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The Use of Inter-cognitive Representations

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THE USE OF INTER-COGNITIVE REPRESENTATIONS

ABSTRACT

This study considers inter-cognitive representations in the form of organisational artefacts, such as manifestations of agreements between business actors, legally binding contracts, industry standards and business regulations that are created and shared through dyadic and network interactions. We argue that inter-cognitive representations differ from atomistic cognitive representations, frequently discussed in business and management studies. To advance the study of inter-cognitive representations, we developed two perspectives: a) ‘shared understanding of rules’ and b) ‘interaction among interdependent actors’ which we used as conceptual dimensions in a theoretical framework. The framework allows us to formulate four applicable theoretical propositions provide an alternative hypothesis that deserves further research and empirical testing.

INTRODUCTION

This paper investigates the use of inter-cognitive representations. We use the term inter-cognitive representations to describe objectified artefacts, such as manifestations of agreements between business actors, legally binding contracts, industry standards and business regulations that are created and shared through dyadic and network interactions and, thereby, they differ from atomistic cognitive representations (Tripsas & Gavetti, 2000; Gavetti & Rivkin, 2007; Salvato, 2009) or managers’ subjective cognitive views (Ford *et al.*, 2003; Henneberg *et al.*, 2006; Geiger & Finch, 2010; Leek & Mason, 2010). In this context, we focus on a) business interactions among interdependent actors and b) shared rules that govern business interactions and transcend any individual actor.

The article is based on the following argument: Business interactions do not occur in a vacuum; interactions are based on shared understanding of the rules that guide actors' behaviour and are affected by these. For example, shared understanding of the rules refers to a mutually perceived understanding of available exchange interfaces, trade practices and norms, or shared appreciations and values but also explicit regulations and laws that govern business interactions. Consider the relevance of *good faith* as a reasonable commercial standard of fair dealings. The threshold requirement of *good faith* is that each party must negotiate and perform the contract honestly. In case of a misrepresentation where the counterpart has been induced to enter into a contract as a result of a false statement of fact, the shared understanding of the interacting parties is that misrepresentation can set aside (rescind) that contract. Hence, each actors' interpretation supposes a 'shared understanding' or what Heidegger (1966) described as *prejudice*. In this study, we argue that inter-cognitive representations inscribe this shared understanding and thus prove an objectified basis for further interactions. Previous research provides valuable insights about how individuals make sense of a network (Johanson & Mattsson, 1992; Weick, 1993, 1995; Ford *et al.*, 2003; Henneberg *et al.*, 2006, 2010); however, existing research does not explain how shared understanding is manifested and used by business actors. There is a lack of theoretical discussion regarding the development of shared understandings in business networks which has prevented researchers from investigating the amalgamation of atomistic perceptions into inter-cognitive representations, which is a pre-condition to getting to grips with strategic decision making (i.e. *networking*; see Ford *et al.*, 2003) in business networks.

Our study demonstrates that inter-cognitive representations are created through recurrent interactions and, thereby, they differ from atomistic cognitive representations

(Tripsas & Gavetti, 2000) or atomistic network pictures (Henneberg *et al.*, 2006). As such, inter-cognitive representations are the outcome of the ‘theory of mind’, i.e. the knowledge individual actors have about other actors knowledge, which is based on interactions between these actors. For this reason, the efficacy of inter-cognitive representations will depend on their degree of prominence or salience. As prominent bearings of what is expected from individual actors, inter-cognitive representations can be found in almost every part of organizational life. A vivid example constitutes shared industry standards or explicit regulations within certain industries. Organizations such as the American National Standards Institute (ANSI), the British Standards Institute (BSI), Deutsches Institut fuer Normung (DIN), or the International Organization for Standardization (ISO) develop inter-cognitive representations of many kinds. For example, ISO 9000 comprises internationally agreed standards of managing a corporation to gain the confidence of customers and networks.

