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Organizing creative interaction:

Spontaneous and routinized spheres of team creativity

Abstract

The focus of this article is to develop theory and understanding about organizational creativity as a communicative phenomenon, especially from the viewpoint of creative interaction within teams. Interaction is central to creative processes, yet research concerning the subject has been scarce. Based on empirical analysis of a media organization using the diary method and grounded theory, the article concentrates on understanding creative interaction as communication practices in an organizational context. The article contributes to the theory of creativity in organizations by introducing the spontaneous and routinized spheres of team-level creative interaction and by presenting a typology of six related communication practices.

Keywords

Creativity, communication practices, organizational creativity, creative interaction, media organization

Introduction

In this article, we explore the nature of creative interaction and its implications for organizational creativity. We argue that a more comprehensive understanding about creative interaction and communication practices related has significant implications for managing organizational creativity as well as for business innovation and growth. Thus, the purpose of the article is to develop theory and understanding about organizational creativity (Woodman, Sawyer & Griffin, 1993; George, 2007) as a communicative phenomenon (Craig, 1999; Craig & Tracy, 1995), with special reference to creative interaction within teams. To contribute to the theory of organizational creativity and creativity management, we analyse practices of creative interaction in the context of a media organization. Our empirical analysis focuses on creative team interaction, especially on how creativity is generated and supported by interaction within the team.

Following from this, we address the research questions: What is the role and significance of interaction in team creativity? What modes and practices of interaction are critical for team creativity, i.e. the creation of new and useful ideas and solutions in organizations? We consider these questions to be fundamental to both theories and practices about organizational creativity. Existing theories concerning the phenomenon of creative interaction in teams are scarce (Hargadon & Bechky, 2006; Rosso, 2014), and have only limited empirical substantiation. There is therefore a need for new empirically based studies about creative interaction in organizations.

Our article contributes to the theory of creativity in organizations from the perspective of interaction in multiple ways. Working from our qualitative study, we present a new typology for theorizing, conceptualizing and analysing creative interaction and communication practices within organizations and groups. We illustrate this with an empirical analysis of an organization in the media industry, where increasing work intensification and the managerial focus on productivity are limiting the time and space available for creative thinking and creative projects. The findings of our study will also inform managerial practices in teams and organizations and thus have implications for managing and developing practices of creative organizations. We argue that several constraints of organizational creativity are rooted in traditional practices and routines of organizational interaction, and that these practices and routines need to be renewed. Thus, we also argue that spontaneous creative interaction within the practices and routines of an organization is decisive to the team's capability to create and innovate.

The article is structured as follows: First, we present the theoretical context of the study, describe our theoretical position and discuss the relevance of our study to the scholarly fields of organizational creativity and creativity management. Second, we describe the empirical research context, the empirical material and the methodology used. Third, we present the findings and our typology of creative interaction. Finally, we discuss our findings in relation to the existing theories and literature and suggest future directions for organizational creativity research.

Theoretical context

In order to develop the concept of creativity as a scientific construct and to advance the field of

creativity research, there is need for critical scrutiny of the theoretical, conceptual and epistemological assumptions behind the understanding of creativity (e.g. Simonton, 2012; Runco & Jaeger, 2012; Klausen, 2010; Kamylyis & Valtanen, 2010; Unsworth, 2001; Styhre & Sundgren, 2005; Parkhurst, 1999). In particular, creativity research has tended to emphasize entity-based studies, creative outcomes and individual talent at the expense of collective processes and organizational contexts (e.g. Amabile, 1996; Styhre & Sundgren, 2005; Unsworth & Clegg, 2010). Although work within organizations is increasingly based on collective effort and collaboration, there is a scarcity of creativity research focusing on action and interaction at the collective level (Hargadon & Bechky, 2006).

Our article, therefore, aims to develop theory and understanding about creativity in organizations from the viewpoint of creative interaction within professional teams. To this end, the article contributes to extending theory on creative interaction, particularly within the theories of creativity in organizations (e.g. Woodman, Sawyer & Griffin, 1993; Amabile, 1996; Mumford & Simonton, 1997; Drazin, Glynn & Kazanjian, 1999). Although our knowledge and understanding of organizational creativity is continuing to grow, there has been lack of rigour and consistency in theories of creativity in organizations (e.g. Styhre & Sundgren, 2005; George, 2007; James & Drown, 2012; Rosso, 2014), which is also a consequence of the theoretical plurality of creativity research in general (e.g. Kozbelt, Beghetto & Runco, 2010).

In the organizational context, creativity is designated to lead to novel and useful solutions that have practical value for the company (e.g. Amabile, Barsade, Mueller & Staw, 2005; Corley & Gioia, 2011). Following the standard definition of creativity, which states that creativity produces original, novel or unique ideas and things that are considered useful and appropriate (see Runco & Jaeger, 2012), creativity is commonly discussed as an issue of high importance to any organization's capacity for renewal and innovation. Even so, creativity has been in a somewhat marginal role in management research and management thinking (Styhre & Sundgren, 2005; see also Rickards, 1999). The research literature on creativity in organizations has been generally regarded as "a loosely grouped series of statements and propositions on what creativity is, what its consequences are, and how it can be employed purposefully" (Styhre & Sundgren,

2005, p. 25). We argue that new studies are necessary to deepen our understanding about creative team processes and their organizational contexts (e.g. Rosso, 2014; George, 2007).

