

Nested multi-level agency, institution and interactivity in business networks

Markus Vanharanta
University College Dublin
Ireland

Frans Prenkert
Örebro University School of Business
Sweden

Abstract

In this manuscript we will conceptualize a “nested model” of agency, that addresses the relationship between intentional agency, actors, interaction, interactivity, and institutions. This model is specifically designed for the purposes of IMP research, taking into consideration the central structures of firms, dyads, and networks.

Introduction

Adopting the view that networks of interdependent entities form economies ripe with interactivity as suggested by Håkansson & Snehota (2017) draws attention to agency, actors, and institutions. According to these authors interactivity denotes the contextual conditions in which interactions can occur. “We will use the notion of ‘interactivity’ to denote the (context) conditions that allow for and drive substantial interaction to develop among businesses.” (Håkansson & Snehota, 2017: 2).

It may be tempting to attribute businesses with agency and to treat interactivity as the institutional context. However, such a rash conclusion seems to be an oversimplification that do not hold true considering how business firms have been viewed previously in the literature on business networks as consisting of many types of entities such as individuals, groups, units, etc., all displaying high levels of agency (e.g., Håkansson & Johanson, 1992). Moreover, a core IMP assumption is that other entities such as dyads and networks also exhibit substantial amounts of agency (Munksgaard, Olsen, & Prenkert, 2017). Thus, the actor concept becomes emphasized and in need of development to include a notion of multi-level agency. How would such an actor be conceptualized? How can it be modelled?

Another issue concerns the interactivity as the institutional context. Exactly how is such an institution as interactivity related to a multi-level notion of agency? And what is the role of interaction in this? Hence, the pertinent issue concerns how agency, interaction and institution can be conceptualized, modelled, and related to each other. In most prior literatures on business networks, agency and institution and the link between the two have not been emphasized. This is potentially dangerous as it may cause conflation by packing both into the one concept of actor as a part of the ARA-framework (Håkansson & Johanson, 1992). If we are to better understand and explain networks and networked economies we need to be able to distinguish agency from institution, because they have different effects for companies and networks and for how interactions can be performed, developed and organized. The concept of interactivity as an institutional context serves as a fruitful point of departure in such an endeavour, but it also needs to be related to agency and interactions.

In this manuscript we will conceptualize a “nested model” of agency, that addresses the relationship between agency, interaction, actors, dyads, networks and the institutional dimension. This model is specifically designed for the purposes of IMP research.

Actors and agents

In past IMP research, where agency is usually associated with the Actor dimension of the ARA-model (Håkansson & Johanson, 1992). The actor concept in IMP is – from a conceptual point of view – plastic as it embraces every entity from individuals, to units, to business firms, dyads and networks (Munksgaard et al., 2017). In IMP literature, Actors have been defined to include individuals, firms, dyads and network-levels, while many other types and levels of actors have been identified in IMP research (Araujo, Dubois, & Gadde, 2003; Geiger & Finch, 2009; Harrison, Hoholm, Olsen, & Prenkert, 2011; Hatteland, 2010; Prenkert, 2013). Problematically, this conflation of different kinds of Actors together makes it more difficult to examine the nature of agency in IMP research. Thus, to begin our

investigation of agency, we provide a more nuanced conceptualization of “Actors”, that allows us to differentiate between IMP-type Actors, Primary Agents, Corporate Agents, and Social Actors.

Agents are people, but the concept does not refer to an all-encompassing idea of a human beings. Instead, Agents have a membership in a collectivity that shares “lives chances” in some social dimension (Archer, 1995: 258). In B2B marketing, managers are always Agents in various aspects of their work, which include managers vested interests working in firms, nature of interaction in managing dyadic business relationships, in addition to the relative strength of network positions.

We can further distinguish between Primary and Corporate Agents. Marketing managers are Primary Agents if they are unable to identify or articulate their strategic interests or lacking the ability to strategically collaborate with others to achieve their strategic objectives. All Agents in a business network are Primary Agents in some aspects of interaction, as managers and firms can never fully comprehend, articulate, or enact the strategic potential. Primary Agency is characterized by “atomistic reaction, uncoordinated co-action or associational interaction.” (Archer 1995: 265) In contrast, Corporate Agents can identify their strategic interests, organize themselves collectively, and execute their collaborative plans. In B2B marketing, Corporate Agency manifests itself in strategic team, firm, dyad, and network-level interaction and collaboration with others: “Those who are aware of what they want, can articulate it to themselves and others, and have organized in order to get it, can engage in concerted action to re-shape or retain the structural or cultural feature in questions... they include self-conscious vested interest groups, promotive interest groups, social movements and defensive associations. Their common denominators are articulation and organization” (Archer, 1995: 258)

