Abstract
Although we have to welcome the renewed interest in socio-materiality in organization studies, I claim that we are yet to understand what taking matter seriously really means. The mistake we especially need to stop making consists of automatically associating matter to something that can be touched or seen, that is, something tangible or visible, an association that irremediably leads us to recreate a dissociation between the world of human affairs and the so-called material world. To address this issue, I mobilize a communication-centered perspective to elaborate that (1) materiality is a property of all (organizational) phenomena and that (2) studying these phenomena implies a focus on processes of materialization, that is, ways by which various beings come to appear and make themselves present throughout space and time. In the paper I conceptualize the contours of these materialization processes and discuss the implications of this perspective on materiality for organizational theory and research.

Keywords
communicative constitution of organizations (CCO), medium, relational ontology, sociomateriality, transmission
Barley, 2008; Leonardi, Nardi, & Kallinikos, 2012; Orlikowski & Scott, 2008, 2014; Robichaud & Cooren, 2013). While Barad (2003) could rightly complain that “language has been granted too much power” (p. 801) and that “There is an important sense in which the only thing that does not seem to matter anymore is matter” (p. 801), it could arguably be said, almost twenty years later, that her call has been heard and that a material turn has now been completed. Matter now matters to organization studies!

Or does it? As I will contend, this focus on materiality has essentially led researchers to acknowledge what Pickering (1995) called material agency, that is, the difference that technologies (Leonardi, 2012a), artifacts (Carlile et al., 2013) or natural elements (Bansal & Knox-Hayes, 2013) appear to make in various contexts. Although we have to welcome this renewed interest in the mattering of technological, artifactual, and environmental matters in organizational settings, I believe, however, that we are yet to understand what taking matter seriously really means. As I will demonstrate, the mistake we especially need to stop making consists of automatically associating matter to something that can be touched or seen, that is, something tangible or visible such as rocks, trees, tables, or computers, an association that irremediably leads us to recreate a dissociation between the world of human affairs (the world of thoughts, meanings, discourse, and interactions) and the so-called material world (the world of natural elements, artifacts, and technologies).

As I will show, this dissociation unfortunately amounts to (implicitly or explicitly) identifying thoughts, meanings, discourse, and interactions with immateriality while the ideas of sociomateriality, defended by Orlikowski (2007, 2010), and agential realism, put forward by Barad (2003, 2007, 2013), were precisely meant to question such assimilation. By highlighting what they both present as the constitutive entanglement of meaning and matter, these two authors indeed encourage us to stop thinking about the material world as something ontologically separated or severed from the social world. Although I definitely welcome this invitation, I will additionally show, however, that the metaphor of entanglement is misleading and that we should rather think about materiality and sociality as (relative) properties of what exists instead of presenting them as entangled.

To do so, I will explain what it means to understand materiality communicatively. From their origin in the 1940s, communication studies have indeed been characterized by an implicit or explicit rejection of the divide between social and material worlds, as studying communication implies, by definition, that we pay attention to what links or relates beings to each other. From a communicational perspective, there is therefore not much sense in restricting the material world to the world of rocks, tables, and computers, as most organizational scholars keep doing. Communication, in order to occur, always needs to materialize into something or someone, whether we speak about communication between neurons, trees (Simard, 2018), computers, or employees. Studying the (organizational) world communicatively thus amounts to accounting for its materiality and relationality.

In this article, I thus propose to show that (1) materiality is a property of all (organizational) phenomena and that (2) studying these phenomena leads us to especially focus on processes of materialization, that is, ways by which various beings (e.g., a procedure, a mission statement, an organizational chart, a strategic plan, a CEO, a spokesperson, an organization, an idea, etc.) come to appear and make themselves present throughout space and time. What I will also show, however, is that given that materiality is a necessary property of existence (except, of course, for nothingness), (3) this materialization does not consist of transforming something completely immaterial into something material, but of passing from one matter to another (e.g., from thinking about a strategic plan to discussing it with colleagues up to implementing it).

As I will demonstrate, this focus on materialization also implies that (4) existing is a matter of degrees as a being exists more or less
depending on the number of other beings that materialize its existence (for instance, a strategic plan starts to exist more as it appears to materialize more and more throughout meetings, documents, activities, and the opposite is, of course, true if its materialization become rarer and rarer until possibly its complete disappearance). Finally, this idea of multi-materialization will lead me to affirm (5) the relational character of existence, that is, the fact that everything or everyone is literally made of relations (e.g., the reputation that defines someone’s identity to others or the multiple ways a mission statement materializes in meetings, documents or reactions).

To do so, I first summarize what the material turn consists of and then examine the way different approaches to materiality have been categorized, especially with regard to their respective treatment of discourse. I then introduce a relational/communicational perspective, inspired by the communication as constitutive of organization (CCO) approach and show to what extent this lens can allow us to defend a strong version of sociomateriality by highlighting both the transmissive and constitutive properties of communication. It is indeed because anyone or anything can act as a means of transmission, that is, a channel or medium through which someone or something else manages to express itself/himself/herself, that (organizational) reality can be said to be communica
tively constituted and therefore both material and relational. Conceiving the world communica
tively or medially (which is, as I will show, the same thing) thus enjoins us to conceive it as ontologically material and relational.

Finally, I explore what this CCO perspective can teach us about the sociomaterial dimension of organization and organizing. In particular, I demonstrate that this perspective (1) allows us to stop mistaking materiality for tangibility and visibility, (2) acknowledges that communicating about something is a non-negligible way of materializing it, (3) invites us to recognize that being or existing always is a matter of degree, and (4) that the social and material should not be conceived as entangled, but as properties of everything that exists (with the exception of nothingness). This article ends with the presentation of three stances that, I believe, should define any attempt to understand the (organizational) world from (the strong version of) a sociomaterial perspective, that is, a perspective that stems from a relational ontology.

**The Material Turn**

As Fox and Alldred (2015) remind us, materialist perspectives developed well before the 21st century—Marxist approaches, of course, come to mind, as well as structuralist anthropology (Levi-Strauss, 1963)—but it is only recently that they were able to free themselves from the accusation of determinism and reductionism. What Coole and Frost (2010) call new materialism can indeed be seen as an attempt to deconstruct classical oppositions between nature and culture, matter and mind, object and subject, or agency and structure. This new form of materialism leads us to question the anthropocentric stance that often plagues social and organization studies (Ergene, Calás, & Smircich, 2018) without replacing it by a determinist one where the human subjects’ fate appears at the total mercy of their natural, social, and technological environment.

