Problematizing Concepts - A Critical Perspective on Trust and Management Control

Abstract

This paper is a conceptual one that critically examines the concepts of (management) control and trust, both individually and jointly. Some of the most prominent/influential concepts, and the underlying assumptions behind them, are problematized and re-conceptualized in order to generate new research questions. A theoretical methodology is used (including the analysis and problematization of the content of the important concepts identified) that is grounded in the relevant literature on (management) control and trust. Furthermore, a 'pragmatic constructivism approach' is applied in the final analysis.

The findings indicate that two rather distinct research perspectives – a 'rational or behavior- and action-oriented' perspective, and an 'emotional or values- and belief-oriented' perspective – exist separately in the research areas of management control and trust as well as in the research that combines these areas. Some researchers' use of specific constructs, combined with the absence of conflicting constructs within the same perspective, demonstrate that reality is still mainly described in two different ways. However, both ways ignore some aspects of the world as it is in practice. One finding is that trust can be seen as a 'package' in the sense in which we speak of 'management control packages' (Malmi and Brown, 2008).

Several new models illustrate the re-conceptualized constructs of (management) control and trust, separately and jointly. These models call for further evaluation in order to determine their validity. The paper, therefore, is a stimulus for such additional research that can raise new research questions and promote 'thinking outside the box' rather than mere "footnote-on-footnote research" (Alvesson and Sandberg, 2011).

Keywords: Trust, control, management control, pragmatic constructivism, concept, conceptualization, problematization

1.   Introduction

The constructs of 'trust' and 'control' are elements of social reality (e.g., Searle, 1995). These concepts refer to highly complex forms of social relations and processes that are necessary for the generation and maintenance of collective action (Giddens, 1990). Both concepts have traditionally been treated as institutional systems (similar, dissimilar, alternative, etc.) in order to absorb socially-defined risk and uncertainty (Zucker, 1986).

'Trust', in general terms, refers to the firm belief in a person's or a thing's reliability, truth, or ability, whereas 'control', particularly from the perspectives of economics, accounting and finance, refers to regulation (e.g., of financial affairs), to examination and verification (e.g., of financial accounts), or to the use of an operational device or mechanism (e.g., of an organization). Control, in the third sense, is often labeled 'management control' (MC) that, broadly defined, is "everything managers do to help ensure that their organization's strategies and plans are carried out or, if conditions warrant, that they are modified" (Merchant, 1998, p. xi). Because control problems can result in large losses and organization failures, in this paper the term 'management control' is used frequently (rather than 'control') to indicate its critical managerial function.

A substantive body of literature exists in the field of management accounting that is concerned with the evaluation of the relationship between the two concepts of trust and (management) control, suggestive of evidence of a new paradigm (Baldvinsdottir, Hagberg, Johansson, Jonäll and Marton, 2011, p. 409). There is also mounting evidence that both concepts – trust and (management) control – are essential components when coordinating, organizing and managing activities (e.g., Baldvinsdottir et al., 2011; Bijlsma-Frankema and Costa, 2005; Möllering, 2005; Sitkin and George, 2005; Weibel, 2007).

Despite impressive research advances in recent decades, several problems have been identified related to assumptions about the relationship between trust and (management) control. One problem is that the two concepts often have been treated – universally and a-contextually – as separate societal influences. Another, and related, problem is that the relationship between the two concepts has usually been overlooked (Bijlsma-Frankema and Costa, 2005; Stahl, Kremershof and Larsson, 2004; Vélez, Sànchez et al., 2008).

Some researchers also claim that different ontological and epistemological views have heavily influenced the accounts provided. Since concepts in general are difficult to measure, assess and build, researchers, in different ways, typically have had to break concepts down in order to operationalize them. Blomqvist (1997), for example, has observed significant differences between economists' rational and calculative view of trust and philosophers' attitudinal and ethical view of trust. Reed (2001), on the other hand, contrasts materially-based and culturally-based theories of trust and control. Both Blomqvist and Reed call for more scientific attention to such differences. Moreover, Bijlsma-Frankema and Costa (2005), Möllering (2005) and Baldvinsdottir et al. (2011) call for more theoretical and empirical data on trust that can give us a better understanding of how trust truly functions as a governance or control mechanism.

These different views have led to discussions, conceptualizations and assumptions among researchers. Given all this conversation, it seems important to look behind the 'taken-for-granted' or 'black-box' perspectives in the examination of how trust and management control concepts have developed and are structured, separately and jointly.

From a scientific, and mostly psychological, point of view, concepts can be seen as 'the glue that holds our mental world together' because they are the mental representations the brain uses to denote a class of things in the world – the things we encounter in our everyday lives (Murphy, 2002). Generally speaking, a theory is "a statement of relations among concepts within a boundary set of assumptions and constraints" (Bacharach, 1989, p. 496). Theories are not "free-floating statements" but are rather "based on and bounded by researchers' assumptions about the subject matter in question" (Alvesson and Sandberg, 2011, p. 253).

From a practical point of view, concepts do not seem to pose serious problems since, in everyday life, they are part of our 'daily logic'; we take them for granted. An important issue, however, and one requiring evaluation, is how common concepts applied in research become researchers' daily practices (their logic).

The aim of this paper, therefore, is to critically discuss, evaluate and re-conceptualize the multifaceted relationship between the concepts of trust and management control, both separately and jointly. In the sections that follow, I deal with three questions pertinent to this analysis:

1) How are (some of the most influential) trust and management control concepts constructed?
2) What is the relationship between these concepts (and constructs), and in what way can they be re-conceptualized?
3) How are these concepts designed and used in research?

This study is intended to contribute to research in two main respects. First, the paper takes a mostly sociological view of the relatively mainstream literature on management control and trust. Second, in its explanation and problematization of various 'trust' and 'management control' concepts and their combinations, the paper introduces new models (concepts) that take a more holistic view of the reality described.

The remainder of this paper is structured as follows. Section 2 is the three-part methodology section in which the concepts are explained and problematized as the basis for developing new research models. Issues regarding the selection of studies and concepts are examined, followed by the description of the pragmatic constructivism approach used in the paper. Section 3 describes, examines and summarizes the (management) control concepts. Section 4 is an investigation of the trust and control relationship found in the accounting and management control literature. Section 5 presents a more detailed re-conceptualization and description of new management control and trust concepts. Section 6 is a combined analysis of trust and management control concepts. Last, Section 7 is a concluding summary of the paper.

2.   Methodological Issues

2.1 Problematization as a methodology to develop new concepts and new research areas

In this and the two following sub-sections, I present a combination of two interconnected methodological assumptions relevant to the purpose of the paper. First, in order to identify and challenge certain assumptions that underlie the existing literature and to generate research questions that should lead to more influential theories, I use Alvesson and Sandberg's (2011) 'problematization' methodology. They argue that most research in management is intended to fill the (small and often not really important) gaps in the existing literature. Thereby, researchers often build on (or around) existing literature but miss the opportunity to identify and challenge the underlying assumptions (Ibid., p. 249). The main problem with this approach, according to Alvesson and Sandberg, is that researchers only trace each other's footsteps; hence they conduct "footnote-on-footnote research". 'Genuine' problematization (with emphasis on genuine because there are various strong types of problematization), on the other hand, means challenging not only others' theoretical positions but also one's own theoretical position and building research questions from that effort (Alvesson and Sandberg, 2011, p. 252).

'Concepts', which exist universally, represent what exists or is thought to exist. Researchers and practitioners work with concepts and their definitions every day, quite often without really thinking about them. Sometimes, however, we look more deliberately at concepts such as when we question or problematize taken-for-granted concepts.

Many concepts of trust, as well as commonly used 'conceptual synonyms for trust', exist – for example, competency, credibility, confidence, faith, hope, loyalty and reliance (e.g., as listed by Blomqvist (1997)). Usage, which depends on the context and the issues, varies greatly depending on the researchers' (world) view taken and the ontology used.

Currently, problematization of the more positivist mainstream management accounting and control theories (concepts) is popular among researchers. The ones who take a more skeptical view than these mainstream researchers include e.g. the following: the critical researchers (e.g., Alvesson and Sandberg, 2011; see the review by Cooper and Hopper, 2007); the constructivists (e.g., see the survey by Bisman and Highfield, 2012); and the pragmatic constructivists (e.g., Nørreklit, Nørreklit and Israelsen, 2006; Nørreklit, Nørreklit and Mitchell, 2010). These groups question many taken-for-granted assumptions, concepts and definitions. The critical researchers often have more ideological purposes, the constructivists are mainly interested in 'opening the black-box', and the pragmatic constructivists want to present a valid picture of reality, not just particular aspects of it. The ultimate aim of these three research streams is the re-conceptualization of many assumptions about concepts, leading to the construction of new concepts.

In their influential work, 'Categories and Concepts', Smith and Medin (1981) summarize three conceptual views: the 'classical', the 'probabilistic' and the 'exemplar'. The classical view holds that "all instances of a concept share common properties that are necessary and sufficient conditions for defining the concept" (Ibid., p. 115). Yet researchers (and others) are not totally in agreement on certain categories. It may be difficult to agree on natural kinds of concepts. For example, the concept of a 'bird' might pose only a linguistic problem, but concepts like 'hammer' or 'furniture' (i.e., artifacts) can create difficulties. The probabilistic view denies the existence of (universally) defining properties and argues for properties that are only characteristic or probable of class members, where there are better or worse properties or more or fewer properties. Finally, the exemplar view assumes, because there are no universally defined properties, it is enough that individual members of a class have sufficiently similar characteristics to one or more of the category's known exemplars.

