A semiotic alternative to communication in the processes in management accounting and control systems

Ülle Pärl[1, 2]

[1]School of Economics and Business Administration, University of Tartu
[2]Department of Accounting and Finance, Estonian Business School
Lauteri 3, Tallinn 10114, Estonia
e-mail: ylle.parl@ebs.ee

Abstract. This conceptual paper addresses Management Accounting and Control Systems (MACS) from a communication process perspective as opposed to a functional design perspective. Its arguments originate from a social-constructionist perspective on the organization. Its line of argument is that building a social theory of a social phenomenon such as MACS, demands that attention be paid to the characteristics of the communication process. An existing theoretical framework that does the same is Giddens' structuration theory, but it is only partly satisfactory because it refuses to consider communication-as-interaction from a dynamic contextual perspective, instead falling back on an argument related to the behavioural aspects of agency. An alternative is a semiotic-based communication perspective that includes context as well as addresses the epistemological level of a MACS theory based on communication. The semiotic model of Jakobson is provided and developed as a specific alternative.

Introduction

Atkinson *et al.* (2007: 643) define the Management Accounting and Control Systems (MACS) as "a […] process of planning, designing, measuring, and operating both non-financial information systems

and financial information systems that guides management action, motivates behaviour, and supports and creates the cultural values necessary to achieve an organization's strategic, tactical, and operating objectives". The discussion in the present paper starts out from the concept of MACS as a socially constructed, situational, dynamic process that aims to generate organizational reality and coordinate actions via *communication*. The paper's line of argument is that building a social theory of a social phenomenon such as MACS, demands that attention be paid to the characteristics of the communication process. Without communication, the social reality of organizations cannot exist. Communication is a basic process, which takes place continuously within and by means of MACS. In order to understand the process of communication at the epistemological level, one option is to use the prior work done on semiotics by Roman Jakobson (1896–1982).

This paper addresses MACS from a social perspective as opposed to a functional design perspective. In contrast, the prevailing approach in MACS research over the last decades is to draw on economics and information theory, located within a positivist paradigm. The economics-based paradigm assumes that an organization's social system consists of concrete, empirical phenomena that exist independently of the managers and employees who work for it. Following conventional organizational insights, organizations are composed of individuals who each have their own purposes and goals (Simon 1964; Cyert, March 1963). Thus, individuals rather than organizations have goals (Giddens 1984). With organizational goal ambiguity, goals do not provide a clear starting point for decision-making, but are instead an endogenous element of the decision-making process, uncovered through communication and action (Weick 1969; March 1987).

Over the last decades, the process-oriented view has been introduced to the MACS definitions (for example, Atkinson *et al.* 2007; Macintosh 1995). The word "process" clearly implies that the MACS is not something taken for granted at the moment and readily available in organizations; instead, it includes continuing action (Scapens 2006)

and communication between and within people. An existing theoretical framework that does address this issue, is Giddens' structuration theory, but it is only partly satisfactory because it fails to consider communication-as-interaction from a dynamic contextual perspective, instead falling back on arguments related to the behavioural aspects of agency. The proposed alternative is a semiotic-based communication perspective that includes context as well as addresses the epistemological level of a MACS theory based on communication. The semiotic model of Jakobson is provided and developed as a specific alternative.

The paper is built up as follows: in the first section, communication and the social-constructivist nature of MACS are explored and developed. In the next section, Giddens' structuration theory is analysed, followed by a review of MACS studies that use structuration theory. In the third section, an alternative is formulated and illustrated by means of Jakobson's model of communication, and the section goes on to provide several examples of how to interpret the model within MACS. The paper concludes by stating its contributions, both at the theoretical and practical levels.

Communication and MACS

The basic premise of a sociologically constructivist approach to MACS is that human beings reflect others onto themselves, and in doing so make social reality a dynamic process. Hence, constructing social reality is a shared process of meaning construction (Ihlen, van Ruler 2009). In this view, reflective interpretation and the conceptualization of meaning are at the forefront in a constant process of deconstruction and reconstruction.

Organizational reality is constantly socially constructed and transformed, and provided with meaning, based on the multitude of personal reflections and interactions by managers and employees (see for example, Taylor *et al.* 1996; Hodge, Kress 1991). Organizational

reality is not something "objective and out there". People in the organization construct the organizational reality and every person has their own "reality". People interpret others and their own actions within the context of organizational reality; in organizational life, people act differently, depending on how they interpret the "organizational reality".

