Towards an Articulation of the Material and Visual Turn in Organization Studies

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Introduction to the Special Issue "The Material and Visual Turn in Organization Theory: Objectifying and (Re)acting to Novel Ideas"

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Abstract

Contemporary organizations increasingly rely on images, logos, videos, building materials, graphic and product design, and a range of other material and visual artifacts to compete, communicate, form identity, and organize their activities. This special issue focuses on materiality and visuality in the course of objectifying and reacting to novel ideas, and, more broadly, contributes to organizational theory by articulating the emergent contours of a material and visual turn in the study of organizations. In the Introduction, we provide an overview of research on materiality and visuality. Drawing on the articles in the Special Issue, we further explore the affordances and limits of the material and visual dimensions of organizing in relation to novelty. We conclude by pointing out theoretical avenues for advancing multimodal research, and discuss some of the ethical, pragmatic and identity-related challenges that a material and visual turn would pose for organizational research.

Seeing comes before words. [...] Yet this seeing which comes before words, and can never be quite covered by them, is not a question of mechanically reacting to stimuli. [...] We only see what we look at. To look is an act of choice. As a result of this act, what we see is brought within our reach [...]. We never look at just one thing; we are always looking at the relation between things and ourselves.

John Berger (1972)

Contemporary organizations increasingly rely on images, logos, videos, building materials, graphic and product design, and a range of other material and visual tools and expressions to compete, communicate, form identity, and organize their activities. For example, organizations shape employee interactions with things and one another through workspace and building designs, build consumer awareness of their novel products and services, as well as of their management and organizational innovations through websites, twitter feeds, and augmented or virtual reality. Social movements and political campaigns get organized or sustain momentum for their causes through image-based social media. Stronger and wider than ever, organizations' relation with images and things can precede, potentiate or transform the meaning of words, as indicated in Berger's opening quote.

Complex ideas are defined, made sense of, transported and stabilized through words but also through visual and material artifacts, triggering a range of cognitive, emotional and other responses to novel ideas in and outside of organizations. For example, color is a "formless form" but also a social technology and an organizing tool, which affects and is affected by organizing (Beyes, 2017). Overall, there has been a growing interest in "how matter matters" (Carlile, Nicolini, Langley, & Tsoukas, 2013), the role of visuality (Bell, Warren, & Schroeder, 2014 [see Drori's [2018*[1]] book review]; Meyer, Höllerer, Jancsary, & van Leeuwen, 2013) and the comparison and consideration of visual and material dimensions of organizations and institutions (Jones, Meyer, Höllerer, & Jancsary, 2017). Yet, we do not know enough about how novel ideas, and responses to them, are affected by our use of images and artifacts and not only of verbal text. Similarly, we have only limited understanding of whether they support organizing in new and substantially different ways than does verbal text. Understanding these differences vis-à-vis, and in combination with, verbal text is essential for comprehending how the material and the visual influence the practice and study of organizations. At present, our theories of organizations are ill equipped to capture the role that materiality and visuality play in the ways in which organizational actors engage with novel ideas and innovations.

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[1] All articles and books reviews from this Special Issue are marked with *.

This special issue focuses on materiality and visuality in the course of objectifying and reacting to new ideas, as well as on the relation between the visual, the material, and the verbal. More specifically, it explores the affordances and limits of the material and visual dimensions of organizing in relation to novelty. Taken together, this introduction to the special issue as well as the articles and book reviews that form part of it have also a broader mandate than informing research on novelty, namely that of contributing to organizational theory by articulating the emergent contours of a material and visual turn in the study of organizations.

There is no shortage of announced 'turns'. In social science approaches and debates, scholars have noted a series of turns, such as the 'cultural', 'linguistic', or 'textual' turn, which, in organization theory, were translated into several turns that differ in meaning and magnitude. For example, organizational scholars have emphasized the significance of language and discourse in organizational life (Alvesson & Kärreman, 2000; Rorty, 1967), arguing for a 'discursive' or 'linguistic turn'. Relatedly, they have also identified a 'cultural turn' where scholars examine cognitive and shared cultural frameworks mostly constructed through language (e.g., Berger & Luckmann, 1967; Searle, 1997; Suddaby, Elsbach, Greenwood, Meyer, & Zilber, 2010) and direct practices (e.g. Alexander, Giesen, & Mast 2006; Bourdieu, 1977). This latter turn is also associated with a 'practice turn' (e.g., Schatzki, Knorr-Cetina & von Savigny, 2001), in which scholars emphasize organizational life as arrays of activities. An 'affective turn' in the social sciences (e.g., Clough & Halley, 2007) has recently been called for and found broad resonance in organizational research (e.g., Lok, Creed, deJordy, & Voronov, 2017), not least as a way to capture "the presence of the not-yet-said" (Gherardi, 2017, p. 355).

So, is the time ripe for yet another turn in organizational research, this time a material and visual turn? A theoretical development that qualifies as a 'turn' usually poses an important change of direction, builds on a cumulative wave of attention and interest across different disciplines within the social sciences, and requires these contributions to be translated into concerns of relevance for organizations and organizing. We propose that a material and visual turn in organizational research carries potential to align several previous turns around a broader analytical scope for organizational research. Such an alignment around a multimodal agenda, we argue, can be particularly fertile for the future development of organizational research.