2.2 Selection and the problematization of studies and concepts

The problematization in this paper follows Alvesson and Sandberg's (2011) methodology. However, I have made some adjustments to this methodology that requires explanation. Because trust and management control are the subjects of extensive theorizing and conceptualization – often in different disciplines – the review of the studies that follows is limited to studies most relevant to my three research questions.

I began with Baldvinsdottir et al.'s (2011) survey of 82 articles on the concepts of trust and management control. Of these articles, not all trust categories are used to the same extent and not all control types are discussed in the same depth. I used citation-index data to determine the frequency of the articles' citations in other research. I used no other measures to ascertain the validity or reliability of this research because they were irrelevant to the purpose of this study. For the selection of textbooks on trust and management control, I relied on the expertise of my colleagues (teachers and researchers) as well as on my own familiarity with such literature.

It is, moreover, important to note that the cited authors in this paper do not, in all cases, explicitly promote or identify their assumptions about the dimensionality of trust or control, either as separate or joint concepts. Hence, there are possible (and likely inevitable) differences between these authors' concepts and my interpretations of them.

Finally, the trust and control concepts are multifaceted when considered both separately and jointly. Making semantic distinctions between various types of indicators is therefore a very complex task. To simplify the task, I try to re-conceptualize the extensive literature using Alvesson and Sandberg's (2011) six principles (in adjusted form) for the methodology of this paper, as illustrated in Table 1.

Principles	Solutions & Adjustments
1) Identify a domain of literature	Trust and control literature is selected, with a focus on the special field of management accounting and control.
2) Identify and articulate assumptions	The main identifying word used is 'concepts' rather than assumptions; however, this is a minor problem as these words are often used synonymously. (Otherwise, this principle is followed entirely).
3) Evaluate articulated assumptions	The concepts are identified, described, evaluated and summarized.
4) Develop alternative assumptions	The concepts are summarized in a new way that reflects an alternative view of the original assumptions behind the concepts.
5) Relate assumptions to audience	The major audiences are related to the challenged constructs, mostly using the pragmatic constructivist approach.
6) Evaluate alternative assumptions	Alternative constructs are presented in new models, primarily to open up new areas of inquiry on issues by taking a new perspective).

Table 1: Alvesson and Sandberg's (2011) six principles (in adjusted form) in the paper's methodology

2.3 The pragmatic constructivism approach

This paper assumes that reality is a construct. Unlike much other research, however, reality in this paper is seen as an integrated construct when applied pragmatically in organizations or in other social settings and when dealing with activities, problems, ideas and actions in their relevant contexts. There are several reasons for taking this approach. Reed (2001, p. 202), for example, claims that the conventional dichotomy between "normatively-based trust and politically-based control", as well as between several other theoretical research streams, is based on simplified assumptions. To avoid too narrow a focus, Reed recommends the use of 'critical realism' that provides a holistic picture in the analysis of trust/control relations within and between complex organizations. He suggests that trust/control relations should be seen as structures of "interrelated positioned-practices, which generate, shape and constrain the development of contrasting forms of expert power" (Ibid., p. 201). From this point of view, critical realism relies strongly on the ideas of structuralism combined with notions of objectivism, which could be summarized as 'realistic structuralism'.

Another reason for the use of the pragmatic constructivism approach comes from Nørreklit et al. (2006; 2010). These authors question the validity of much of the research in management accounting. They think, in order to address validity, one must integrate (at least) four aspects of reality − namely, facts, logic, values and communication. They point to three deficiencies in contemporary management accounting (and control) research (summarized in Figure 1).

1) *Agency theorists and other positive researchers* have a tendency to apply a fixed logic that suppresses human values, which leads to "instrumentalism without socially valid explanations" (Nørreklit et al., 2006, p. 43).

2) *Social constructivism* mostly denies the existence of a "(socio-) economic logic and individual values", which leads to the assumption that there is no "rational/logical economic calculation" in organizations when members choose between opportunities and exert control of their own futures (Ibid).

3) *Mainstream management accounting research*, when combining facts and logic only, "relies on extrinsic common values and lacks communication about intrinsic values to the detriment of a valid workable control" (Ibid). Researchers then apply the universal structure of rationality that decides what is good for everyone. Hence, managers are fully rational because rationality is supposed to lead to high performance, and rewards are linked to such particular performance drivers. A major problem with this approach is that all values in an organization are assumed equal.
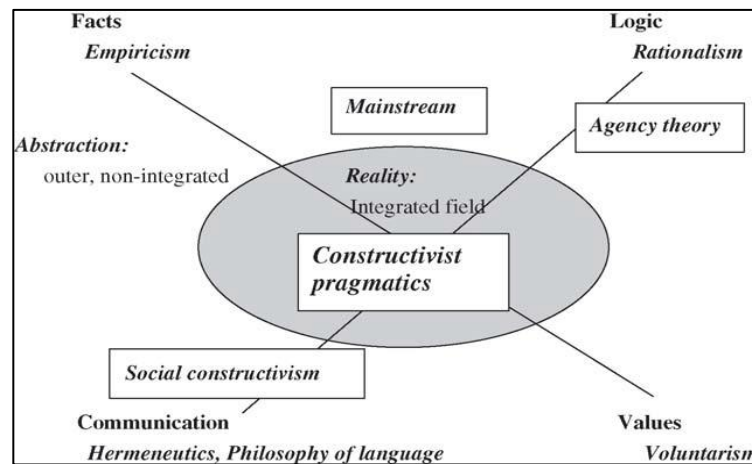

Fig. 1: Reality and the theoretical perspectives (Source: Nørreklit et al., 2006)

Reed's (2001) critical realism approach has similarities with Nørreklit et al.'s (2006; 2010) 'pragmatic constructivism'. Pragmatic constructivism, however, relies on the idea that individuals are constructors of their own reality (constructivism) in which the pragmatic concern is the connection between the actors, or groups of actors, and the world; the world is the social context for activities. In this respect, there are pragmatically true and false issues but also more or less successful actions. This is an area that cannot be ignored in the analysis of control/trust relations in real contexts. In order to address validity, the pragmatic constructivism approach, as illustrated in Figure 1, combines facts, logic (in newer versions, replaced by the word 'possibilities', where logic is the mechanism to arrive at different, factual and non-factual, possibilities), values and communication.

This integrated approach, combined with Reed's (2001) criticism, is the underlying model for the analysis in this paper.

These proposed ways (or methodologies) of looking at control and trust, together with the issues of epistemology and ontology, all challenge or problematize some (or all) assumptions in most existing theories (and concepts) that try to critically restructure almost taken-for-granted typologies and concepts. Alvesson and Sandberg (2011, p. 260) refer to "a dialectical interrogation of one's own familiar position, other stances, and the literature targeted for assumption challenging". Nørreklit et al. (2006; 2010) and, to some extent, Reed (2001), illustrate what is missing in the relationship between an actor and the world. Thus, most researchers describe a part of reality but fail to provide a valid picture of reality itself. These ideas are addressed in the analysis of the findings in this paper.

3.   'Management control' concepts

3.1 Control and 'management control' concepts

In the search for definitions of 'control' on the World Wide Web (www.), most hits link to the management of organizations or directly to the term 'management control', which indicates that control is a word, or construct that is commonly used in managerial/organizational contexts. An explanation may be that as early as 1916, Henry Fayol defined control as it pertains to management. His definition, from his 1949 management book, is still used today.

> Control of an undertaking consists of seeing that everything is being carried out in accordance with the plan which has been adopted, the orders which have been given, and the principles which have been laid down. Its object is to point out mistakes in order that they may be rectified and prevented from recurring (Fayol, 1949, p. 108).

In the area of management accounting and control, numerous frameworks, typologies and other concepts exist today that apply control in much the same way that Fayol described. Three early frameworks are the following: Ouchi's (1979) conceptual framework on control; Baliga and Jaeger's (1984) construct that is based on the work of Ouchi (1979) and Mintzberg (1979); and Simons's (1995) well-known 'Levers of Control'. More recently, Merchant and Van der Stede (2003; 2007; 2012) have proposed three versions of their famous 'Management Control Systems'. There is also the rather new and much-cited 'Management Control Package' by Malmi and Brown (2008). In total, these five very well-known control frameworks, which span about four decades, seem to represent a large part of the 'conceptual' logic applied today by management accountants worldwide.[1]

More than 40 years ago, Ouchi (1979) differentiated between output control, behavior control and social control:

- *Output control* is the focus on the measurement of the output of a manager or employee
- *Behavior control* is a way to influence the behavior of a manager or employee
- *Social control* concerns the selection and training of highly motivated people who will perform their tasks without being forced to use expensive behavior or output control

Baliga and Jaeger (1984) used Ouchi's (1979) framework, including ideas from Mintzberg (1979), to develop a typology that combines two types and two objects of control. Thus, four different combinations are possible:

1) *Pure bureaucratic/formalized control* with a) controlling output with formal performance reports or b) controlling behavior with company manuals
2) *Pure cultural control* with a) controlling output with shared norms of performance or b) controlling behavior with a shared philosophy of management

Writing ten years later, Simons's (1995) intent was to broaden the older definition of control and to establish a critical bridge between the areas of strategy, accounting and control. Thus, Simons added