This paper will provide a theoretical foundation of issues pertaining to inter-cognitive representations and will propose a conceptual framework for their analysis. Furthermore, we will outline, by using examples, how the use of inter-cognitive representations affects business relationships through phenomena such as decision bias and framing.

A SHARED UNDERSTANDING OF RULES

A recently published study on the constitution of networks (Mouzas and Ford, 2009) invites us to an imaginative world in which raw material suppliers, manufacturers, equipment suppliers, logistics companies, wholesalers, and retailers would buy and sell goods and services without reliance on any shared system of rules: There would be no

manifestations of agreements, no legally binding contracts; no industry standards rules and no regulations regarding fair trade, quality controls, predefined patterns of advertising and promotions, and specified interface for logistics. As a result, actor would lack a shared understanding of rules and no one would conform to a particular pattern of behaviour and no one would expect other actors to conform to some previously learned pattern (Lewis, 1967; Young, 1993). What would be the problem in this imaginative world? According to Mouzas and Ford (2009), the problem would not simply be the existence of anarchy, but rather the inherent difficulty for actors of *interacting* with each other; thereby, the possibility of exchange between actors would be severely constrained (Buchanan, 1975, 1978, 1988; Biggart and Delbridge, 2004). In this imaginative world in which no rules are shared among business actors, resources that are needed may not be identified by buying or selling firms. Thus, firms would face “prohibitive costs in terms of the time and effort needed to access other actors, to negotiate the terms for interaction, to conclude and manifest deals and to oversee and enforce agreements” (Mouzas and Ford 2009 p.xx) Furthermore, the existence of information asymmetries among actors would impose huge uncertainties and incremental barriers to the conclusion of informed and voluntary exchange (Akerlof, 1970; Tirole, 1986, 1999; Maskin & Tirole, 1999). In the absence of a shared system of conventions among actors, information asymmetry and symmetric ignorance of business opportunities would prevent actors from deal-making and building up the business relationships and mutually advantageous interdependence on which their businesses depend (Ford & Håkansson, 2006).

The existence of shared rules has been evident in trade from the earliest times and extant research has provided significant insight into their importance (Casson, 1982; Buchanan, 1988; Sabel, 1993, 1997; Loasby, 2000; Slater, 2002; Helgesson & Kjellberg, 2005).

However, previous research raises questions about the real-life nature of network rules and the dialectic relation between the structural make-up of network rules and the interactions among actors. A significant part of extant research is conceptual and does not provide empirical insights on how a multiplicity of values, norms and rules is manifested in business networks. We also know very little about the real forms by which companies interact with each other.

Previous research suggests that the traditional distinction between *ius strictum* (i.e. mandatory rules) and *ius dispositivum* (i.e. yielding rules) that has existed since Roman times is still valid today. This theoretical differentiation corresponds to the contemporary distinction between *mandatory* and *default* rules (Ayres & Gertner, 1989; Riley, 2000). In a similar way, Esser (1956) differentiates between ‘Rule’ (Norm) and ‘Principle’ (Grundsatz). The unifying idea of previous research is that continuous replication of existing interaction patterns by interacting counterparts can lead to the development of principles which operate as ‘optimization commands’ over time (Dworkin, 1967) and the characteristic network rules of conduct. Rules and principles may therefore, limit the types of relationships in which the businesses are able to participate (Håkansson & Ford, 2002; Mouzas and Ford, 2009). A shared understanding of rules increases the ‘predictability’ of group members’ behaviour and gives expression to a group’s ‘central values’ (Feldman, 1984, p. 47).