Recently, organizational scholars have begun to take a keen interest in visuality and materiality and interrelated aspects of the two. Scholars have argued for a 'turn to things' (Geiryn, 2002; Preda, 1999), delving into the material basis of organizing (Leonardi, Nardi, & Kalinikos, 2012), a new materialism (Latour, 2005), and a focus on embodied, material practices (Schatzki et al., 2001). Materiality has also been expressed in the recent proposal for a spatial turn (van Marrewijk & Yanow, 2010) and in an overview of different approaches to the study of materiality in organizational research (de Vaujany & Mitev, 2016). Although they are skeptical of calling their "reactionary view" on material culture "a turn", Hicks and Beaudry (2010) see a strong "move beyond the priorities of the linguistic or cultural turn" (2010, p. 19) towards materiality. With regard to visuality, building on the work of Barthes, Eco, or Pankowski, an 'iconic' (e.g. Maar & Burda, 2004), 'pictorial' (e.g. Mitchell, 1994), or 'visual turn' (Bell, Warren, & Schroeder, 2014) has been announced, emphasizing the visual and embodied character of much of our cultural worlds. Although an emphasis on the material and the visual has been evolving for a while within organization theory, and more broadly within the social sciences, it remains debatable whether this new emphasis qualifies as a 'turn'. Certainly, the relationship between the core components of any such turn have yet to be articulated in a coherent manner.

We seek in this introduction and through the articles of the Special Issue to take a step toward the articulation of a material and visual turn as it expresses itself within organizational research. In our scholarly community, attempts to pay tribute to the material and the visual have been scattered across different epistemic communities, i.e., distinct academic sub-communities. This scattered appearance has prevented a dialogue and cumulative theorizing. With the aim of advancing toward a more integrative agenda for a material and visual turn in organization studies, we take a first step towards the identification of potentially shared core concepts and the novel lines of work they represent. We are convinced of the potential to expand and strengthen organization studies by providing, for example, joint consideration of representations and interventions expressed in verbal language with those expressed in material and visual form (Jones & Svejenova, 2018).

This Introduction is structured as follows. *First*, we provide an overview of extant research on materiality and visuality in organizational research. In that section, we review work on materiality and visuality separately since they have developed in this manner. *Second*, we explore the possibility for a material and visual turn in organization theory, based on the articles included in the Special Issue. We present the articles in the Special Issue in

relation to three cross-cutting themes, namely approaches to analyzing visual and material data, interactions between the material, visual and verbal realms, and organizational effects and responses relating to novelty and innovation. We conclude this Introduction by pointing out some theoretical avenues for advancing multimodal research, such as research that draws simultaneously on material, visual, and verbal construction of meaning. We also discuss some of the ethical, pragmatic and identity-related challenges that a material and visual turn would pose for organizational research. Our aim for this Introduction is to stimulate an exciting research agenda for the study of organizations.

MATERIALITY AND VISUALITY IN ORGANIZATIONAL RESEARCH

The understanding of materiality and visuality in organizations has developed within different research communities. Yet, as many of their characteristics are ambiguous and sometimes overlapping, it may be difficult or problematic to distinguish them clearly from one another, epistemologically, theoretically and/or in practice. For instance, the colour of a material object may be thought of as an aspect of either its visuality or its materiality, or even as a separate semiotic mode. This overlap and ambiguity prompts a reflection on what each of the two concepts mean, how they have been used in organizational research, and how they relate to one another. We conduct a brief review of how prior research on materiality and visuality have emerged and developed within the field of organization studies, and then we reflect on potential commonalities between them in order to move towards an agenda for future research.

Theoretical Approaches and Metaphors relating to Materiality

The study of materiality in organizational research has taken inspiration from research in other fields of the social sciences and the humanities, notably research on material culture. Architects, anthropologists, archeologists, historians and sociologists have focused on materiality as a means to understand culture, examining how objects are created to encode meaning and social relations (Hicks & Beaudry, 2010, p. 2). In the study of material culture, materiality has been defined as "the material properties of cultural objects such as size, shape, weight, orientation, or placement" (McDonnell, 2010, p. 1801). Scholars in this tradition have developed material culture "as a counterpoint to Durkheimian social anthropology […] as a way of bringing together structuralism and interpretive/semiotic approaches […] reconciling relativism and realism, especially through the use of the practice theories in Bourdieu and

Giddens" (Hicks & Beaudry, 2010, p. 5). Social scientists studying material culture have also drawn upon Latour's actor network theory, "moving beyond the concerns with material culture as holding meaning, and the idea that material culture is analogous with a 'text'" (Hicks & Beaudry, 2010, p. 10 quoting Hodder, 1986). A core insight from research on material culture is that materiality may afford or restrict how and who experiences an environment, shaping interpretation and meaning making processes.

Inspired by the study of material culture, organizational scholars have pursued at least two approaches to the study of materiality: sociomateriality and institutionalism. These two approaches engage rather different definitions of materiality, make distinct assumptions about the relationship between humans and materials, and offer unique insights into the role of materiality in social and organizational processes.

Sociomateriality. Social studies of technology scholars have promoted the sociomateriality perspective, where materiality is understood as the combination of matter and form (Leonardi, 2012). Materiality refers to "a physical mode of being, namely possess spatial attributes – a unique location, shape, volume, and mass" (Faulkner & Runde, 2012, p. 51). From a sociomaterial perspective, materiality is not construed as objects with natural boundaries. Rather, material boundaries are socially constructed through 'agential cuts', which refers to a social process in which actors make sense of materiality (Barad, 2003). Barad (2003) advocates a relational ontology that positions the material realm and the social realm on an equal footing: "matter and meaning are mutually articulated. Neither discursive practices nor material phenomena are ontologically or epistemologically prior. Neither can be explained in terms of the other. Neither has privileged status in determining the other" (Barad, 2003, p. 822).

The key insight is that a sociomaterial orientation emphasizes the constitutive relationships that exist between the material realm and the social realm. Barad's relational ontology is distinct from the relational methodology that characterizes research on material culture.