In contrast, a Social Actor is an occupant of a role, such as occupying the role of a Marketing Manager. Managerial roles give additional powers to the role occupants, while also restricting the possible domain of activities. This is central to our understanding of interaction, as “interaction and relationship development between two businesses are results of acting of managers.” (Håkansson & Snehota, 2017: 1). In addition, dyads and networks have additional roles that give additional powers to role occupants: “...roles themselves have emergent properties which cannot be reduced to the characteristics of their occupants.” (Archer 1998: p. 276). These new emergent powers are derived from the legal frameworks that establishes the existence industry associations, including the resources they control by the firm and the position of the industry association members wider network of inter-linked firms.

Agency

By definition “agency” can be seen as a synonym for causality, whereby agency can be attributed to both human agents and material objects (Hartwig, 2007). In social sciences, however, the term “agency” is often equated with only intentional human causality, defining agency exclusively a property of (human) agents. Based on this convention a further distinction has been made between acts and events: “...acts are the specific outcome of the exercise of the power of intentional agency... things that we do, as distinct from things that happen to us or just happen (events).” (Hartwig, 2007, pp. 18-19)

In this article, we will view agency as related to the causation of intentional effects. Given a network perspective, agency can be identified as the causal effect an actor has on the surrounding network. This is essentially what Håkansson and Snehota (1995: 194) denote “purpose-directed behaviour”. But neither purpose nor identity is given *a priori* but results from interactions among actors in networks. Yet, some form of rationalistic assumptions must be made to be able to identify intention as the characteristic feature of agency (Håkansson & Snehota, 1995; Munksgaard et al., 2017; Thompson, 1967). “We need some norms of rationality (Thompson, 1967), however weak, in order to conceive of intentional action and agency in networks” (Munksgaard et al., 2017: 224).

This definition of intentional agency shares some resemblance with that of a social mechanism as defined by some network scholars (Mason, Easton, & Lenney, 2013), and rightly so. Agency can be – but must not be – a social mechanism (Hedström & Swedberg, 1996). What distinguishes agency from mechanism is intention as recognized by Håkansson & Snehota (1995) and Munksgaard et al., (2017). However, this definition of agency does not in any way reduce the importance of intentional human agency. The existence of firms, dyads, and networks is necessarily dependent upon intentional human agency.

Mediating concepts

Next, we will proceed to theorize the linkage between intentional agency, interaction, interactivity, and firms, dyads, and networks. According to critical realism, this linkage between agency and structure needs to be explained based on “mediating concepts” (e.g. Archer 1998: 152): “...mediating concepts are called for to explain how structure actually does impinge upon agency (who and where) and how agents in turn react back to reproduce or transform structures...” (Archer 1998: 152-3). In addition, according to Bhaskar (1979: 40-1), “...the mediating system we need is that of *positions* (places, functions, rules, duties, rights) occupied... by individual and of the *practices* (activities etc.) in which, in virtue of their occupancy of these positions (and vice versa), they engage.” Bhaskar calls these mediating concepts as a “position-practice systems”. (Bhaskar 1979: 41) In other words, a mediating concept should explain how individuals can become occupants of managerial roles as Social Actors, enabling them to exercise emergent powers vested in firms, dyads, and networks. Furthermore, from the perspective of IMP research, these mediating concepts needs to address interaction and interactivity.

In this manuscript, we use Sawyer’s (2005) model of social emergence as a mediating concept-framework, that has been previously applied to IMP research (Vanharanta and Wong 2017)

