

METAPHORS IN MANAGEMENT RESEARCH: RETRACING STREAMS TO INSPIRE FUTURE DEVELOPMENTS

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Abstract

This paper offers an extensive and systematic review of the research on metaphors in management. Metaphors are important for both practitioners and academics insofar as they can both facilitate and constrain processes of communication and innovation, and aid the formulation and development of models. Yet, research is hindered by the vast array of metaphors (conceptual, embodied, primary, secondary, visual, inductive, blend, among the others), and the compartmentalization of the research fields. Issues of categorization and compartmentalization have created a form of matrix classification that has limited the development of the knowledge within the many of the resultant cells. This contribution attempts to reveal the nature and implications of this silo-based engagement with metaphor and in keeping with the remit of the subtheme, propose ways in which metaphors can help new research within the field of organization studies.

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Introduction

Why should management scholars even care of metaphors? At some point in a not-so-distant past, questions similar to ours were advanced by scholars, who espoused the superiority of literal language for being precise and rigorous, and claimed it was therefore best suited to providing descriptions of phenomena, conditions, causes and consequences which represent the core of formal theories (Bourgeois & Pinder, 1983; Pinder & Bourgeois, 1982). They therefore posited that scholarly attention should be devoted to it rather than distracted by metaphors, which were presented as imprecise and fuzzy tropes, almost dirty and impure, which should stay away from the sacred domain of theory building. However, history took a different turn, and the focus on metaphors has indeed enriched several streams of research that constitute the bases of management studies. Through some foundational work conducted by linguists and philosophers (e.g., Lakoff & Johnson, 1980a), and cognitive scientists (e.g., Gentner, 1983), metaphors started to be recognized not just as linguistic embellishments, but as essential components of our thinking. Neither theories nor theory building could be immune to them. Quickly and pervasively, metaphors became a constitutive part of the understanding of organizations (e.g., Morgan, 1986), and the making of organizational theories (e.g., Boxenbaum & Rouleau, 2011). In a little longer than three decades, metaphors started to be employed in a variety of organizational contexts. For example, metaphors have been found to be lenses to explore the cognitive process of *sensemaking* and *sensegiving* of managers (e.g., Gioia, Thomas, Clark, & Chittipeddi, 1994; Marshak, 1993), meters to gauge strategically the future (e.g., Gavetti, Levinthal, & Rivkin, 2005; Lovallo, Clarke, & Camerer, 2012), and instruments to create new knowledge (e.g., Biscaro & Comacchio, 2018; Nonaka, 1994) .

It is for the power they carry and for their pervasive use that metaphors have become central in several management literatures. The level of scholarly interest is demonstrated in the publication of two special issues on metaphors (Cornelissen, Oswick, Christensen, & Phillips, 2008; Ortenblad, Putnam, &

Trehan, 2016). However, the widespread use across distinct streams of management literature poses a problem for theoretical advancement. As we highlight more precisely in the next section, our knowledge of metaphors does not seem to evolve organically, for it suffers from an ambiguous vocabulary that generates confusion, and because metaphors are employed in distinct streams of literature that flow rather independently. These aspects make it difficult for scholars to put things together and develop a unified theory of metaphor or even theories that cumulatively build on the results of prior studies, making it look like we always have to start anew with regards to metaphor-based research.

Therefore, this work has the following objectives. First, we want to document the ambiguous vocabulary with which metaphors are connoted. Specifically, the types of metaphors that are acknowledged. Types differ for the affordances that carry the metaphor, e.g., images rather than language, but also for the conceptual work they perform, and the type of methods we, scholars, need to study them. Their existence has augmented the difficulty to re-using and building upon existing research findings, when they are compartmentalized according to type. Yet, types often overlap, and at times can be contextually-embedded, thereby we need an easier and complete categorization to be made available to all the community of scholars. Therefore, we aim to extend the work that has been carried out so far (Cornelissen & Durand, 2014; Cornelissen et al., 2008), to review and clarify the distinction between types, allow future research to be more explicit about it, and to move forward more cohesively.

A second objective is to retrace the streams of literature in which metaphors have been adopted as a primary lens or focal point for study. We will do that by distinguishing three levels of analysis that have commonly been employed: a micro level of analysis that attends to how individuals use metaphors: a meso level of analysis that refers to studies at the organizational level: and a macro, or institutional,

level of analysis, where metaphors have been used to describe theories or overarching concepts. Each of these streams bring important contributions, be they methodologically or in forms of theoretical advancements, which have been often ignored by other streams.