Preda (1999, p. 357, italics in original) argues that methodological symmetry "*is not* to be confused with ontological symmetry. Ontological symmetry would imply some form of animism – that is, ascribing intentions, aims, and purposeful action to artifacts; methodological symmetry implies analysing both human actors and artifacts as generators of practical knowledge." A relational methodology is revealed in the notion of embodiment –

"the intimate connections between the body and material culture" (Hicks & Beaudry, 2010, p. 11).

Building on a sociomaterial approach, Orlikowski (2007) asserts that "the social and the material are considered to be inextricably related – there is no social that is not also material, and no material that is not also social" (p. 1437). Similarly, Leonardi (2012, p. 32) emphasizes "a) that all materiality […] is social in that it was created through social processes and it is interpreted and used in social contexts and b) that all social action is possible because of some materiality". The sociomaterial perspective offers rich theorizing. However, "most studies up to this point have sufficed to simply show that the social and the material are thoroughly intertwined" (Leonardi, 2012: 35). An empirical research frontier lies in detailing *how* the social realm and the material realm become intertwined, and what effects these processes have on organizational practice.

Institututionalism. Institutionalism focuses on the processes by which stability and meaning are attained in social and organizational life (Hughes, 1936). The intellectual roots of institutionalism can be traced to Durkheim's (1982 [1895]) notion of 'social facts' – manners of acting, thinking and feeling that exist externally to the individual and that exert power over him or her – which are "crystalized" and "fixed upon material supports" that "acts upon us from without" (Durkheim, 1951, p. 313). Berger and Luckmann (1967) point to how materiality makes fleeting subjective experiences exterior and objective. Scott (2003) asserts that artifacts are carriers of institutions that help store, transmit and spread the ideational content of institutions over time and space. More recently, Friedland (2013) reinforces the conception of materiality to physical objects, a dimension of materiality that has received relatively scant attention from institutionalists (Jones, Boxenbaum & Anthony, 2013). Institutionalists have recently turned their attention to this lacuna and produced insights into the role that physical objects, such as buildings, play in institutional change processes (Jones & Massa, 2013; Jones, Maoret, Massa, & Svejenova, 2012). Materiality also consolidates institutions, which help them endure (Jones et al., 2017). Thus, institutionalists conceptualize materiality as a means for revealing, stabilizing and directing the social order of institutions, which are fundamentally constituted in meaning making and social processes.

Although the historical traditions of institutionalism conceptualize materiality as artifacts that help stabilize and objectify social reality, materiality does not refer exclusively to artifacts. According to Thornton, Ocasio, and Lounsbury (2012: 10), the "material aspects of institutions […] refer to structures and practices". Important research frontiers for

institutionalists lie in examining empirically how materiality underpins central processes of institutionalization and de-institutionalization and in more clearly defining materiality and theorizing its relationship(s) to the ideational realm.

Metaphors as an entry point for theorizing materiality *across scholarly traditions.* Material culture, sociomateriality and institutionalism share the viewpoint that materiality shapes processes through its tight connection to the social realm. This connection constitutes an important analytical object for organizational research. However, divergent conceptions of materiality in different scholarly traditions make a constructive dialogue difficult. Boxenbaum and Rouleau (2011) argue that metaphors play a constitutive role in organizational theory formulation. This argument certainly applies to the study of the connection between the social and the material realms. In material culture, Hicks and Beaudry (2010) use the metaphor of embodiment to emphasize how culture is embedded into artifacts and practices. In the sociomaterial tradition, Orlikowski (2010) describes the constitutive relationship between the material and the social realms using the metaphor of *entanglement.* In contrast, Leonardi (2012) employs the metaphor of *imbrication* to describe the same phenomena, imbrication referring to two types of interlocking roof tiles that collectively make a roof waterproof. In the institutionalist tradition, Scott (2003) employs the metaphor of *pillars* to highlight core institutional processes, which are commonly referred to as regulative, normative and cognitive/cultural pillars. The metaphors of *carriers* and *instantiation* are also used in institutionalism to describe how materiality influences institutional processes. It is interesting that both sociomateriality and institutionalism use metaphors from the material realm to describe intersections between the social and the material.

Yet other metaphors are evoked to conceptualize and study materiality in research on material culture. Metaphors such as *nature* or *technology* have been used to describe modern architecture and to guide material practices in the field of architecture (Jones et al., 2012). Space metaphors appear in a study of an art museum, in which Griswold, Mangione and McDonnell (2013) draw on *emplacement* to describe the meaning making process that occurs as an interaction of humans and objects. Metaphors may also take undulating forms, such as water or wind, which occurred when architects used the shape of sails to design the Sydney Opera house (Goldhagen, 2017).

The choice of metaphors reflects ontological assumptions and guides scholars in how to conceptualize, and empirically investigate, the connection between the material realm and

the social realm. Attention to metaphors could therefore be essential to advance organizational knowledge production on materiality.

Conceptual, Methological and Meaning-making Approaches to Visuality

Organizational research on visuality focuses on how meaning is created, communicated, and stored through visual means. Similar to materiality, studies of visuality have emerged across several communities, and the observation that the visual dimension is as an "absent present" (Styhre, 2010; Davison and Warren, 2009) in organizational research may soon be no longer true. We see two broad ways to provide an overview of this growing body of work: The first distinguishes different approaches based on the roles visuality plays methodologically and conceptually. The second asks how visuality works and focuses on the visual as a unique mode of meaning construction and enactment. These two directions are not opposed to one another. Rather, their scope is different. The former is focused on how studies engage with visuality, whereas the latter gains traction from a contrast and interrelationship with other modes of communication.

