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## **Relating Systems Thinking and Design (RSD12) Symposium | October 6–20, 2023**

### **The Social Dynamics of Frame Acceptance in Organisational Innovation Settings**

**Emile Mazerant and Mieke van der Bijl-Brouwer**

Systemic design aims for desirable change in complex, multi-stakeholder social systems in approaching complex societal challenges. For such social innovation to be effectively implemented, multiple stakeholders in organisations are often required to change their (course of) action. To enable such actions, an acceptance of a reframe of the challenge is often required. In this paper, we argue that an organisation can be considered the manifestation of its members' frames at any given time. Innovation and design practitioners experience challenges creating the desired change of action in organisational settings following a reframing activity. Since frames are social constructs, we argue that the social dynamics of influence on frame acceptance is an important concept to consider. We define social dynamics as the ways and extent to which the behaviour of actors in a social interaction influences the thinking and doing of other actors in that interaction. Understanding this might help develop strategies to increase the impact of innovation efforts in complex organisational and systemic settings. In this paper, we conceptualise the social dynamics of frame acceptance through a literature review of frames, organisations, reframing, and innovation. We conclude with a research agenda to work towards an improved understanding of how social dynamics influence frame acceptance in reframing processes in organisational settings.

**KEYWORDS:** systemic design, organisational innovation, reframing, frame acceptance, social dynamics

**RSD TOPIC(S):** Economics & Organisations, Methods & Methodology

## Introduction

Systemic design aims for desirable change of complex, multi-stakeholder social systems in approaching complex societal challenges (Systemic Design Association, 2022). In dealing with complex challenges, design methods are increasingly considered a promising approach to developing innovative interventions (e.g., Tromp & Hekkert, 2018). In such design methods, reframing is considered a core activity (e.g., Dorst, 2015a; Van der Bijl-Brouwer, 2019; Whitbeck, 1998). Reframing, as an activity in design, is the deliberate act of changing frames of the (problem) situation to create a new design space (e.g., Stompff et al., 2016; Valkenburg, 2000). A frame is a cognitive map of how we experience, make sense of, give meaning to, and value a situation. As such, frames inform what we perceive as quality and what our goals are, and they guide our routine behaviours and actions as they make sense within that frame. As systemic design aims to change (course of) action (i.e., to innovate) within the system, we argue that reframing is an important concept to consider in this field.

An aspect of reframing that has received little attention is the organisational context. For social innovation to be effectuated, often (multiple) organisations within the system are required to change their actions. An organisation and its subparts, at any point in time, can be considered a manifestation of the existing frames of its members (e.g., Gray et al., 1985; Weick, 1979). These members include intermediate users needed in the process to engineer the conceptual ideas that are being handed to them and bring them to value (Smulders & Dunne, 2017). Accordingly, their frames inform the actions that they collectively undertake and that make sense in what they consider to be relevant to them (e.g., Drazin et al., 1999; Weick, 1995). Consequently, reframing changes the underlying rationale of their actions. Not surprisingly, we observe that innovation professionals and design practitioners oftentimes experience challenges creating the desired change of action in organisational settings following a reframing activity. We argue that if we want conceptual ideas that logically follow from new frames to be successfully absorbed in the routine behaviours of the target context, acceptance of the novel frames by (groups of) individual actors (i.e., frame acceptance) in the required organisational context is pivotal. Hence, adding the organisational context to our understanding of frame acceptance helps to increase the impact of our innovation efforts in such contexts.

To further our understanding of frame acceptance, it is important to consider that frames are socially constructed, maintained, and changed (Bartunek & Moch, 1987). Intermediate users are embedded in communities of practice. These communities learn about and give form to their practices, identity, community, and meaning through a process of social participation (Wenger, 1996, 1998a). Following that, frames are socially constructed, and innovation (e.g., Van De Ven, 1986), design (e.g., Bucciarelli, 1988), and learning (e.g., Wenger, 1996) have been described as social processes, creating acceptance for novel frames can be considered a socio-interactive process too. We assume that in a social interactive process, individual actors are influenced in their thinking and doing by the behaviour of other involved actors (i.e., social dynamics).