Without communication, the socially organized reality of organizations cannot exist. Communication is a basic process, which takes place continuously within and by way of MACS. Communication is a vehicle for control, through the coordination of behaviours with others (for example, Eilon 1968; Miller 2005). In other words, communication in MACS creates and coordinates actions by which organizations achieve objectives, formulated by top management. Communication can happen inside and between individuals, implying a need to focus research and analysis on these individuals and their roles in interpreting and communicating accounting; that is, a focus on social interaction (see Hopper *et al.* 1987).

According to Wirckramasinghe and Alawattage (2007), Max Weber (1949) was the first to emphasise the importance of the social actions that create social reality and the commensurate need to focus on individuals rather than on social structures. If we focus on individuals, the contribution of MACS to the organization depends on how people understand its purpose, because there are no independent meanings of social categories such as "organizational goal" and "organization". Rather, meanings are the constructions of individuals who act upon, and interact with, those social categories (Wirckramasinghe, Alawattage 2007). Ansari and Bell (1991) demonstrated that, based on their cultural values, people interpret and create values and meanings for controls that are opposed to their managers' expectations of controls.

The mediating processes operating in MACS can be treated as a communicative and auto-communicative complex (or as dialogue with another and a dialogue with oneself; see Fig. 1). Creators, while creating their work, communicate both with the audience and with themselves (Jakobson 1985[1974]; Lotman 2000). For example, in the MACS communication process, when compiling a report or analysis,

accountants communicate both with the users of the reports and with themselves. The first creative act is to create the meaning of the numbers for themselves. In that auto-communication process, they use knowledge and experience which they already have. According to Jakobson (1985[1974]) the auto-communication (or intra-communication) process bridges time. At the same time accountants communicate with the users of the report to convey a message about the economic situation of the company. According to Jakobson (1985[1974]) the interpersonal communication process bridges space.
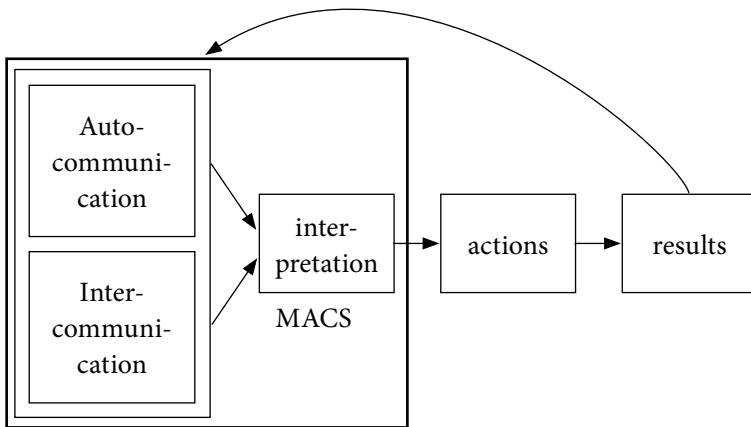

Figure 1. MACS as a communication and auto-communication complex.

The same communication and auto-communication coinciding process happens when an organization is a collective creator. That which at one level of the organization manifests itself as a process of communication and a dialogue between actors, can be seen at another level as the auto-communication of an organization (self-reference) and as a dialogue of the organization with itself, thus reifying and legitimising the organization to itself. Self-description is a process of auto-communication, and its result can be self-modelling. Self-modelling is a powerful means for the "end-regulation" of an organization, attributing

to it a systematic unity and largely defining its quality as a reservoir of information (Lotman 1970).

The aim of MACS is the generation of desired actions in order to fulfil organizational goals (formulated by top management). If the reading of reports or receipt of MACS information does not result in desired actions, we cannot talk about the use or working of MACS. Desired actions will happen only when the messages emitted by the sender (or addresser), for example, from management or employees, reaches the receiver (or addressee), for example, when they get to other employees who make things happen.

To summarise, the discussion in the present paper starts out from the concept of MACS as a socially constructed, situational, dynamic process which aims to generate organizational reality and coordinate actions via *communication*. That affirms the position of MACS as a normal social discipline (Vollmer 2009; Wirckramasinghe, Alawattage 2007).

Giddens' structuration theory and MACS

Scholars in the MACS field have suggested that Giddens' structuration theory (1979, 1984) could be useful in attempting to understand the complex social phenomena at work in MACS (for example, Roberts, Scapens 1985; Macintosh, Scapens 1990; Boland 1993; Baxter, Chua 2003; Coad, Herbert 2009). Although a number of management accounting researchers have drawn upon the structuration theory in empirical research (for example, Ahrens, Chapman 2002; Collier 2001; Conrad 2005; Dirsmith *et al.* 1997; Granlund 2001; Jack 2005; Scapens, Roberts 1993; Jönsson 1998; Seal *et al.* 2004; Soin *et al.* 2002) there is a lack of studies that aim to understand the interaction or communication process in MACS, that is, how the communication or interaction process actually works.