Several key authors can be associated with this movement (Barad, 2003, 2007; Deleuze & Guattari, 1980/1987; Foucault, 1977a; Haraway, 1987, 1991; Latour, 2005, 2013; Law, 2009; Massumi, 2002), which has sometimes been affiliated with posthumanism (Barad, 2003). While posthumanist perspectives have often been caricatured and denounced as a form of anti-humanism (Fukuyama, 2002), Keeling and Lehman (2018) remind us that, despite their diversity and heterogeneity, they should first be understood as attempts to resituate human beings in their environment and conceptualize agency as distributed. This does not mean that humans are suddenly devoid of their autonomy, consciousness, intentionality, or specificity. It simply means that all these qualities are conceptualized as relational and finite (something I will explain later) and that people cannot anymore be
seen as the absolute starting point of what is happening in a given situation (Cooren, 2010, 2012).

In organization studies, this neomaterialist movement has often been contrasted with the discursive turn, mainly inspired by Foucault’s (1977a, 1977b, 1978, 1981, 1989) work and initiated at the end of the 1990s (Grant, Keenoy, & Oswick, 1998; Grant, Hardy, Oswick, Phillips, & Putnam, 2004; Hardy, 2001; Keenoy, Marshak, Oswick, & Grant, 2000; Keenoy & Oswick, 2004; Keenoy, Oswick, & Grant, 1997), with the accusation that organizational discourse analysis had not properly engaged with non-discursive aspects of organizations (Alvesson & Kärreman, 2011; Iedema, 2007; Thompson & Harley, 2012). Although Hardy and Thomas (2015) vehemently rejected this allegation by claiming that “materiality lies at the core of Foucault’s work” (p. 681), this debate leads us to explore the various ways the discourse–materiality relationship has been characterized.

The Discourse–Materiality Relationship

There are, of course, many ways to conceive of the discourse–materiality relationship. Echoing Mumby (2011), Putnam (2015), for instance, identifies it as dialectical, where discourse and materiality are presented as oppositional pairs in interplay with each other. This leads her to posit that “scholars need to hold the two [poles (discourse vs. materiality)] in tension with one another, keep them connected in a continual interplay, and focus on their co-emergence” (p. 707). Characterizing, as Putnam does, the relationship between materiality and discourse as dialectical thus positions them as two different constructs that come in tension with each other. In other words, for Putnam, there seems to be, on one side, discourses, and, on the other side, materiality, even if these two poles are presented as manageable in various ways.

As I will show later, this position appears problematical as I believe it goes against one of the most fundamental insights of communication theory, which is that discourse, and communication more generally, have, by definition, always a material dimension, even if they also allow us to experience a form of immateriality (to be explained). But let’s first examine how various approaches have tackled the discourse–materiality relationship.

The Foucauldian perspective

If we look at organizational studies that have been inspired by the Foucauldian approach, we observe that discourse and materiality are presented as “inextricably entwined” (Mumby, 2011, p. 4, quoted by Hardy and Thomas, 2015, p. 680) even if they are identified as not reducible to each other. For the early Foucault (roughly from Madness and Civilization (1961/1964) to The Order of Discourse (1971/1981), which is usually called his archaeology period), discourses are generally conceived as constituting the objects of which they speak, which leads Putnam (2015) to state that, for Foucault and his followers, “discourse takes precedence over materiality” (p. 709). There is, however, a late Foucault (from Discipline and Punishment (1975/1977a) to the three volumes of History of Sexuality (1984/1986), which is called his genealogy period), where this precedence is called into question.

The very concept of genealogy indeed implies that the systems of thought Foucault (1971/1977b) was studying did not necessarily have to be found in discourses only. On the contrary, they could also be identified in various disciplinary systems, such as architectural elements (Bentham’s panopticon, of course, come to mind), but also technologies, tools, and other normative apparatuses. For this Foucault, discourses are just one of the many ways by which power can express itself, especially through the formatting of docile bodies. This leads Hardy and Thomas (2015) to point out that Foucauldian analysts are in a good “position to analyze discursive and material processes” (p. 682), a position that unfortunately tends to distinguish the
discursive from the material, which, as I will try to show later, is questionable.¹

**The entanglement perspective**

If we turn to Orlikowski’s (2007, 2010; Orlikowski & Scott, 2008, 2014) sociomaterial perspective, a terminology she borrowed from Mol (2002) and Suchman (2007), we then observe that this approach consists of acknowledging that “every organizational practice is always bound with materiality. Materiality is not an incidental or intermittent aspect of organizational life; it is integral to it” (Orlikowski, 2007, p. 1436). In other words, this approach claims to go beyond both technocentric perspectives, which focus on technology effects, and human-centered perspectives, which focus on how people appropriate, make sense of, use, and speak about technologies.

According to this sociomaterial perspective, “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” (Orlikowski, 2007, p. 1437), which leads Putnam (2015) to claim that for Orlikowski, “discourse and materiality [are] ontologically inseparable” (p. 709). Following Barad (2003, 2007), Orlikowski indeed puts forward the notion of constitutive entanglement according to which there is no such thing as independently existing entities with inherent properties. To illustrate her position, she takes the example of the Google search engine where she convincingly shows that the result of a search has to be understood as produced by what she calls, following Suchman (2007), a sociomaterial assemblage, made of the contributions of users, webmasters, software engineers, computers, hardware, and algorithms. In other words, searching for information through the web cannot, according to her analysis, be considered either social or material. It is sociomaterial as it always results from the contribution of material and social/discursive forms of agency that constitute what is happening.

In a more recent article, Orlikowski and Scott (2014) further this relational view by studying the process of valuation of hotels through two different assemblages: the AA (Automobile Association) apparatus (offline) vs. the TripAdvisor apparatus (online). This allows them to show that these two valuation processes should be seen “as materially produced in bodies, instruments, texts, times and places” (p. 888). In other words, these sociomaterial apparatuses enact different valuations through what these two authors call, following Barad (2007), different agential cuts, that is, by “marking out certain inclusions and exclusions and making the boundaries and properties of those phenomena determinate-in-practice” (p. 888). For instance, the AA scheme systematically excludes customers’ inputs by only relying on experts in charge of evaluating hotels from predetermined criteria. Conversely, the TripAdvisor scheme exclusively relies on travelers whose online evaluations are processed by an algorithm to create a specific ranking of these different locations.

These hotel evaluations are thus produced through different material-discursive practices, another expression borrowed from Barad (2003, 2007) that Orlikowski and Scott (2014) mobilize to speak about apparatuses or assemblages. By speaking about material-discursive practices, they thus highlight what they call the entanglement of matter and meaning (or matter and discourse, as the two terms are often used interchangeably by the three authors, which I find problematical), that is, the fact that discourse should always be seen as “necessarily materialized in some form” (p. 873). For these two apparatuses (AA vs. TripAdvisor), different hotel characteristics matter—that is, make the (agential) cut, so to speak—or don’t matter—that don’t make the cut—in their evaluation processes, which means that these characteristics (or properties) can be seen as literally enacted and materialized by these two assemblages.