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[1]Other, possibly equally influential, frameworks and typologies are the following: Otley and Berry's (1980) cybernetic control model that builds strongly on mechanistic and engineering control theory; and Kaplan and Norton's (1992) balanced scorecard. Also noteworthy is the work of Robert N. Anthony (1965, forward) and Norman B. Macintosh (1984, forward) in the area of management accounting and control. I do not include this research in order to focus more strongly on particular concepts. These exclusions, however, should not significantly influence the illustration/re-conceptualization.

three new control systems to the previous and more traditional 'diagnostic control systems'. As a group, these systems are intended to achieve strategic change:

- *Diagnostic control systems* are used to monitor and optimize targets and outcomes (and normally include the traditional tools such as budgets, performance management and measurement, business plans, valuation standards, incentive systems and compensation systems)
- *Belief systems* should communicate core values and provide inspiration and direction
- *Boundary systems* ought to frame the strategic domain and define the limits of freedom
- *Interactive control systems* should provide flexibility in adapting to competitive environments and encourage organizational learning

Merchant and Van der Stede (2012), on the other hand, separate management control from strategic control, and define management control in the context of employees' behavior. From their perspective, these controls are necessary to "guard against the possibilities that people will do something the organization does not want them to do or fail to do something they should do…If all employees could always be relied on to do what is best for the organization, there would be no need for MCS" (p. 8). The wording 'relied on' clearly indicates the underlying principle, namely that control is a substitute for 'trust' or the lack thereof. Thus, control is needed because trust is not enough to manage an organization. Merchant and Van der Stede divide their control framework into four subcategories: 'results controls', 'action controls', 'people controls' and 'cultural controls', as explained next.

- *Results controls* (by far their most important control category) influence the behavior of employees by using information from key measures for outcomes of their work (results) and by making sure that rewards are given to the most talented and hardest working employees. This approach is effective only when the desired result areas can be controlled (to a considerable extent) by the employee(s) whose actions are being influenced and where the controllable results areas can be measured effectively.
- *Action controls* describe the actions taken by the employees, which should ensure that employees perform (or do not perform) certain actions known to be beneficial (or harmful) to the organization. They are feasible only when managers know which actions are (un)desirable and have the ability to ensure that the (un)desirable actions (do not) occur.
- *People controls* build on the employees' natural tendencies to control and/or motivate themselves, which particularly includes selection and training of employees.
- *Cultural controls* are designed to encourage mutual monitoring, which is a form of group pressure on individuals who deviate from group norms and values.

Malmi and Brown (2008) see management control systems as a package (Figure 2) that is structured around five groups: planning, cybernetic controls, reward & compensation, administrative controls and cultural controls. The main intention of this package is to include only those controls that "managers use to direct employee behaviour" (Ibid., p. 287). This is a delicate use of words because 'direct' and 'control' can be synonyms even though they are normally interpreted differently and with fewer value-loaded connotations.

The 'package' concept suggests that organizations may apply numerous controls and control systems simultaneously in order to "align individual's activities with organizational goals" (Malmi and Brown, 2008, p. 287), a common theme in the research by Otley and Berry (1980) and Simons (1995). Malmi and Brown clearly separate decision-support systems and MCS. They see control as "about managers ensuring that the behavior of employees … is consistent with the organization's objectives and strategy" (p. 295). In short, the package consists of the tools, systems and practices managers use to control or direct employees' behavior. This is behavior control.

Cultural Controls		
Clans	Values	Symbols

Planning		Cybernetic Controls				Reward and Compensation
Long range planning	Action planning	Budgets	Financial Measurement Systems	Non Financial Measurement Systems	Hybrid Measurement Systems	

Administrative Controls		
Governance Structure	Organisation Structure	Policies and Procedures

Fig: 2: The Management Control Package by Malmi and Brown (2008)

Malmi and Brown's (2008) package, as its name indicates, contains many things. For example, Cultural Controls are at the top of the package to "indicate that they are broad, yet subtle controls" (p. 295). Organization Structure is under Administrative Controls, although many other researchers see this variable simply as a contingent variable. However, Malmi and Brown think the typology should not be too narrow because "there is a risk that some controls may go unnoticed and existing links to other controls may obscure the research findings" (p. 295). At the same time, they exclude "pure decision-support systems" because "a typology needs to be parsimonious enough to create boundaries for an empirical inquiry" (p. 295). This is an admonition that one should always be aware of as far as what to include/exclude in a certain concept.

3.2 A paradigm change for the 'control' concept

Organizational researchers have witnessed a paradigm change from bureaucratic organizations to post-bureaucratic organizations. As far as the concept of control, this change is evident in different ways. Barley and Kunda (1992), for example, reported on alternating shifts between ideologies of normative and rational control in American organizations from the 1870s until 1992. The last normative paradigm, which they term organizational culture, began in the 1980s and referred to control that relies on socialization, enculturation, and identification – all processes of subjectification. This change followed a rational control period and a managerial ideology that began in the mid-1950s when system rationalizations were in focus in American organizations.

Styre, on the other hand, describes the difference between bureaucratic and post-bureaucratic forms of control as follows:

> Seen in this perspective, rational and technocratic forms of control, embedded in writing and thus derived from the symbolic register, constitute the predominant underlying mechanism of forms of management control in bureaucracies. Normative and socio-ideological control, dependent on ensembles of images separated from inscription and writing procedures and thus derived from the imaginary register, is the predominant form of control in post-bureaucratic organizations. (Styre, 2008, p. 651)

Styre (2008) also observed a trend in documents, scripts, and protocols of an increased emphasis on identity, culture, ideology and other unobtrusive forms of control (see also Perrow, Wilensky and Reiss, 1986). Styre describes the evolution in recent decades in which imaginative expressions, rather than symbolic expressions, have been used to refer to control. This has meant a change to the register of symbols from the register of images. He thinks the primary reason is context: today's rather stable and fixed situations require more flexibility and adaptability because of environmental changes. Thus, rather predictable and determined work practices have transformed into more *ad hoc*

solutions that demand greater creativity and, at the same time, provide more interesting and challenging work assignments for employees.

Alvesson and Kärreman (2004, p. 152), varying slightly from Styre (2008), recognize technocratic controls that are "attempts to directly control worker behavior" and socio-ideological control that are "attempts to control worker beliefs". Here, bureaucratic-technocratic control systems are non-obvious sources of socio-ideological control because in certain situations, a strong socio-ideological control function can be visible in the form of a 'meritocratic ideology' (performance anxiety and a strong emphasis on career and elitism are the norms rather than the exception; titles and promotions are valued strongly). These authors also conclude there is a trend from technocratic control towards more normative control. See Table 2 for a summary of the older and newer management control types.

Older management control types (Bureaucracy)	Newer management control types (Post-bureaucracy)
Rational control System rationalizations Formulized control	Normative control Meritocratic control Organizational culture Cultural control Identification & subjectification
Technocratic control = Attempts to directly control employees' behavior	Socio-ideological control = Attempts to control employees' beliefs
Texts, scripts, protocols = Symbolic register	Depending on images = Imaginary register
Predictable & determined practices	Ad hoc solutions require creativity

Table 2: Control concepts characteristic of the 'Bureaucracy' and the 'Post-bureaucracy'

3.3 A new illustration of almost 40 years of major 'control' concepts

These descriptions of the most important work from almost 40 years of research in the field of management control lead us to several conclusions. First, much of this rather revolutionary conceptualization is actually 'old wine in new bottles'. Generally speaking, the new concepts and their analysis, albeit somewhat altered, are much the same as the older ones. This 'ocular' examination, however, indicates that, in terms of linguistics and content, similar 'mental representations' have been made in most of the afore-mentioned typologies. Clearly, properties have, at least in some cases, been defined in different ways, but the final structure of certain frameworks or concepts has often generated very similar outcomes. Thus, because there are more similarities between the frameworks than dissimilarities, it appears as if researchers strongly agree on the definition of management control and on the kinds of control types and control objects by which it can be operationalized.

Figure 3 is an overview (re-packaging) of these management control concepts in a new and enlarged 'concept' or 'package'. More in-depth analysis is needed, however, that can identify all directions and positions with greater certitude. The two circles on the vertical axis indicate the polar positions of post-bureaucratic control (with a focus on emotions, etc.) and bureaucratic control (with a focus on rationality, etc.). Greater emphasis on 'agency' is typical of post-bureaucratic control while greater emphasis on behavior and actions is typical of bureaucratic control. Rationality guides bureaucratic control and includes artifacts and systems; thus, organizational control is viewed in terms of machine-like systems (diagnostics, cybernetics) that can, mechanically or mathematically, function perfectly (the optimal choice). This perspective refers mostly to structure.