According to Giddens (1976), social life should be considered in terms of both structure and agency (Fig. 2). Structures are the rules,

norms, and beliefs that characterise the social world. Agency is the behaviour and *interaction* of humans within that world. Central to the theory of structuration is the concept of "the duality of structure". The duality of structure means that people both draw on and create social structures in the course of their everyday social activity**.** In effect, the dualism between structure and agency is replaced with a relational approach.

Giddens proposes that structuration takes place along three dimensions — signification, domination, and legitimation (see Fig. 2). Signification structures involve semantic rules, which are drawn on to produce meaning. Domination structures involve resources, which are used to produce power. And legitimation structures involve norms and values involved in the production of morality. These three dimensions of social systems are inextricably intertwined and are separated in the abstract for analytical purposes only (Giddens 1976).

In combination, these structural dimensions influence the social actions and interactions of agents in organizations. It means, structures are not external to human action, but are integrally involved in the
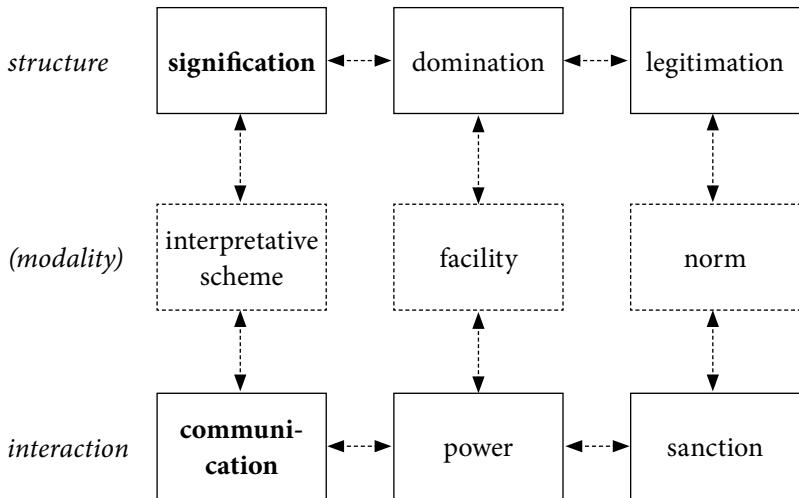

Figure 2. Giddens' structuration theory.

everyday practices, which bind time and space together in ever-renewed combinations. Giddens contends that the structures which people create, such as language and social conversations (as well as MACS), expose new possibilities, yet they also limit them to some degree.

Giddens argues that his conception of social meaning requires a new theory of agency, or people's capacities to act in the social world. Agency is the behaviour and *interaction* of humans within that world. Agency includes the capacity to act otherwise, because people are "concept-bearing" creatures who can imagine different courses of action (Giddens 1987). For Giddens, agency is characterised by two parameters — behaviour, which we can research using psychology, and interaction or communication. Giddens's definition of agency on the one hand distinguishes him from psychological theories of human motivation, that do not sufficiently take into account social context nor emphasise the pragmatic side of human action (Tucker 1998). On the other hand, Giddens has paid surprisingly little attention to communication and interaction as the binding components of his structuration theory. The pervasive communicative aspects of each of his three dimensions of social systems, and of practically any type of social action, have remained a blind spot in Giddens' work (Jensen 1995). He did not explain agency by means of signification, interaction and communication — which is the modality chosen in this paper.

Giddens turned away from interaction, which is central to his structuration theory and concept of agency, to behaviour, which is another component of agency. In so doing he tries to explain the role of agency by means of behavioural psychology. As a result, he tries to explain the role of agency not by semiotics and signification, interaction and communication, but by using consciousness and unconsciousness, routine and repetition of activities. Although Giddens indicates, that for research signification, the relevant scientific road is semiotics, he is not satisfied with the understanding of meaning in structuralist and static school of semiotics (Giddens 1984: 18–20). As he stated: "I do not accept that this implies the evaporation of subjectivity into an empty universe of signs" (Giddens 1984: xxii).

Giddens emphasises that language cannot be understood separately from social practices, which allows social life to continue, even if the full complexity of these practices cannot be expressed verbally.

Linking the hermeneutic approach to a constructionist perspective means that the focus shifts from individuals to the social context, which individuals interpret and act within (Falkheimer 2009). Although Giddens' structuration theory discusses the agent, placing the individual and reflexive human being at the centre of theory, he actually concentrates on structures, and not the agent who interacts and communicates. In other words, structuration theory does not focus on the individual actor or social totality "but social practices ordered across space and time" (Giddens 1984: 2).