Hence, in this paper, we argue that innovation professionals and systemic design practitioners alike would be served by a better understanding of how social dynamics in the reframing process influence the frame acceptance by individual actors and groups of actors. For example, which behaviour of involved actors in the reframing process influences other involved actors to leave behind the certainties of existing rationales and to change their actions? And to what extent? What do actors need of other actors in and around the process for them to (comfortably) do so? What underlying values are at play? Moreover, how can we give form to these values in the process to smoothen the frame acceptance and the subsequent adoption of the context to proposed novel actions? This implies that we first need to take on a perspective that allows us to understand reframing from a social-interactive level perspective. However, this perspective in existing research receives too little attention. We consider central elements in this perspective to be those of frames, organisations, innovation, and social dynamics.

Therefore, this paper aims to explore this social interactional perspective in systemic design for future research. To do so, we will conceptualise the central elements of the social interactional perspective and define them using a literature review. We will first define and describe innovation, show how this is a social process, and explain how this is a vulnerable process. Next, we will explain what frames are and their function relative to design and innovation. This is followed by a description of reframing and existing research on the workings of the framing process. Subsequently, we briefly discuss the

existing research and the value of adding a sociodynamic perspective to the body of literature. To conclude, a research agenda is suggested.

## **The innovation process and its relevant social elements**

Bringing about change in an organisational setting takes place through social interaction between actors involved in this process. Considering that practitioners experience challenges in this part of the innovation process, we deem it relevant to explore existing literature on innovation and how it describes the social elements of this process.

Scholars generally share the definition of innovation as “the successful implementation of creative ideas within an organisation” (Amabile & Pratt, 2016, p.158). Moreover, in more popular innovation management literature, we find innovation to be described as the “successful exploitation of new ideas” (e.g., Tidd & Bessant, 2020). Only a few scholars specifically mention that for the innovation process to be successful, the context needs to adapt what they had been doing to absorb the creative ideas that are being introduced (e.g., Woodman et al., 1993). Creative ideas are, in general, described to come from the other end of the same process in which individuals or groups of individuals engage in an attempt to generate novel and useful ideas (e.g., Amabile & Pratt, 2016; Drazin et al., 1999; Woodman et al., 1993). Their novelty and usability depend on what already exists in the target context (Amabile, 1982) and what the context values as useful. Connecting the two sides, innovation is a process that takes place in the relationship between the exploration of what might be and the exploitation of what we hold to be certain (March, 1991). In addition to this reasoning, we argue that in innovation practices, this relationship is experienced between people. Hence, we refer to innovation as the social-interactive process of adding novelty to an existing context – which, for its absorption, will have to change.

## **Innovation as a process of creative destruction and relative change in the context**

Following our definition of innovation, to absorb the novelty in existing organisational contexts, its change is conditional on the success of the innovation process. This requires a change of actions of intermediate users in the context. We consider the general idea of innovation Schumpeter (1934; 1943) provided relevant in understanding

what this change entails. Schumpeter introduced the concept of 'creative destruction'. He argued that through the impulses of entrepreneurship and competition, the economic structure is revolutionised "from within, incessantly destroying the old one, incessantly creating a new one" (Schumpeter, 1943, p. 83). This results in "industrial mutation" (Schumpeter, 1943, p. 84). Although Schumpeter did not describe these processes as internal to organisations, at an organisation level, his idea might hold that innovation is a process of mutation, one of change, that – when successful – will have replaced old manifestations of ideas with new manifestations of ideas in the context.