The horizontal axis illustrates the control types: from the start of the control period to its end. The arrows between the concepts, including their constructors, indicate the origins of the concepts

and their alterations (or re-modeling). Simons's (1995) typology clearly stands out from the others because he uses a somewhat different concept that has stronger links to the strategic dimension of organizations.
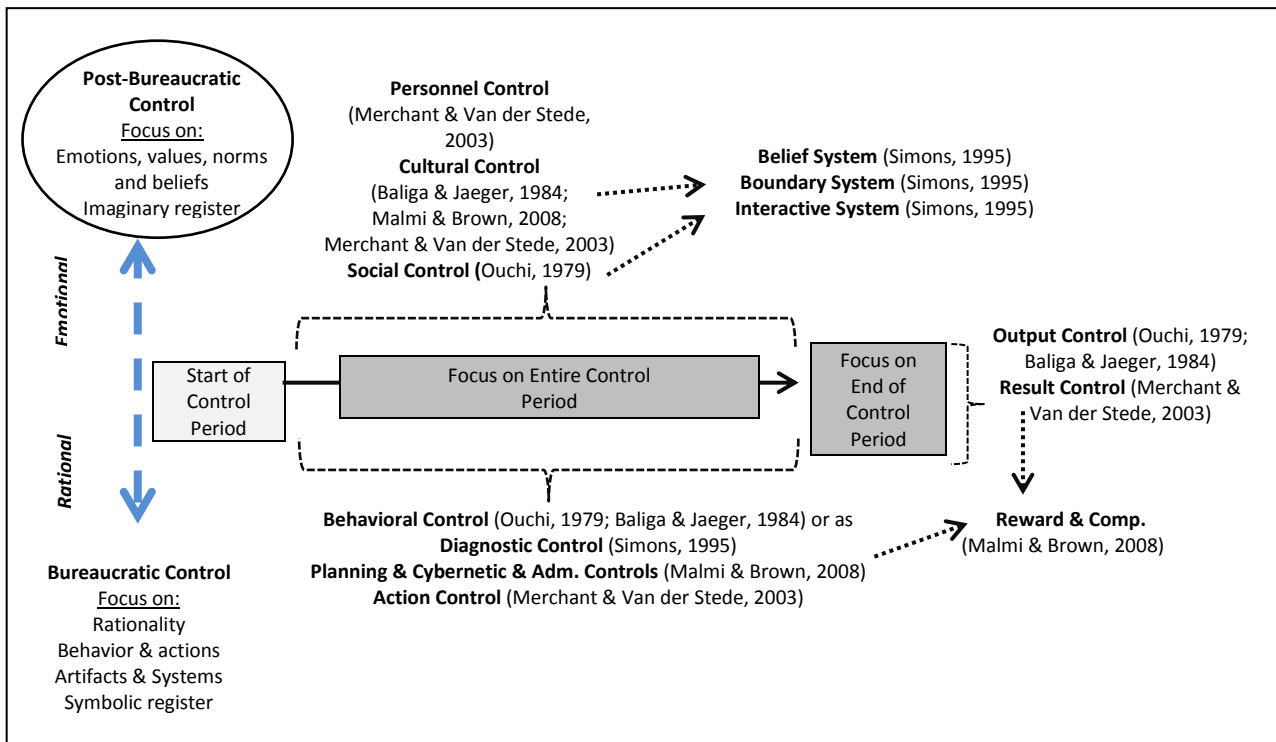

Fig. 3: A new illustration of key concepts from almost 40 years of management control

As Figure 3 makes clear, one can hope that the old wine was a good wine because not much has changed in recent decades. This observation does not imply criticism of the research on management control. It merely suggests that it is worthwhile to examine the basis for this observation.

4. The trust and control relationship investigated

4.1 Management Control research and the trust concept

Baldvinsdottir et al.'s (2011) survey of articles in important accounting journals from 1996 to 2009 (in total, they examined 196 articles of which 82 related to trust and management control) revealed that *Accounting, Organization and Society* (AOS), with 42 articles, has published more than any other journal on trust and accounting (both financial and managerial). In the same years, *Accounting, Auditing & Accountability Journal* (AAAJ), *Critical Perspectives on Accounting* (CPA) and *Management Accounting Review* (MAR) each published only about half as many articles.

Baldvinsdottir et al.'s survey also found that about 45 % of the researchers apply a sociological theory while about 35 % apply a more rational economic theory. (The authors were either unable to identify the theoretical perspective the other 20 % of researchers applied or the researchers changed perspectives in their studies).

Only 17 % of the articles Baldvinsdottir et al. examined use an explicit definition of trust. The survey draws no conclusions about this absence. However, the survey notes that the most popular definition of trust is the one provided by Tomkins (2001); 18 of the articles use his definition. Baldvinsdottir et al. conclude that Tomkins's research is the origination point of a new research paradigm on trust. Tomkins defines trust as follows:

> …adoption of a belief by one party in a relationship that the other party will not act against his or her interests, where this belief is held without undue doubt or suspicion and in the absence of detailed information about the actions of that other party (Tomkins, 2001, p. 165).

In addition, Baldvinsdottir et al. found the following commonly used definitions of trust in the articles:

- a cognitive familiarity with the object of trust
- reliability in actions/people/systems
- grounded expectations
- firm belief or confidence subordinates have in the justice of their superiors
- social capital
- a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviors of another
- willingness to increase one's vulnerability to others in the absence of adequate safeguards
- a mechanism that can reduce uncertainty in contexts of interaction and facilitate functioning of organizational systems through the behavior of social actors

Approximately one-half of these articles define trust as something that facilitates the functioning of something (company, audit, cooperation, etc.). About one-sixth of the articles use trust as an important concept at the regulatory and societal levels, and address how trust and accounting affect each other. Trust is also discussed in terms of trust in partners such as organizations or individuals (one-third of the articles), trust in peers (one-tenth of the articles), and trust in management (one-seventh of the articles). One-fourth of the articles address trust in institutions and systems.

4.2 A closer examination of the 'trust' concepts used in accounting research

A majority of the articles in Baldvinsdottir et al.'s (2011) survey do not define trust or other concepts. For example, it is unclear what the term 'institutional trust' means and how is it connected to other concepts. This lack of clarity suggests a closer evaluation is required.

Tomkins's (2001) definition of trust conforms to the so-called psychological tradition of trust that first developed in the early 1990s. It is therefore a 'modern' view that contrasts strongly with the earlier, and often applied, behavioral view of trust (Lewicki, Tomlinson, and Gillespie, 2006).

The behavioral view of trust appears to be grounded in actors' observable choices in interpersonal contexts. Hence, trust reflects rational-choice behavior. Deutsch (1958) expressed this view that has apparently persisted for some 30 years (Lewicki et al., 2006). For instance, Zucker (1986), a very influential trust researcher, discussed trust as something that develops with three central modes of trust production, each with associated measures: (1) *process-based trust*, tied to past or expected exchange; (2) *characteristic-based trust*, tied to persons and based on social characteristics; and (3) *institutional-based* trust, tied to formal societal structures and based on individual or firm-specific attributes or on intermediary mechanisms.

Luhmann (1979; 1988), also a respected authority in the field of trust, sees *system trust* or *institutional trust* (e.g., a major social agent in society such as personified by certified physicians) as a substitute for trust at the interpersonal level. The system is then supposed to operate in a

predictable way (bureaucratic sanctions and legal systems are simply expected to function). People place their trust in the function rather than in people (Luhmann, 1988; also Lewis and Weigert, 1985a and b).

Trust *in* institutions is sometimes also referred to as *societal trust.* According to Child and Möllering (2003), often a vital precondition for trust develops between firms and/or managers. It is important to note that in some of the literature, institutional-based trust denotes trust *in* institutions (e.g., legal systems). More frequently, institutional-based trust refers to the phenomenon when individuals or collective actors develop trust *in the face of* specific institutional arrangements in the business environment.

Beginning in the early 1990s, advances in the psychological understanding of human beings led to several new concepts of trust. The psychological stream focuses more on cognitive and affective intrapersonal states behind behavior such as expectations, intentions, affect and dispositions (Rousseau, Sitkin, Burt and Camerer, 1998). Trust as such is not perceived as a behavior (e.g., cooperation) or a choice (e.g. risk-taking) but rather as "an underlying psychological condition that can cause or result from such actions" (Ibid., p. 395).

These ideas were often revisions of earlier concepts (e.g., interpersonal relations) in which trust develops over time in two or three different steps or stages. Three models in particular have had a major influence in the research on interpersonal trust: the models by Shapiro, Sheppard and Cheraskin (1992), Lewicki and Bunker (1995) and Rousseau et al. (1998). These models appear in Lewicki et al.'s (2006) survey. See Figure 4.
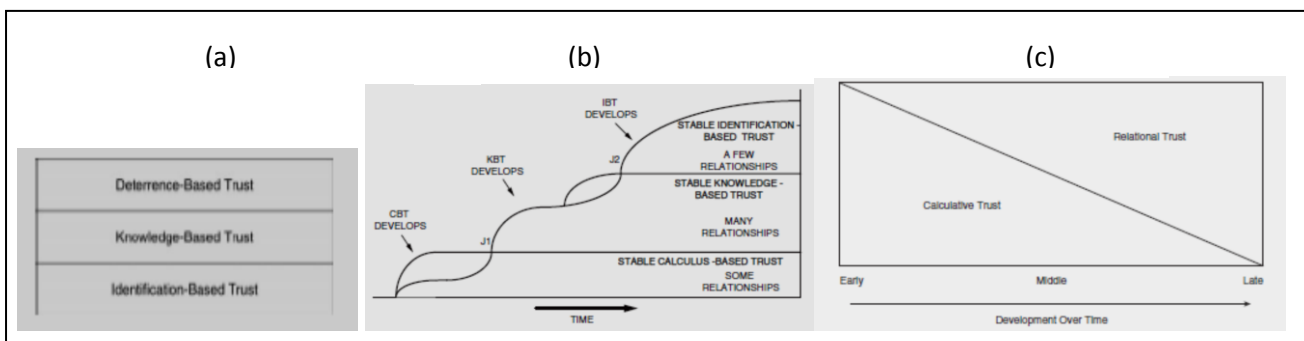

Fig. 4: The models by a) Shapiro et al. (1992), b) Lewicki and Bunker (1995) and c) Rousseau et al. (1998)

Rousseau et al. (1998), for example, elaborate on calculative trust and relational trust, where the former exists fully (100%) early in a relationship and then decreases to zero percent as relational trust gradually replaces it. In Lewicki and Bunker's (1995) model, the origin is the development of 'calculus-based trust' when only some relationships exist. Later, this 'calculus-based trust' changes to 'knowledge-based trust' in many relationships. The final stage is the development of 'identification-based trust', which complements rather than replaces the first two.

