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The elephant actually talks - Project organisation from a communication perspective

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A R T I C L E I N F O

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A B S T R A C T

Although communication is acknowledged as fundamental to project execution, it is researched at minimal levels. Still, communication is often referred to in the research discourse, but only generically and analytically underdefined, fitted into an actionoriented epistemology. Drawing on the key contributions to project studies research on communication, the essay addresses the limitations of this research and questions that remain unanswered. It shows how making actual communication practice the unit of analysis, based on an adequate theoretical foundation in the form of Niklas Luhmann's social systems theory, can help overcome these limitations and enrich our understanding of project organisations. For this purpose, investigative directions and practices are discussed, while attention is given to how such communication-based research can contribute to current and evolving research topics.

1. Introduction

Project practitioners widely recognise the importance of communication in the execution of projects. Associations like PMI (2021) and APM (2019) stress that communication is fundamental to accomplishing projects. Renowned project management handbooks underline this (Pinto & Slevin, 1987; Sankaran et al., 2017; Turner, 2009), indicating that project managers spend most of their time on communication (Kerzner, 2014; Kliem, 2008).

At the same time, literature reviews demonstrate that research into communication in projects is only present at minimal levels (Brantley, 2016; De Rezende et al., 2018; Padalkar & Gopinath, 2016; Slavinski et al., 2023). Clearly, there is a gap between the weight that project practice attributes to communication and the attention it has received from scholars. Notwithstanding this, the concept of communication is often referred to in research contributions, which is not surprising given its omnipresence in project action, and some notable characteristics are the following. First, it is principally positioned as the exchange of information and knowledge (Liu et al., 2017; Mueller, 2015; Stock et al., 2021; Whyte, 2019; Wu et al., 2017a; Zheng et al., 2016). Second, communication is used post hoc, often to explain effectiveness without being a conceptual focus (Aga et al., 2016; Gemino et al., 2021; Hwang et al., 2015; Khosravi et al., 2020; Kivilä et al., 2017; Maqbool et al., 2017; Mok et al., 2015; Serrador & Pinto, 2015). Third, communication is binary-scalarised using common-sensical dichotomies, e.g. open-closed, less-more, untransparent-transparent (Cui et al., 2018; Gemino et al., 2021; Nauman et al., 2022; Osei-Kyei & Chan, 2015; Turner, 2020a; Williams, 2016). Fourth, it is reduced and "boxed" into action-specific categories, such as coordination or collaboration (Davies et al., 2016; Dingsøyr et al., 2018; Hobbs & Petit, 2017), knowledge sharing or problem-solving (Mahmoud-Jouini et al., 2016; Mueller, 2015), stakeholder management (Aaltonen et al., 2015), management or leadership (Banihashemi et al., 2017; Butler et al., 2020; Imam & Zaheer, 2021; Musawir et al., 2017; Serra & Kunc, 2015; Williams, 2017).

In the current discourse, communication is treated generically and remains analytically underdefined, is literally regarded as ubiquitous and assumes a taken-for-granted quality that suffices with the analytics of the common-sensical and is disguised through being reclassified under other functional labels that fit the dominant action-oriented epistemology of project studies. Its omnipresence renders it invisible: like the proverbial elephant in the room, it is everywhere and nowhere. Foundational concepts of communication—beyond information and knowledge transfer—are rarely mobilised. It almost resembles pre-Newtonian times, where objects generally falling to earth was simply the way it is, and objects being heavy or light were intrinsic qualities of objects themselves.

This state of knowledge raises pressing questions about the conceptual status of communication in project studies. As communication permeates all project-related action, it does not allow for any complacency of project theory about one of its most constitutive elements.

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Increasing challenges in stakeholder management (Eskerod et al., 2015), progressing projectification (Ballesteros-Sánchez et al., 2019), and the diversification of project management methodologies (Iriarte & Bayona, 2021) indicate that the need to better understand communication is essential.

This paper, therefore, explores two interrelated questions:

(1) How is the broader field informed by studies that specifically deal with project communication?
(2) Can more fundamental communication theories offer new insights into project organisation?

In response, I develop a conceptual critique of the taken-for-granted status of communication in project studies. Drawing on alternative theories of communication, I argue for a reframing that moves beyond transmission and post hoc rationalisation. This shift, I suggest, opens up new analytical and methodological avenues for studying communication as a constitutive—not derivative.