In addition to Schumpeter, Andrew van de Ven (1986) took an organisational-level perspective in discussing the management of innovation. He defined innovation as "the development and implementation of new ideas by people who, over time, engage in transactions with others within an institutional order". Whereas coming up with ideas can be an act of an individual, innovation in an organisational setting is referred to as a process of collective undertaking in development and implementation. Like Schön (1973), van de Ven addressed the challenges of the social and political dynamics that come with the process of institutionalising novel ideas, which he calls "riding ideas into good currency" (Van De Ven, 1986, p. 591). In his words, innovation is successful when the novel idea has become "an implemented reality and is incorporated into the taken-for-granted assumptions and thought structure of organisational practice" (Van De Ven, 1986, p. 604). However, the existing knowledge in the context determines how novel and useful conceptual ideas are (e.g., Amabile, 1982; Hatchuel & Weil, 2003). From this, it follows that the pre-existing knowledge in exploitation will change after successful innovation. This means that the context will have to be adapted to this conceptual knowledge. This process is referred to as innovative design: "the revision of the identity of objects and the possibility of expanding partitions" (Hatchuel & Weil, 2009, p. 191).

### **Innovation as a social learning process**

In describing what it means to ride ideas into good currency, we can refer to innovation as a learning process (Van De Ven, 1986). In organisational learning, we can distinguish between two types of learning. Single-loop learning is considered learning that alters the course of action, leaving the underlying values of the theory of action intact. In double-loop learning, the individual or institution openly detects and corrects existing

assumptions and changes the beliefs and values underlying the current theory of action (Argyris, 1982; Argyris & Schön, 1996). For creative destruction to take place, reframing is required, and reframing requires double-loop learning. In doing so, it contributes to people inside an organisation opening up to which new ideas might have good currency.

Following the above, to turn generated concepts into implemented realities, one or more intermediate users in the organisational context will have to learn. These intermediate users are all working in their own roles, disciplines, departments, organisations, and fields. They, for example, work to service customers, build and support the ICT systems, or manage the shop floor. In giving language to the concept of learning as a process of social participation, Wenger (1996, 1998a, 1998b) speaks of individuals being embedded in communities of practice. This concept finds its origins in learning theory. It is through a continuous process of social participation in such communities of practice that we give form to—not only what we do (i.e., our practice, our actions)—but also to who we are (i.e., our identity), who we are to each other (i.e., the community), and how we make sense of what we do (i.e., meaning). Social participation refers to an “encompassing process of being active participants in the practices of social communities and constructing identities in relation to those communities” (Wenger, 1998a, p. 4). People learn through social participation in all aspects of life, including organisational life. As such, innovation in organisational contexts requires learning that takes place in a process of social participation between intermediate users embedded in one or more communities of practice.

### **The vulnerability of innovation requiring double-loop learning**

The presented view on innovation provides width (i.e., the relativity of novelty), depth (i.e., multiple intermediate users), and social interaction to our understanding of innovation. This immediately indicates the vulnerability and complexity of this process that is experienced in practice. The ease of implementation of a conceptual idea reduces as its novelty increases (Baer, 2012). We argue that the successful effectuation of such change is influenced by the quality of the interactions and the willingness and ability of relevant actors involved or affected by this process to engage in the social process of double-loop learning. To better understand the challenges that come with

reframing, we will first explore what frames are and what their role is in organisations and their members.

## **Framing**

As framing is a central concept in the introduced discussion, it serves us well to gain a good grip on what frames are about. Over the years, scholars from multiple scientific fields have theorised about the role of how people interpret and give meaning to the world around them (e.g., Bateson, 1955, 2000; Cross, 2006; Goffman, 1974; Lakoff, 2010; Van der Bijl-Brouwer, 2019). They were so relevant to their scientific disciplines.

Although these concepts have been given different names, they all relate to a certain extent and share some common characteristics. In an attempt to converge the descriptions of concepts related to frames available at the time, Drazin et al. (1999, p. 293) suggested three steps that most of these terms had in common. Firstly, individuals construct an internalised cause-and-effect framework for a situation, detailing the actions and consequences. Following that, they position themselves within this framework to gain a better understanding of their role. Finally, individuals take appropriate action based on this contextual understanding. Accordingly, we define a frame as a cognitive map of how we experience, make sense of, give meaning to, and value a situation.