As far as organizations and trust, researchers have distinguished between *organizational trust* and *personal trust*. Organizational trust is viewed as trust in an organization's 'personality' or 'identity', that is, its 'culture' or 'structures'. Such trust is sometimes referred to as *routine trust* and also as *generalized trust* or *general trust* (as summarized by Blomqvist, 1997). According to the same survey, a separation between *vertical trust* (trust between subordinates and superiors) and *lateral trust* (trust between work colleagues) exists in organizations as well. In connection with this model, different scales have been applied (e.g., weak, semi-strong and strong forms of trust).

4.3 Trust as a substitute for control: a paradigm change as well?

For Möllering, a respected researcher in the field of accounting and trust, the distinction between trust and control has to do with agency and structure in the following way:

> When an actor rests positive expectations on structural influences on the embedded other, we speak of control; on the other hand, when an actor rests positive expectations on an assumption of benevolent agency on the part of the other, we speak of trust (Möllering, 2005, pp. 287-288).

In their research on trust and control, Vosselman and Van der Meer-Kooistra note a clear difference between rationalist and constructivist studies. In their survey of the inter-organizational accounting literature, they observe the following:

> In a rationalist approach, control and trust are both instrumental in absorbing uncertainty and behavioural risks … in a constructivist approach, control and trust are viewed as active forces in a relationship or network, where they help to mediate, shape and construct that very relationship or network (Vosselman and Van der Meer-Kooistra, 2009, p. 268).

Vosselman and Van der Meer-Kooistra (Ibid.) also summarize the assumptions and findings from several management control studies. Perhaps of most significance, viewed from the outside, is their finding that rationalist studies try to identify which mechanism (trust or control) to use and when. Many of the studies they examine draw upon the substitution or the complementary perspective – the assumption of dualism of trust and control is the exception. Whereas Möllering (2005) believes in an 'optimal' combination of trust and control in certain space and time, Vosselman and Van der Meer-Kooistra consider the process of interaction is central.

In the management control literature, several researchers have addressed this separation in their evaluation of the trust and control relationship (also evident in Baldvinsdottir et al., 2011). Their findings, however, differ. For example Das and Teng (2001) and Inkpen and Curral (2004) find that only informal controls can build trust. They refer to Merchant and Van der Stede's (2003) taxonomy, thus excluding action and results control that can enable such possibilities. Vélez, Sànchez et al. (2008), on the other hand, find that action and results controls can also build trust because they provide evidence of greater objectivity. In an inter-organizational setting, trust is then created using management control systems jointly to coordinate new and complex tasks.

Both trust and management control systems can provide confidence that a partner will cooperate. Confidence, according to Das and Teng (2001), comes from a firm's perceived level of certainty that its partner firm(s) will pursue mutually compatible interests in the inter-organizational relationship. This interpretation of confidence may also be used with reference to individuals or groups. It therefore seems that a trustor is always an individual or a group of individuals. The trustee is the object trusted: people, systems and even structural issues.

Bijlsma-Frankema and Costa (2005) think the major reason for the appeal of the trust-control relationship to researchers and practitioners in recent years is that monitoring and formal controls have become less effective in governing relationships. Trust provides an alternative to such controls. The following reasons are offered for this conclusion:

- the increasing speed of change requires increased flexibility
- lateral and virtual relationships (e.g., networks, alliances) replace more hierarchical structures
- globalization increases the need for cross-functionality
- the growing importance of intangible resources intensifies the call for trusting relations
- the increased tacit knowledge that offers competitive advantage
- the increased flexibility of the work relationships (temporary contracts, etc.)
- the increasing problems and lack of time in enforcing contracts because of, for example, different international legal systems.

These points, according to Bijlsma-Frankema and Costa (2005, p. 266), have in common that a specification of everything would, in such unpredictable and difficult-to-measure situations, raise "transaction costs to an unsound level and could slow down projects to such an extent that accurate appropriation of opportunities becomes impossible".

In comparing the afore-mentioned change from bureaucratic to post-bureaucratic organizations (see Styre, 2008) with the reasons for increasing trust at the expense of decreasing control (see Bijlsma-Frankema and Costa, 2005), one can see clear similarities. These similarities indicate changes in ideologies and the paradigm that have become observable in the relationship between trust and control in the last two decades. The reasons for these changes, however, are described differently, as explained next.

It is obvious from Bijlsma-Frankema and Costa's (2005) description of 'calculus-based trust', that trust is founded on the idea of rational choice and 'the calculation of outcome' (see Lewicki and Bunker, 1996; Rousseau et al., 1998). Trust assumes 'contractual trust' (and little else) with sanctions because, from a rational point of view, trust exists; if not, sanctions would occur (e.g., legal systems on an institutional level and regulations and reputation on a lower level). Hence, the lack of trust in people derived from collaborative situations – as described by Van der Meer-Kooistra and Vosselman (2000) – is replaced with high trust in market-related transactions (market or system trust).

From a neo-functionalistic or system view, the focus is on the integrative and stabilizing role of trust and control relations (Reed, 2001). A positivistic epistemology has become common (Donaldson, 1985) in which the central placement of the regulative role of trust and control relations is embedded in power relations. In this view, organizing is seen as a culture-free, a-historical, universalistic task (Reed, 2001). Control, as defined and interpreted predominantly in the bureaucratic period, is then seen as a value-neutral mechanism, exactly in the way Tannenbaum (1968) saw it in the 1960s, and in the way Max Weber (1999) described his ideal type of organization as one free of personal motives or tempers that could influence conduct, free of arbitrariness and unpredictability.

Several theories, such as the agency theory (Eisenhardt, 1989), transaction cost economics theory and contingency theory, have produced and advocated rational instructions for controlling and monitoring work processes. These theories have their foundation in a multitude of labor and capital transaction attributes or environmental and structural contingencies (e.g., Chenhall, 2003; Williamson, 1985; 1993). Control, in these theoretical perspectives, regulates organizations and, to a large extent, ignores actors' different opinions and interpretations of what control means and what it requires. Any issue that cannot be controlled rationally and methodologically via formal control systems must then be controlled by peers (culture control) or the clan (clan-control).

Of especial interest in this area is the work of Oliver E. Williamson, the father of finance and economics in management control. His 'transaction cost approach' has greatly influenced the diffusion of the rational-choice behavioral approach (e.g., see Williamson, 1981; 1985; 1993). In transaction cost economics, trust is either seen as a redundant concept (Vosselman & Van der Meer-Kooistra, 2009) or a fully rational expectation behind trust (Lewicki et al., 2006).

The trust concept in economic theory has been applied (e.g., in Coletti, Sedatole and Towry, 2005; Luft, 1997; Mitchell, Reid and Terry, 1995) to reduce the cost of transactions between parties. In economic modeling, the measuring and quantifying (often in monetary terms) of trust has become central; correlations between profit margin increases or decreases in transactional costs are constructs used to indicate the economic value of trust (Bachmann and Zaheer, 2006). 'Game-theory' and 'prisoner's dilemma' situations are then normally simulated in (observable?) laboratory conditions, and cooperative behavior is accepted as a manifestation of trust. Furthermore, the trustor (often the decision-maker) must decide how much to cooperate with the trustee (the receiver of the trust), a decision that is assumed fully rational (Lewicki et al., 2006).

Structuration theory, on the other hand, sees trust and control mechanisms as the preliminary driver of social action (for structuration processes), where agency and structure are ontologically and analytically inseparable (Reed, 2001). Here, ongoing social interaction occurs in organizations, which can be seen as a weak social constructivist approach, whereas a stronger social constructivist approach can be found in, for example, the neo-Foucauldian theory (Ibid.).

By definition, clans, as one example, rely on trust (Ouchi, 1977). Clan control involves the development of shared values, beliefs and goals among clan members so that appropriate behaviors are reinforced and rewarded. Thus, in such organizations, when members internalize organizational goals, commitment to such goals and the motivation to achieve them are high (Das and Teng, 2001).

Strong social constructivists look at trust/control relations as discourses and practices that are represented, communicated and internalized as 'things' or 'objects' relevant to actors' conduct (Reed, 2001). Trust/control is then symbolically created and mediated by discursive formations that situate and interpret social action because trust/control relations have, in this view, no independent causal or generative properties (they only shape influence as inter-subjective realities linguistically).

Seal, Berry and Cullen's (2004) article is an example of control research that takes a process view of trust and control. The main intention of such research is to problematize the role of trust in certain relations rather than to see trust as a given object. Here, trust, mostly in abstract systems, is seen as a resource for action. Hence, a direct dichotomy of trust and control is avoided because inter-organizational trust is substituted for trust in abstract systems. Free (2008) and Seal et al. (2004) use structuration theory, which focuses strongly on the abstract systems and less on interpersonal and inter-organizational trust.