The paper proceeds as follows: The next section reviews the dominant conceptualisations of communication in key contributions to the project management literature. I then introduce alternative theoretical lenses on communication and apply these to reinterpret typical project interactions. Finally, I discuss the implications of this reconceptualisation and propose avenues for future research.

2. Project communication research

In relevant research, project communication is seen as the cornerstone of project activity (Hoegl & Gemuenden, 2001) and regarded as contributing to effective conduct of projects in a wider context (El-Sheikh & Pryke, 2010; McGrath & Whitty, 2019; Turner & Müller, 2004), but also as directly contributing to project success (Iriarte & Bayona, 2021; Söderlund, 2011; Ziek & Anderson, 2015).

Empirical studies into project communication are highly diverse and have divergent concepts of communication. Detailed, highly cited studies into oral communication, by itself a straightforward concept, nevertheless all capture different realities, such as the frequency of oral, work-related interactions (Katz, 1982), the perceptions regarding meetings and face-to-face communication (Malik et al., 2021), the content aspects of the communication (Senescu et al., 2013), or the extent of being “happy” with what, when and how information was received (Hoegl & Gemuenden, 2001).

Predominantly, communication is researched in the form of ex post perceptions and appreciations, rather than the act of communicating. The approach to communication is heavily subject-oriented, thus subjective and intentional elements are a focus of interest, and research typically uses surveys (Carson et al., 2003; Cheung et al., 2013; Doloi, 2009; Doloi et al., 2012; Ekrot et al., 2016; Henderson, 2008; Henderson et al., 2016; Manata et al., 2022; Park & Lee, 2014; Pinto & Slevin, 1987; Rehan et al., 2024; Sambasivan & Soon, 2007; Sampaio et al., 2022; White & Leifer, 1986; Wu et al., 2017a) and/or interviews (Adenfelt, 2010; Barnes et al., 2002; Daim et al., 2012; Godfrey Ochieng & Price, 2009; Henderson et al., 2016; Saxena & McDonagh, 2022; Srikanth & Puranam, 2014; Verburg et al., 2013; Yap et al., 2017; Ziek & Anderson, 2015). Scholars studying “live” project communication are rather the exception (Andersson, 2016; Butt et al., 2016; Duncker, 2001; Gorse & Emmitt, 2007, 2009; Laufer et al., 2008) and more recently (Stingl & McClellan, 2023).

Foundation in an overall theoretical frame is mostly absent. Some studies are based on the constitutive approach (Stingl & McClellan, 2023; Ziek & Anderson, 2015), occasionally there is an ad hoc theoretical construct or aspect-specific theory (Duncker, 2001; Ekrot et al., 2016; Manata et al., 2022). In their highly cited paper, Turner and Müller (2004), chose principal-agent theory as the framework for their study of communication, which is not communication-specific. They conclude that “appropriate communication is required to deal with the client’s concerns associated with the principal-agent relationship” (p. 335), a truism in the context of their framework.

In conclusion, project studies research on communication is highly fragmented and, generally spoken, lacks theoretical foundations. It is most often based on (ex post) perceptions of individuals, where it is known that such perceptions are subject to hindsight, cognitive or attribute biases (Calvillo, 2014; Fischhoff, 1975; Flyvbjerg, 2021; Valle Santos & García, 2006). Actual communication is rarely investigated.

Still, one may claim that the Galilean level of insight that unequal weights of the same material fall at the same speed simply renders sufficient penetration into the intricacies of project dynamics. To demonstrate that the current approach to communication is limited in its contribution to the field and leaves an abundance of questions unanswered, I will discuss several papers in which communication has a central position in more detail.

