think of a heuristic which fits the old-institutionalist perspective (Duindam, and Verstegen, forthcoming). This perspective advocates an open minded inquisitive approach, explicitly multidisciplinary of nature, that can help us in describing specific instances. On the basis of these specific descriptions we might try to generalize over specific instances for the purpose of generating or amending general hypotheses, or even theories. The deductive methods for deriving testable statements from hypotheses, which we know so well in economics, can only be used in combination with such inductive methods or heuristics that can help us in the formation of hypotheses. For this purpose it is important that the heuristic treats all cases in an equivalent fashion.

We think that we can serve our purpose if we use a standard list of points of attention. The list will be derived from the above theoretical structure and it will direct attention for every case anew to elements which are relevant for the specific situation. With it we will research the cases within the bounds of the viewpoint we unfolded above. In this way we can treat all cases alike which leads to a form of comparability of the results of case research.

Our checklist will consist of 6 parts. In the first part we will draw attention to the surroundings of the organization or firm and to the characterisation of the decision problem at hand. In the second part the agents within the organization come to the fore, their cultural background, group influences and economic incentives. The third part highlights the possibilities and impossibilities of the information systems which are present. The fourth part focuses at Management Accounting methods and techniques, the existence of alternatives and their interaction with other coordinating mechanisms. Fifthly, we will look at the decision at hand in its interdependency with other decision situations within the organization in the future. The adaption of accounting rules may have farreaching consequences and should provide better information so as to reach the organizational goals. Finally, the sixth part tries to look for solutions using various criteria.

This list, which is formulated in the form of a questionnaire, is not only informed by the above theoretical structure but also by tacit knowledge. Besides, it should be seen as evolving and amenable to change. Although the list is ordered in parts, there is no necessity to go through the parts consecutively. For instance, it is sensible to see whether the problem is defined sharp enough after dealing with part 5. For this it may prove worthwhile to go back to part 1 before answering the questions in part 6.

1. The surroundings, the decisions and the information required

- Which organization or part of an organization is relevant here? Which type of organization is this? How can we characterise its process of production?
- What are the goals of the organization?

- What are its surroundings in terms of culture, law, meso-economic circumstances and past?
- How does the organization take a position in its surroundings?
- Which type of decision making is relevant here: strategic decision making, organizational, operational decision making or else?
- Which concrete problem situation is relevant here?
- How does solving the problem situation lead to reaching the goals of the organization?
- Is the problem strongly structured or ill-structured?
- Is this problem simple or complex?
- Is this a problem which can be solved routinely in this organization?
- Is the timing of decisions important here?
- Which information is required to make the decisions?

2. The actors (persons, departments, groups etc) their culture, their roles, their preferences and limitations, their behavior and information

- Which actors are present and what are their circumstances?
- Which cultural norms and values are of influence on the actors?
- To which groups do the actors belong? What are their roles? What are the relevant group values and norms?
- Which habits are relevant here?
- What are the preferences of the actors?
- How are the actors limited and activated, for instance by legislation or by past decisions?
- Which economic incentives, like a system of compensation, are relevant to the actors?
- What does their set of choice alternatives look like?
- Which differences in information are present?
- How can we describe the actors' behavior in terms of relevant decision making?
- How should their behavior be changed?
- What are the interests of the actors with respect to the relevant decision making? And with respect to the information required?

3. The information technology

- Through which technology is the information generated?
- How can we judge the quality of the information generated?
- Which relevant information currently cannot be generated?
- What are the potential improvements in the technology?

4. Methods and techniques

- Which methods and techniques from the realm of Management Accounting (MA) are relevant here?
- How are they implemented?
- Are these methods and techniques designed at will and, if so, which criteria can explain the design?
- Did these methods and techniques evolve and, if so, can the path of evolution be explained?
- Are there alternatives?

- What are the advantages of the various alternatives with respect to (de)stabilizing effects on the development of the organization, speed of transport of information, robustness for outside shocks?
- What are the advantages of the various alternatives with respect to usefulness in reaching the decision at hand?
- Are there problems in elaborating and implementing the MA methods and techniques?
- How can the relevant methods and techniques be combined with, or how does the use of the methods and techniques interfere with: cultural norms and values, group behavior, socio-organizational aspects, with law and the past, with the preferences of the actors and their available set of alternatives and with the information technology which is present?

5. Future decisions, the evolving environment and evolving coordinating systems.

- Will the adaption of management accounting methods and techniques with respect to the current decision situation be of consequence for other decision situations in the future or not?
- Given the answer of the previous question, in what time frame will the consequences of adapting accounting principles take place?
- Which coordinating systems can be seen as relatively stable in that time frame?
- How will the other coordinating systems evolve or change at will?
- In what manner can the accounting methods be adapted in combination with the changes in other coordinating systems, such that the changes will be in function of reaching the organizational goals?

6. Choosing solutions.

- Which changes can help in reaching the organisation's goals? Give attention to the possibility of influencing these matters?
- How can we differentiate between proposals with respect to the internal implementing of changes in accounting methods and techniques in conjunction with other mechanisms of coordination like the socio-organizational relations, ethical rules of conduct or incentive structures, by way of describing their influence on preferences and decision room of actors and the resulting decisions. Give attention to the informational technology which is present?
- What is the efficiency and effectivity of the proposed measures?
- What are the transaction costs of the proposed changes and what are the risks?
- What are the costs of implementation and what are the risks?
- What are your eventual proposals?

7. Look at the previous list of questions closely. Do you want to make changes in the answers?

Conclusions.

In this paper we think of accounting as a means for generating and processing information for decision making. Looking at boundedly rational decision making it appears that accounting principles have a function in formulating the decision problem, which is the first phase in the decision process. As a consequence accounting rules perform a coordinating function between decision makers and decision processes. There exists a variety of other coordinating mechanisms like cultural rules or socio-economic rules. When we try to judge or evaluate accounting mechanisms then we should take notice of the specific decisions for which the information is needed,

of future decision making, of the interaction with other coordinating mechanisms, of the goals of the organization and of the circumstances in which the decision must be reached.

In the institutional perspective on accounting rules we should look for a method or heuristic which is of use in the evaluation of accounting principles with respect to specific decision situations. This requires us to specify the more or less general theoretical structure we unfolded. For this purpose we propose an open-minded heuristic in the form of a questionnaire. It functions as a checklist which draws attention to the various aspects and considerations we introduced when describing the functioning of accounting principles with respect to formulating specific decision problems and coordinating decision making. As the heuristic deal with all cases in a similar way the descriptions which are made on the basis of it can be considered comparable. This gives us an opportunity to generalize and take a step in the inductive process of hypotheses formation.

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