To sum up, in Giddens' structuration theory, there exists an essential paradox. On one hand, Giddens accepts signification as a language and semiotic phenomenon, and communication-as-interaction as central to his theory, but on the other hand, he eliminates semiotics as a tool for research into signification because he thinks that semiotics perceives language and codes as static, and not as context-dependent, structuralistic, not situated out of time and space. As a result, Giddens did not consider semiotics a suitable tool for studying the process of communication and interaction.

An alternative: a communication model of MACS

In order to understand the process of interaction and communication at the epistemological level, one option is to use prior work and revert to one of the sources of Giddens' own structuration theory (1979: 18–20) — the work done by Roman Jakobson (1896–1982) in semiotics. Jakobson's semiotic model of communication has been applied in many different fields to date. For example, in researching communication in marketing to understand the advertising communication process (Even-Zohar 1990; Fuentes-Olivera *et al.* 2001). Of particular relevance

and in response to the epistemological critique of Giddens' structuration theory, Jakobson's communication model (1985[1956]) is useful for moving to the epistemological level. Moreover, it is useful practically to study how communication *works* in MACS describing different meanings and actions (as a result of processes).

Communication is a process, which uses language. In organizational communication processes, many *different* languages are used at the same time: for example, different professional languages, an accounting language, written languages, spoken languages etc. The implication is that, in order to understand different languages and texts, people have to translate them. According to Juri Lotman (2000), all communication requires some form of translation in order for the meaning to be generated. As Lotman affirms, "the elementary act of thinking is translation" (Lotman 2000: 143). The universality of translation comes from its connections with thought processes.

In organizations, many different languages and many different texts (texts for example are reports, everyday situations etc.) are used simultaneously. The meaning of a text depends on how the text is "read". Reading is the process of discovering meaning that occurs when the reader interacts or negotiates with the text. To understand different languages and texts, people have to translate them in order to understand each other. For MACS situations, translation processes are involved in the practice of using reports or attending meetings in the organization.

In management accounting and control processes, at least two basic translation processes are involved: first, the organizational processes are translated into a management accounting (or economic) language, and, second, the economic language is translated into a common, managerial professional natural language. However, as pointed out by Jakobson, it is impossible to generate true equivalents in the process, that is, there is a "loss" in the two-step translation from organizational processes into managerial language. To specify this "translation loss", we need to look at the translation process itself. The process of translation occurs between two messages, the message that the sender sends

and the message that the receiver receives, both of which are generated mutually and simultaneously.

According to Torop (2008), Roman Jakobson was the first person to use the metaphor "translation" within the framework of the process of communication and who demonstrated his model (see Fig. 3) of communication (Jakobson 1985[1956]). Jacobson's model moves beyond the basic linear transmission model of communication and highlights the importance of codes. Code is a shared meaning system by which the message is structured. For example, when using the word "depression", one needs to make explicit the fact that the code of economics (economic depression) is used and not that of psychology (mental depression). According to Jakobson (1971), the production and interpretation of texts depends upon the existence of codes or conventions for communication. The efficiency of communication requires the use of a common code by its participants. The meaning of a number, word, picture, photo or other sign depends on the code within which it is situated. Codes provide a sense-making framework. Juri Lotman (2009), when describing the assumptions for communication, describes a paradox: If two individuals are absolutely different from each other, if they do not have anything in common, then meaningful communication between them is not possible. However, if two individuals are identical in every way, then communication is equally impossible — actually, it is possible, but they do not have anything to tell each other. In order to communicate, participants need to simultaneously have both different and overlapping areas in their code systems.

Jakobson (1985[1956]: 111) starts by modelling the *constitutive factors* in an act of communication. He outlined six 'constitutive factors in communication' (Fig. 3): The *addresser* sends a *message* to the *addressee*. To be operative, the message requires a *context* referred to by the addressee, a verbal or verbalized *code* fully, or at least partially shared by both the addresser and addressee, and, finally, a *contact*, a physical channel and psychological connection between the addresser and the addressee, enabling both of them to stay in communication.
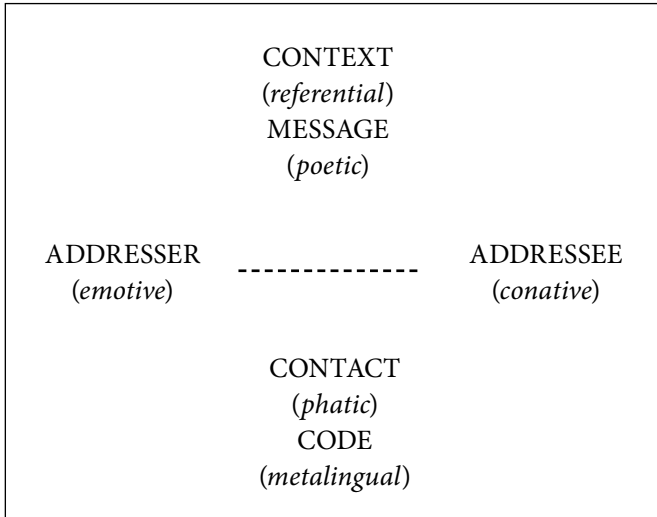
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CONTEXT
(referential)
MESSAGE
(poetic)