Coad and Cullen (2006), on the other hand, would like us to talk more in terms of 'truce' instead of trust in inter-organizational relationships. In their opinion, truce reflects institutionalized routines that hide interest conflicts rather than goodwill trust. They apply institutional evolutionary theory in their study of cost management practices in inter-organizational settings and find that routines develop gradually over time. Another influential study in the field of trust and control is Mouritsen and Thrane's (2006) research on Actor-Network Theory. These authors think trust is not an object but rather a 'quasi-object' in the form of 'aspiration', a norm for a setting. Trust is then seen as an 'idea or moralizing device' with reference to goodwill trust when it is absent. The question they ask is not how trust and control are interlinked but whose argument is stronger. The answer requires a clear focus on constructivism *per se* and the power of language and communication.

4.4 Trust concepts summarized

There are both similarities and differences among the various trust concepts, including some concepts drawn from the survey by Baldvinsdottir et al. (2011). To simply their presentation, Figure 5 categorizes and re-conceptualizes these similarities and differences in groups.

On the horizontal axis in Figure 5, we find *System Trust* (including *institutional-, organizational-* or *societal-based trust*) and *People Trust* (including *group-based* trust). System Trust derives from legal, political, and social systems that support the monitoring and sanctioning of social behavior. Institutional-based trust can create both calculus-based and relational/process trust. In organizational settings, formal mechanisms are used to provide trust that does not rest on personal characteristics or past history of exchange (Rousseau et al., 1998). Emotional content is largely absent in System Trust (Luhmann, 1979) or exists only on a presentational basis (Lewis and Weigert, 1985a and b). People Trust, on the other hand, which is based on a particular person's (or group's) characteristics, is thus very distinct System Trust.

On the vertical axis in Figure 5, we find *Emotional Trust* and *Rational Trust*. The separation is not clearly illustrated in today's management control literature. However, Figure 5 illustrates two cross-dimensional diagrams for the same issues; as they are in the background, the diagrams are

almost three-dimensional. The explanation is that there are two theoretical schools on trust: the behavioral school and the psychological school (Lewicki et al., 2006). The behavioral, and more rational, school of trust is more concerned with system-rational issues whereas the psychological school of trust (and its sub-groups) is more concerned with emotional-people issues.
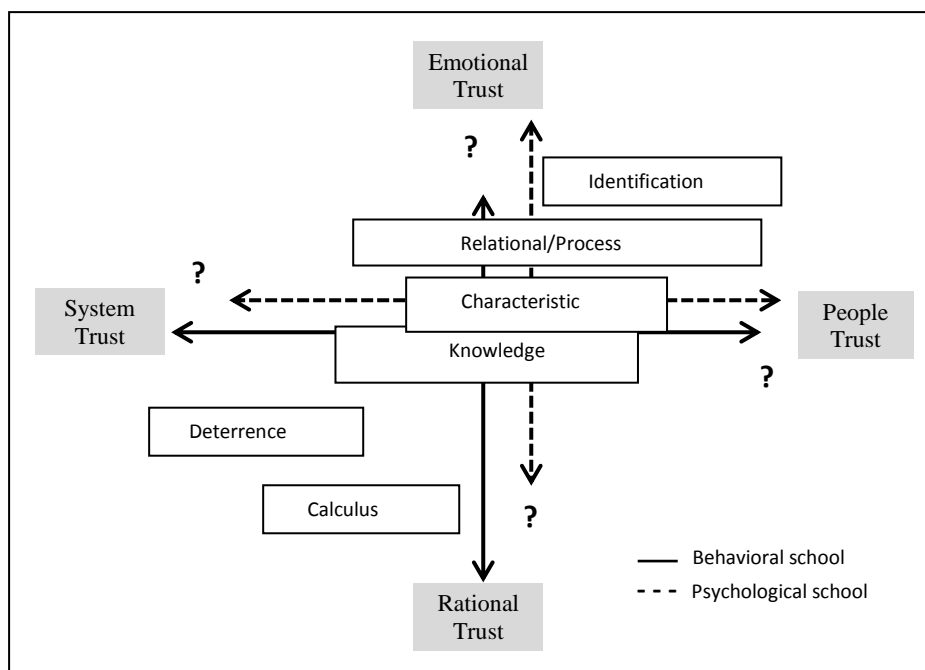

Fig. 5: Trust concepts re-conceptualized

Figure 5 also illustrates the following: *Deterrence-based trust* and *Calculus-based trust* concepts are situated closest to the dimensions *Rational Trust* and *System Trust* as they include, respectively, rational choice thinking and the calculation of outcomes, such as in 'transaction economics'. *Deterrence-based trust* is based on the threats of punishment if consistent behavior is not maintained (Rousseau et al., 1998). This punishment, in economic terms, may be seen as a potential cost (Shapiro et al., 1992). However, according to Bijlsma-Frankema and Costa (2005, p. 268), unlike control, trust does not derive from explicit enforcement threats.

 Calculus-based trust is based on rational choice and 'the calculation of outcome' where the willingness to trust is limited to specific financial exchanges and where the alternatives are more costly (Lewicki and Bunker, 1996; Nooteboom, 2002). Such trust is also based on rational choice and economic exchange interactions (Rousseau et al., 1998), and can lead to deterrence and to credible information about others' intentions or competences.

 Therefore, *Calculus-based trust* and *Deterrence-based trust* are closely associated with the behavioral school of trust. Both concepts are premised on the idea that trust functions in terms of certain systems or rules (societal rules, laws or game behavior). Therefore, they exclude *people trust* or *personal trust*, and, in principle at least, are free from emotions. Notably, in this respect, fear (deterrence) is an emotional issue that, in most trust literature, is modeled mathematically in the search for optimal choices – hence, the connection between rational and system thought.

 Knowledge-based trust and *Characteristic-based trust* are situated more or less in the middle of four major trust dimensions of Figure 5. *Knowledge-based trust* derives from knowledge about the Other (things as well as people) – for example, in interpersonal and predictable settings (Lewicki and Bunker, 1996; Nooteboom, 2002; Shapiro et al., 1992).

Similarly, *Characteristic-based trust* relies on such features as ethnicity, age and gender in interpersonal settings (see Rousseau et al., 1998; Zucker, 1986). This category can also be applied to non-human elements, such as information systems, control mechanisms, and accounting techniques. Preferences for certain features, in humans and non-humans (systems/institutions), appear to strongly influence trust levels. Thus, *Knowledge-based trust* and *Characteristic-based trust* can include features related to systems/institutions/society as well as to people and groups of people. In addition, *Knowledge-based trust* and *Characteristic-based trust* can include emotional and rational elements, mainly depending on the context. These two trust concepts, which are very common in both the behavioral and the psychological theoretical schools, are widely assumed to exist in organizational reality.

Relational and/or *Process-based trust* is the result of repeated interactions over time – past and future exchanges – where reliability and dependability create positive expectations of the Other, and emotions enter the relationship (Rousseau et al., 1998). The longer people work together, the better they may know each other and the more they may trust each other. This form of trust shares the afore-mentioned elements associated with *Knowledge-based trust* and *Characteristic-based trust.* However, *Relational* and/or *Process-based trust* is closer to *Emotional Trust* because this category requires more interaction (between people and between people and artifacts) over time, thereby normally creating stronger emotional attachments to actors, and, less emotionally, to system/institutional/societal features.

Finally, *Identification-based trust* exists between *Emotional Trust* and *People Trust* because such trust derives from actors' proximity to other actors, their knowledge of other actors' preferences, and their decisions that take into account other actors' interests. According to Shapiro et al. (1992), when an actor identifies with other actors' desires and intentions, a mutual (and strongly emotional) understanding develops that encourages acting generously on others' behalf (Lewicki and Bunker, 1996). This is a finding by researchers working in the psychological school.

In Figure 5, the gaps in the lines, with question marks (?), indicate that no school seems to include this dimension of trust. This absence suggests a possible research area; more research may be able to fill in these gaps. Researchers may wish to place stronger emphasis on identifying additional categories of trust beyond the rational categories, and may try to explain why trust is not a construct that can be understood in a completely rational manner. More problematization about trust in its various categories is needed. Behavioral- and process-oriented research streams would profit from taking into account some of the inherent problems in cooperation settings; these problems derive from socio-ecological factors, factual interest conflicts, power asymmetries, competition, and reliance on abstract systems.

5. Trust and management control concepts 're-conceptualized'

5.1 Control concepts re-conceptualized

Trust and control concepts can be re-conceptualized in new, simplified models that better illustrate conceptual similarities and differences. Figure 6 depicts four dimensions; System-based Control and People-based Control on the horizontal axis, and Emotional Control and Rational Control on the vertical axis. Figure 6 also depicts the locations of Bureaucratic Control and Post-bureaucratic Control.

Figure 7 visualizes another important dimension of (management) control: Process Control (behavior or action control) and Results Control (output or results control). ***People-based control*** (the focus on agency) encompasses three types of control: emotional, process, and results control.