Frames hold shared and fundamental, however often implicit, assumptions about why situations occur the way they do and prescribe how we are to behave in such situations (e.g., Bartunek, 1984; Giddens, 1979; Schutz, 1972; Stompff, 2018; Van der Bijl-Brouwer, 2019). Frames help us answer the question of what a situation is about, how we relate to that situation, and the people involved (e.g., Goffman, 1974; Lakoff, 2010). Most of the time, we act in accordance with what we implicitly assume is the answer to that question. Frames inform us of the goals we try to achieve, the plans we create to get there, the actions we undertake to fulfil those plans, and what we consider to be the quality of our actions. Our routine behaviours and actions are guided by frames as they make sense within that frame (e.g., Drazin et al., 1999; Lakoff, 2014; Weick, 1995). It logically follows that implicit frames can be known by their consequences.

Accordingly, an organisation can be viewed as the manifestation of the frames of its members. Members of organisations must continuously make sense of what happens in



their environment and decide whether to act and how. To do so, they actively collect data about events that are or might be of concern to them (i.e., scanning), provide meaning to this data (i.e., interpretation), and develop a subsequent response to this (i.e., learning) (e.g., Argyris & Schön, 1978; Daft & Weick, 1984). Hence, its frames are at the core of organisational knowledge. As a result of this, by subscribing to these frames and the meaning they provide, its members act in accordance with what they expect to be the consequence of their doings. Frames are socially constructed, communicated, maintained, and changed (Bartunek & Moch, 1987). By the routine behaviour of its members, one can characterise an organisation (e.g., Gray et al., 1985; Weick, 1979). Importantly, the more our frames are activated, the more they are strengthened in our brains (Lakoff, 2010).

### **Frames and its function in design and innovation**

Frames in design are described as a means of establishing a framework for subsequent actions: something to grasp and concentrate on during the design (e.g., Valkenburg & Dorst, 1998). Valkenburg and Dorst build on Schön's theory of reflective practice (e.g., 1983; 1984a, 1984b, 1992). They distinguish between four activities in design by saying that designers start by naming relevant factors in the situation at hand. Next, they frame the situation, which subsequently informs them of what moves to make to resolve the situation. The final step, then, is to reflect on those moves. Important to mention is that this process repeats itself until the moves are evaluated to have been satisfyingly effective relative to the used frame. As such, these problem frames (Haase & Laursen, 2019) or productive frames (e.g., Stompff et al., 2016) encompass the particular understanding of a problematic scenario, the (implicit) adoption of specific ideas to depict the scenario, an operating principle that supports a solution, and the central proposition (Dorst, 2011). They function to allow designers to come up with ideas for future solutions they would not have been able to come up with otherwise.

Considering the role of frames in defining organisations, existing frames of intermediate users may make the implementation of innovation processes that entail a reframing activity more difficult. To grasp its potential influence, it is relevant to consider that a shift in organisational structuring might occur when members of the organisation re-evaluate the frames that form the basis of the fundamental structuring of their organisations (Ranson et al., 1980). If a novel frame leads to novel actions that need to

be absorbed by an existing context for it to be brought into good currency, existing frames of one or more intermediate users might need to be changed first. These intermediate users are embedded in communities of practice that reflect what is understood as being important to its members (Wenger, 1998b). The actual implementation of conceptual ideas following a novel frame requires double-loop learning of and between intermediate users embedded in one or more communities of practice. This resonates with Schön's (1983, pp. 80-82) congruence of meaning, with which he meant to describe the process of how professionals interact to define the meaning of a situation, using their professional language in a reframing activity.