Various approaches for encoding and decoding of meaning in visual research. Preston, Wright, and Young (1996) outline three ways of interpreting visual representations depending on assumptions on the relation between visual representation and social reality: 1) visual images can be assumed to reflect social reality, and decoding, hence, addresses the meaning that was presumably intended by the author, 2) since visual images can mask social reality, interpretation aims at the ideological subtext, 3) visual images can be seen to constitute social reality and interpretation tries to identify the multiplicity and equivocality of meaning conveyed through a visual representation. These three orientations roughly mirror how existing streams of work in organizational research view the relation between visuality and social reality.

Depending on the role visuality plays conceptually and methodologically in such studies, Meyer et al. (2013) distinguish five approaches. First, studies in an *archeological tradition* regard visual representations as instantiations of culture and aim at reconstructing the social meaning that was encoded into them and that they embody. Second, a *practice approach focuses* on the performativity of visual artifacts in situ, that is how they are interwoven in organizational practices. Several studies show how visual artifacts work as mediators or boundary objects between different epistemic communities (e.g. Ewenstein &

Whyte, 2009; Justesen & Mouritsen, 2009; Henderson, 1991). Here, obviously, there is considerable overlap with studies of materiality. Other work looks at strategizing and shows, for example, how powerpoints are part of the "epistemic machinery of strategy" (Kaplan, 2011, p. 344). The *strategic* approach, thirdly, studies visual representations as rhetorical devices that aim at impacting their audiences (e.g. Lefsrud, Graves, & Phillip, 2018; Messaris, 1997). In a fourth, *dialogical* way, researchers integrate visuality in their interaction with field participants, for example through photo elicitation (Shortt & Warren, 2012; Slutskaya, Simpson, & Hughes, 2012), in order to gain richer insights into their life-worlds. Fifth, visual representations also play an important *documenting* role in the research process itself either through visual 'field notes' (Larsen & Schultz, 1992), in ethnographic studies (e.g. Hassard Burns, Hyde & Burns, forthcoming), data analysis (Ravasi, 2017) or the presentation of findings and insights (e.g., in figures or models).

While pointing to desirable features of engaging with visuality in organizational research, these studies are often inherently multimodal, that is, they engage with several modes of communication (e.g. visual and verbal, or visual and material), however, without explicitly reflecting or theorizing this engagement. In addition, little attention has been devoted to the implications of particular types of visual media. Presumably, the specific choice of visual media delimits which meaning is, or can be, communicated. For instance, videos transmit meaning differently than do paintings, just like graphs differ from photographs in the meaning that is, or can be, en- and decoded. Although communication studies have gathered insights into the characteristics and possibilities of different visual media, such insights have not yet been systematically adapted and integrated into the field of organizational research.

Visual mode of meaning construction. Another perspective focuses on visuality as a distinct mode of constructing and communicating meaning. Building on the work of social semiotics, a mode is defined as "socially shaped and culturally given semiotic resource for making meaning" (Kress, 2010, p. 79). In this sense, the visual has its own language, grammar, etc. (Kress & Van Leeuwen, 2006) and constitutes a distinct sign system through which meaning and social knowledge is created, enacted, objectified, and transmitted. In social semiotics the study of modes has evolved through different steps (see Andersen & Boeriis 2012; Höllerer, van Leeuwen, Jancsary, Meyer, Andersen, & Vaara, forthcoming). In the first step, research views the different modes as existing simultaneously but separately, and focuses mostly on

the analysis, and sometimes comparison, of single modes. In a second step, the interaction of various modes in the construction of meaning is acknowledged and studied. In a third step, modes are regarded as purely analytical constructs and capturing meaning construction as a comprehensive multimodal accomplishment becomes central.

Most research on visuality in organization studies cover the first and second steps: 1) emphasis on the unique properties and performativitities of the visual mode, occasionally relative to other modes, and conceptual integration into organizational theories, and 2) interaction between individual modes of communication, often the verbal mode. Comprehensive multimodal studies are yet to be conducted in organizational research.

As for the first area, theory development, scholars have recently turned their attention to the integration of visuality into the very formulation of organizational theories. Shortt and Warren (2012), for example, show how an integration of visuality contributes to our theories of identity construction. Ewenstein and Whyte (2009) point to how visual representations can help align a wide range of technical, social and aesthetic forms of knowledge involved in architectural design. Meyer, Höllerer, Jancsary and Boxenbaum (forthcoming) identify features and affordances of both visual and verbal modes of communication and propose how, and under which conditions, the visual mode of communication is superior to the verbal mode (and vice-versa) in advancing processes of institutionalization. Stigliani and Ravasi (2012) show how designers used visual representations to generate new ideas and make collective sense of users, user needs, and products. Research on 'registers' has highlighted the specific contributions of verbal registers (e.g., Jones & Livne-Tarandach, 2008), material registers (e.g., Jones et al., 2012), emotional registers (e.g., Toubiana & Zietsma, 2017) and visual registers (Jancsary, Meyer, Höllerer, & Boxenbaum, 2018).

Often organizational research on visual communication highlights advantages of this mode of communication, but there are also critical voices. One strand of criticism pertains to the visual media itself. Mirzoeff (1999) points to a common association of visual communication with entertainment for the lower classes, which he attributes to a Western intellectual tradition that is hostile to visual culture. Illustrating this point of view, Jameson (1990) criticizes the visual mode of communication for its relentless pursuit of rapt, mindless fascination. Another criticism pertains to the analytical approaches adopted to interpret visual media. Frosh (2003) argues that the domain of visuality suffers from an excessive import of theoretical insights and methodologies from the linguistic realm, which reinforces the implicit equation of meaning with verbal language that is characteristic of the discursive turn in the

social sciences. In an effort to address this bias, scholars have started to develop methodological procedures that are tailored to the unique properties of the visual mode of communication (Banks, 2001; Davison & Warren, 2017; Jancsary et al., 2018; Rose, 2007). Finally, van Leeuwen (2018a) warns us not to reify the visual and overemphasize certain qualities: "However", he stresses (2018a, pp. 239-240),

"like other semiotic modes, the visual can and does express ideational as well as interpersonal, and rational as well as emotive meanings […] And just as images and other visuals can depict rational ideas and structures as well as delight the senses, so too, can language be sensual as well as rational, as it still is in poetry, and also often seeks to be in advertising and other discourse styles that are inspired by it. Perhaps multimodal analysis can also help us to better understand the music of language".