System-based control (the focus on structures) encompasses a different set of controls: rational, process, and results control.
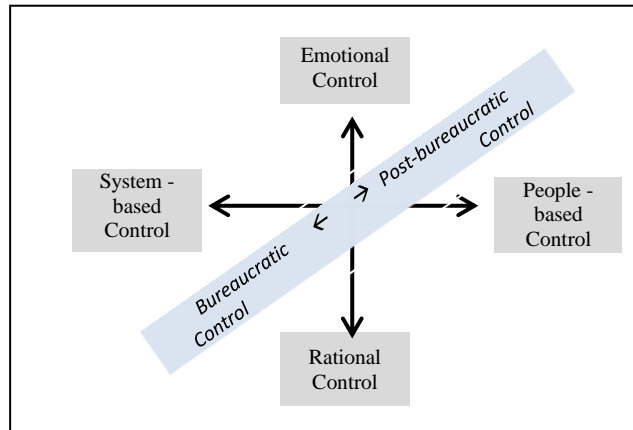

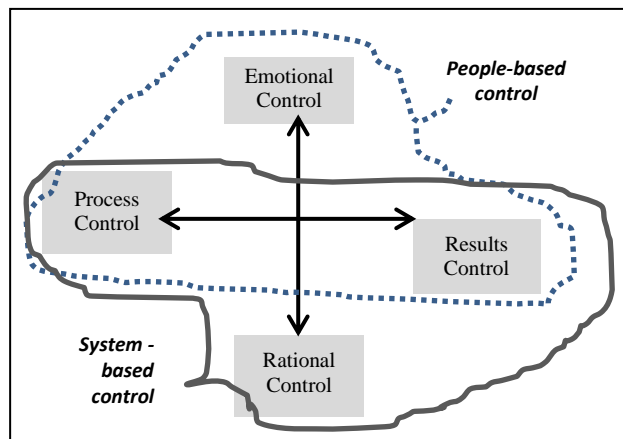Fig. 6: Bureaucratic versus Post-bureaucratic control

Fig. 7: People-based versus System-based control

5.2 Re-conceptualizing trust and control together

In Figure 8, I re-conceptualize the insights from this discussion as depicted by two boxed-packages. The main assumption is that the literature treats both concepts – trust and control – as if there were certain types or mixes of trust (left box) and control (right box) that can change over time. Because there are clear similarities between the two boxes, I am tempted to describe two surprisingly similar 'packages', comparable to Malmi and Brown's (2008) package. Note that in Figure 8, in order to keep things rather simple, I do not include all possible control or trust concepts.

Both packages have a vertical line between *Rational Trust/Control* and *Emotional Trust/Control*. In the management control package (on the right), this line links *control of behavior and actions* (more bureaucratic control) with *control of emotions, values and beliefs* (more post-bureaucratic control). In the trust package (on the left), this line links to rational trust approaches and emotional ones.

Both 'packages' have in common that most, if not all, of the different constructs are included in the boxes in normal organizational settings. However, the amount and the type of every concept differ from situation to situation and from time to time (time line). Most importantly, the concepts differ depending on researchers' different theoretical perspectives.
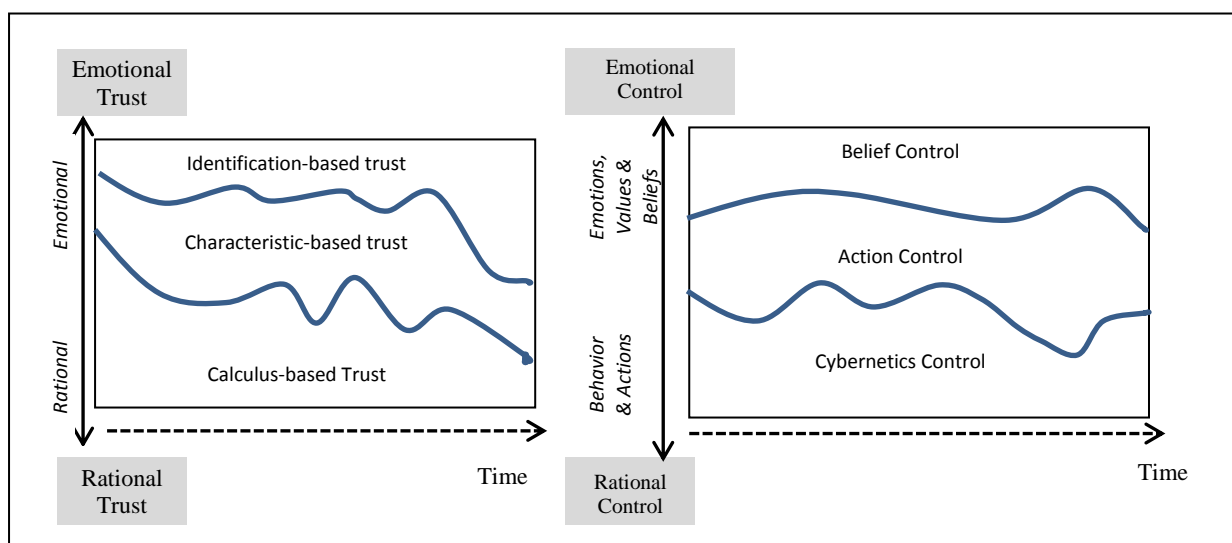
Fig. 8: Examples of the 'trust package' and the 'control package' (Caution: not all possibilities are included)

Given the various constructs we use today in management control research, there is always some trust concept and some control concept said to exist in organizations. In today's business climate, however, there is often skepticism of whether the organizational setting is characterized by either trust or control. Yet, some organizational trust and control must exist, although perhaps not the simple kinds people generally imagine. Although researchers use more complex terms or constructs to identify trust and control concepts, these concepts often have some personal flavor (theoretical favorites)!

Malmi and Brown (2008) write about 'fit' in the sense that control in the management control package must be appropriately constructed. This idea is based in a contingency assumption. Because researchers, as well as the general public, use wide and inclusive definitions and assumptions about trust and management control, the following question arises: Should we search for the entire 'trust package' in organizations (as Malmi and Brown, 2008, have proposed for the field of control)? Is this a possible research avenue?

Similarly, comparisons are needed among types of trust and types of control in organizational settings. What happens over time (vertical axis)? How do people react to certain types of controls? Or to particular events, such as crises, and, for example, changes in management, systems, and compensation plans? What effect does information (in its various forms) have on trust and control? With the application of similar concepts, it seems that researchers are thinking along these lines already. However, much remains to learn.

6. Analysis of trust and control

Figure 9 illustrates four domains: a *Physical Domain* (products, parts, etc.); a *System-Technical Domain* (e.g., ERP systems); a *Financial Domain* (e.g., book-keeping, budgeting, etc.); and a *Social Domain* (actors and their values, minds, etc.). The word (concept) 'domain' indicates that we are referring to different areas or territories, or different spheres or concepts, all of which are part of a larger 'entity' or 'reality'. Further elaboration is required, of course, to better illustrate what the 'domain' means, and how it relates to reality as described by Nørreklit et al. (2006; 2010).

Trust and control connect the different domains. Möllering's (2005) research on structure and agency is partly used in Figure 9 to identify the two major differences between the Social Domain (agency) and the other domains (the structural elements). Clearly, more 'structural' domains exist. For illustrative purposes, we can say that *engineers* would probably be the main actor group linking the Physical Domain and the System-Technical Domain, whereas *controllers* would be the main actor category linking the System-Technical Domain and the Financial Domain.
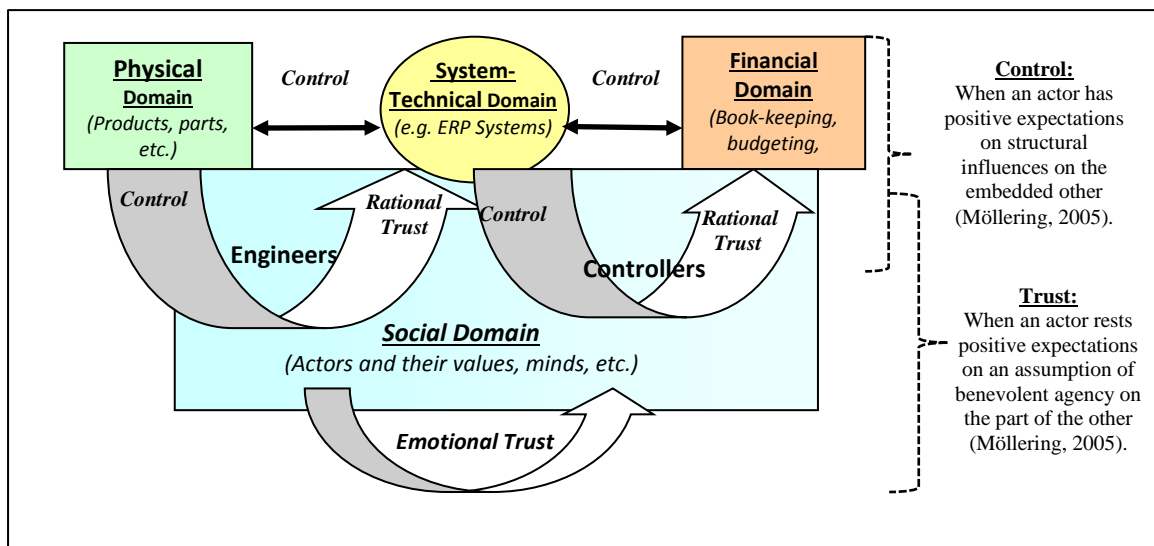

Fig. 9: Trust and control and four different types of domains

Actors, with their values and minds, in the Social Domain are needed if we are to understand trust. There can never be trust among and between the other three domains; trust exists only within these three domains and their actors. Control, on the other hand, can exist among and between these three structural domains without the involvement of actors (on structural or institutional issues). Control can also be applied physically whereas trust cannot. Actors (in the Social Domain) apply mostly rational, calculative and cognitive trust in the structural domains where different actors have different preferences owing to their backgrounds and spheres of knowledge (logic). On the other hand, actors place mostly emotional trust (identification-based trust or relational-based trust) in their domains (with other actors). The more positivistic (facts- and logic-oriented) the actors' world view, the more such actors are inclined to identify with rational instead of emotional explanations/factors/issues.