**The imbrication perspective**

If Orlikowski’s (2007) position corresponds to what could be called the strong version of sociomateriality (Martine & Cooren, 2016), a version
that can also be found in John Law’s (2009) material semiotics, there exists what could be called a weaker version that is represented, for instance, by Paul Leonardi’s (2012b, 2013) work. This version essentially stems from Pickering’s (1995) notion of material agency, that is, the capacity of technologies, natural elements, objects, or tools to make a difference in various situations. According to this position, two forms of agency thus compose the organizational world: human agency, which is intentional, as well as discursively and goal oriented, and material agency, which corresponds to the contribution of technologies, artifacts, and tools to organizational processes (Leonardi, 2012a; Leonardi & Barley, 2008). Sometimes inspired by Taylor and Van Every’s (2000) notion of imbrication, this version of sociomateriality “allows for maintaining the distinction between social and material agencies with respect to intentionality while still recognizing their synergistic interaction” (Leonardi, 2012a, p. 46).

A fascinating illustration of this version can be found in Leonardi’s (2012a) ethnographic study of computer simulation technologies of automotive design where material and human forms of agency are analyzed as variously imbricated in each other. Sometimes the technology is analyzed as imbricated in human activities, including discursive activities, while at other times human activities are presented as imbricated in technological processes. However, a clear separation is maintained throughout the analysis between these two forms of agency. In other words, this version of sociomateriality acknowledges the active role technology plays in organizational process (note that, for Leonardi, materiality almost always consists of talking about technologies or artifacts), but no constitutive entanglement is acknowledged, that is, technologies and entities in general are identified as independently existing with inherent properties (see also Faulkner & Runde, 2012; Kallinikos, 2012; Mutch, 2013).

Whether acknowledged or not, I contend that it is this weaker version, also represented, to a certain extent, by Foucauldian discourse analysis, that tends to be mobilized when most organizational researchers claim to mobilize a sociomaterial approach. In other words, scholars seem more and more ready to study the way technologies, artifacts, and objects do things in organizational and social settings, which is a good thing, but no attempt is generally made to study the sociality of technologies and the material dimension of sociality, which is what a sociomaterial approach invites us to do (Cooren, 2018b). As I will show, this miscomprehension is partially due to Barad’s (2003, 2007) notion of constitutive entanglement of matter and meaning, mobilized by Orlikowski and Scott’s (2014) perspective, as the metaphor of entanglement implies, by definition, the existence of two different things that got entangled, even if their disentanglement is claimed to be impossible.

I believe that a way to address this issue consists of simply acknowledging the irreducible materiality of communication, which leads us to acknowledge the communicative constitution of organization, a position that representatives of the Montreal School of organizational communication have been defending for many years now (Cooren, 2000; Taylor & Van Every, 2000). At this point, it is noteworthy that the terms communication and relation will be used almost synonymously, which means that this communicative constitutive perspective can also be called a relational perspective, as pointed out by Ashcraft, Kuhn, and Cooren (2009). The notions of relationality and materiality will thus be essential to understanding the ins and outs of this approach to organization and organizing, as well as the way it addresses the discourse–materiality relationship.

A Communicative Turn

When Orlikowski (2007) famously introduced the notion of sociomaterial practices, she rightfully relied on Latour (1987, 1992, 2005) and Suchman (2007) to claim that agency could not be reduced to what humans and only humans do, but that it had rather to be understood as “a capacity realized through the association of actors (whether human or nonhuman), and thus relational, emergent, and shifting” (p. 1438). To
support this view, she quoted representatives of the CCO movement, Cooren, Taylor, and Van Every (2006), in a passage where the latter pointed out that “agency is not a ‘capacity to act’ to be defined a priori. On the contrary, it is ‘the capacity to act’ that is discovered when studying how worlds become constructed in a certain way” (p. 11, quoted in Orlikowski, 2007, p. 1438).

This reference to CCO scholars is not trivial, in my opinion, as it illustrates the affinities that link from its inception the sociomaterial perspective with the communicative constitutive approach, especially its Montreal representatives. While the CCO movement has been historically represented by Luhmannians (Schoeneborn, 2011, Seidl & Becker, 2006), Giddensians (McPhee, 2004; McPhee & Iverson, 2009; McPhee & Zaug, 2000), and Taylorians (Taylor, 1988; Taylor, Cooren, Giroux, & Robichaud, 1996; Taylor & Van Every, 2000, 2011, 2014), only this last branch, often identified as the Montreal School of Organizational Communication (Boivin, Brummans, & Barker, 2017; Brummans, Cooren, Robichaud, & Taylor, 2014; Schoeneborn et al., 2014), embraces, from its beginnings, a decentered vision of agency where humans’ and other-than-humans’ contributions can be acknowledged (Fairhurst & Putnam, 2004; Taylor, 1988).3

But what does it mean to understand materiality communicatively (or communication materially, for that matter)? To address this question, we first need to better understand the origin of communication studies and how communication was later conceived from a constitutive viewpoint. This is the point I now propose to address.

The origin of communication studies
Although Shannon’s (1948; Shannon & Weaver, 1949) mathematical model of communication has been the object of countless criticisms to this day (Axley, 1984; Carey, 2008; Gillespie & Schiffman, 2018; Mortensen, 1972; Reddy, 1993), its publication has often been historically associated with the birth of the field of communication studies (Craig, 1999). This origin is notable as it means that communication studies were at least partially founded by a mathematician who was also an electrical engineer (Claude Shannon worked at that time for Bell Telephone Labs in New Jersey), although some would contend that communication as a field of study was, in fact, born five centuries BCE when Sophists began to formalize their rhetorical doctrine (Foss, Foss, & Trapp, 2014).

Why does this engineering origin matter? Because Shannon and Weaver (1949) implicitly encouraged us to acknowledge that communication always has to have, by definition, a material dimension to take place. In the case that interested Shannon (1948), communication was to materialize in electrical signals where the challenge was “that of reproducing at one point either exactly or approximately a message selected at another point” (p. 379). This was what Shannon explicitly called a technical problem—and he specified that “semantic aspects are irrelevant to the engineering problem” (p. 379)—but this problem had the particularity of emerging from an irreducible aspect of communication: its materiality (Castor, 2019; Wilhoit & Kisselburgh, 2015, 2019). In order to take place through a phone call, communication has to materialize (1) in the speech the speaker produces through a vibration of the air that spreads in the form of an acoustic wave, (2) the transformation of this air vibration into an electrical signal that transports this speech from one point to another, and (3) the effect or reaction this speech, as reproduced at the other end of the wire, has on the person who hears it.