The second area, multimodality, is developing rapidly in organizational research. As early examples, Iedema's studies of 'resemiotization' (e.g. 2001; 2003) show how different modes become central in different stages of an organizational change process. Ravelli and McMurtrie (2016; see van Leeuwen's [2018b*] book review) apply a discourse perspective and study buildings as three dimensional and multimodal text, covering spatial layout, colour, light, texture. A recent special issue of *Research in the Sociology of Organizations* (RSO) devoted to multimodality sheds light on how different modes of communication, primarily the verbal and the visual modes, contribute to the study of meaning and institutions (Höllerer, Daudigeos, & Jancsary, 2018). Although some research suggests that the visual and the verbal modes substitute for one another (Gehman & Grimes, 2017), most research points to complementary, mutually reinforcing roles. Boxenbaum, Daudigeos, Pillet and Colombero (2018) show how the visual mode and the verbal mode play complementary roles at different stages of the social construction of a rational myth. Cartel, Colombero and Boxenbaum (2018) also identify complementarities between the visual mode and the verbal mode in the theorization of an innovation. Zilber (2018) calls for much more 'strong' multimodal research by which she means research that regards the material, verbal, visual and other modes not as separable, but as co-emergent.

A MATERIAL AND VISUAL TURN IN THE MAKING: THE SPECIAL ISSUE CONTRIBUTIONS

The fields of materiality and visuality in organizational research have mostly developed separately, each fueled by different scholarly communities. We suggest that a first step

towards a further articulation of the role of materiality and visuality in organizational research should aim not at assembling them under one big tent but, rather, at illuminating fruitful areas of conversations between and around them that hold potential for enhancing the quality and potential of organizational research. In this section we discuss three such areas related to the material and the visual, which emerged from or were inspired by the Special Issue's articles and book reviews: 1) approaches to analyzing visual and material data, 2) interactions between material, visual and/or verbal realms, and 3) organizational effects and responses relating to novelty and innovation. In discussing each area below, we first locate it in extant organizational research. We then suggest how the articles in this Special Issue contribute to advancing each area and conclude the discussion of each area with potential directions for further exploration.

Approaches to Analyzing Visual and Material Data

How may organizational scholars engage more actively with the visual and the material in their empirical research? Perhaps the most immediate and accessible way of doing so is by employing approaches and methodologies that are atuned to the specificities of visual and material phenomena and data. The importance of visual data for organizational and sociological research has been long recognized (Meyer, 1991; Becker, 1995), and so has been the potential of visual methods to capture embodied and emotional interactions in the process of fieldwork as well as to contribute to the development of a more reflexive approach to the study of organizations (Kunter & Bell, 2006). More recently, organizational scholars have, for example, detailed methodologies for photo-elicitation (e.g., Warren, 2009), grounded visual pattern analysis (Shortt & Warren, forthcoming), a critical discourse analysis based on the visual (Jancsary, Höllerer & Meyer, 2016) as well as analysis of the visual register of institutions (Jancsary et al., 2018). Researchers have also pointed out and illustrated how videos as a multimodal research method "can respond to the problem of 'elusive knowledges,' that is, tacit, aesthetic, and embodied aspects of organizational life that are difficult to articulate in traditional methodological paradigms" (Toraldo, Islam, & Mangia, forthcoming). Further, they have argued that polyvocal interpretation of visual data, derived from video-ethnography can, for example, enhance insight into affect and embodiment and help produce 'critical' documentaries (Hassard et al., forthcoming).

In different ways, all articles in the Special Issue engage with visual methodologies. The variety of approaches employed in these articles could be comprehensively captured through Meyer et al.'s (2013) distinction between archeological, practice, strategic, dialogical

and documenting approaches. For example, the archeological approach is represented by Höllerer, Jancsary, and Grafström (2018*); Halgin, Glynn, and Rockwell (2018*), and Puyou and Quattrone (2018*) who delve retrospectively into visual archives of newspapers, magazines, or accounting practices in a quest for unravelling deep meaning structures. These three articles' explorations go back from years through decades to eras, the latter spanning from Roman times to Modernity. The practice approach, according to which visuals are constitutive of social practices, is in focus in Stigliani and Ravasi (2018*). They show how multimodality and cross-modal shifts help overcome the difficulties in engaging with aesthetic knowledge, which is tacit in nature, thereby enabling collaboration in the process of giving form to objects and spaces. The practice approach is also employed in the work of investment managers who, in practicing judgment, combine the analytical power of numbers with the emotional power of the human-faced emojis (Arjaliès & Bansal, 2018*).

The Special Issue also offers several instances of strategic approaches to the visual in organizational research. For example, Christiansen (2018*) examines how visual framing allows a collective organization to establish an expert identity in an issue field. Raaijmakers, Vermeulen, and Meeus' (2018*) study of organizations' strategic responses to new institutional requirements captures how rules related to materiality tend to restrict the range of organizational responses. An example of a dialogical approach, according to which visuals could be comprehended as a 'trigger' that speak to deeper elements of human consciousness (Meyer et al., 2013), is the work of Arjales and Bansal (2018*). They show how the use of emojis allowed equity investment managers to 'incarnate' environmental, social and governance issues, thereby creating an interface between finance and society that they could take into consideration in their judgments. Lastly, Stowell and Warren (2018*) employ also a documenting approach, in which visual methods are used to capture the researcher perspective, in this case through self-ethnography.