In this study, we contribute to the research area by focusing on interpersonal interaction in teams and organizations, which is a topical but under-studied area in organizational creativity research (e.g. Caniëls, De Stobbeleir & De Clippeleer, 2014). We understand creative interaction as interpersonal practices of reciprocal communication leading to collective creativity (see also Hargadon & Bechky, 2006). It has been recognized that it is crucial to understand more about how communication (Sonnenburg, 2004), interaction (Perry-Smith & Shalley, 2003; Sawyer & DeZutter, 2009), relations (Zhou & Shalley, 2003; Shalley, Zhou & Oldham, 2004), social networks (Perry-Smith, 2006; Perry-Smith & Shalley, 2014) and information elaboration (Lee & Yang, 2015) affect creative work in organizations. Notably, Hargadon and Bechky (2006) have studied creativity from the viewpoint of social interaction. Based on their empirical research, they introduced a model of creativity that highlights the significance of interpersonal interactions in creative work. In particular, their work advanced understanding about collective creativity, a concept that Hargadon and Bechky (2006) defined as referring to social interaction between individuals where interpretations and discoveries are generated.

Organizations and collectives should be seen not only as groups of people, but as sets of work practices and opportunities for interaction that allow for creativity and innovation (Getz & Lubart, 2009). By approaching creativity as practice, we concentrate on theorizing creativity as something that people do (e.g. Miettinen, Samra-Fredericks & Yanow, 2009; Corradi, Gherardi & Verzelloni, 2010). Thus, following Drazin, Glynn and Kazanjian (1999) and Woodman, Sawyer and Griffin (1993), we comprehend creativity as a process of individuals working together and engaging in creative action aimed at generating new and useful ideas, products or processes.

In this article, we analyse creative interaction as practice of communication. Communication is a specific constellation of interaction that stresses the intentionality of the action and ‘serves to produce genuine intersubjective understanding as the basis of coordinated action in the common interest’ (Jensen, 2010: p. 151). Communication practices are essentially about human

interaction (Craig & Tracy, 2014) and can be described as ‘a coherent set of activities that are commonly engaged in and meaningful to us in particular ways’ (Craig, 2006, p. 38). Following the core features of this definition of practice, i.e. coherence, regularity and significance, our aim here is to develop and enrich theorization that addresses creativity from the perspective of creative interaction as a communicative practice.

The etymology of communication also points to the sharing of meanings and the sense of communality, and not just to communication as transmission like the conventional view suggests (Peters, 2000; Jensen, 2010; see also Shannon & Weaver, 1964). In this conception, communication is seen as ‘a constitutive process that produces and reproduces shared meaning’ (Craig, 1999, p. 125). This definition also relates to views that organizations are constituted in communication (e.g. Putnam, Nicotera & McPhee, 2009), where communication is a crucial part of the process and practices of forming and describing the organization. Following this line of theorizing, the study also reflects the issue of communicative constitution of creativity in organizations (see also Cooren, Kuhn, Cornelissen & Clark, 2011).

In the context of organizations and teams, communication can be comprehended as a process where individuals interact with each other and influence other individuals (Craig, 1999, p. 143). This view of communication relates to both of the conventional conceptions of communication. Following Johan Fornäs (1995, p. 140), communication is then understood as human interaction that involves both the transmission of something and connecting and sharing something with others. Communication practices, then, comprise transmitting messages, interpreting and understanding the meanings as well as making them common in communities, i.e. organizations, groups and teams.

To grasp communicative practices of creative interaction, we draw on Craig and Tracy’s framework (1995; 2014) that focuses on discovering a theory by reflecting and reconstructing communication practices. Their grounded practical theory provides a methodology for analysing communication practices at three levels: the technical, the problem and the philosophical level. According to Craig and Tracy (1995; 2014), the technical level focuses on specific communicative techniques and strategies that are routinely used within the practices. The

problem level highlights the problems and dilemmas experienced by practitioners and the logic behind these problems. The philosophical level concentrates on the normative ideals and principles that comprise the rationale for resolving the problems. The problem level is central to the theoretical reconstruction of communication practices, because it determines and guides the reflection that follows on the technical and philosophical levels of practices, which are responses to the problems and dilemmas encountered by the practitioners.

In this study, we take an empirical approach to creative interaction as practices of communication. We focus on the interaction of people working in an organization, and emphasize the role of practices in the organization's everyday operations (Feldman & Orlikowski, 2011). There have been very few earlier attempts to examine and conceptualize creativity explicitly from the practice viewpoint in organizational contexts (see Lampel, Honig & Drori, 2014; Lombardo & Kvålshaugen, 2014; see also Burnard, 2012). Empirical research on actual practices of team or group creativity allows for a more in-depth exploration of the dynamics of ongoing creative work in organizations (Rosso, 2014; George, 2007). Next, we move on to present the specifics of our empirical study.