ADDRESSER        - - - - - - - - -        ADDRESSEE
(emotive)                                  (conative)


CONTACT
(phatic)
CODE
(metalingual)
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Figure 3. Jakobson's 1985[1956] model of communication

Jakobson's model is a *double one*. Beside the factors, Jakobson brings to the model the functions of the factors. Each of these factors of his communication model determines a different function of language. It is a *dynamic* representation of a minimum number of *factors and functions* that are present *in each and every communication act*. The *emotive* function describes the relationship of the message to the addresser. The emotive function of the messages is to communicate the addresser's emotions, attitudes, status, class; all the elements that make the message uniquely personal. If we turn in parallel to Giddens' theory, we can talk about power and authoritative resources. At the other end of the process is the *conative* function. This refers to the effect of the message on the addressee. The *referential* function, the "reality orientation" of the message, is very important in objective, factual communication (for example, in MACS). This is communication that is concerned with being "true" or factually accurate. For MACS situations, that would

be the actual, not "improved" numbers, logically congruent with the organizational reality; the business environment; and organizational culture. These three functions are obvious, common-sense functions, performed in varying degrees by all acts of communication, and they correspond fairly closely to Giddens' structuration theory of domination and legitimation structure.

The next three functions may appear less familiar at first sight, though the phatic has been discussed in different terms already. The *phatic* function is that which serves to keep the channels of communication open. It seeks to maintain the relationship between addresser and addressee and it confirms that communication is taking place. For example, Jönsson (1998) investigates the process of conversation in management accounting — who speaks and what must happen next for a successful conversation to take place. The *metalingual* function is that which identifies the code that is being used. For example if we use the word "performance", its meaning (and subsequent interpretation and action sequence) is different when using managerial code (financial performance) or cultural code (theatre performance). The final function is the *poetic*. This is the relationship of the message to itself. It means we try to use words and expressions with the most aesthetically pleasing rhythmic pattern. In aesthetic communication, this is clearly central, but Jakobson points out that this function operates in ordinary conversation as well.

The basic idea of Jakobson's model is that in the process of communication, a hierarchy is presumed to exist in the structure of the message (text). In any given situation, one of these hierarchical functions is "dominant" and this dominant function influences the general character of the "message".

The second important aspect of the concept of communication is the interrelation of internal and external (or interpersonal and intrapersonal) communication, meaning that the mechanisms of communication and auto-communication, or dialogue with another and dialogue with oneself, also largely coincide. According to Jakobson (1985[1974]: 98): "While interpersonal communication bridges space,

intrapersonal communication proves to be the chief vehicle for bridging time".

So the mechanisms of communication and auto-communication, or dialogue with another and dialogue with oneself, also largely coincide. In the context of Jakobson and Giddens, it follows that we stress once again the homogeneity and duality of internal and external in relation to the person or organization. Following Giddens (1979: 76–77): "we can define social integration as concerned with systemness on the level of face-to-face interaction; system integration as concerned with systemness on the level of relations between social systems or collectivities".

Developing the communication model of MACS is useful as an analytical tool that helps to identify, classify and examine factors in the MACS communication process. The proposed communication
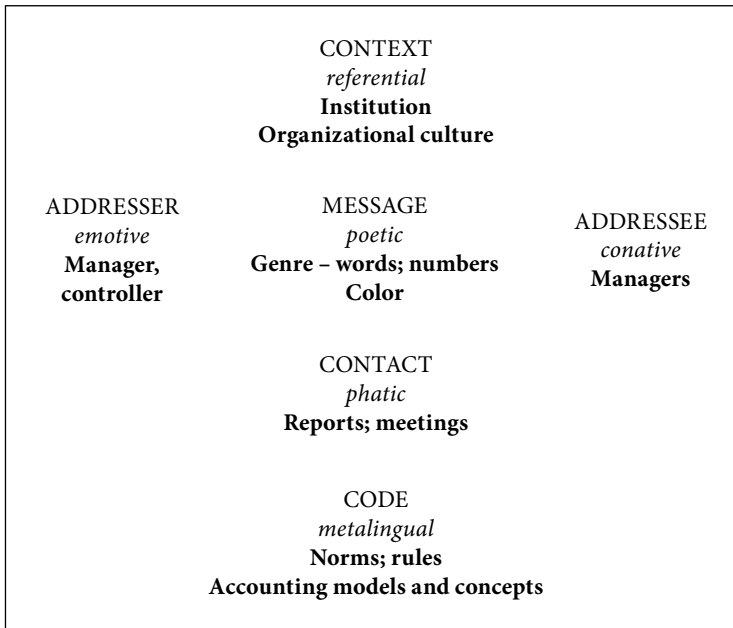