Exactly the same year, another founding father of the communication field, Harold Lasswell (1948), famously claimed that communication researchers’ job was to answer the five following questions: “Who, says what, in which channel, to whom, and with what effects?” (p. 37). Although his exclusive focus on senders, messages, channels, receivers, and effects was later criticized for its linearity and lack of focus on interpretive and social aspects of communication (Carey, 2008; Krippendorff, 1993), this research agenda had at least the
advantage of reminding us that for communication to happen, there always needs to be, by definition, a channel (also called medium) through which what is said can be transported from one point (the sender) to another (the receiver).

One could retort that this transmission paradigm has been heavily criticized over the years, especially in organizational communication (Ashcraft et al., 2009; Deetz, 2001; Fairhurst & Putnam, 2004; Putnam & Fairhurst, 2001; Putnam & Pacanowsky, 1983) and that the CCO perspective should, in fact, be understood as having been developed in reaction against this transmission view (Schoeneborn & Trittin, 2013). Communication is a matter of constitution, not transmission, diffusion or propagation, as the saying goes! I would like, however, to show that things are not that simple and that we should, echoing John Durham Peters (1999, 2015), not have to choose between the transmissive and constitutive paradigms of communication (Ashcraft & Kuhn, 2018; Bencherki, 2016; Cooren, 2015).

Communication: Between transmission and constitution

What does it mean indeed to think about communication constitutively (Putnam & Nicotera, 2009)? It means, following Taylor and Van Every (2000), that we stop thinking only about communication as happening in organization, but that we also acknowledge that organization is happening in communication. In other words, the CCO perspective, as is often the case with revolutionary ideas, starts from an obvious premise, which is that there would not be any society, organization or group without communication (see also Dewey, 1916/1944). For instance, what we tend to call the structure of an organization can, in fact, often be associated with the texts (organizational charts, policies, work descriptions, etc.) that are supposed to define what this organization consists of and what its members should do (Cooren, 2004; Cooren & Seidl, 2020; Luhmann, 2018; Taylor et al., 1996). In other words, an organization is communicated into being to the extent that the structuration of its activities always depends on communicative acts, whether we are speaking of wildland firefighters negotiating safety procedures (Jahn, 2016, 2019), taskforce members collaborating to address problems of affordable housing (Koschmann, 2016), or technologies constraining or enabling various courses of action (Bencherki, 2012, 2016).

Similarly, for an organization to do and say things, some representatives have to act or speak on its behalf, in its name, or for it (Bencherki & Cooren, 2011; Cooren, 2010), which also means—and this is a key point in my argumentation—that these representatives have to act as the media or channels through which an organization will manage to act and communicate. While the traditional way of thinking about communication defines a channel as being made of wires, cables, or radio frequencies, Peters (1999) rightly reminds us that the term “medium” was initially popularized in the 19th century to refer to people who claimed to be sorts of spirit channels capable of mediating communication between the dead and the living (see also Krämer, 2015, Peters, 2015).

In other words, the notions of channel or media should not be reduced to technological means by which, for instance, people communicate over the phone, as implied in Shannon and Weaver’s (1949) model of communication. Broadly speaking, these channels and media are all the means—human or other-than-human—by which a being (someone or something) communicates to another being, whether these means are the air we breathe and allows us to speak to each other, the language in which we comment on a specific topic, or the type of paint, metal or texture an artist uses to create her piece. But this also means that a human being can position herself or be positioned as the medium or channel through which other beings—which we sometimes call principals—will communicate (Taylor & Van Every, 2000). In other words, anything or anyone can operate as a medium or channel as long as it is seen as the in-between through which other beings act or communicate (Cooren, 2015).
While the constitutive perspective is often presented in opposition to the transmissive perspective on communication (Schoeneborn & Trittin, 2013), these illustrations show to what extent such opposition could be requalified. What are texts, for instance? They are the results of inscriptions and as such, they have, as we know, an agency, that is, they can make a difference in organizational settings, especially when they are invoked or that their existence is taken for granted (Brummans, 2007; Cooren, 2004, 2008, 2009; Jahn, 2016, 2018; Koschmann & McDonald, 2015; Kuhn, 2008; Spee & Jarzabkowski, 2011; Pälli, 2018; Vaara, Sorra, & Pälli, 2010). Whether they are written in computer files or simply penciled down on a post-it, if they have the capacity to make a difference, it is also, and maybe especially, because they act and say things for or on behalf of their respective authors. For instance, the invocation of a mission statement can make a difference in a meeting because this mission statement was probably authored by key members of the organization (for example, its founders) and their voice does make a difference (Basque & Langley, 2018).

There is therefore no point in opposing constitution and transmission as authoring is always a matter of authority or power (Brummans, Hwang, & Cheong, 2013; Cooren, 2010; Cooren, Fairhurst, & Huët, 2012; Koschmann & Burk, 2016; Taylor & Van Every, 2014). If someone or something indeed makes a difference (i.e., is the author of an action), it is because it is not only he/she/it who/that is acting, but also what or who he/she/it represents, i.e., make present (again). A mission statement is never just a mission statement, it is also supposed to be what the top managers of an organization envisioned as the raison d’être of their company, that is, the fundamental purposes and objectives this organization is supposed to aim at (Koschmann, 2013; Kuhn, 2008). Similarly, a spokesperson is never just a spokesperson, she is also the voice by which an organization will manage to talk to the press or to the public, more generally (Benoit-Barné & Fox, 2017).

Thinking communicatively about the (organizational) world thus consists of acknowledging these double effects of constitution and transmission. Constitution because there is no organization or organizing without communication; transmission because this constitutive power of communication always relies on the transportation or channeling of things or people from one point to another. While the ideas of transmission, propagation or diffusion (I here use the words interchangeably, as they each refer to different aspects of the same phenomenon) insist on the relational dimension of organizing and organization, the idea of constitution reminds us that these relations are the ways by which an organization exists and materializes and organizing takes place.

In order to better understand this key point, one first has to go back to what the word “communication” means: The word “communication,” whose proto-Indo-European root is “ko-moin-i,” which means “held in common,” can be used to speak about rooms communicating with each other (through a doorway), machines interacting with each other (through optical fibers), governments exchanging viewpoints (through their representatives). It does not mean that people communicate the same way machines or rooms do. It simply means that in all these cases, the word “communication” refers to the way two beings are held in common or held together through a third being, which is why we use the same word in all these situations. (Cooren, 2018b, pp. 283–4)

When people communicate with each other, these third beings thus are the words and sentences they pronounce, the eye contacts they make, the body language they express, the texts they write each other through a chat application, etc., all ways by which people manage to relate to each other.