Empirical research context, method and data

The empirical study is concerned with creative interaction and team creativity in one of Europe's leading multi-channel media corporations, which employs some 6,000 professionals in Europe. The focus is on an editorial team of 40 media professionals working on a continuous creation media product (e.g. Picard, 2005), i.e. a weekly magazine.

Out of the 40 professionals of magazine journalism, 24 team members responded. Almost half or 46% of them were journalists, 33% graphic design professionals, 17% managing editors and copy editors and 4 % assistants. The average age of the participants was 36 years (range 25–45 years). They had been working in the media industry for an average of 10 years (range 3–20 years) and in the media company studied for an average of 6 years (range 0.5–13 years). Some two-thirds of the team members who responded had studied in higher education institutions, and

the majority of the others had studied in occupational programmes and taken courses focusing on the skills needed in the magazine industry.

Data collection

The empirical material was collected using *the diary method*. The diary method makes it possible to collect large amounts of real-time empirical data from the same group of individuals on frequent occasions for a certain period of time. The method is particularly useful for studying personal experiences, for example in order to better understand actions and interactions in an organizational context (Bolger, Davis & Rafaeli, 2003; Ohly, Sonnentag, Niessen & Zapf, 2010). For example, Amabile and Kramer (2011) have shown that the diary method is particularly applicable to research on creativity in organizations, because it is well-suited to analyse creative work in its natural environment and as an integral part of the workplace community and the organization.

In addition to the diary method, we applied *the critical incident technique* as a guiding approach to the construction of the diary entries. The critical incident technique is a qualitative research method that is particularly well-suited to analysing human activity and organizational practices (e.g. Flanagan, 1954; Butterfield, Borgen, Amundson & Malio, 2005; see also McGourty, Tarshis & Dominick, 1996). In our case the technique was used to guide the participants to focus their thoughts on the most crucial incidents of the working day. That way, they could produce detailed and profound descriptions of their experiences about emerging incidents.

Using a combination of the diary method and the critical incident technique, we e-mailed two standard questions to the team members every morning during the two research periods. The questions were designed to steer the respondents towards describing meaningful incidents in their daily diary entries. The participants were asked to describe two events (one positive and one negative) about creative interaction with other team members: (1) 'Describe an incident from today in which interaction between team members contributed positively to creative work and content production'; (2) 'Describe an incident from today in which interaction between team members contributed negatively to creative work and content production.' The expression

‘content production’ was included in the questions to clarify the often ambiguous concept of ‘creative work’, and in the spirit of the critical incident technique, to turn the focus of diary entries to core processes in the team’s work, i.e. content production.

The study spanned two separate production periods, i.e. ten working days during two separate working weeks (Monday to Friday) in January-February 2014, with a one-week break in between. During both research weeks, the participants received an e-mail from the head of the research team every morning at around 7 a.m., asking them to write a diary log and respond by e-mail during the same day. The journalist’s typical day at work is often hectic and unpredictable, and because of their out-of-office duties and travel assignments some team members were unable to participate. Some respondents were absent from work due to holiday or illness. The empirical material included 210 diary entries and 24 answers to background information questions.

Data analysis

Analysis of the empirical data was informed by the *grounded theory* method as outlined by Glaser and Strauss ([1967] 2009) and *grounded practical theory* as formulated by Craig and Tracy (1995; 2014). Following the general principles of grounded theory, we conducted a data-driven analysis in order to develop new theoretical understanding about the phenomenon under study. Grounded theory was applied as a general approach with a view to generating theoretical ideas emerging from the empirical material, rather than working within the confines of some existing theoretical framework.

The empirical analysis proceeded as follows. First, we (two researchers) read the empirical material separately several times and took notes and wrote memos about the main features of the material. At this phase, the empirical material was divided into four different data sets based on the diary entries on a question (first or second) during a research week (first or second). The data sets were evaluated separately to ensure that the empirical material formed a coherent entity and that there were no notable biases or differences between the data sets. After these separate evaluations, we discussed our initial observations and notions, trying to create a shared understanding about the empirical material and its general features. We used the research

questions as a general frame of reference for our evaluations. These evaluations proved to be reasonably consistent in terms of their content: we had identified relatively similar initial categories, and even though our notions did differ on some points, the evaluations overall constituted a coherent whole. There was some overlap between the data sets, but they also included some distinct features, particularly in the case of the diary entries concerning the positive and negative contributions.

At the second stage, we continued to evaluate the empirical material separately and started to itemize our initial conceptual categories and their properties as indicated by the empirical material. We aimed for diversity in the emerging categories and tried to discover as many relevant conceptual categories as possible (Glaser & Strauss, [1967] 2009). At this point, we extracted 135 potential conceptual categories from the empirical material. After discussing these findings, we drafted our first coding system, which comprised 20 emerging conceptual categories of creative interaction. These categories served as a preliminary classification that was to be elaborated upon during the process of coding and analysis.