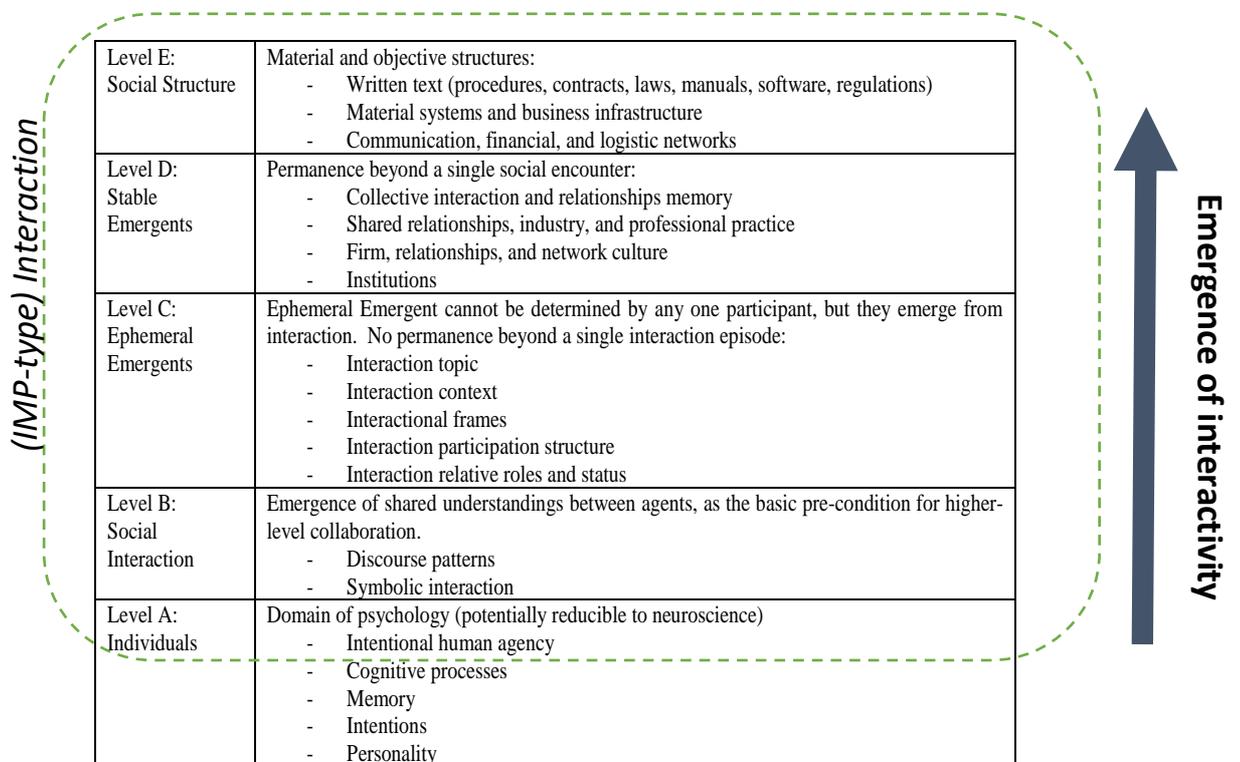


Figure 1. Social emergence interactivity
(applied from Sawyer, 1995; Vanharanta and Wong, 2017)

Level A. Most individual level properties, such as cognitive processes, memory, intentions and personality, are universal properties of the mind, that are not altered by B2B interaction. In contrast, intentional human agency (in the context of B2B marketing) cannot be entirely explained based on psychological properties. Instead, we need to recognize how the context of interactivity, including firm, dyad, and network-level properties assert (downward) causal influenced upon individuals. Intentional human agency is thus not reducible to (neuroscience or) psychological mechanisms, as it is also influenced by the characteristics of interactivity and the context of business marketing. At the same the existence of firms, dyads, and networks is dependent upon intentional human agency. “Interaction and relationship development between two businesses are results of acting of managers.” (Håkansson & Snehota, 2017: 1).

Level B. To explain agency and interactivity, the first step social emergence that needs to be taken into consideration is social interaction. In all business marketing, intentional human agency relies upon the emergent powers that emerge in micro-level social interaction. Social interaction (Level B) is an autonomous level of analysis, as it cannot be reduced to individual-level activities. Social interaction includes generates mutual or shared understanding between agents. Shared or mutual understanding is again necessary to transform marketing manages from Primary Agents to Corporate Agents. All interaction between firms is based upon micro-level social interaction between individuals that generate mutual or shared understanding. Furthermore, Level B social interaction is a distinct and independent level of analysis, as it cannot be explain based on individual level properties.

Level C. When people engage in social interaction, this generates “ephemeral emergents”, as the next level of social emergence. This includes the interaction topic, interaction participation structure, and the overall interactional frame. All of these ephemeral emergents are negotiated between two or more participants in the act of interaction, and no participant can unilaterally determine the outcome. While we are here referring to micro-level interactional outcome, the same socially emergent properties are also influencing all interactional encounters between firms. All interaction between firms necessarily have micro-level interaction frames, interaction participation structures, relative interaction roles, and interaction topics. After interactional topic, participation structure, and interactional roles have emerged, they begin to constrain managerial agency in interaction, restricting what can happen next. These constraints are beyond the control of any one participant.