First, I will discuss two studies which show how deeply entrenched the transmission model is in the current research paradigm. Monteiro De Cavalho (2013) investigated communication barriers and communication planning. The author defined differences in semantics and priorities as sources of communication barriers. While the study did not clearly describe what constitutes a barrier, the transmission model logically implies these differences as barriers, as certain information is available on one side but not on the other. When interviewees are questioned in the line of the transmission model, they will reproduce this logic, which was also the result of the study. Apart from barriers, the study separately addressed lack of communication. Since this study circumvented the actual communication practice, the relation between barriers and lack of communication was not investigated. This would certainly have enriched the study, be it only for providing some clarity into the meaning of barriers. The author reports as an inconsistency that respondents unequivocally express the importance of communication, but formalised communication practices in the PM methodology are not followed. This inconsistency immediately disappears however, if we step out of the paradigm that communication is only about delivering information from A to B. The study of Collyer (2016) is an extreme example of the transmission paradigm, as communication is evaluated on aspects as “rapid”, “timely”, “rate”, or being “succinct” (ibid., p.116). Communication is set aside from culture and decision-making, although the study addresses them through aspects that are constituted through communication. The limitation of the transmission model also becomes evident, when we observe that studies which investigate communication competencies (Alvarenga et al., 2019; Henderson, 2008) or communication behaviour (Manata et al., 2018; Sampaio et al., 2022) render much richer concepts than needed to fulfil the transmission function of communication.

Two contributions, following the same methodology, investigated the relationship between communication and project success and the role of conflict therein Malik et al. (2021); Wu et al. (2017b). These studies propose three communication-related, explanatory variables: formal communication, informal communication and communication willingness. However, their questionnaire instrument does not capture communication activity. In the case of formal communication, respondents are asked whether they deem communication/information as “accurate”, “timely”, “enough”, “feasible” or “adequate” (Wu et al., 2017b, p. 1474). Not communication itself, but the perceived result of communication is captured. The items for informal communication are even more opinion-oriented and remote from communication practice, containing elements like “lack of negotiation skills….” or “understanding the information advantage….” (ibid., p. 1474). A more fundamental problem is that formal and informal communication are treated as two separate streams of communication, independent of each other. In project practice, the opposite is the case. If we take actual communication events as the level of analysis, it transpires that, contingent on the situation, formal communications trigger informal communications or rather inhibit informal communication. Vice versa, informal communication can urge subsequent formal communication or prevent it from occurring. The studies conducted by the two teams are blind to the communicative reality they claim to represent. In this light, it becomes explainable why in one study (Wu et al.) informal communication has a negative correlation with project success and formal communication a positive one, while in the other study (Malik et al.) it is the other way around.

This overview demonstrates that questions, significant for the field, are left unanswered. Understanding the role of communication in projects, and with that, much of understanding project organising will elude us, unless we make communication practice itself the unit of analysis. For this, we need a theoretical framework that helps us to understand communication within and between project organisations.

3. Social systems theory as an alternative communication lens

Social systems theory (SST), as originally conceived by Niklas Luhmann, offers a versatile approach to the study of communication in projects. Not only is it based on communication, but encompasses a complete and coherent theory of organisation (Luhmann, 2000, 2018) with powerful explanatory elements, whilst the nature of its approach is relatively unorthodox. In this section, I will elaborate on how SST can contribute to overcoming the gaps described in the previous sections.

Other communication-oriented theoretical approaches have been applied to a limited extent in project studies. Several contributions have been made focusing on conversation analysis based on the principles of Speech Act theory (Searle, 1979; J.R. 1999). Such studies concerned the rhetoric used in a healthcare project (Sillence et al., 2006), the role of dialogue in knowledge transformation in projects (Alin et al., 2011), the analysis of differences in communication between agile and traditional projects (Ly et al., 2025), and direct and indirect usage of language in information system projects (Yin & Kuo, 2013).

The Communication Constitutes Organisation (CCO) stream has gained a strong foothold in organisation studies (Basque et al., 2022). The additional insights that the CCO approach can offer to the field have been pointed out (Sergi, 2022) and the CCO approach was the base perspective for an excellent study on event management (Stingl & McClellan, 2023).

The additional value of SST compared to these two approaches originates from the fact that SST has an overarching theory of organisation that explains how communication makes an organisation work as a whole and in its specificities. It offers strong theoretical guidance to empirical research through its sound and complex methodology (Besio & Pronzini, 2011).

I will restrict my elaboration of SST to those parts that jointly show how the study of communication in projects contributes to our understanding of projects and their dynamics.