Overall, the articles in the Special Issue use visual methodologies as a mediator for accessing and investigating not only discursive or rhetorical aspects but also material aspects of organizational and institutional phenomena. For example, Halgin et al. (2018*) coded Business Week cover images' representation of organizational artifacts, such as outputs, products, or other objects of the organization, to analyze how this magazine captures one of two modes of organizational representation – as an actor or as an object. Stowell and Warren (2018*) used visual analysis to access 'embodied habitation', a bodily and material perspective on institutional maintenance, which enabled them to reveal e-waste workers' experience of suffering. Similarly, Puyou and Quattrone (2018*) make visible the visual and

material dimensions of bookkeeping and its overall 'aesthetic codes' through a visual historical case of accounts.

How may scholars proceed in developing new research methods for the study of organizational phenomena that encompass the visual and/or the material realm? We endorse a bottom-up approach, which consists in developing multimodal methods for analyzing empirical data in a way that aims at generating new insights into organizational phenomena and/or (re)formulating theory. We consider this bottom-up approach more generative for knowledge production than a top-down approach. The latter begins, for instance, with an ontological shift (e.g., Barad) and the development of new theory (e.g., Orlikowski), which then guide researchers in their search for new methods in empirical studies. The risk of a top-down approach is that empirical studies may become only illustrative, i.e., that they reproduce and confirm the ontological/theoretical starting point rather than generate new insights. We argue that it is more conducive for the advancement of organizational research to let knowledge development 'grow out of' empirical data, i.e. to proceed inductively through a bottom-up articulation of a visual/material turn. The elaboration of novel multimodal methods is a good starting point, we argue, for advancing in this direction.

Interactions between Material, Visual, and Verbal Realms

How are interactions between the material, visual, and/or verbal realms revealing and conducive to better understanding of organizational phenomena? Attempts to articulate a material and visual turn requires a clarification of the differentiated contributions of these modes to both organizational phenomena and research, and – particularly – their interaction with the verbal realm, as a predominant mode of meaning construction and communication in organizational research. To give a few examples: Institutional scholars have distinguished and established connections between the material and the visual dimensions of institutions (Jones et al., 2017); scholars of Communicative Constitution of Organization (CCO) have focused on the interaction of discourse and materiality, suggesting that it is important to explore how materiality "*constantly* invites itself in people's conversations while still akcnowledging […] the discursivity required for the interpretation of materiality's impact on human action" (Cooren, Fairhurst, & Huët, 2012, p. 300, italics in the original). Relatedly, Stigliani and Ravasi (2012) capture the 'materialization' of cognitive work in the interplay between conversational and material practices that support the transition from individual to group-level sensemaking, enabling new shared understandings to emerge.

Taken together, the articles in this Special Issue explore materiality and visuality from different theoretical perspectives and, thereby, contribute to advancing them. These theoretical perspectives include broader fields that have recently acknowledged a need for more attention to materiality and visuality. For instance, in relation to institutional theory, Höllerer et al. (2018*) see opportunities in discursive construction of institutions, Puyou and Quattrone (2018*) in legitimacy, Raaijmakers et al. (2018*) in strategic responses to institutional pressures, and Stowell and Warren (2018*) in institutional maintenance. Articles in this issue also build on and advance more specific perspectives, such as organizational framing (Christiansen, 2018*), actorhood (Halgin et al., 2018*), the study of devices (Arjaliès & Bansal, 2018*), and designers' aesthetic knowledge (Stigliani & Ravasi, 2018*). Empirically speaking, they investigate the interaction of material, visual, and verbal realms in contexts and settings as diverse as the Global Financial Crisis (Höllerer et al., 2018*), the Dutch childcare sector (Raaijmakers et al., 2018*), a French socially responsible investment fund (Arjaliès & Bansal, 2018*), a UK-based collective organization dealing with the issue of responsible drinking (Christiansen, 2018*), a UK-based SME in e-waste recycling (Stowell & Warren, 2018*), and a US- headquartered worldwide design consultancy (Stigliani & Ravasi, 2018*), among others.

Collectively, the articles in this Special Issue unravel and discuss different aspects of the visual, the material, and the verbal as well as interactions between these aspects. In the main, they seek to sharpen articulations of bi-modal interactions, e.g. how the visual mode and/or the material mode interact(s) with the verbal mode. For example, Arjaliès and Bansal (2018*) show how visuality (via the human-like faces of emojis) 'incarnates' environmental, social, and governance issues, thereby facilitating decisions related to socially responsible investments. Raaijmakers et al. (2018*) examine interaction effects between the verbal and the material realm as co-determinants of organizational responses to institutional pressures in the context of the Dutch childcare sector, suggesting that the ideational realm (e.g., cognitive frames and symbols) and the material realm are intermingled. Stowell and Warren (2018*) delve into the context of e-waste to shed light on interactions between the material realm and the verbal realm.

Based on their analysis of organizational representations on the covers of Business Week over a 30-year period, Halgin et al. (2018*) suggest a "likely synchronicity" between the visual and the verbal, in which "each amplifies and extends the other", yet distinguish between their functionalities – the verbal highlighting paradoxical tensions, whereas the visual suggesting ways of interpretation that facilitate imagination for action. In addition to

synchronicity, Stigliani and Ravasi (2018*) capture cross-modal shifts, i.e. the alternation between visual and verbal modes of expression of aesthetic knowledge in the creation of new objects and spaces. Several articles engage with arguments that involve multimodality (e.g. Halgin et al., 2018*; Stigliani & Ravasi, 2018*). However, where multimodality gets a fully fledged expression is in the study of the objectification of the Global Financial Crisis in which Höllerer et al. (2018*) systematically trace how different modes contribute not only to enriching content, but also to enhancing the persuasiveness of sensemaking and sensegiving efforts. Similarly, Christiansen (2018*) includes visual and verbal elements of a collective organization's campaign in her multimodal framing analysis.