### **Reframing as the deliberate process of changing frames**

For both design and innovation, reframing can be considered an evolving system of interactions in which implicit rules are subject to change. After the frame change, a different set of rules informs our actions (Bateson, 1955). Deliberate reframing can be considered a pragmatic approach. It helps us focus on what we consider important in a certain situation and, as such, provides us with the space to explore and design. Interestingly, it is argued that the search for a frame is a joint thought experiment (e.g., Stompff, 2018; Stompff et al., 2016).

In explaining the process of frame innovation, Dorst (2015b) articulates the need to make sure these new frames are well integrated into the contexts of the involved organisations. It is such frame adoption that connects the exploration phase with the exploitation phase. However, how this changeover is achieved remains underexplained in literature. The design practice of reframing the problem situation in relevant new ways is widely considered to be one of the core activities of design (e.g., Cross, 2006; Lawson, 2006; Paton & Dorst, 2011; Schon, 1983; Schön, 1987). However important this activity is, only very limited research on how reframing works is available within the design field.

### **Existing research on the workings of reframing**

Although we found research on the workings of reframing to be scarce, some research is available. For example, in the context of client organisations in visual communications design, Paton and Dorst (2011) identified three barriers to reframing that designers experience in the briefing stage: (1) fixation by the client on their initial frames or

approaches, (2) the prevailing problem-solving model, and (3) the resistance to the journey. They find ways of abstracting away from a current frame to be among the most significant strategies used by expert designers to create room for new frames to be communicated and adopted. In addition, Vermaas, Dorst and Thurgood (2015) identified two modes in which framing can fail, based on a critical case analysis of a framing that first was considered very successful but in a later stage turned out to fail. The first mode is the situation in which the design solution solves the reformulated goal yet leaves the initial goal unsolved. The second mode refers to the situation where customers cannot accept the frame as proposed by the designer because they cannot execute the actions as intended. In the same line of research, Lee (2020) studied the dialogues at the interface of a students' design project with a public sector organisation to find whether the client's response to the proposed new design frames, i.e., frame acceptance or not, was shaped by for example the organisation's decision-making structure, visions higher up in the hierarchy and perspectives leading from the existing systems.

All mentioned research focuses on some kind of frame transaction, from designer to client, rather than on the situation in which frames are constructed, maintained, and changed in a social interactional process. We argue that both situations apply to social innovation. Sometimes, stakeholders might join designers in a joint thought experiment where frames are collectively constructed and changed. Next, when intermediate users are needed to bring the novel ideas that follow from a frame change into the good currency of the exploitation phase, frame acceptance will again precede the absorption of the novel ideas. In addition, available research does not mention the possibility that the social dynamics between the actors involved could influence the lack of frame acceptance.

### **The social dynamics in reframing**

Following that, frames are socially constructed, and innovation (e.g., Van De Ven, 1986), design (e.g., Bucciarelli, 1988), and learning (e.g., Wenger, 1996) have been described as social processes, creating acceptance for novel frames too can be considered a socio-interactive process. We assume that in a social interactive process, individual actors are influenced in their thinking and doing by the behaviour of other involved actors (i.e., social dynamics). However, we observe that the interaction with actors in the target context of innovation who need to change their actions often receives too little

attention in innovation practice and literature. Such a social-interactive learning process would have to be extended to all those intermediate users possibly affected by this frame change. These actors are embedded in (different) communities of practice, where their frames are constructed through social participation. As we have seen, reframing requires those actors involved to at least adjust their pre-existing certainties. It asks them to learn how to make new sense of the situation and what is of value to them. This learning should take place throughout the different layers of all required actors until the absorption of the novel actions.

## **Discussion**

Altogether, we consider an organisation at any point in time to be the actual manifestation of how its members make sense of and give meaning to events. This is shaped in and between communities of practice within organisations through social participation. An organisation is formed by how individuals or groups of individuals interpret the environment, what they value, what is accordingly defined as a preferred outcome (i.e., quality), what follows as the goals they set, and the actions that are believed to help achieve those goals. All of these make complete sense within the existing frame. Following how frames can be strengthened in our brains each time they are activated, this also holds true for organisations, as they consist of groups of individual professionals. To change a frame is to change the (sometimes very strong!) rationality of existing actions. Accordingly, the stronger the frames, the more difficult changing organisational actions might become.