In SST (Luhmann, 2021c, 2021a, 2021b), all social systems have communications as their basic operation, which are recursively connected in the sense that a communication necessarily connects to a previous communication and prepares a connection to the upcoming communication. Therefore, social systems are ‘operationally closed’, as their communications occur in a system-internal network. This notion is also expressed as autopoiesis or self-production: social systems produce themselves by producing the communications that are produced from their communications (Schoeneborn, 2011). In SST, communication consists of three inseparable parts: an *utterance* conveying *information* which resolves in an *understanding*. Thus, communication is detached from the interacting individuals and can, in fact, exist only on the level of the social system (Luhmann, 2021c, pp. 193–207), in which communication can only proceed recursively. Indeed, each communication anticipates any query, doubting, acceptance or rejection it is subjected to (Luhmann, 2021a, p. 141). Lundin and Söderholm first referred to projects as *temporary organisations* (Lundin & Söderholm, 1995), which resulted in novel thinking and theorising on projects and their relations to the permanent organisation (Bakker et al., 2016; Burke & Morley, 2016; Söderlund et al., 2014; Sydow & Windeler, 2020). Lundin and Söderholm’s concept captures the essence of a project as seen from the SST perspective, namely that, besides being temporary, in its doing, the project is distinct from the permanent organisation. Depending on how significant this distinction is, projects, as organised activity, function in their systemic capacity as organisations, or as differentiated parts of organisations, or as organised groups of tasks executed within organisations (Aal, 2024). Therefore, within the SST framework, while projects are a form of temporary organising, not all projects are temporary organisations.

a) Decisions as communication

In SST, decisions are the prime, constituting operations of organisations and, as such, also a prime object of theoretical and empirical analysis. For project studies, this is particularly relevant since decision-making is seen as a fundamental aspect of managing projects (Pollack et al., 2018; Stingl & Geraldi, 2017; Turner, 2009; Wysocki, 2019). Slow decision-making is a cause of project delay (Chan & Kumaraswamy, 1997; Odeh & Battaineh, 2002), and it is argued that project governance contributes to project success by improving the quality of decision-making (Turner, 2020a, 2020b). There is a call for more research into decision-making in projects (Winch, 2024).

Two fundamental aspects of decisions can be used to study communication in projects. First, SST conceives social systems as meaning-creating systems (Luhmann, 1995, 2021c). In organisations, meaning is established through framing a decision, i.e., reducing the complexity of the environment to a number of alternatives out of which one is to be selected. To communicate meaning, the selection has to be effectuated and this is the essence of decision communication. SST distinguishes between three meaning-dimensions: the factual, time and social dimensions. The factual dimension refers to the subject matter or theme. Along the factual dimension, we can describe the development of the theme in the decision communication. A central process aspect that can be focused on is the usage of *either-or* statements. The time dimension is expressed using past-present-future references, i.e., the emphasis on one or the other time horizon. The central process aspect here is referencing *reversibility or irreversibility*. The social dimension is related to allowing for alternative perspectives. The central process aspect here is *consensus* versus *dissensus*.

Second, as was mentioned, a decision is a construct that consists of a selection alongside alternative options. Thus, a decision necessarily communicates its own contingency, that another selection would have been possible (Luhmann, 2000, pp. 141–145), and is thus inherently paradoxical (Luhmann, 2019a). Decisions are vulnerable to decomposition, that is, being decomposed backwards into the set of alternatives. For projects, being highly dependent on decisions to progress, this is particularly critical. Resultingly, for projects, it is particularly important to establish connectivity (Anschlussfähigkeit) in decisions. Connectivity facilitates an upcoming decision and can prevent decomposition, as decisions tend to get increasingly questioned when follow-up is lacking. Connectivity is related to the informativeness of communication (ibid., pp. 56–57). Weinbach (2015, p. 429) emphasises that connectivity refers to both the probability and the predictability of the next connecting communication event.