At the third stage of the analysis, we started to separately code incidents into the various conceptual categories. During this coding process, we compared each incident with previous incidents entered in the categories. This allowed us to constantly reconsider and reformulate the categories in relation to other categories and make analytical notes about the features of the material. As well as helping us to build the categories, the continuous process of comparison was also useful in generating the theoretical and conceptual properties of these categories. As Glaser and Strauss ([1967] 2009, 106) have noted, comparing the incidents generates theoretical properties related to the category and helps to clarify its relationship to other categories. After two rounds of coding, we performed intercoder agreement checks (Weston, Gandell, Beauchamp, McAlpine, Wiseman & Beauchamp, 2001) by discussing the justifications for the decisions made during the coding process. We then rechecked and finalized the coding and classified the empirical data accordingly for the conclusive analysis.

At the fourth stage, we focused on analysing the empirical material on the basis of the coding structure that had emerged. We focused on delimiting the theory (Glaser & Strauss, [1967]

2009), clarifying the relationships between categories and reducing the number of conceptual categories. The development and reporting of grounded theory was thus based on a constant and recursive comparison of the empirical material, the conceptual categories and the emerging theoretical framework (Eisenhardt & Graebner, 2007). At this stage, the role of grounded practical theory (Craig & Tracy 1995; 2014) was to shed light on communicative practices and to provide a three-level framework (as described in the section on the theoretical background of the study) for exploring and organizing the empirical findings. Grounded practical theory is a methodological framework focusing on systematic analysis of communication practices and their reconstruction. According to Craig and Tracy (1995), this framework makes it possible to discover, criticize and theoretically reconstruct a grounded theory that focuses on the characteristics of communicative practices.

The grounded theory approach embraces a technique of constant comparison and allows for agile but systematic joint coding and analysis. We considered coding and analysing as intertwined processes: developing a coding system is an integral part of qualitative data analysis and the process of category development (Weston, Gandell, Beauchamp, McAlpine, Wiseman & Beauchamp, 2001). The use of multiple investigators in coding and analysing the empirical material offered significant advantages. Having access to different systematic evaluations of the empirical material enabled diverse perspectives and complementary interpretations (Eisenhardt, 1989). It also strengthened the reliability and soundness of the findings and ensured that the findings were developed with a firm grounding in the empirical material. Furthermore, the use of multiple investigators provided a more rigorous approach to verification. To improve the consistency and reliability of the analysis, we took notes and wrote memos about how the coding processes progressed. Documentation of the separate processes of coding enabled transparent comparison of the codings as well as the assumptions and hypotheses in relation to the interpretations. Intercode agreement and shared perceptions among the researchers thus contributed to strengthen the reliability of the interpretations. Constant dialogue between the researchers in the process of coding and analysing the empirical material improves the consistency of the study and the credibility of the interpretations. With two parallel processes, the validity of the analysis is less dependent on the researcher's preconceptions, subjective framework and interpretative repertoires (e.g. Alvesson & Kärreman, 2007).

Next, we move on to present the findings of our research that are based on the categories and concepts, which emerged from the empirical material. In the Discussion section, following Glaser and Strauss ([1967] 2009), the findings are brought together with previous theories and concepts within the research tradition for further theorization.

Findings

Drawing on our empirical research, we propose a typology of creative interaction in organizations. It makes a distinction between different spheres, i.e. areas of social action and influence. Creative interaction is divided between a routinized sphere that maintains and keeps the team's performance and production on track; and a spontaneous sphere where the team creates something new and unexpected. In the first sphere, interaction is informative and regulatory; in the second, it is informal and disruptive. The following describes these two spheres of our model as well as the related analyses in detail.

Sphere 1: Routinized creative interaction

The first sphere of routinized creative interaction is related to routine production work, and it is geared to furthering and supporting systematic implementation of the production process. Much of the team members' actual input consists of independent production work that is based on a close familiarity with the organization's established routines, practices and principles.

Furthermore, it is informed by knowledge of the team's set objectives and schedules. The first sphere is thus characterized by a commitment to efficient and systematic production in line with commonly agreed principles and processes. Routinized interaction that aims to support creativity in production is sustaining by nature. It seeks to ensure that the production process runs smoothly without disruption.

In the first sphere, the purpose of the team interaction is to enhance and support a systematic production process. A distinction can be made between three different types of routinized creative interaction. *Informing interaction* is crucial in providing the communication required to

maintain a successful production process and to ensure that its targets are achieved. *Resolving interaction*, then, is aimed at resolving problems and unexpected situations occurring in the production process, and at ensuring the continuity of the process. Finally, *verifying interaction* among team members is aimed at confirming that the production process is moving in the right direction and at supporting team members in the production process. The various forms of routinized creative interaction as communicative practices are described in Table 1.