How may scholars proceed in advancing the understanding of interactions among the visual, the material, and the verbal modes? The articles in this Special Issue point in several possible directions. One direction, offered by Halgin et al. (2018*), is to unpack how different constituencies, such as photographers, PR staff, and journalists, influence the way in which the media visualizes organizations. Another possible direction is to expand the understanding of multimodality, i.e. to study not only how modes interact but also how translations occur across modes (e.g. Stigliana & Ravasi, 2018*) and what effects they produce for novelty and innovation in and around organizations (see further discussion on this aspect in the section below). Yet another prospective path calls for further understanding how visuals mediate between knowing and feeling in the context of sensemaking and sensegiving (Höllerer et al., 2018*).

Organizational Effects and Responses Relating to Novelty and Innovation

What organizational effects and responses related to novelty and innovation could be captured by examining the material realm and the visual realm? The material and the visual have distinctive influences on the cognitive, emotional and interaction processes related to organizational life (Becker, 1995). For instance, the material properties of artifacts have been conceptualized as tangible resources that allow new things to emerge from old (Leonardi & Barley, 2008). Moreover, the notion of 'formativeness' captures how matter matters in creative practices related to craftsmanship, allowing not only the emergence of novel forms but also the invention of new ways of doing in the encounter with materials (Gherardi & Perrotta, 2013).

Our Special Issue addresses organizational effects and responses related to novelty and innovation, particularly new ideas. The more iconic quality of visual communication gives novel ideas a fact-like character and helps materialize and objectify them; its holistic

and spatial character juxtaposes and bridges otherwise separated elements. "In this way, visual text not only materializes ideas, but also locates them in specific environments, thereby allowing the unfamiliar to be 'toned' with familiar elements" (Meyer et al., forthcoming, page number missing). Islam and colleagues (2016) look at innovations as recombinations of a multiplicity of environmental affordances (material, visual, and olfactory) and propose analogical schematization and analogical reconfiguration as mechanisms through which such recombinations are achieved. Further, colour's "unsettling, wondrous ambiguity" and potential for movement give it a unique aesthetic force (Beyes, 2017, p. 1478) that can be mobilized for organizational innovation.

The articles in the Special Issue offer different insights on the organizational effects and responses to novelty and innovation. A number of articles deal with responses. For example, Raaijmakers et al. (2018*) find that managers' options for strategic responses to new institutional requirements are restricted when materiality is at stake. Based on their findings, they suggest that compliance with material requirements is more visible and easier to assess than similar requirements in the ideational realms, and thereby more difficult to avoid or openly resist. Höllerer et al. (2018*) show how a new phenomenon, such as the Global Financial Crisis, which consists of diverse and interconnected empirical phenomena, is encapsulated and objectified as an event. They argue that visual cues play a facilitating role that connects new phenomena to established discourses and categories, and are vital in capturing the emergence of novel institutions.

In terms of organizational effects, several studies offer interesting insights in relation to novelty and innovation. For example, both Arjaliès and Bansal (2018*) and Stigliani and Ravasi (2018*) focus on how professionals co-create new knowledge. In the former study novelty happens through the dissonance between two forms of calculative devices – financial versus visual (emojis), both of which are used in making decisions pertaining to socially responsible investment. In the latter study, novelty is about new aesthetic knowledge, which designers co-create through visual, material, and verbal cues (and in ongoing translations between them) and employ in giving new form to objects and spaces. In elaborating on dissonance as a source of novelty, the former article extends the work of Antal, Hutter and Stark (2015) [see Islam's (2018*) book review] whereas the latter article reveals some of the potentialities that manifest at the (aesthetic) surface of objects [see also Beyes' (2018*) book review of Bruno (2014)]. In the study by Puyou and Quattrone (2018*), novelty resides in the emergence of new aesthetic codes, which transforms novelty into a representational practice.

How can students of organizations further engage with a material and visual agenda in relation to novelty and innovation? Based on the articles in the Special Issue, we suggest that explorations of organizational effects and responses should be sustained and expanded. At the same time, additional attention is needed to understand the complexity and dynamism of audience reactions to, and active participation in, the objectification of novel ideas, including their material, visual, and verbal expressions. This topic is particularly salient in digitally munificent contexts, which allow new ideas to travel faster and farther, yet also pose new challenges.

TOWARDS A MORE REFLEXIVE APPROACH TO MATERIALITY AND VISUALITY IN ORGANIZATIONAL RESEARCH

The articulation of elements that may constitute a material and visual turn has several implications for the field of organizational research. In this section, we focus on theoretical, ethical, and pragmatic challenges, including the avenues for further work that they inspire.

Theoretical Implications

We suggested previously that a material and visual turn can be conceptualized as an extention of previous turns, especially the linguistic or discursive turn, rather than as a shift away from them. This suggestion has some important theoretical implications that call for the establishment of shared conceptual grounds upon which to articulate how the material and visual relate to the verbal realm and/or to other modes of meaning-making such as the olfactory or aural. Shared conceptual grounds are also required to establish which research questions are theoretically meaningful. Below we elaborate on two theoretical orientations that cut across the visual and the material modes. We do not intend to suggest that these are the only ones available in, or relevant for, organizational research, but rather to provide some examples of theoretical orientations that lend themselves to multimodal inquiry.