CONTEXT
referential
Institution
Organizational culture

ADDRESSER MESSAGE ADDRESSEE
emotive *poetic* *conative*
Manager, **Genre – words; numbers** **Managers**
controller **Color**

CONTACT
phatic
Reports; meetings

CODE
metalingual
Norms; rules
Accounting models and concepts

Figure 4. The communication model of MACS.

model of MACS can be addressed as follows (Fig. 4): *the message —* genre of words or number used; *addresser —* the MA specialist or (top) manager; *the addressee —* (lower-level) manager, employee; *context —* the organization with its own particular organizational culture and knowledge, and the economic situation; *contact —* reports, analyses, meetings; *code — or*ganizational norms and rules; accounting models and concepts.

The framework described above is provided as a means of addressing this complexity. It is not an attempt to reduce that complexity down to simple terms; rather it is intended as a starting point for a holistic understanding of the complex processes involved in MACS. Context, code and message are not proposed as empirical variables to be measured in some objective way. Rather they are analytical concepts that may not be empirically observable *per se*. In terms of the communication model of MACS, it is only contacts that are observable. As we move away from the realm of contact, the concepts become increasingly abstract.

Code, the metalingual function

The metalingual function is associated with identifying the code that is being used. The production and interpretation of texts depend upon the existence of codes or conventions for communication (Jakobson 1971). Codes are not simply "conventions" of communication but, rather, procedural systems of related conventions which operate in certain domains, for example, the Generally Accepted Accounting Principles (GAAP) is such a procedural system of conventions. At its most formal level, conventions can describe the rules by which arbitrary signs (signs are for example numbers, words, pictures, lights, colours etc) work. For example, a red traffic light means stop. Or, for example, if the amount of profit is smaller than the profit in the budget, it signals less salary in the coming months. Codes organize signs into meaningful systems and transcend single texts, linking them together in an interpretative

framework. The efficiency of communication requires the use of a common code by its participants. In MACS, for example, the codes are the norms, rules and the aims or objectives of an organization. Measures and numbers get considered only when they are compared with the organization's plans or included in the reward system (rules) in organizational culture. For example, if the organizational goal is the highest possible quality of output or expanding the market share, it may be that a loss in some period does not matter.

Contact, phatic function

The *phatic* function serves to keep the channels of communication open. It maintains the relationship between addresser and addressee and confirms that communication is taking place. In MACS situations, the translation and communication processes come into play in the practice of using reports or attending meetings in the organization. A text can be made available to other individuals through face-to-face interaction or an alternative communicative system such as electronic mail, a whiteboard, a web site etc. The question then is: is the channel or contact acceptable to the actors in the communication process? Is the computer screen bright enough, can numbers and words be seen, is the internet connection good enough, is the use of a PC convenient for users? These might appear trivial matters, but if the pipeline and vehicle are suffering from problems, the load that is supposed to be carried over, will not arrive or, sometimes even worse, only partly arrive.

Message, the poetic function

The message accords with the *poetic* function. This is the relationship of the message to itself, and it determines that we try to use words and expressions which are more aesthetically pleasing. We choose words

in writing analyses, headlines for diagrams, colours which fit together, make tables (formats) more attractive etc. Although the contact is a mechanical or physical phenomenon, its design plays an important part in creating the meaning and triggering the resulting action. For example, a report has to be sufficiently clear, information in the report has to be ordered systematically, some of it has to be accentuated with, for example, different colours, or the addition of graphics — it is an important part of providing a message. If the report format is not well developed, if there is too much data, the message can easily get lost. The poetic function means how something is said or even not said, and which genre is used. In MACS, the poetic function could be a very important aspect of communication because using language of different genres can be a source of power within interactions (Carter, Sealey 2000: 9). Askehave and Swales (2001: 196) state that several researchers have investigated the relationship between genre and power and Yates and Orlikowski (1992) incorporated genre in the domination structure in their structuration theory framework.

Context, the referential function

Meaning takes on life within a context in communication. For example, the meaning of a report is dependent on the context of the organization (its 'competitive environment') with its own particular organizational culture and knowledge ('industry traditions' such as in the oil & gas industry, or the public sector, or health care), as well as the economic situation of the relevant environment. Readers actively create context (Giddens 1979, 1984; Boland 1993) and bring it with them to the text. It means, the *referential* function, the "reality orientation" of the message, is very important in MACS. This is communication that is concerned with being "true" or factually accurate. For MACS situations, it relates to the actual, not "improved" numbers, logically congruent with the organizational reality, business environment, organizational culture.