b) Structures

Structures have the function of securing sufficient connectivity. Organisations need structures to efficiently tackle the issues of self-referential connectivity and the contingent nature of a decision. Otherwise, a time and effort problem looms at each decision. This task is accomplished through decision premisses. Decision premisses are structural elements of an organisation that provide connectivity and redundancy, i.e., patterns that enable the organisation to construct decisions with limited information and within limited time (Luhmann, 2009, p. 227). There are three types of decision premisses defining the organisation: decision programmes, communication channels and persons. Decision programmes (Luhmann, 2000, pp. 256–278) are rules, procedures, and heuristic schedules that serve the factual evaluation of the inputs and outputs related to the decision. It is useful to distinguish between mainly input-oriented programs and mainly output-oriented programs. The input-oriented condition programs select a specific output to a set of specific inputs, these are basically if-then algorithms. Projects draw heavily on condition programs to structure their temporality. The output-oriented purpose programs select a set of specific means to (achieve) a specific goal. Purpose programs are more open and have more intrinsic uncertainty than condition programs. Purpose programs need more scrutiny in terms of monitoring whether they work as envisaged. Decision programmes are a core part of the organisation's memory. Therefore, they are shared and accepted. They can be adapted, but this requires a decision, which is bound by decision premisses of its own. They can only be invoked as communication and will always be subject to some simplification. As situations will always contain contingencies not addressed in the program, the consideration of whether to apply the program or not, or regarding the correctness of its application, will present itself to a lesser or larger degree (ibid., p. 258).

For a decision to be acknowledged as a decision-communication, specific communication channels need to be observed: who is entitled to decide? who should be consulted in advance? who can communicate with external partners? what can be delegated to whom? etc. Persons are also a form of decision premisses because individuals are selected based on assumed sufficient acumen to perform a specific position (ibid., pp. 225–226). Decision premises are typically merged into positions: a position is filled by a capable individual, it is a structural node in a communication network, and it is endowed with decision programmes.

c) Temporality in communication

In settings in which structures are not or less prominent, connectivity is facilitated through centring communication time-wise and subject-wise around *themes.* A theme should be identifiable so that multiple *contributions* can be made to the respective theme. Themes are retained in the system memory and exclusively refer to an internal state of the system. The theme may deal with an event in the environment: say, the authority rejected a permit application, but the theme concerns the communication around this event within the organisation (ibid., pp. 59–61). Organisations can style themes: for example, they can be positioned as debatable or as factual knowledge, indicating a wider or narrower scope for further contributions and types of contributions (ibid., p. 252). How themes are dealt with also depends on the participants who are present in the context where a theme is communicated (Seidl, 2006, pp. 151–152). In Luhmann's concept of *episode*, operationalised by Hendry and Seidl (2003), connectivity is represented as overarching several themes and merging them into a meaningful whole. An episode is a sequence of communications the beginning and end of which are explicitly labelled in the communication itself and "provide opportunities for the normal constraints of communicative practice to be suspended and alternative communicative practices explored" (ibid., p. 180). In project environments, the decoupling at the initiation of an episode and the recoupling at the end of an episode are of particular significance (ibid., pp. 187–189). Decoupling and recoupling can be regarded as sub-sequences of communication, which can themselves be more or less successful. Projects develop their patterns of familiarity and preferred approaches, and the decoupling needs to set some of this aside. Recoupling can only be effective if the episode outcomes can be given sense in the framework of what the project has done so far. Thus, SST renders a perspective on project praxis in which stretches of familiarity alternate with minor and major episodes and seeks to establish how connections in communication succeeded or failed. Research into knowledge creation in Open Source software projects concluded that thematic modularity contributes to connectivity (Morner & Von Krogh, 2009).

d) Interaction system and organisation system

Particularly relevant for the study of project communication is the distinction between organisation system (organisation) and interaction system (interaction). An interaction system is the most basic form of social system. Interaction systems are constantly forming and dissolving, self-referential social systems based on those present observing each other. They can apply only limited structure and complexity and typically move sequentially from one theme to another (Luhmann, 2019b, pp. 13–14). The distinction between interaction system and organisation system transcends the habitual distinction between informal and formal organisation. Meetings, highly formalised or loosely arranged, chats at the copier or in the coffee/tea kitchen are all interactions. The distinction organisation-interaction in observing organisational reality sets decision communications aside from interaction communications. While for interaction communications, no additional requirements exist beyond the mentioned aspects of information, utterance and understanding, decision communications have to be recognised as decisions. Decision communications do not only refer to a determination but also have to address its contingency, i.e., the fact there were alternatives (Besio & Tacke, 2024). Moreover, decisions anchor in underlining their rationality or in motivating affected staff. Thus, a decision communication is not simply a sentence, but a communicative construct. Interaction communication may get tagged as a decision and routed into the organisation system. From that moment on, this communication can only connect to other decision communications and is subject to the structures of the organisation, which support and hence also direct and limit the self-referential decision communication through providing redundancy and connectivity. The organisation guides the interaction system when existing decisions pre-structure meetings or provide decision reference in the form of themes and contributions to a theme. The function and weight of this decision reference are of particular interest because they influence the flexibility of the interaction. Interactions on their behalf exert a particular spin on the organisation system through how the outcomes of a theme are tagged as decisions. Only part of what occurred during an interaction ends up in the organisation system (Kieserling, 1994, 1999).