Affordances. The notion of affordances is used in relation to both materiality and visuality. Introduced by psychologist James Gibson (1979), affordances referred originally to a relationship between living beings and their environment. Gibson (1979) wrote about affordances as part of nature, that is, as actionable characteristics that do not have to be visible, known or desirable, but that become available in response to needs and capabilities. Gibson (1979) also argued that affordances play an important role in the socialization of

children in as much as they enter social practices and become members of society by learning how to (appropriately) use their environment. Applying Gibson's ideas to the design of artifacts, Norman (1988) redefined affordances as those action possibilities that are readily perceivable by an actor. In Norman's work, affordances refer primarily to attributes of artifacts and he emphasizes how individuals identify and interpret affordances in light of their own needs and capabilities and the context of interpretation.

In organizational research, the notion of affordances has been applied to conceptualize and examine the connection between the material realm and the social realm (e.g., Faraj & Azad, 2012). In visuality research, affordances have been mobilized to conceptualize how different modes of communication impact differentially at core stages of the institutionalization process (Meyer et al., forthcoming). Affordances have also been used to study other modes, such as sound (Pinch & Bijsterveld, 2012). We see good potential in the notion of affordances for studying a broad range of organizational phenomena, using multimodal methods.

Power and critical perspectives. Materiality and visuality speak to power and critical perspectives in organizational research. For instance, increased attention to the visual/material dimension of organizational phenomena can help make the invisible visible (e.g., silenced bodies, taken-for-grantedness, taboos), unmask social reality, or point to the embodied nature of organizational experiences. In subjecting invisible and/or unarticulated phenomena to academic scrutiny, we not only enable new knowledge development but also favor public debate.

Such an agenda is inherently political. Differences in interests and power relations influence which new ideas are being expressed through images and objects and what organizational actors experience as they engage in objectifying and reacting to novel ideas that are expressed in material and/or visual form. In addition, this agenda pursues a more radical call "for an investigation of the social/political processes of the construction and distribution of meanings and their disguise as natural" (Deetz, 2003, p. 426), which builds on Ferguson's (1994) call for more 'voices' to be taken into account. In that sense the material and the visual allow for diverging voices to express themselves. Especially critical research from a dialogical approach has shown that multimodal forms of engaging with actors help elicit otherwise surpressed voices and views (e.g., Stowell & Warren, 2018*; Slutskaya et al., 2012, Toraldo et al., forthcoming).

The study of multimodal rhetorics or legitimation (e.g., Christansen, 2018*, or Höllerer et al., 2018*) also carries significant potential to unveil hitherto covered mechanisms and processes of power. Hence, accounting for the material and the visual gives new opportunities to pursue further a political perspective of organizing, in which the absence of verbal text does not necessarily mean the silencing of certain disenfranchised voices in as much as these voices can sometimes be elicited from associated images or artifacts. As such, visuality and materiality also inform and stimulate critical scholarship.

Ethical and Pragmatic Challenges

A material and visual turn opens new paths for organizational inquiry, but it also poses a number of challenges for further theoretical and empirical work. What are the potential challenges and drawbacks of using visual and material data and research methods in organizational research? In the following, we briefly explore some ethical and pragmatic implications of a material and visual turn.

Ethically, a potential turn poses questions regarding the manipulative value of visual and material communication and organization. Visual research methods pose challenges with their intrusiveness, as well as with the ways in which they may endanger aspects of anonymity, confidentiality, and copyright (Kunter & Bell, 2006). They may have implications for our ability and ethical obligation to protect the anonymity of informants (Wiles, Clark, & Prosser, 2011). They may also potentially represent a new (or different) form of propaganda or domination by the elite. For instance, do they organize and mobilize participation and knowledge dissemination through communication forms that offer an enhanced emotional engagement, which diminishes reflexion and resistance to subversive ideas? Are the material and the visual a new weapon of manipulation (e.g., fake news)? To circumvent ethical challenges, a promising line of work lies in exploring the connection of the material or the visual realm with other (multi)modal realms, which some scholars have already started to advance (Guemuesay, 2012; Islam, Endrissat, & Noppeney, 2016; Pinch & Bijsterveld, 2012; Riach & Warren, 2015).

This agenda to advance the material and visual turn also poses a number of pragmatic concerns and restrictions related to the conduct of organizational research. On a basic level, our journals are still relatively ill-equiped to convey visual and material representations of empirical data, not least because colour representations are often reserved for online versions

and reproduced in shades of grey in print versions[2]. The use of visuals is further challenged by copyright protection, which makes it difficult and/or expensive to gain permissions for the reproduction of images. Several of the articles in this Special Issue encountered problems in displaying the visual data material that they used for their analysis. Rowe (2011) elaborates on some of the many legal issues pertaining to the use of images in research, which supplement the ethical concerns addressed by Wiles et al. (2011).

Conclusion

Although a material and visual turn opens new and exciting opportunities for organizational scholarship, it also poses challenges for our scholarly identities and our research capabilities. Some organizational scholars may wish to focus more narrowly on a visual or material mode to pursue their established academic tradition and associated scholarly identity. Other organizational scholars may, like us, see exciting opportunities in embracing a material and visual turn and in advancing a multimodal agenda for organizational research. On the one hand, a material and visual turn may be an opportunity for us to reach out to wider audiences, i.e., to make our findings more accessible and make our work more comprehensible and engaging for wider audiences. Organizational scholarship is characterized by a multi-method approach and the use of data triangulation to gain insight. Hence, multimodal research can be seen as an extension of our existing research practice (see also the previous section on approaches to analysing material and visual data). On the other hand, visual and material 'literacy' is not very well developed. Unless we develop appropriate and rigorous methodologies for visual and material data sources, there is a risk of blurring the boundaries of scholarship and becoming less distinguishable from other professionals who engage with the visual and the material, such as journalists, designers, documentary film-makers, or museum curators. It is essential that we, in embracing a material and visual turn, reinforce methodological rigor and robust theory development to enrich our field without unwittingly compromising our academic identity.

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