The key phenomenon at stake here can be summarized by the preposition “through,” which precisely expresses the effects of both transmission and constitution. If someone (let’s call her Stella) speaks to someone else (let’s call him Dexter) to deplore the poor conditions of her units, communication is not only the way by which these conditions are communicated to Dexter, but also the way by which Stella, for
instance, communicates to him her distress about this situation. Something thus has to be said (e.g., “You have no idea about the unsanitary conditions in our offices. The cleaning has not been done for two months now!”) and it is *through* what in speech act theory (Austin, 1962; Cooren, 2000; Searle, 1979) is referred to as a *complaint* that this situation is exposed to Dexter and that Stella’s feelings about it are communicated to her interlocutor.

There is therefore *transmission* to the extent that the unsanitary conditions of her office are literally *transported* to this conversation *through* Stella and what she is saying to Dexter. But there is also *constitution* to the extent that through this intervention, Stella presents her offices in a way that *constitutes* them as unsanitary (others could disagree, of course). Similarly, *through* her complaint, her feelings about this situation are not only *transmitted* to Dexter, but they are also *constituted* by what she is saying and how she is saying it, whether Stella is really experiencing these feelings or not (she could, of course, be faking them). Communication thus always implies transportation and constitution, whether we like it or not (Ashcraft, 2020).

One could retort that this idea of communicative constitution appears quite similar to the idea of social construction of reality, as defended by Berger and Luckmann (1966) more than fifty years ago. There is, however, a crucial difference in that this constitution should not be reduced to what Stella *says* about it, but can also be extended to all the ways by which the unsanitary conditions could manage to express themselves. Whether it is *through* pictures of the offices, *through* various measurements of insalubrity, or *through* a visit of the premises, all these forms of transportation constitute the means by which this insalubrity could be established and constituted (Bencherki, 2016). In other words, there is construction, but human beings are not alone on the construction site (Caronia, 2015; Caronia & Cooren, 2014; Cooren & Fairhurst, 2009; Latour, 2003, Ucok-Sayrak, 2018).

But this logic of transmission/constitution does not even end there. Imagine that Stella is the director of her unit and that she is speaking to her immediate supervisor, who happens to be one of the vice-presidents of the company they are both working for. Chances are that Dexter will understand this complaint as also coming from Stella’s unit as a whole, given that, as the director of her unit, Stella is entitled and supposed to speak on its behalf and in the name of its members. When Stella is speaking in these circumstances, it is therefore also the director of her unit who is speaking *through* what she saying. Similarly, when Dexter responds, it is also one of the vice-presidents of the company who might be engaging the responsibility of his company (e.g., by saying “We’re sorry. We’ll take care of this as soon as possible. This is indeed unacceptable!”).

What we have here is therefore a company’s unit speaking to its top management about a situation that they both appear to deplore. Constitutively speaking, Stella therefore is one of the many embodiments/materializations of her unit as she is the one who makes it present and speak to Dexter in this situation. It is also *through* her intervention—her channeling or mediation—that this unit can indeed manage to complain about the poor working conditions that its members have to endure. Similarly, Dexter is one of the many embodiments/materializations of top management, as he is the one *through whom* the presidency of the organization manages to present itself to Stella, but also speaks to her, another channeling or mediation that is happening here.

**Materiality and relationality**

As we see, the logic of transmission, broadly speaking, does not disappear when we think in terms of constitution (Kuhn, Ashcraft, & Cooren, 2017). On the contrary, it is because anyone or anything *can* act as a channel, in between, or medium that (organizational) reality can be said to be communicatively constituted (Cooren, 2012, 2015). As Peters (2015) points out, “media are our infrastructure of being, the habitats and materials through which we act and are” (p. 15). This does not mean that everything or everyone is a medium *in itself/
herself/himself, since being a medium is a relational state. It rather means, relationally and communicatively speaking, that one can become a medium or a channel whenever something or someone else appears to embody, materialize, incarnate, or present itself/herself/himself through what one says or does.

For instance, an organization materializes, embodies or presents itself through the building that host its operations (Kuhn & Burk, 2014), the leaders and spokespersons who speak on its behalf (Fairhurst, 2007; Taylor & Van Every, 2014), the logo that appears on all its vehicles or products (Cooren, Brummans, & Charrieras, 2008), the mission statement that specifies its objectives (Koschmann, 2013), or the policies that define its do’s and don’ts (Cooren, 2015), just to mention a few examples. Similarly, a situation—an organizational conflict, for instance—embodies, materializes, or presents itself not only through the acrimonious exchanges that might repeatedly occur between, say, two employees, but also through the hallway chatting or emails that later comment on these very exchanges. In other words, all these embodiments/materializations constitute what the organization and the organizational conflict consist of.

From a CCO perspective (in my version of the Montreal School), a key point worth mentioning is that whenever one attempts to define what something or who someone is, one always has to identify through what or whom this thing or person presents, embodies, materializes itself/himself or herself. For instance, an employee exists through, of course, her body, but also through her attitudes, emotions, reputation, behavior, talks, writings, email account, computerized record, etc., hence the relational dimension of her being. And this transmissive/constitutive logic also concerns, of course, the way these emotions, reputation, behavior, talks, writings, etc., are interpreted, commented on or observed, as they also always exist through the emotions that they arouse in other people or the way they are commented on, observed or reported.

Conceiving the world communicatively or medially (which is, for me, the same thing) thus enjoins us to conceive it relationally. But what is crucial, as pointed out by Kuhn and colleagues (2017), is to acknowledge that anything or anyone can become the channel or medium through which or whom something or someone else expresses/embodies/materializes itself. In other words, anything or anyone (a body, an utterance, a document, a sign, an individual) can be (identified as) the relation through which two relata not only communicate or connect with each other, but also constitute themselves. For instance, it is through a reputation that someone (let’s call him Adam) can exist to someone else (let’s call her Suzanne), but this reputation is not only the way through which Adam communicates (here, unconsciously) to Suzanne, it is also the way through which he is constituted to her.

A long time ago, the founder of pragmatism and semiotics, Charles Sanders Peirce (1991), perfectly understood this transmissive/constitutive logic when he implicitly claimed that the world is semiotically constituted. Peirce was both a constructivist and a realist precisely because he knew that relations are as real as the relata they connect and constitute (see also James, 1912/1976). Loved ones are constituted through the photographs that make them appear to you on your desk (icons), a disease is constituted through the symptoms that reveal it to physicians (indexes), and a conflict is constituted through the comments it later triggers in a hallway (symbols). It does not mean, of course, that these photographs, symptoms, and comments respectively exhaust the modes of being of the loved one, disease, and conflict. It means that they just are one of their embodiments/materializations among many others, that is, one of the ways by which they happen to exist.