4. Methodological aspects

System-oriented communication research employs established methods of qualitative research on two levels: the direct observation (and analysis) of communication, and communication on communication. Direct investigation is based on participative observation, conversation analysis and various forms of document analysis (Bayas-Linke, 2009; Besio & Pronzini, 2011), as well as objective hermeneutics (Borim-de-Souza et al., 2020; Reichertz, 2004). Communication on communication occurs through interviews and focus groups, directed to what is understood rather than why something was said or written. In the understanding, all three elements of communication – utterance, information and understanding – are addressed (Pfeffer, 2001, p. 62). Systemic interview techniques like circular questioning are useful (Evans & Whitcombe, 2016; Pfeffer, 2001; Seelandt et al., 2021).

The theoretical framework of SST also strongly informs research practice. I will give three illustrative examples.

1) Research has shown that both written (often referred to as formal) and verbal communication are vital in projects. Going beyond this distinction, in SST, the interplay between written and verbal communication is a core dynamic in the context of system (organisational) memory. System memory is the dynamic social memory that guides organisations in all decision-operations. It dominantly consists of written information and retains what is useful and

discards what is no longer of use. SST typically observes how system memory impacts on – for example, through status reports, risk registers, or minutes – which subjects are likely to become a theme in discussions and who will have the chance to participate. Further, it observes the referencing to written (retrieved) information and the weight thereof compared to communication that is instantly generated during team meetings or chat exchanges. Emphasising the recursivity of communication, SST observes the trail of (decision) communications that occurred subsequent to a situation that is deemed salient within the context of the research topic.

2) Organisational communication research informed by SST will always have a dual focus: the chain of actual communication events, and, the structures that act as premisses for communication, particularly for decision-communications. Positions and communication channels are usually formally regulated in projects and are thus associated with expectation patterns regarding communication. Since formal regulation cannot fully capture project practice, a bandwidth emerges of over- and under-utilisation of these premisses vis-à-vis the (original) expectations. Project charters, formalised processes (risk management, controlling, stakeholder management, etc.) define decision programs to varying levels of specification. Due to the generally high level of contingency, projects are compelled to develop their own decision programs through communication. They do that by constructing causality schemes, which are transposed into conditional programs (if x happens, then we opt for y) or purpose programs (in order to complete/avoid z, we have to do x and y).

   SST instigates a mapping of formal premisses, and observing how effective they are in generating decision connectivity, the extent they are adhered to, bypassed or (informally) modified. In a similar vein, SST directs research to observe the communicative construction of programmes and their deployment in decision-making over time. Further, shifts between decision premisses are typically observed: a person may become more or less important as a premise, and so may certain channels or programs. SST observes this functionally: how could certain premisses provide connectivity, where others no longer.

3) Much of what is described above occurs in meetings. The SST lens allows us to observe meetings as a platform of both interaction system and organisation system. We can conceive that as two poles, with free, informal communication on one end and tagging communications as decisions on the other end. In between, there is a spectrum of scanning and probing: communication can be kept as informative and provisional, or be positioned as something that may become a decision. SST observes how connectivity is established on the one hand in the interaction system, and on the other hand in the organisation system. For example, assessing "sorting things out" episodes by the quality of connectivity in the involved interaction systems, for "stop the discussion" episodes in the organisation system. Further, temporal work is performed in meetings in the form of synchronising time horizons and constructing 'project time'.