Table 1: Routinized creative interaction as communication practices

Sphere 1: ROUTINIZED CREATIVE INTERACTION			
Communication practices	Informing interaction	Resolving interaction	Verifying interaction
Technical level: Repertoire of communicative strategies and techniques	Focused, easily comprehensible and effective communication to agree on guidelines and details of the production process	Interaction among team members about problems in production and how to resolve them	Interaction among team members to support and provide direction for production
Problem level: Communicative tensions, problems and dilemmas in practices	Communication related to production and to maintenance of the production process as well as related decision-making to ensure a successful end result	Communication to resolve problems and unexpected situations in production process to secure continuity	Verifying and ascertaining that measures related to production process are met and that the process progresses in the right direction
Philosophical level:	Concepts, processes and principles steering routinized	Endeavour to find effective, rapid and high-quality	Endeavour to run a process-like operation and to

Normative principles and rationale for resolutions	production, and endeavour to organize production accordingly	solutions and practices to ensure disturbance-free production	provide guidance and support for team members in production
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Informing interaction

The first sphere is about providing information and guidelines to team members concerning the production process in order to secure its efficient flow. Informing interaction concerning production is expected to be clear, accurate, detailed and easily comprehensible. When successful, informing interaction supports both the production process and individual creative work. As one team member stated: ‘I had a nice, well-prepared and appropriately tight meeting concerning the pictures of a story in progress. I really got excited about the job because the story was well planned and there was an advanced idea about illustration.’ (R4)

The provision of information is often straightforward communication intended to keep the team members informed of what is expected of them at different stages of the production process. Informing interaction is prescriptive by nature, focused on defining priorities, and it can be brief and to the point. Communication practices are routine-like and goal-oriented, and involve scheduled meetings, face-to-face discussions to check on details, or information exchanges within a small group. This interaction strives for efficiency in terms of time and content.

Inaccurate information and communication will slow and delay the production process and cause frustration to team members. It disrupts the production process and leads to inappropriate choices with respect to job contents. As one team member said: ‘Communication is important, but at times it distracts my concentration so that it’s impossible for me to do my best work’. (R16). If informing interaction fails and the information required in the production process is not adequately distributed, that is bound to cause uncertainty and complicate the team members’ ability for creative input. This is illustrated by the following diary excerpt:

I wasn't informed about the managing editor's expectations concerning the story, even though I had explicitly asked my substitute and the journalist. Neither was able to say. Because the story was already far along in the production process, the printing schedule was tight and there were no obvious editing needs, I only read the story through in a routine manner. Not a satisfactory situation. (R14)

Informing interaction is first and foremost about efficiency and effectiveness. Interaction becomes thinner towards the end of the production process, concentrating on checking and revising final content versions. Following from this, the vagueness of informing interaction may lead to disruptions, as one of the respondents explained:

It became clear from our discussions with the managing editor that briefing for the story had been too vague and insufficient. The content is bound to suffer when you don't know exactly what you're supposed to be doing and what is expected of the story. I tend to get bogged down with my own writing when I have to clean up other people's work. (R3)

As the aim of informing interaction is to support routinized production, it may be hampered by informal creative discussions or communication about matters other than production efficiency. At the same time, routine informing interaction may also prevent creative action outside the actual production process, activity that might be beneficial to teamwork or creative new idea development as a whole. One team member had the following comment about this type of incident:

I had an idea that felt a bit peculiar: surprising and fun, but rather questionable. It had to do with the magazine we were finalizing. Everyone, including myself, was very busy due to the deadline, and I did not really know who to call about the idea. In principle I should have called the managing editor on duty because the idea was so peculiar, but I knew she was busy. In the end I spent so much time thinking about the idea that it began to feel unnecessary. I did not make the call and the idea never materialized. Now I feel annoyed. (R14)

Resolving interaction

Resolving interaction is geared to resolving as quickly and effectively as possible any problems, uncertainties and exceptional situations in the production process. It is needed above all at the most critical junctions of the production process, where time pressures are most acute, to provide a clear foundation for continuing with the production process. Time pressure in resolving interaction may itself be conducive to creativity and creative solutions, provided that interaction can produce quick and effective solutions to the challenges arising from the production process.

A team member described:

We quickly made the decisions together with the managing editor on what to do and I then added the necessary missing bits to the story. In a sense the time pressure also fed into creativity. There just wasn't the time to sit around and think too much, you just had to find the creativity in yourself straightaway. (R16)

Communication style is of paramount significance to resolving interaction. As it is focused on dealing with problem situations, resolving interaction typically involves disagreement and critical attitudes. Managers and supervisors have a pronounced role in resolving interaction, especially because of their central role in decision-making. Irritated or uncompromising managerial communication or communication that restricts creative solutions may be frustrating and demotivating for the team member: 'Creative work was disturbed by the sense of irritation many journalists felt about the new internet requirements and the way the bosses presented them.' (R16)

Open and respectful resolving interaction, on the other hand, may help to resolve problems quickly and smoothly and strengthen the team's sense of togetherness. A solution-minded orientation that strengthens collaboration creates a sound basis for the collective resolution of problems, as illustrated by a team member:

The managing editor was not happy with one story that was my responsibility. I exchanged emails with the editor and the graphic designer, and also asked a journalist about the story who was supposed to write the copy. I was given free rein to propose changes to the story, and both the managing editor and the journalist were pleased with the end result. The graphic designer had

problems with the pictures and suggested changes that I made to get the text and the pictures to match brilliantly. Wonderful co-operation in which the end result is better than the sum of its parts. (R14)

Verifying interaction

Verifying interaction has a critical role to play in production and in controlling the quality of the end products. Verifying interaction consists of steering communication and targeted feedback related to production process routines and contents produced: it verifies and establishes common conceptions about the objectives and direction of production. As observed by one team member: 'We were revising the first version of my story with the subeditor and managing editor. They confirmed the things that I had doubts about in the story, and based on our meeting I was able to improve on the story.' (R9). Thus, verifying interaction has not only the role of reinforcing production, but it also supports individual agents in the first sphere.

Routine creative activity in the context of the production process needs verifying interaction and feedback in order to ensure that individuals are successfully performing according to plan. Verifying interaction with colleagues makes possible the development of common practices and routines in the team: 'I had a discussion with a few colleagues that follow my field and received useful comments from them about the interviewees. My opinion was verified and I felt energized about my work.' (R21). Verifying and encouraging feedback provided by supervisors advances the creative work process and its effectiveness, as one team member pointed out:

I'm in the field working on a story and I send the editor in chief a text message with an idea for a cover headline. The chief replies and praises the idea. Yes, I have done something right for once! There is surprisingly little positive feedback from the bosses, so this kind of written praise cheers me up and I can also get back to it later. (R11)

Verifying interaction has great importance to team members in that it reinforces their views about the choices they have made as well as their confidence that their creative input will be effective. The role of verifying interaction is to create shared meanings about ways of working in

the team. Its role is to improve the conditions for team collaboration, team confidence and sense of cohesion. Therefore, it also creates a solid foundation for future work and encounters.

Sphere 2: Spontaneous creative interaction

The second sphere consists of spontaneous creative interaction that has its inception in unexpected encounters and connections among team members and the informal interaction that follows. In this sphere initiatory face-to-face interaction is particularly important as it makes emergent creative processes and new creative outcomes possible. In contrast to the first sphere where the aim is to foster planned, systematic and focused action, spontaneous creative interaction is based on team members' open, informal and encouraging exchange and communication.

Spontaneous creative interaction is divided into three types of communication practice: (1) initiatory interaction, (2) informal interaction and (3) enabling interaction. *Initiatory interaction* is based on an active search for unexpected encounters, whereas *informal interaction* is characterized by openness and the absence of set plans, which facilitates spontaneous creativity. The purpose of *enabling interaction* is to support and encourage team members in spontaneous interaction. The forms of spontaneous creative interaction as communication practices are described in Table 2.

Table 2: Spontaneous creative interaction as communication practices

Sphere 2: SPONTANEOUS CREATIVE INTERACTION			
Communication practices	Initiatory interaction	Informal interaction	Enabling interaction
Technical level: Repertoire of communicative	Random encounters and situations of interaction	Casual meetings and get-togethers (i.e. breakfasts and lunches), relaxed and	Face-to-face communication that supports other team members

strategies and techniques		informal discussions between team members	
Problem level: Communicative problems and dilemmas in practices	Initiatory communication generates new creative interaction	Informality and unplanned interaction situations liberate creativity	Encouraging, supporting and helping team members and their interaction enhances creative activity
Philosophical level: Normative principles and rationale for resolutions	New encounters shall be actively searched as they open up new perspectives and ideas	Open interaction has significant potential to promote imagination and innovativeness	Supporting new encounters and open interaction can pave the way to new ideas and perspectives

Initiatory interaction

The second sphere consists of spontaneous creative interaction that is prompted by random encounters initiated by active team members. These encounters may lead to unexpected creative interaction, which in turn may have concrete consequences in the shape of surprising ideas or outcomes. Initiatory interaction is a form of helping and supporting creative work in the team. In the words of one of the team members: ‘We were planning a story and it appeared to be difficult to illustrate, when a co-worker from outside the team offered help in brainstorming. This outside support was really necessary because we had ran out of ideas.’ (R6) Spontaneous acts of collaboration may lead to new creative ideas and perspectives, as another team member stated:

We had a meeting with the managing editor and art director about the visualization of an upcoming story. The other managing editor overheard our conversation and joined in, told funny anecdotes about the topic, and came up with one possible new interviewee. (R22)

Face-to-face interaction has an important role in creating new, shared interpretations and understandings among team members. Initiating spontaneous discussions is essential to opening up new perspectives and strengthening present ones, as one team member said: 'Today I frequently went to chat with people. At the same time my ideas progressed and I gained confidence in my thinking.' (R23)

The potential for creating new ideas increases when a team member seeks to spontaneously connect and enter interaction situations and to get other team members to join in the discussions. As one respondent stated: 'If I think I can help, for example by coming up with a good heading for a story, I will open my mouth even if it could appear noisy.' (R9). One member of the editorial team described the motives for voluntarily engaging in creative processes as follows:

I noticed the internet team was in a hurry so I tried to help them by generating some new ideas for their stories. They were anxious about the time pressure, so while I was working on my own duties, I tried to create some new ideas for them. (R16)

This kind of proactive attitude leads to spontaneous interaction processes that are not based on the kind of planned organizational routines that are characteristic of the first sphere. New ideas may be created, for instance, in connection with small talk and other types of everyday interaction. Spontaneous creative interaction may fuel associative transitions and new kinds of associations and conceptions. When random meandering and thematic departures emerge in a discussion on some issue, they may lead to new and useful ideas.