From my version of a CCO perspective, something or someone thus exists through its/its/her embodiments and materializations, but this does not mean—and this is another key point in my argument—that this phenomenon consists of an immaterial being embodying or materializing itself in a material being. Embodying and materializing always consists of passing from one body to another or from one
matter to another. For instance, an organization materializes in its spokespersons, but the organization is not immaterial while the spokespersons are material. The organization also always already is material(ized), whether through the name we use to refer to it, through the buildings where its operations take place, or through the ledgers that record its business transactions. In other words, there is no absolute (and immaterial) starting point from which materialization takes place.

**(Socio-)Materiality from a CCO Perspective**

So, what are the implications of this CCO perspective regarding the way we generally conceive of (socio-)materiality? I believe that the first implication is that we should stop exclusively associating materiality to technologies, artifacts, rocks, and tools (Leonardi, 2012a, 2012b; Leonardi & Barley, 2008). Not only physics but also communication studies allow us in particular to stop mistaking materiality for tangibility and visibility. Something tangible, as we know, is something that is perceptible by touch, but something intangible can still be material if by material we mean, made of matter, which is its common definition (Carlile et al., 2013; Cooren et al., 2012). A hologram, for instance, creates a spectral or eerie effect by which something appears before our eyes without being touchable. No physicist, however, would ever claim that that holograms are completely immaterial, as they know that these optic effects are actually made of diffracted lights (photons, i.e., waves/particles) that are assembled through a very sophisticated device.

Does it mean that it becomes completely irrelevant to speak about immateriality? No, it does not, as thinking about the world relationally precisely means that we always experience a tension between materiality and immateriality. When being X materializes to being Y, we already know that it is always through a third being—let’s call it Z—that acts as X’s delegate, medium, or representative. For instance, an administration (X) appears to us (Y) through the employee (Z) who is providing us with the service we requested. From a CCO perspective, this administration is talking to us through this employee, which means that this employee and what she is saying is one of the ways by which this administration communicates to us. Note, however, that this materialization is always finite and never exhausts what the administration consists of.

If this administration indeed materializes to us through what this employee is physically doing (providing us with forms, handing us a pen, etc.) and saying (telling us what we should write down, asking us questions about our identity, etc.), we certainly experience the material dimension of this organization, but we also experience, and this is a key point, the incompleteness of these materializations (Cooren, 2010; Mills & Cooren, 2018; Kuhn et al., 2017). In other words, this administration never completely materializes to us when we interact with it because it never fully presents itself to us when we are dealing with it. Other clients are being served at the same time and parts of this administration’s activities will always remain foreign or invisible to us (processing client paperwork, making decisions about new procedures, celebrating the birthday of one of its employees, etc.). This means that experiencing the materiality of an organization (through its employees, buildings, technologies) always comes, by definition, with the experience of its (relative) immateriality (Brummans, 2011; Brummans, Hwang, &Cheong, 2020), as this administration can never completely materialize to us at the same time and place.

What is key in this reasoning is acknowledging the relative character of materiality (or immateriality, for that matter). Beings—whatever or whoever they are—are never either completely materialized or completely immaterial, as they always have different degrees of materiality (Cooren, 2010, 2018b; Kuhn et al., 2017). A strategic plan, for instance, materializes through the discussions managers begin to have about it at some point. However, it will possibly materialize more and more through the various documents that will be written to define
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its content, through its presentation to employees under the form of focus groups or formal speeches, through its possible implementation in the company, and through the report that might finally be written and presented as a post-mortem of the initiative (Bencherki, Sergi, Cooren, & Vásquez, in press; Cooren, Bencherki, Chaput, & Vásquez, 2015; Vásquez, Bencherki, Cooren, & Sergi, 2018).

If the strategic plan ends up on the organizational bookshelves and is never implemented by the company, it will remain on paper, as we say, which means that it will never materialize through its implementation or anything that could have been accomplished in its name. As we see in this illustration, a strategic plan thus has, by definition, different degrees of materialization, which means that its materiality will always be relative, finite, and somehow incomplete. Of course, one could retort that a strategic plan that is never implemented does not really materialize (it precisely remains on paper or under the form of mere discussions), but to say that it then remains completely immaterial would be a mistake. It at least materialized in what people said and wrote about it, which gave it a form of existence, even if this existence remains, in this case, relatively inconsequential.

This brings me to another implication of the CCO perspective à la Montreal, which is that speaking or writing about something is a non-negligible way of materializing it. For instance, regarding corporate social responsibility (CSR), Christensen, Morsing, and Thyssen (2013) write that “organizational talk about CSR ideals is an important resource for social change, even when such talk is not fully reflected in organizational practices” (p. 385). While we always tend to oppose talking the talk and walking the walk, a growing CCO literature actually shows that talking about something—CSR, for instance—can actually (not always) be an important way by which an organization commits to change, what Christensen and colleagues propose to call “aspirational talk” (see also Christensen, Morsing, & Thyssen, 2011).

This does not mean, of course, that merely speaking about CSR is enough and that organizations cannot be accused of greenwashing, blue washing, or window dressing anymore. It means, however, that talking is always a form of doing (Austin, 1962; Cooren, 2000; Searle, 1969, 1979) and a way of materializing a company’s ambition. This specific form of doing can indeed be far from inconsequential, especially when it is performed publicly (Cooren, 2020; Schoeneborn, Morsing, & Crane, 2020). Since talking about something is always a way to materialize it, whether in a discussion, in a press conference or on a website, one can at least observe that what is talked about matters enough to the organization to commit itself to do something about it.

What is even more important to understand is that communicating is not only a matter of speaking and promising, but also a matter of materializing what is talked about. As pointed out by Schoeneborn and colleagues (2020), in the case of CSR, it is not only a matter of walking-to-talk (where the doing of CSR would precede the reporting about it) or talking-to-walk (where the talking would precede the doing), but a matter of what they call t(w)alking, that is “going beyond the analytical separation between CSR communication and CSR practices” (p. 18). In other words, by concretely practicing CSR (instead of just talking about it), the organization (through its employees) also communicates about its commitment to social responsibility, which might confirm what this organization is also saying about it. The slogan “actions speak louder than words” thus has to be taken seriously, as actions indeed communicate about, that is, materialize, an organization’s commitment, even if this commitment also has to be communicated verbally.