5. Contribution to existing research topics

Although SST is highly unorthodox compared to the settled paradigms in project studies, it connects to more recent research initiatives. One example is research on project identity. SST can contribute to and enrich the research into project identity in inter-organisational projects (Hietajärvi & Aaltonen, 2018; Nyameke et al., 2021; Sergeeva & Roehrich, 2018) or the role of narratives in project identity (Havermans et al., 2015; Ninan & Sergeeva, 2021, 2022; Sergeeva & Winch, 2021), or how project identity impacts on project processes (Nesheim & Smith, 2015; Nyameke & Haapasalo, 2022) and processes on the formation of project identity (Tillement et al., 2023). Rather than a lingering omnipresence, somehow interwoven into the course of the project, SST perceives project identity as expression and recurrence in communication, that is, based on repetition and recognition in communication. The condensation of contents into project identity is possible due to the function these contents had at the moment they were used in communication. Project identity consists of structural contents, which are orthogonal to the communication process. However, once cycled into communication, they become, to an extent, malleable through their usage in communication. SST conceives project identity as dynamic content that is constantly tested and calibrated through its usage in communication.

Proper project definition in the early stages, referred to as front-end loading (FEL), is associated with better outcomes of the whole cycle of the project (Chenger & Woiceshyn, 2021; Merrow, 2024; Samset & Volden, 2016; Williams et al., 2019; Zwikael & Meredith, 2019). The benefit of FEL is mainly seen in achieving better project definition and thought to be dominated by rational and analytic decision-making, but the latter is contradicted by recent research (Lawani et al., 2023). SST-based research may yield new explanations of the success of projects through build-up of shared and accepted decision premisses through communication in early stages of a project and their deployment in later stages. This can very well be aligned with the lancet-like investigation into heuristics and project decision-making that Stingl and Geraldi propose (2021).

A notable gap exists between the actual practice of project risk management and the technical approach that is advocated in handbooks and mainstream literature (Green & Dikmen, 2022; Sanderson, 2012; Winch & Maytorena, 2011). The question of how risk management creates value for projects needs to be addressed with holistic research (Willumsen et al., 2019). The importance of communication in project risk management is pointed out (Cagliano et al., 2015) and some research into communication has been performed (Dikmen et al., 2024). SST conceives risk management as a communicative process in which both written communication (risk registers and reports) and verbal communication contribute to the outcome. Risk perception is influenced by biases. These can be approached as a behavioural phenomenon (Flyvbjerg, 2021), but SST would argue that these biases need to materialise in chains of communications, that can be investigated. Risk in general can be seen as a social construct (Slovic, 2000). This makes the risk debate in projects a relevant topic, for the study of which the three meaning dimensions of communication are highly accurate.

The element of time figures in recent studies in various contexts (Feddersen et al., 2024; Graan & Rommel, 2024; Sargent, 2024; Whyte & Nussbaum, 2020). Temporality is a pivotal concept in SST; the past is connected to the future via every decision in the present. Unactual past and future horizons are constructed through communication: a malleable past is used to fix a future course. SST is closer to performative approaches (Kalff, 2022) than studies that focus on events (Brookes et al., 2017). Temporality is also relevant in the relation between the permanent organisation and a project. SST would put this in the context of the earlier mentioned organisation-project distinction. In case of limited distinction, i.e., projects as organised tasks (temporary organising), a project will show many regularities that are present in the organisation too. With increasing distinction, the temporalities will necessarily increase, which will need to be established through communication. Megaprojects, which SST systemically conceives as (autonomous) organisations, will have the most salient temporality issues, internally and with their environments. Here, SST can enhance recent studies (Brookes et al., 2017; Clegg & Biygautane, 2025).

6. Conclusion

I started this paper by reviewing the usage of the concept of communication, which showed the prevalence of a transmission model, post hoc explanator use, scalarised in common-sensical dichotomies, and action "boxing" of communication. Theoretically and empirically, SST stands in stark contrast to this. It implies a shift from hovering on the level of beliefs and perceptions of communication to listening to what is actually being said. SST seeks to uncover the structural, "orthogonal" contents that appear directly or indirectly in communication, as the distinction between process and structure is a core element. Rather than incidental decisions, chains of decision-communications are examined, as decision-communication as a recursive process is a central tenet. SST seeks to assess the selections individuals make in making what they perceive perceptible to others through communication, rather than post hoc normative appreciations.

By focusing this paper somewhat pragmatically on communication practice, I bypassed the ultimate foundation of SST, the differential between system and environment, in other words, the differential between the elephant and the room. Including this differential will further increase the depth of the communication-based approach, as the elephant in SST is essentially a talking elephant.

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Erik B.W. Aal: Writing – original draft.

Declaration of competing interest

None.

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