Informal interaction

In the second sphere, interaction is based on informal and open exchange. Spontaneous encounters and connections are often short and light, and the interaction they prompt opens up space for different kinds of topics and new angles. Informal interaction paves the way to diverse debate and discussion, as well as to departures from the norms and principles governing team members' thinking about production. One member of the editorial team described this in the following way:

There were less people at the meeting than usual and the atmosphere was more relaxed. I think the conversation was more informal and thereby encouraged creativity. As a result of the meeting, we had more concrete topics for stories and less vague suggestions. (R3)

Spontaneous creative interaction is characterized by disintegration and the absence of set plans. The purpose of informal interaction is not to aim straightforwardly towards planned outcomes. Thus, open interaction makes it possible to develop creative ideas further than is possible under the objectives defined by the production process. A team member said:

We had a good brainstorming session where we laughed a lot and came up with new ideas, and the discussion meandered without someone all the time telling us to move on. Too much yapping is obviously no good, but you must have some latitude so that you can sometimes come up with fresh and interesting ideas at meetings. (R22)

As informal interaction is not goal-oriented, it is also not based, as in the first sphere, on certain roles governing activities or on the organization's hierarchic structure, but on an embedded commitment to informality and equality. This allows space for informal creative interaction, as one respondent stated: 'I think it had a major impact on success that the group composition was atypical and people were not constricted by their usual roles.' (R5) Open and flexible interaction can thus facilitate the development of team practices, for instance.

An open-minded and permissive climate at a staff meeting also encourages people to come forward with different ideas and facilitates broader uncontrolled discussion. In an informal and relaxed discussion it is easier to adjust one's own mind-set with a view to observing things from new and surprising angles. As one of the team members said:

'The atmosphere was very well-organized but informal, up to the last thought we evaluated and changed things to make everything work as well as possible. Great co-operation, there was space for everybody's ideas and creativity.' (R15)

Enabling interaction

Interaction in the second sphere requires team members' mutual encouragement and supportive interaction, which then paves the way to spontaneous creative activity. Since interaction in the second sphere is based on spontaneity and openness, the organization has no formal principles, frameworks or rules that govern or restrict it. That is why spontaneous creative interaction requires special facilitation and sustenance by the team members and workplace community. A team member said:

We had a good meeting in a good atmosphere where new ideas were discussed in a constructive spirit. Everyone felt that they were invited to present their views on ideas, regardless of whether they were in favour or against. I didn't get the feeling that my ideas were being judged. (R11)

The encouraging and inspiring feedback provided by team members to one another serves to reinforce the team and individuals, creating an open and dialogical climate among team members. Active positive feedback supports a sense that it is possible to boldly explore and bring forward unconventional ideas and opinions. This has a significant enabling impact on the team's ability to think and act creatively, as described below:

We'd want to have more encouragement from the bosses and why not from colleagues as well. We decided to make a greater effort to encourage one another and to say out loud if we felt a published story had been good. And the feedback should be given precisely in the form of praise, without the proviso 'but if this had been done better then', which we often hear. No buts, just the praise. (R11)

Spontaneous creative interaction leans mostly on voluntary support. Enabling interaction is not based on process descriptions, organizational structures, areas of responsibility or people's official roles, but on team members' perceptions that they can and want spontaneously to help other team members develop something new. Interaction is based on the team member's observation that their colleagues may need help, and that providing help by making their own contribution to interaction can facilitate the team's creative input. This will encourage the team members to offer help in resolving a problem or in improving the quality of work. One of the

team members explained this as follows: ‘Her presence made the atmosphere more dialogical. I dared to ask critical questions about the assignment and the brief, which still needed further clarification.’ (R9)

Enabling interaction creates a sense of collaboration in the organization, and a conviction that team members will help one another in cases where help is not available through the organization’s formal routinized processes. Enabling interaction is particularly important in urgent situations or in cases where some part of the team’s performance is at risk of sliding into crisis. Sometimes tight production schedules may prevent potential enabling interaction even when there is a specific need for such interaction. Time pressures in production may also hinder spontaneous creative interaction that would help in developing something new.

Discussion and conclusions

In this article we have examined the spheres and practices of creative interaction in an organizational environment. This article has presented and discussed a typology of creative interaction and related communication practices. Grounded in an empirical study of a media organization, our theorization has led us to introduce a typology comprising two different spheres, i.e. the sphere of routinized creative interaction and the sphere of spontaneous creative interaction, as well as six communication practices related to these spheres.