Figure 10 summarizes the discussion and points to a major finding. We see that the trust concept and the control concept, particularly in the field of management control, are explained mainly from two perspectives: a positivistic-rationalistic perspective and the more sociological-constructivist perspective. Somewhat different names are used for almost similar concepts in both categories. In writing about trust, researchers refer to the behavioral school that is viewed as more rational and

positivistic than the psychological school that has more emotional and affective conditions for choices. Because this separation of schools is not precisely the same as described in sociological and constructive studies in management control, these issues have been discussed differently in different research areas (sociology versus psychology). More research is needed that looks at these differences because researchers' ontological and epistemological assumptions may influence the constructs they build.

Figure 10 also illustrates the major rational/assumptions behind the trust and control concepts in the two perspectives as well as the focus/interest of academics and practitioners.

Perspective:	Rational/Assumption:	Academics & practitioners focus on/talk about:	Main Reality Dimensions:	
Positivistic & Rationalistic Perspective (more mechanical view) / Rational Trust & Control concepts	Control and trust are instrumental in absorbing uncertainty and behavioral risks (Vosselman & Meer-Kooistra, 2009) It is economic rational as we apply opportunistic behavior (game-theory, prisoners-dilemma). It is about transactions with economic outcomes (agency-theory, transaction-cost economics).	Focus on Facts & Figures & Mathematical Models Constructs used are mostly: Calculative Trust & Contractual Trust & Knowledge-based Trust & Characteristic-based Trust	Facts & (economic) Logic &Communication	**PRAGMATIC CONSTRUCTIVISM**
Sociological & Constructivist Perspective (more actor-based view) / Emotional Trust & Control Concepts	Control and Trust are active forces in a relationship or network. They help mediate, shape and construct the relationship or network (Vosselman & Meer-Kooistra, 2009). Trust is the reason for something (e.g. relationships) to develop. Trust is the result of something (e.g. relationships). Trust has a moderating role in shaping something (e.g. causal relationships).	Focus on human beings, relations, institutional arrangements, identity, socialization, internalization Constructs used are mostly: Value-based Trust & Communicative Trust & Relational Trust & Process Trust & Identificational Trust	(Several) Logics & Values & Communication	

Fig. 10: Trust and Control in relation to four reality dimensions (e.g. in Nørreklit et al., 2006).

The positivistic/rationalistic perspective maintains that control and trust are instrumental in absorbing uncertainty and behavioral risk (as described by Vosselman & Van der Meer-Kooistra, 2009). Economic rationality and opportunism are the cornerstones of the concept. The transaction cost principle, including ideas from agency theory, is the guiding principle in these constructs as well. In taking this perspective, researchers focus on facts and figures – in the development of mathematical models mostly. The trust constructs applied can primarily be classified as calculative or contractual trust. Some researchers also refer to knowledge-based trust and characteristic-based trust. In Nørreklit et al.'s (2006; 2010) reality model, this perspective covers the dimensions of Facts, Logic (economic logic, at least) and (rational) Communication (in terms of transactions and costs). Actors' *Values* are here, however, more or less excluded.

The sociological/constructivist perspective maintains that control and trust are active forces in a relationship or network where they help mediate, shape and construct this relationship or network (Vosselman & Van der Meer-Kooistra, 2009). Trust is viewed as the reason for, or result of, something. Trust can have a moderating role in shaping something (e.g., a relationship). Thus, the sociological/constructivist researchers emphasize human beings and their relationships, institutional

arrangements, identities, socialization and internalization. They mostly apply trust constructs such as value-based trust, communicative trust, relational-based trust, process-based trust, and identification-based trust.

This perspective covers the dimension *Values* discussed in Nørreklit et al.'s (2006; 2010) model of reality intensely. Some studies also omit the dimension of *Facts* because some researchers (radical constructivists, at least) simply deny their existence as well as some types of *Logic*. In taking this perspective, not all researchers share the logic of the predominant socio-economic structures. Some researchers reject all manner of socio-economic logic while others reject only some types of logic, depending on how critical and 'constructivist' they are.

The major problem with researchers' application of trust and control concepts in the past seems to be that many of them have applied an incomplete, and thus only a partially valid picture of reality. Both perspectives probably would benefit if researchers included the missing elements by taking a more pragmatic constructivism approach (Nørreklit et al., 2006; 2010) that includes all relevant dimensions of reality.

Figure 10 therefore shows there may be a gap in how much reality the constructs used in the fields of trust and control (particularly in the area of management control) is able to capture (in practice as well as theory).

7. Concluding summary

Trust and control are complex constructs that refer to multifaceted forms of social relations, processes and activities necessary to generate and maintain collective action in organizations. Frequently, and understandably, this complexity is simplified by operationalizing the concepts and by treating the concepts as functionally alternative institutional systems for absorbing socially-defined risk and uncertainty. More often, at least in the management control literature, the emphasis has been too strongly on an either-or orientation (e.g., structural control versus cultural control; informal control versus formal control, etc.). This emphasis has overshadowed the examination of real content in real (organizational) life.

In this paper, I have used 'pragmatic constructivism' (Nørreklit et al., 2006; 2010) to bridge the gap between ontological and epistemological approaches. My attempt is to include all (important) dimensions of social reality and researchers' perspectives on what does and does not exist (social constructivism) wherein different forms of, more or less, objective features (facts) of actors (in this case, researchers') daily lives, with certain logics, future possibilities, and, most important, values, play an important role.

Regarding trust and control, different researchers have found support for either the substitution theory or the complementary theory. This study indicates that there may be no universally applicable concept that is always right or always wrong. Instead, ingredients and core elements of both theories prove to be (partly) valid although in different contexts and at different times. This validity depends on which constructs of trust and control are applied.

It also seems that both the trust concept and the control concept have many similarities, which can be explained by the theoretical assumptions behind them (e.g., rationalist versus constructivist). Apart from obvious linguistic differences, there seems to be a greater difference between the concepts of trust, viewed from a constructivist perspective and the perspective of the rationalists/positivists than compared to the constructivist's perspective of the concept of control. 'Book-keeping' versus 'promise-keeping' may be totally different, on one hand, but quite similar, on

the other hand. Keeping something, either a promise or a truck record, may, for some people, have essentially the same meaning.

This paper claims that in certain control frameworks, when particular trust concepts are applied, there is a strong correlation with researchers' perspectives and their assertions. Thus, how researchers look at the world and the epistemological and ontological assumptions they make determine the approach chosen, the vocabulary used, and the concepts applied. In this way, the researchers' findings are influenced. As a result, it is possible that researchers may not describe real practice (the real world) as it is; instead, they may use ready-made concepts and pre-concepts. Consequently, we are presented in (social science) research with the results of a pre-conceptualized world rather than a factual world. The only way to advance in this research is to refine and develop both conceptual typologies and their constructs (e.g., as in Malmi and Brown, 2008). This is paradigmatic research at its best.

The results of this paper demonstrate that researchers have a tendency to include only parts of reality in their analysis. Typically, this is caused by the methodologies used. The use of the pragmatic constructivism approach would help capture a larger part of that reality. For example, value-neutral control seems only possible in Weber's (1999, p. 100) severely criticized ideal type of organization where "personal motives or temper influencing conduct, free of arbitrariness and unpredictability" are not allowed. This rational and positivistic way of looking at organizations and activities, however, is still very common among researchers today. Control, in most settings, is very value-loaded rather than neutral. This is likely the case as soon as personal or organizational activity is at stake, as studies focused on the elements of the post-bureaucratic period have illustrated. Thus, value-neutral control must be separated from human activity in general. This means avoiding taking into account dreams, hopes and wishes – a theoretical ideal that, fortunately, does not exist in reality.

This paper argues that theory is nothing more than a statement of relationships among concepts (Alvesson and Sandberg, 2011). For that reason, it is important to investigate critically theorists' implicit assumptions or concepts that form the boundaries of their theories. The problem, however, is that the theoretical schools appear to have an equal claim on perceptions of reality. In all such schools, reality signifies nothing more than a construction built from our concepts and definitions. Thus, constructs, concepts and definitions may be the best thing we can hope for in social science research where entirely objective descriptions of reality are unattainable.

The following question arises: Do the new concepts of trust and control described in this paper, including their conceptualized relationships, simplify higher-level thinking or do they make life more difficult? Possibly the latter conclusion is true.

The paper also illustrates that research in the field of trust and control has become, as Baldvinsdottir et al. (2011) describe, more paradigmatic in recent years. However, the rather shattered picture of the cross-referencing of diverse researcher groups – who apply similar and dissimilar theories, methods, narrative styles and vocabulary – indicates that their different world views will produce significantly different outcomes about the epistemological and ontological nature of trust and control. Viewing trust, for example, in terms of a 'trust package' may be one direction that can enhance the paradigmatic nature of the trust concept.

This paper describes alternative concepts of trust and control, separately and jointly. I conclude with these fundamental questions: Are the paper's insights obvious? Are the paper's assumptions and concepts absurd? If the answer to these two questions is 'Yes', the paper is less than successful. However, it may be that the insights, assumptions and concepts fall somewhere between "what is regarded as obvious and absurd" (Alvesson and Sandberg, 2011, p. 259). It may be that the paper fills that gap.

Gap-spotting is the paper's major intention, and 'footnote-on-footnote research' (Alvesson and Sandberg, 2011) was never intended. In this gap-spotting, I employ a problematizing methodology that challenges not only others' theoretical positions as well as my own theoretical position. Ultimately, the paper's intent is to provoke new research questions.

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