Level D. As a defining characteristic, Level D “Stable Emergents” exists longer than a single interaction episode. In comparison, the duration of Level C properties is limited to single interaction encounter. For example, in dyads this includes collective or shared interaction memory, dyadic subculture, and interactional routines that all have permanence beyond a single interactional episode. In addition, established professional practices are a Level D property. Level D also encompasses scripts that guide behavioural regularities. Barley and Tolbert (1997) define them as “...observable, recurrent activities and patterns of interaction characteristic of a particular setting.” (Barley & Tolbert, 1997: 98).

For the purposes of examining intentional agency, enduring social relationships and roles have particular importance. In the network context, this includes buyer-seller relationships, and roles that Social Actors can occupy in firms, dyads, and networks. Explicit and tacit knowledge of these relationships and roles are all Level D properties.

Level E. Interaction between firms is further enabled and stabilized by material objects and artefacts, as they do not require constant human activity to be reproduced. This includes machines, buildings, vehicles, operating manuals, formal procedures, contracts, laws, computer, software, business infrastructure, logistic infrastructure, communications networks, and financial infrastructure. For example, dyadic relationships derive additional stability from written contracts.

Nested model of interaction

As the mediating concepts outlined in Figure 1 is a general model of social emergence, it can be used to explain the emergence of firms, dyads and networks, in addition to other social structures. As a result, we can form a nested model of agency, that separates the emergence of firms, dyads, and networks into different hierarchies (Figure 2.) We call this as the nested model of agency. This separation has analytical advantages, to assist the efforts of IMP researchers.

Most notably, the nested model has the benefit of separating the very different Level D and Level E properties between firms, dyads, and networks. For examples, for firm’s level-D properties include firm’s own internal routines, procedures, company sub-culture, and collective company memories. In contrast, dyadic analysis may instead focus on mutual interaction memory, including mutual trust, learning, and co-adaptation over extended periods of time. However, IMP research can also use a unified hierarchical framework, where dyads are visualized as an emergent property of firms, and networks are visualized as an emergent property of dyads. This unified hierarchical framework has been proposed by Vanharanta and Wong (2017).

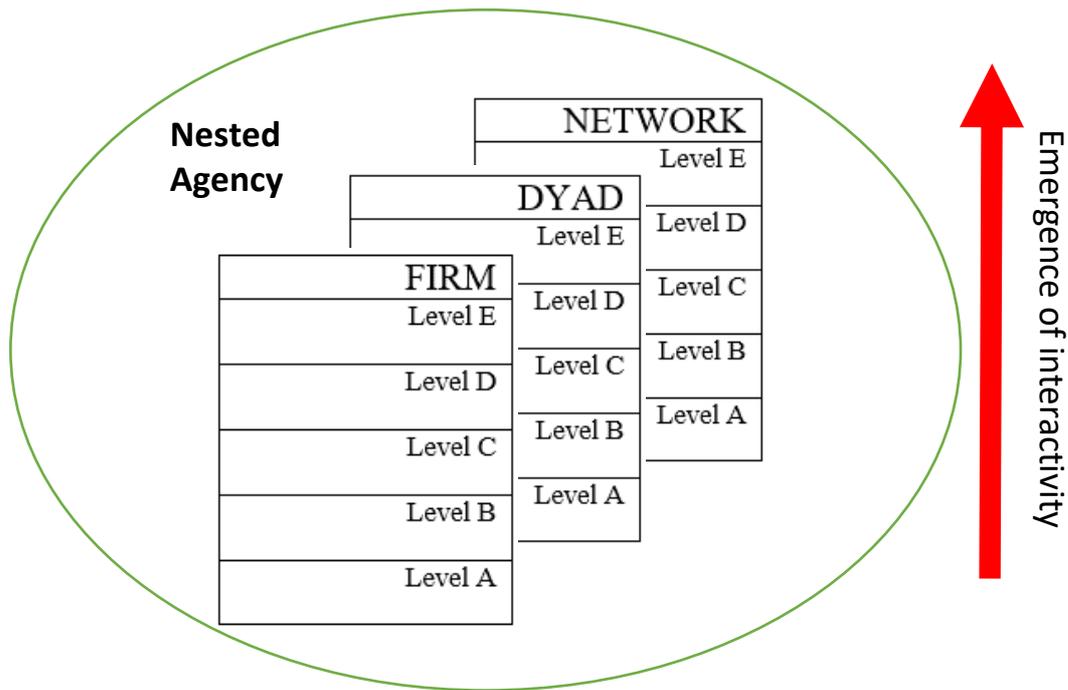


Figure 2. Nested model of agency.