Readers of management accounting reports actively construct their own context in which to interpret those reports. This implies that, in the communication process in MACS, we have to take into account both the addresser's and the addressee's own contexts and the organizational and economical contexts, and to understand how the message could reach the addressee. As a result, we have to account for communication and the communication context at different levels. An example is the desire of many firms to become "glocal" — thinking globally, while operating locally. What is considered relevant, opportune, and focussed when communicated from corporate or regional headquarters, may become utterly misunderstood and transposed when received at, say, the operational unit in Malaysia, the manufacturing plant in China, or the logistics department in Singapore. Dismissing this as a matter of 'cultural difference' will not work, unless the specific context of interpretation is actively included in the message, its contact, and its code.

The recognition that existing ways of thinking (that is, context) within an organization can have an important influence on the management accounting process and its use. Readers of management accounting reports actively construct their own context to interpret them in. Having made this personal context for interpretation, the reader can reject the obvious and surface meanings of these reports, and can propose deeper, more subtle and sophisticated readings of their meaning. The reader appropriates meaning from them not only in the light of this particular self-made context, but also in the light of others, alternative histories and contexts that could have been constructed for them (Boland 1993: 135) It implies that, in the communication process in MACS, we have to take into account both the addresser's and the addressee's own contexts and the organizational and economical contexts as well as understanding how the message could reach the addressee. As a result, we have to account for communication and the communication context at different levels — the inter-communication and auto-communication levels.

Addresser and addressee, the emotive and conative function

The meaning takes on life in the relationship between the addresser and the addressee (the actors in the communication process). The *emotive* function describes the relationship of the message to the addresser. The emotive function of the message is to communicate the addresser's emotions, attitudes, status, class; all those elements that make the message uniquely situational and personal. If we turn in parallel to Giddens' theory, we can talk about power and authoritative resources. It is within the *emotive* function that we find a role for the power and personal relationships of the addresser, that is (top) management, financial managers, controller, their authoritative resources, as well as the system of reward, and additional resources connected with the authoritative resources, that is, the facilities used or managed by the addresser.

At the other end of the process is the *conative* function of communication, the addressee. This refers to the effect of the message on the addressee. Management accounting reports mean whatever their readers make them mean. A report can be a very skeletal kind of concept. The reader produces meaning instead of simply consuming it (Boland 1993; Macintosh 2002). So, for different readers the same text could mean different things. For example, one reader might conclude that the growth in company profit is adequate, another reader that the same growth rate is too small, and a third reader might not look at the profit growth at all, but be happy that turnover is not under the budget forecast. So, for the first and third readers the company economic results are good, but for the second reader results are not very good.

At the addresser-addressee level, that is, at the individual level, two communication processes coincide, the communication with others and the communication with oneself. Preparing or reading a report or any other message is dependent on the prior knowledge of possibilities (Weick 1995). The reading of the reports involves not just an assessment of data, but also an assertion and discovery of the self by the reader. The reader confirms the self by asserting the standards to

be used in making the judgements, and unfolds new dimensions of an understanding of self through the creative description of others and of their social context during the reading. Communication and sense-making require the representation (Weick 1995) of human experience, knowledge and understanding that are already mediated in the mind of a communicator (that is, the context of the individual). For example, if the addressee of the report does not have knowledge or prior experience of what it means or how they should enact the measures, the message cannot reach the addressee and cannot generate the intended actions. In that case the meaning of report does not exist independently of the actors. Both parties, the author of the text, the addresser /accountant and the reader, the addressee /manager are key to deriving meaning from the report or analysis and, through that process, an understanding of the economic reality of the organization. It places the MACS user and MACS creator on an equal footing within the MACS.

Conclusions

The paper makes the following contributions. First, the paper makes a conceptual contribution to MACS theory. It reflects on the nature, scope and focus of MACS, considering the relationships within the communication process in using MACS within an organization. It defines MACS as the interactions between the actors within organizations across a number of interrelated communication levels. It takes a social-constructivist approach to broaden MACS and communication concepts.

Second, the paper extends our understanding of communication's role in using MACS, in affecting behaviour and in achieving objectives. It investigates communication as an action-generating process from an epistemological perspective. Epistemology refers to the nature of knowledge and how knowledge is to be gathered and used in the social world. It highlights the main problem: how to use the knowledge

of that context-dependent action and meaning at an epistemological level of analysis.