In the first sphere of routinized creative interaction, we have distinguished between three types of communication practice, i.e. informing, resolving and verifying interaction. Interaction in the first sphere is usually linear, prescriptive and goal-oriented: it is aimed at resolving problems, optimizing the creative production processes and attaining the objectives set for action. The first sphere consists of systematic, process-like and routine organizational activity that has to do with production functions as well as related interaction. Much of the interaction in the first sphere is routine and ritual by nature, and it is primarily aimed at maintaining and strengthening the connections between the parties involved with a view to fulfilling the needs and requirements of an efficient production process. Routinized interaction is also focused on resolving problems and verifying that the right actions are to ensure that the production process moves forward.

The second sphere of spontaneous creative interaction consists of initiatory, informal and enabling communication practices. This kind of interaction leads to unexpected and surprising results and the creation of new ideas and resolutions. Spontaneous creative interaction is not based on the organization's systematic operation and management. It is characterized by random and unplanned interactions between individuals. Spontaneous interaction does not take place in any predetermined space, on a particular platform or under specific organizational circumstances. It is triggered by unexpected encounters where one or more team members take the initiative and open a discussion that is not on the agenda defined by the first sphere. Spontaneous creative interaction is by nature disintegrative and disruptive to the organization's systematic routines. As such it supports and liberates team creativity and provides opportunities for creating something new and unexpected outside the routinized production process.

The results of our study contribute to the emergent research on interaction in organizational creativity by identifying and exploring the dimensions and significance of interpersonal interaction for team creativity. Generally, our work contributes to this line of inquiry by shedding light on this overlooked gap in theoretical understanding and by building theoretical foundation for future research in this emerging area. It has two main theoretical implications for research on creativity in organizations and teams.

First, the article presents a typology of creative interaction that has implications for both future research and managerial practice. In order to improve understanding about creative interaction, we have created a framework for approaching the dimensions of creative interaction within organizations. This kind of theorization is considered important for developing the growing domain of organizational creativity. In the analysis of the future needs for creativity research, Zhou and Shalley (2003) have called for efforts to develop new models of team creativity processes, which would contribute to broadening the theoretical foundations of research.

Second, the article develops the theory of creative interaction by introducing a typology of six communication practices in creative team's work. This typology can help to deepen our understanding of creative work in organizations. The contribution primarily addresses

shortcomings in the current body of knowledge. In their pioneering study, Hargadon and Bechky (2006) identified various types of interaction related to collective creativity. Their conclusions relate strongly to some of our findings, and thus also provide a verifying context. In particular, they specified the activities of help seeking, help giving and reinforcing, i.e. individuals actively looking for and providing assistance for team members as well as supporting them in problematic situations, which tie in closely with our findings about the features of routinized creative interaction. The findings of our study also follow and complement the earlier observation that open and consistent communication is an important factor in enabling and encouraging creativity in teams (e.g. Rosso, 2014). Our findings show that informal and enabling interaction is essential especially in striving towards radically new ideas as well as unexpected processes, in contrast to the case of everyday incremental creativity (see Madjar, Greenberg & Chen, 2011).

In the organizational context, efficiency in creative production requires standardized practices as well as instructive and precise information sharing. Previous studies have shown that various routine constraints, such as time schedules and rigorous processes, help to enhance team creativity (e.g. Rosso, 2014). Also, as our study shows, spontaneous creative interaction can in some instances be detrimental to efficiency in routinized repetitive production practices. Spontaneous creative efforts addressing areas and issues that are not topical and relevant to the production process, can be a sheer waste of resources, such as time and energy of team members. In particular, constant sharing of new ideas and perspectives can hamper effective individual performance and the achievement of the targets set for production. Similarly, routinized organizational practices obstruct spontaneous action and emerging new ideas.

The typology proposed in this study expands the scholarly conversation about organizational creativity and suggest new theoretical directions. We argue that the areas of routinized and spontaneous creative interaction indicate several prominent future paths for organizational creativity research. First, it would be useful to build on organizational routines in considering the sphere of routinized creative interaction (e.g. Feldman & Pentland 2003; Parmigiani & Howard-Grenville, 2011; Pentland, Feldman, Becker & Liu, 2012; Jarzabkowski, Lê & Feldman, 2012; Obstfeld, 2012). This approach has established a rich and evolving tradition in analysing

phenomena related to human actors and action in organizations. In particular, new studies focusing on the role of routines of interaction (e.g. Dionysiou & Tsoukas, 2013) in creative work practices could expand the theoretical understanding about collective team creativity. Second, future explorations of the sphere of spontaneous creative interaction could examine organizational creativity in relation to the literature on serendipity in the organizational context, i.e. the process of making unexpected and valuable discoveries (e.g. Merton & Barber, 2006; Cunha, Clegg & Mendonça, 2010; Dew, 2009). The emerging field of serendipity research is a particularly promising area for exploring creative action in organizational contexts.

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