Institutions and interactivity

Next, we will use this nested model of agency, to theorize the relationships between agency, institutions and interactivity. Institutions come in many forms and shapes. We can approach institutions along the lines of Barley and Tolbert (1997: 96-7):

“One can think of institutions as abstract algebras of relations among members of social sets. From this perspective, institutions are to social action as grammars are to speech. Speech allows for an infinite variety of expressions, yet to be comprehensible, every expression must conform to an underlying set of tacitly understood rules that specify relations between classes of lexemes.”

For the purposes of this article, we define institutions as algebras of relations among agents in networks. This definition of institution has the benefit of being independent of the identity of the relevant social actors in question. Again, according by Barley and Tolbert (1997) relevant actors may: “...be individuals, groups, organizations, or even larger collectives. This broad definition of an actors is compatible with its broad usage in IMP-literature. Researchers should, therefore, be able to use this definition, regardless of whether they are investigating an institution associated with a group, an organization, an industry, or even society at large” (Barley & Tolbert, 1997: 97). Furthermore, this definition serves us well in this manuscript as we have defined agency as manifested at many different levels of social emergence (Figure 1). Moreover, this is well in line with the position taken by Håkansson and Snehota (2017) regarding the concept of interactivity: “We will use the notion of ‘interactivity’ to denote the (context) conditions that allow for and drive substantial interaction to develop among businesses” (Håkansson & Snehota, 2017: 2).

We propose that interactivity is a socially emergent institutional property stemming from social interaction in firms, dyads, and ultimately networks. Interactivity is independent of actor identities but dependent on agency. Interactivity is shaped by agency while agency is also shaped by interactivity. The (IMP-type) actors interacting in a business network are not the interactions, so we need to be able to distinguish between agency and interaction in an analysis of business networks and networked economies. We posit here that interactions function via the mediating concepts, as outlined by the Levels A- E in Figure 1.

It also points at the important function interactions have in business networks, namely, enacting and reshaping institutions. In this way, interaction (including Levels B, C, D and E) can be seen as a concept that links individual level intentional human agency to institution. However, we need to model this link

in detail to provide a useful coherent model of agency and institution in networks. This is what we set out to do in next section.

Modelling agency, institution and interaction in business networks

The previous discussions provide the basis for the development of a model of agency, institution and interaction in business networks. Based on these discussions, it is clear that the link between agency and institution is recursive and dynamic and that interaction (as theorized by the mediating concepts) serves as an intermediary between agency and institution. This idea draws on the recursive model of action and institution due to Barley and Tolbert (1997) in which the two realms (the institutional realm and the realm of action) are linked by the concept of scripts. Barley and Tolbert (1997: 98) define skripts as "...observable, recurrent activities and patterns of interaction characteristic of a particular setting." This is a good way to describe interaction in business network as it separates it from both the concept of agency and interactivity or institution.

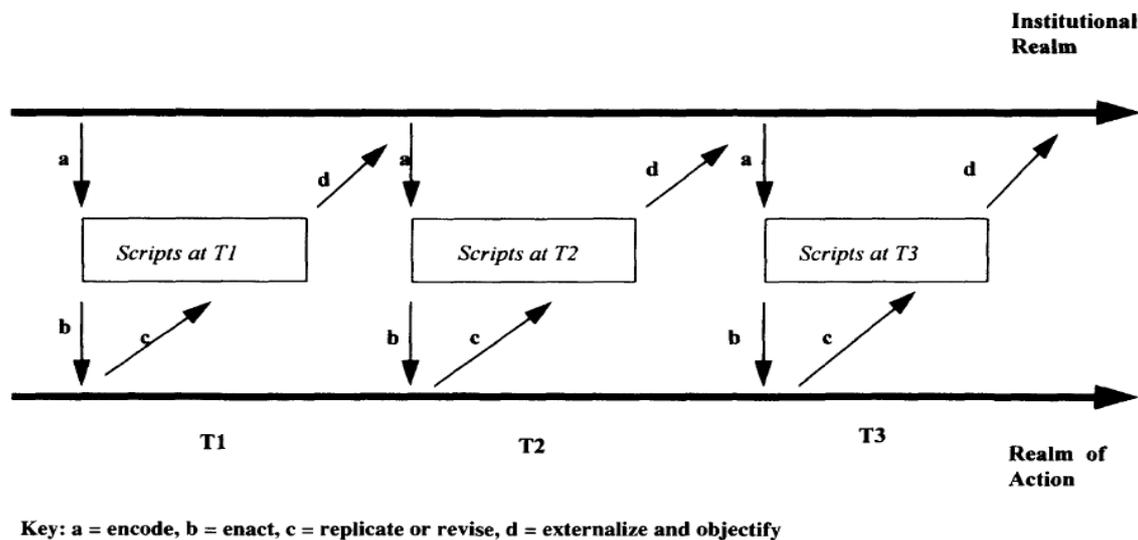


Figure 3. Barley and Tolbert's (1997:101) recursive model of action and institution.