This brings me to another key implication, which is that being or existing is a matter of degree or, as Peirce (1893/1998) points out, “being is a matter of more or less” (p. 2), that is, “a quantitative matter” (Peters, 2015, p. 178). Whether we take a strategic plan or CSR as an illustration, the result is the same: both of them exist more or less depending on the energy organizational members expend to materialize it. While some degrees of existence can definitely appear more superficial than others (for instance, when an organization materializes
CSR by just talking about it, which could be detrimental to its reputation), we know with Christensen and colleagues (2013) that even these superficial ways of being and existing are not insignificant, especially if they mark an ambition (see also Brunsson, 2002).

An organization, for instance, can start to materialize/exist in its founder’s mind and some notes she took for herself. But then progressively it could take the form of a business plan, followed by a bank account, loans, employees, spokespersons, buildings, logos, organizational charts, operations, etc. Throughout this materialization process, the organization can be said to exist more and more through multiple forms of embodiments/materializations. At some point, however, it could start existing less and less, through a series of unfortunate layoffs and the progressive reduction of its operations, which could ultimately lead to its termination. Even at this point, the organization could still exist in the form of archives, artifacts, or historical accounts. Existence, as counterintuitive as it might sound, is a matter of more or less.

**From Entanglement to (Im-)Properties**

Going back to the question of (socio-)materiality, I therefore agree with Orlikowski (2007) when she claims that “there is no social that is not also material, and no material that is not also social” (p. 1437), but we then need to be clearer about what we mean by social and material. Following Latour (2005), it is worth reminding ourselves that speaking about the sociality of a being consists of referring to the relations that make it what it is (Cooren, 2018a; Martine & Cooren, 2016), which is what I have tried to illustrate throughout this article. But then, since anything or anyone can be a relation that defines and enacts relata, it is also important to remember that relations are as real and material as the relata these relations link to each other, that is, that they are all made of matter.

While relational ontology was first popularized through Barad’s (2007) idea of “entanglement of meaning and matter” and then through what Orlikowski (2007) called the “entanglement of the social and the material” (p. 1435), I believe that these metaphorical expressions can be misleading and might explain why most scholars keep (knowingly or unknowingly) mobilizing what I called the weaker version of sociomaterialism, illustrated by Leonardi’s (2012b) as well as Hardy and Thomas’s (2015) perspectives. Entangling indeed means that at least two things are twisted, wrapped or woven together, which then implies that these things that are said to be entangled can still be, at least theoretically, identified separately (otherwise, there would not be any point in speaking of entanglement).

Instead of speaking of entanglement, I think that a relational ontology would be better served if we rather spoke in terms of properties, as relative (i.e., improper) they might be, that is, what we could call (im-)properties. There is not, on one side, the social, and on the other side, the material, however entangled they both might be. The terms “social” and “material” are, in fact, adjectives and as such refer to the properties of everything that exists, whether we are talking about a technology, a rock, a human being, an emotion, a discourse, an organization, or a society (the exception being, of course, nothingness itself, which also exists). Why on earth would a rock (let’s say Uluru, also known as Ayers Rock, located in the Northern Territory of Australia) be social? Because it is made not only of minerals related or assembled to each other, but also of the photography we could take of it or the comments people might make about its form, color or texture. It is, in other words, made of relations, which does not mean that it does not have an identity (through its singular shape, color, composition, etc.).

Why is a rock also made of the photographs that iconically reproduce it? Because it also exists in and through these photographs that make it present to the people looking at them. This is, by the way, why we can say, “This is Uluru” upon looking at a photograph that was taken of this famous sandstone formation. Incidentally, defending a relational ontology does not mean that we cannot make a difference
between the “real” rock, as we tend to say (the one that is actually located in the Northern Territory of Australia), and its re-presentation in the format of a photograph. It just means that we are dealing with two different embodiments or materializations of what we call “Uluru” or “Ayers Rock” even if the former definitely looks more immediate than the latter.

Note that the same distinction is often made between symbols and what is symbolized. Typically, a symbol can appear less real than what it is supposed to symbolize (for example, what we call a symbolic gesture can be criticized for being not tangible enough). However, even a symbol—in the technical sense proposed by Peirce (1991), i.e., a word, for instance, or in the commonsensical way of conceiving of this term, i.e., shaking hands to symbolize peace—has, by definition, to be produced, real-ized and materialized in order to exist. Although the symbol should not be completely mistaken for what it symbolizes, it is as real and material as what it stands for. Meaning is therefore not entangled with matter. Meaning always materializes in discourses, images, traces, that are as material as what they stand for.

What is true of Uluru is, of course, also true of an organization, with the distinction that its sociality appears more obvious, while its materiality sometimes appears less apparent. An organization is, as pointed out by CCO scholarship for more than thirty years (Taylor, 1988), made of communications, that is, made of relations (people coordinating their activities, organizational charts defining responsibilities and hierarchies, websites promoting products, spokespersons representing its interests, buildings impressing its visitors, etc.), but these relations/communications are also always material, even if this materiality can sometimes appear less tangible (when, for instance, the idea of a new product or service germinates in the mind of one of its engineers).

Anticipating a potential critique, I want to insist that I am not claiming that organizations are absolutely identical to rocks! What I am saying is that a relational ontology forbids us, by definition, to institute an absolute difference—whatever this might mean, as from a relational/communicative viewpoint, an absolute difference cannot exist (absolute indeed means “not relative to something else”)—between these two beings. They are indeed both social, that is, they are made of relations, and they are both material, that is, made of matter. Both of them materialize in various forms of embodiments: while some embodiments can definitely appear more essential or central than others (the actual Uluru in Australia; the founder of an organization), their respective existence is always communicated into being through various forms of re-presentation, that is, various ways by which they are made present to others.

**Conclusion**

As I have shown in this article, in order for matter to really matter in organization studies, we need to stop thinking in terms of entanglement, as this metaphor implicitly reproduces the divide it claims to reject. If “there is no social that is not also material, and no material that is not also social” (Orlikowski, 2007, p. 1437), we rather need to think in terms of properties, even if these properties are, by definition, always relative, that is, relational, hence the idea of (im-)properties. To sum up the argument, I thus propose the following stances, which I think define what a relational/communicative take on (socio-)materiality consists of.

**Stance # 1:** Everything (or everyone) that exists is, by definition, material, that is made of something (or someone), except, of course, nothingness. As pointed out, this does not mean that we cannot experience a form of immateriality. Given that someone or something is always experienced through what or who makes it present to someone or something else, this materialization will always be partial, incomplete or finite, which means that a form of immateriality will also always be experienced. However, this also means that the absolute immateriality of something means its nonexistence, with the caveat that talking about something or someone that we claim does not exist still consists of
giving it/him/her a form of existence, be it only in our talk. This is what we could call the paradox of relationality: any claim of absoluteness destroys the object of this claim.