Third, following an analysis and critique of Giddens' structuration theory, the paper proposes an alternative in the semiotic-based communication model of Jakobson (1956), setting out its factors for MACS. The communication model of MACS offers both a theoretically grounded and a practical way to analyse the working of MACS. This may help in both the evaluation of MACS and in improving its actual communication of the organizational processes it purports to sustain and enhance. This semiotic tool may be of use when developing MACS as it prompts developers to include different communication factors of MACS in relation to the different levels of MACS. For example, an organization may find that there is no problem with the use of different code systems but with report formats and presentations ('message'), and this would be a useful area for further development.

The proposed communication model of MACS may be useful to academics and practitioners as an analytical tool, which helps to classify and examine factors in the MACS process (for example, which context, code, and contact aspects to include) as opposed to the factors in the MACS design (for example, which measures and methods to use). Instead of collecting data from a one-dimensional MACS communication perspective, it shows how to explore data on the multiple dimensions of the communication process in MACS. This has implications for the design of MACS research instruments in subsequent studies; hence, this study suggests developing a methodology school in researching the actual, everyday reality of MACS communication processes.

Fourth, from the perspective of the profession, an increased insight as well as an improved opportunity of definite instrumental intervention, enlarges the scope of the management accounting professional. It reduces dependence on adjacent disciplines, notably Information Systems (IS), integrating a key capability of IS design and improvement into the skill package of the management accountant.

A semiotic-based communication view on MACS is particularly promising as a focus for further research on social and organizational

aspects of accounting research. For example, addressing how different factors of communication affect the application of MACS (including its hitherto inexplicable successes and failures) implying a deeper understanding of the company and its economic context, the sender's and the receiver's backgrounds, the reporting modes and modalities, and codes of economic and managerial translation and interpretation. This study attempts to help organizations by proposing a semiotics-based theory that might improve MACS practice and will assist organizations in engaging employees and managers alike.[1]

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Коммуникация в процессе руководства и мониторинга (MACS): семиотическая альтернатива

В статье системы MACS рассматриваются как постоянные коммуникационные процессы, так и социально конструированные, ситуативные, целью которых является создание организационной рельности и координация действий. В социологических исследованиях по MACS часто опираются на теорию структуризации Гидденса. Хотя Гидденс подчеркивает роль интеракции между индивидами в создании организационной социальной среды, он при этом отвергает коммуникацию как основу интеракции и обращается к психологии, сознанию и подсознанию. Настоящая статья возвращается к одному из истоков теории структуризации Гидденса — к теории и модели коммуникации Романа Якобсона. Основываясь на модели коммуникации Якобсона и на семиотике культуры Юрия Лотмана, в статье предлагается способ применения лингвистических и семиотических теорий в практике руководства организациями. Цель статьи — предложить решение для анализа и изменения процессов, предшествующих действиям в организациях, посредством модели MACS.

Kommunikatsioon juhtimisarvestuse ja monitooringu protsessis: semiootikal põhinev alternatiiv

Artiklis käsitletakse juhtimisarvestuse ja monitooringu süsteeme kui sotsiaalselt konstrueeritud, situatsioonilist, pidevat kommunikatsiooni-protsessi, mille eesmärgiks on tekitada organisatsioonilist reaalsust ja koordineerida tegevusi. Juhtimisarvestuse alastes sotsiaalteaduslikes uuri-mustes tuginetakse sageli Giddensi struktureerimise teooriale (Giddens 1979, 1984). Kuigi Giddens rõhutab indiviidide vahelise interaktsiooni rolli organisatsioonilise sotsiaalse keskkonna loomisel, heidab ta kõrvale kom-munikatsiooni kui indiviidide interaktsiooni aluse ning pöördub hoopis psühholoogia, teadvuse ja alateadvuse poole. Käesolev artikkel pöördub tagasi Giddensi struktureerimise teooria ühe algallika, Roman Jakobsoni kommunikatsiooni teooria ja mudeli (Jakobson 1956) juurde. Artiklis tõm-matakse paralleele Giddensi struktureerimise teooria ja Jakobsoni kom-munikatsiooni mudeli vahel. Baseerudes Jakobsoni kommunikatsioon mudelil ning Juri Lotmani kultuurisemiootikal (Lotman 1970, 2000, 2009) pakutakse artiklis välja üks viis, kuidas teadmisi, mis on pärit lingvistikast ja semiootikast oleks võimalik rakendada organisatsioonide juhtimisprak-tikas. Artikli eesmärk on läbi juhtimisarvestuse ja monitooringu kommuni-katsioonimudeli pakkuda välja lahendus kuidas analüüsida ja seeläbi muuta ka mõjutatavaks tegevustele eelnevad protsessid organisatsioonis.