Our adaption of this model to the business network context produces a model as depicted in figure 4 below. Here we recognize that "scripts" (Figure 3) are an important, but not a sufficient mediating concept to explain agency in the network context. As a result, we have substituted "scripts" with the nested model of agency (Figure 2), that includes all 5 levels of social emergence (Figure 1), and the central structures of IMP research, namely, firms, dyads, and networks. Also, scripts are included in our nested model, where they can be located as a Level D property. In this model interactivity is seen as belonging to the institutional realm where as individuals are positioned in the realm of action. However, it should be noted that intentional agency is also manifested at the other levels of social emergence, as discussed above.

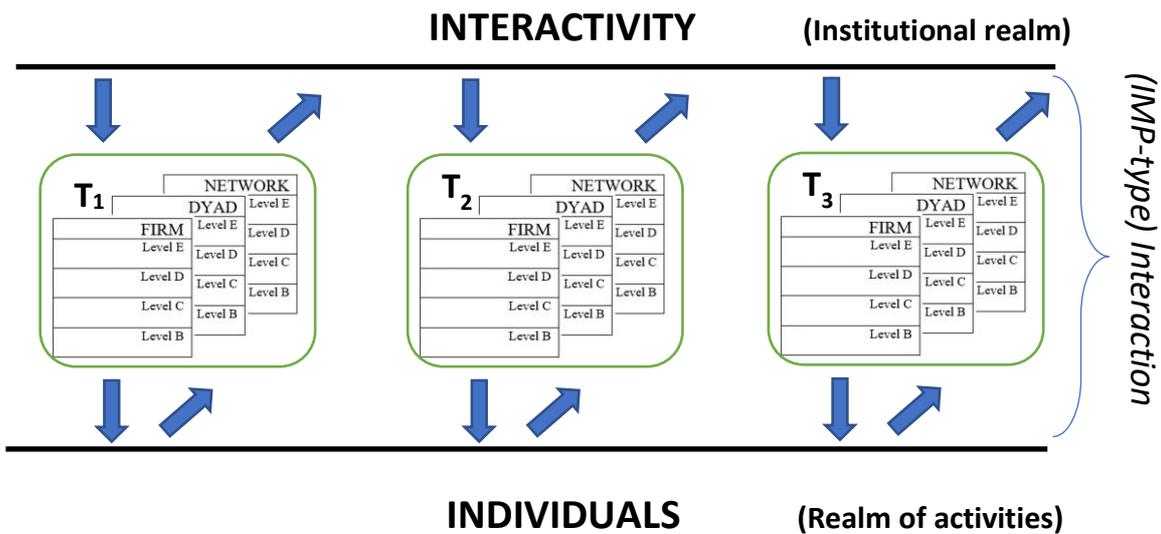


Figure 4. Recursive model of interactivity in networks

Conclusions

“Interactivity in the business network is both an input to interaction and an output from interaction. There is a close reverse link between interaction and interactivity over time. Interaction that yields expected benefits is bound to result in increased... interactivity.” (Håkansson & Snehota, 2017: 2).

Our theoretical framework emphasizes the reciprocal and time-dependent link between interaction and interactivity. This is illustrated in our model in figure 4. Interactivity can be viewed as an institutional network property resulting from a collective. Furthermore, our nested model recognizes that a more comprehensive investigation of interactivity may benefit from inclusion of firms, dyads, and networks properties as separate hierarchies. The nested multilevel agency produces a vertical dimension of business networks meaning that business networks are not only networks in terms of its horizontal spread, but also in terms of its vertical depth of emergent phenomena and mechanisms. The former dimension of business networks have been extensively researched over the past 40 years of network research, whereas the latter has gained little if any attention.

This paper contributes with a systematic conceptualization of the mediating concepts that enable agency and social emergence of business networks. By investigating these mechanisms further empirically as well as conceptually, we can gain new insight and increase the explanatory power of our investigations.

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