INTERACTION AMONG INTERDEPENDENT ACTORS

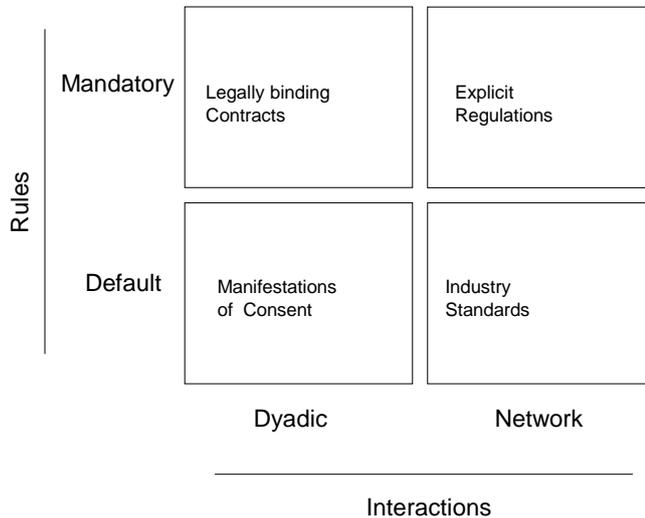
Valuable resources that are necessary for individual actors to solve their problems are not available in a concentrated form; increasingly, these resources are widely dispersed across many different actors within their spatiotemporal context. This dispersion of resources creates strong inter-individual dependencies at a time of rapid technological change and global competition for customers and market share. Therefore, strong interdependencies lead to formidable uncertainties for individual actors and a high degree of unpredictability (Duncan, 1972; Downey *et al.*, 1975; Milliken, 1987). Individual actors can only activate the resources they need through interaction within their exchange relationships with others (Barney, 1986; Denrell *et al.*, 2003). This is particularly relevant because a significant number of business activities occur through strategic alliances, partnerships, R&D collaborations and many other forms of continuing relationships (Ring and Van de Ven, 1992; Das and Teng, 1999, 2000; Reuer and Arino, 2007). In this way, interaction among interdependent actors represents an opportunity for the counterparts to explore heterogeneity in their respective networks (Håkansson and Waluszewski 2002; Håkansson *et al.*, 2007, 2009). Nonetheless, it appears that interaction between individual actors transcends inter-personal discussion or communication. Interaction is a *substantive* process that involves the activities and resources of the involved actors (Håkansson *et al.*, 2009). In this substantive process, exchange can be seen as the primary element of socio-economic activity (McGinn and Keros 2002; Biggart and Delbridge 2004; Buckley, 2005). Exchange refers to actors' "voluntary agreement involving the offer of any sort of present, continuing, or future utility in exchange for utilities of any sort offered in return" (Weber, 1978: 72-73). The consent is, ultimately, the moral component that differentiates between valid and invalid exchanges among individual actors (Barnett, 1986). Understanding the role of exchange requires a fundamental insight of the process by which individual actors

intentionally seek to create and appropriate joint gains (Lepak *et al.*, 2007). Joint gains are achieved through a negotiation process of ‘wise trades’ (Bazerman *et al.*, 2001) among actors who have the ability to see the broader picture and the connectedness of activities and resources. They require a shift in actors’ self-perception from ‘self as independent’ to ‘self as part’ of a larger whole (Bigelow, 1992). Understanding the role of exchange requires also a deep insight into the role of property rights or entitlements which specify the substance of rights that individual actors may possess, acquire, or transfer in their interactions with other actors (Coase, 1960; Demsetz, 1966; Barnett, 1986).

A MODEL OF INTER-COGNITIVE REPRESENTATIONS

The relevant theoretical inputs from the two perspectives of ‘shared understanding of rules’ and ‘interaction among interdependent actors’ are now used as conceptual dimensions in our attempt to move towards a framework of inter-cognitive representations (see Figure 1). Rules and interactions are inter-related but they can operate at different levels. Rules constitute a system of conventions that are shared among actors (Lewis, 1967; Young, 1993). While some of the rules are strict and mandatory for all interacting parties, other rules may be yielding or default (Ayres & Gertner, 1989; Riley, 2000). On the other hand, interactions refer to substantive processes by which counterparts relate to each other. Undoubtedly, a lot of business interactions are at dyadic level; whilst each dyadic relationship of an individual actor will be connected with other relationships, this will form a structure of network interactions that gives access to and affects a wide array of more or less distant resources (Håkansson and Waluszewski 2002; Håkansson *et al.*, 2007, 2009).