In systemic design, design methods are used to bring about social innovation. A commonly used definition of design is Simon's, who describes design as creating artefacts that turn existing situations into preferred situations to achieve set goals (Simon, 1996). In that sense, we argue that design can be considered a process where people first (temporarily) step away from what already is to generate concepts of what might be. Later, they return to the existing context for it to be brought into good currency. In other words, for a situation to change into a preferred situation, it must adapt to the new thing being introduced. The existing situation includes people who behave in certain ways to achieve the goals they find worth pursuing. More than just the end-user, they may include people inside an organisation needed to engineer the

conceptual ideas being handed to them, make them available, and bring them to value. The required change may be very different for each of these intermediate users, depending on their context and situation. For systemic design to become social innovation, intermediate users embedded in (often different) communities of practice will need to adapt to the required behaviour for the new artefact to be brought to value. This requires double-loop learning. First, a novel frame needs to be accepted (i.e., frame acceptance) before the novel action makes sense and can be absorbed in the routine behaviours of the existing organisational context. Such a social-interactive learning process would have to be extended to all those intermediate users possibly affected by this frame change until the absorption of the novel actions. This again underlines that engineering design, de facto innovation through design, is a social process (Bucciarelli, 1988).

In conclusion, the presented view provides width (i.e., relativity of novelty), depth (i.e., multiple intermediate users), and social interaction to our understanding of innovation that follows from reframing in organisational contexts. Even more so, it indicates the vulnerability and complexity of this process that is experienced in practice. Successful effectuation of such change depends on the quality of the interactions and the willingness and ability of relevant actors involved or affected by this process to replace or adapt their existing certainties, i.e., to engage in the social process of double-loop learning. Social innovation oftentimes requires intermediate users in organisational contexts to change their actions. Systemic design makes use of reframing to come to innovative interventions. Hence, practitioners and academics are served by a better understanding of how social dynamics influence the acceptance of frames.

## **Research agenda**

Notwithstanding the valuable contribution of research on the phenomenon called frame acceptance (e.g., Lee, 2020; Paton & Dorst, 2011; Vermaas et al., 2015), research on the nature and extent of how socio-dynamics influence frame acceptance of involved actors is scarce.

As we have seen, frames in organisations are socially constructed in communities of practice and include the perception of what we deem as good or bad outcomes of a situation (i.e., quality). As such, they determine what we consider to be proper actions.

Hence, we would be interested in studying how groups of individuals in communities of practice socially determine what quality to them is. What activities do they engage in? How do they behave in doing so? What language and objects do they use? To what extent is this behaviour explicit? These questions investigate the characteristics of such practices.

Next, we would be interested in studying how the perception of the quality of a community of practice shifts under the influence of a new frame. What happens to the perception of quality when a new frame is being proposed? How does that evolve? How does it diffuse over time? Moreover, when and how does the frame become implicit again? These questions help in gaining an understanding of the dynamics of quality perception within a community of practice.

Thirdly, we are interested in researching the ways and to what extent social dynamic factors influence the acceptance of new frames by actors (i.e., stakeholders, intermediate users) involved in reframing processes in organisational settings. How does frame acceptance manifest itself in a reframing process? What do actors involved in reframing need to accept a novel frame? What specific behaviour of involved actors in a social interaction influences other actors to accept a novel frame? To what extent does it matter to the actor who, in a reframing activity, is showing this behaviour? What does this specific behaviour bring for other actors to accept a novel frame? Which underlying values are at play? These questions would contribute to a better understanding of the social dynamics of influence on individual actors' frame acceptance in the social interaction of reframing activities in organisational contexts.

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