Stance # 2: Existence/materiality is a matter of degree, that is, a being exists more or less depending on the number of other beings that materialize its existence. A project, for instance, can start existing in someone’s mind under the form of a feeling, image, sentence, etc. It can then be written down on a piece of paper, talked about with others, elaborated through the iteration of various documents, and finally enacted concretely through various actions. Throughout this process, this project comes to exist more and more depending on the various forms of embodiments/materializations that appear to concretize it. It can also start to exist less if some of its embodiments/materializations are called into question or even not anymore if all traces of its existence end up disappearing. If we still speak about it at some point, it still exists in our discussion, but if we then forget about it and all traces (mnemonic or others) vanishes, it simply ceases to exist.

Stance # 3: Everything (or everyone) that or who exists has, by definition, a social dimension, that is, it is made of relations (which is what social means). What is crucial to understand is that there is no absolute difference between a relation and its relata. For instance, a procedure is what relates an employee X who is following it to the employee Y who conceived of it. In this case, the procedure is one of the relations that link these two employees (X and Y) to each other. However, the procedure, as we see in this illustration, is as real as the relata it relates. This means that this procedure can itself be seen as a relatum related to the organization (the other relatum) through the employee Y who conceived of it for the organization. Any being is a potential relation or a potential relatum, hence its social dimension. This is, by the way, why communication is constitutive of organization in particular, and reality in general (Cooren, 2012).

What do these stances lead us to observe as organizational scholars? First, they enjoin us to stop thinking in terms of either/or (either transmission or constitution, either social or material, either representation or action, either things or processes, etc.). Thinking the (organizational) world relationally indeed invites us to think in terms of both/and (Cooren et al., 2006): constituting is a way of transmitting and transmitting is a way of constituting; the world is not either social or material, it is both social and material; representation should always be understood as a form of action (Lorino, 2018) and action should always be seen as a means by which one or several actors are made present (Cooren, 2010).

Second, these stances lead us to think in terms of materialization rather than exclusively in terms of materiality. Since materiality refers to a property of everything that exists (except nothingness itself), I believe it is not that useful as a concept to understand the organizational world, except to remind us that it is completely useless to oppose the symbolic/discursive/social world to the so-called “material world.” What is however more interesting is to study how organizing and organizations materialize through various elements (spokespersons, websites, operations, employees, products, voices, texts, etc.) and how this materialization takes place, especially since it then allows us to think in terms of processes and trajectories. Following the materialization of an organization then consists of following the various trajectories that make it subsist and endure throughout space and time (Vásquez, 2013, 2016).

Third, they invite us to stop separating the world of discourses, conversations, and interactions from the world these discourses, conversations, and interactions are supposed to be about (what scholars often call “the material world” as to clearly create this distinction). From a relational perspective, a discussion about something or someone always is a way for this thing or person to make itself/himself/herself present in this interlocutory space, that is, to literally materialize in the discussion. This thing or person might certainly materialize in its/his/her body if it has one, but, and this is a key point, it also materializes in what people
say or write about it/him/her, hence its/his/her relational mode of existence. One embodiment might look more concrete than another, but there is absolutely no point in opposing these two “worlds.”

Fourth, these stances do not prevent us from investigating how technologies, texts, objects, and architectural elements make a difference, that is, do something in a given situation. They simply warn us that using the term “materiality” to speak about all these things is not terribly useful, as this expression tends to reproduce an artificial opposition with the world of discourse, emotions, thoughts, which, as we saw, also have their share of materiality. Thinking in terms of degrees precisely allows us to compare, for instance, how the durability of texts can have a profound effect on organizations, especially if we compare it with the volatility and transient nature of speech, when it is not recorded. Both speech and documents have a material dimension, but what is more interesting is to compare their type or degree of materiality. Speech tends, for instance, to be less material than documents precisely because it vanishes quickly after being produced.

It is these stances and insights that I think define a CCO perspective on materiality and that have been and keep being empirically investigated throughout these past years and years to come. I hope this article will have helped readers recognize why it is worth pursuing. Entanglement, no, but (im)properties, yes!

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**Notes**

1. I should point out that I am essentially criticizing Hardy and Thomas’s (2015) formulation here, as I am aware that in other parts of their article, they mention “Foucault’s theorization of discourse, which emphasizes ‘the materiality of language at every dimension’ (Young, 2001, p. 399)” (p. 680). My point is that if they agree that discourse has always a material dimension, it does not make sense to speak about discursive and material processes, an expression that precisely implies that discourses do not have a material dimension. Note also that to my knowledge Foucault did not create this artificial distinction between material and discursive aspects, as his genealogy program precisely consisted of acknowledging the existence of discursive and non-discursive elements in various control apparatuses. In other words, for Foucault, it does not make sense to exclusively associate non-discursivity to materiality, as discourse, for him, always has a material dimension.

2. I prefer to use the term “other-than-human” instead of “nonhuman” because the expression “nonhuman” seems too radical. For instance, calling a document a nonhuman is problematic as a text is, in many respects, very human in its conception and expression. The same thing could be said of an emotion, a building, a tool, etc. Using the term “other-than-human” allows me to speak of the existence of things that have been at least partially produced by human beings, while recognizing their relative autonomy and agency.

3. One could retort that this decentered vision of agency is even stronger in Luhmann (1992) when he provocatively claims that “Humans cannot communicate; not even their brains can communicate; not even their conscious minds can communicate. Only communications can communicate” (p. 251). For more details on this debate, see Cooren and Seidl (2020).

4. Although I tend to use the words “channel” and “medium” synonymously here, I acknowledge that they insist on different aspects of the same phenomenon. The term “channel” implies the idea of conduit, while the term “medium,” as mentioned, etymologically means “middle,” which is why it can sometimes be used to speak about a milieu (see Peters, 2015).

5. The verbs presenting, embodying, and materializing are, of course, not completely interchangeable, but they refer to different aspects of the same phenomenon, which is why I tend to use them indiscriminately here. For instance, when the spokesperson of a company talks to journalists in a press conference, she is making this company present to them through what she does
and says. But this also means that the company materializes itself to the journalists through this spokesperson and that the latter embodies her company for them at this point.

6. Derrida (1994) proposes the pun “hauntology” to talk about the spectral character of our experiences, which therefore navigate between materiality and immateriality. For more on this hauntology, see Cooren (2009, 2010) as well as Matte and Bencherki (2018).

7. An exception would be, again, nothingness or what, in physics, is called the vacuum, to the extent that it exists in outer space, for instance. But even the reality of void or emptiness can be questioned (see Barad, 2007, p. 354)

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