Figure 1: Inter-Cognitive Representations



DISCUSSION AND IMPLICATIONS

Examining inter-cognitive representations by the use of intellectual lenses of *rules* and *interactions*, we formulate four applicable theoretical propositions for further analysis. These propositions merit further research as they represent new perspectives on inter-organizational relationships. They also provide an alternative hypothesis that partly contradicts existing literature in the area of inter-organizational relationships. We thus state:

Proposition 1: Manifestations of consent in dyadic interactions constitute a necessary condition for the creation of default rules.

In this way, default rules articulate a common-sense order of shared conventions (Young, 1993; Choi, 1993) which comprise customary, expected, often non-legal rules that have

been previously agreed and manifested in dyadic interactions among actors (Ayres and Gertner, 1989; Riley, 2000). Default rules are highly relevant in business relations because they form a 'baseline', i.e. they operate as bases of pre-existing agreements (Mouzas and Ford, 2006) and thus they apply 'unless otherwise agreed' (Barnett, 1992a).

Proposition 2: Legally binding contracts can override default rules by creating mandatory rules for the contracting parties.

Mandatory rules are strict and applicable to all contracting parties. Nonetheless, disputes about the exact meaning of contracts, are one of the largest sources of contractual litigation. In case of a dispute, a neutral judge will decide the case adopting an external standard to protect the reasonable expectations of parties (Steyn, 1997). Contracts however, may build upon understandings that pre-exist as norms or common practice in a particular context and transform them into a framework for managing business relationships (Mouzas and Ford, 2006; Mouzas and Furmston, 2008).

Proposition 3: Industry standards form a baseline of default rules that are shared by network members.

In this way, industry standards transcend any individual actor; they involve customary and expected modalities of interface and interaction in networks of business relationships. Brunsson & Jacobsson (2000) differentiate between three kind of standards: a) standards about being something (e.g. what constitutes profit), b) standards for what we should do, e.g. 'standard operating procedures', and c) standards for what we should have, e.g.

insurance, plans, qualifications, quality systems etc. As such, industry standards represent codified inter-cognitive representations.

Proposition 4: Explicit regulations transform pre-existing default rules into mandatory rules applicable to all network members.

Mandatory rules applicable to all network members can be found in statute law, for example in business law. Many business relationships, such as those between retailers and final consumers, employment contracts or financial and credit contracts are nowadays regulated by explicit regulations e.g. statutes which do not always conform to individual business to business agreements. The increasing importance of codified regulations, as well as the growing importance of statutes, cannot be overlooked (Mouzas and Furmston 2008). Similarly, we cannot overlook the importance of international regulations in business, such as a) the provisions in the Convention on International Sale of Goods (the Vienna Convention), b) the United States' Uniform Commercial Code and Restatement (second) of Law of Contracts, and c) the gradual emergence of a European Civil Code.

CONCLUSION

The paper discussed the use of inter-cognitive representations. Inter-cognitive representations are objectified artefacts, such as manifestations of agreements between business actors, legally binding contracts, industry standards and business regulations that are created and shared through dyadic and network interactions. We have demonstrated that these inter-cognitive representations differ from atomistic cognitive representations frequently discussed in business and management studies (Tripsas & Gavetti, 2000; Gavetti & Rivkin, 2007; Salvato, 2009) or managers' subjective cognitive views (Ford *et*

al., 2003; Henneberg *et al.*, 2006). To advance the study of inter-cognitive representations, we developed two perspectives: a) ‘shared understanding of rules’ and b) ‘interaction among interdependent actors’ which we used as conceptual dimensions in a theoretical framework (see Figure 1). Furthermore, we formulated four applicable theoretical propositions for further analysis. These propositions provide alternative hypotheses that deserve further research and empirical testing.

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