As a third objective, we suggest how to make use of such a compendium of knowledge on metaphors in management studies, by drawing some paths for new research that build on various contributions which could re-invigorate research on metaphors and make use of findings and methods coming from different streams. Thereby our final objective is to bring together the streams of research in a metaphoric 'lake' from which new streams can depart after having blended their different waters.

Indeed, and as it will be clear to the reader, at times the division of articles in levels of analysis (micro, meso, and macro) or in streams of literature is somewhat forced, as their separation is not always straightforward. Therefore, some of the articles' contributions will appear in more than one of the next subsections, making it clear that streams and levels have not been entirely sealed off from each other. However, such a separation into sections will allow us to describe the progress of the literature and facilitate a clearer final discussion.

Research Design

We used a mixed method approach to map the studies on metaphors in the literature of management. This approach integrates both quantitative and qualitative methods to investigate the evolution of the debate and detect how ideas, methodological approaches, and theoretical developments have developed and contaminated different streams of research. The period the review covers begins with the seminal paper by Morgan (1980) published by *Administrative Science Quarterly*, which sets the foundation for a literature that so far has received to our knowledge only partial attempts of systematization (see Cornelissen et al., 2008).

The construction of a catalogue

To have a complete picture of the articles published in management journals that used the construct of metaphors, we searched the database of ISI Web of Science¹. The search was conducted on the articles that contained at least one of the following word roots (metaphor* OR tropol* OR analog*) in their title, abstract, or keywords. We selected the subset of publications that are part of the Business and Economics disciplinary area. We then chose articles that received citations, among those published before 2010, and all of those published after 2010, for not all articles receive citations immediately after publication (Radicchi, Fortunato, & Castellano, 2008). From these 3,282 publications, we then proceeded to select a smaller sample that we could read and analyse qualitatively. Therefore, we first screened out the articles, which were not published within the top 50 journals in the Scimago ranking of Strategy and Management and the list of Business, Management and Accounting. Still the number of articles was beyond 300, from which we needed eliminate those that only ceremonially mentioned the concept of metaphor. Therefore, we followed two criteria, one of internal impact², and one of internal relevance with the subject of metaphor and selected the 50 articles which received the highest number of citations by the other publications in our dataset, and other 50 with the highest number of references contained in the dataset. The criteria have opposite temporal biases: the criterion of impact favours older papers, while the criterion of relevance benefits from a larger base of citable papers therefore privileging younger works. We were able to obtain a list of 100 articles that followed the seminal publication by Morgan in *Administrative Science Quarterly* (Morgan, 1980, 1983), which kindled the attention of management scholars on the topic.

We first read a handful of the articles and to detect their differences and develop possible analytical categories, which could help us to organize the existing literature. We produced a coding book to orient

¹ We accessed the database on 8th October 2017. We used Histcite to analyze the citation flow and to see the distinction among different streams of literature. Results are available under request.

² We followed the general opinion in academia that citations are a reliable index of how knowledge is transmitted and a sign of prestige (Garfield, 2004; Peteraf, Di Stefano, & Verona, 2013; Biscaro & Giupponi, 2015).

us in the systematic coding of the whole catalogue. The codes are the following: (1) The main literature to which the article contributed (e.g., organization theory, organizational behaviour, change management, marketing). (2) The use of metaphor as a dependent or independent variable. (3) The type of metaphor present in the study (e.g., conceptual, embodied). (4) The unit of analysis: micro, meso, or macro level. (5) The disciplinary orientation, whether it is psychological, which studies the metaphor as a construct that pertains to an abstract conceptual space, or sociological, which studies the metaphor as a socially constructed entity used in the organizing. (6) The method in which a metaphor is studied, which is inductive when the metaphor arises from the field (Grant & Oswick, 1996), or deductive, when the author imposes it (Cornelissen et al., 2008). With such a coding book, the two authors read and coded independently all articles, discussed their coding attribution, until they reached an agreement on the final coding of each article.

A metaphor and its types

A metaphor is a figure of speech in which a word or a phrase is applied to an object or action to which it is not literally applicable. A metaphor therefore is a juxtaposition of two concepts: *source* and *target*. The source is what we employ to explain the target. Often therefore, the *source* is a familiar concept through which we explain a less familiar one (Lakoff & Johnson, 1980a). Metaphors are juxtapositions rather than comparisons, because by using them we can learn beyond similarities and differences between concepts (Gentner & Markman, 1997; Morgan, 1986), for some of their effects cannot be merely explained by a mere difference of the elements of the constituting concepts: *source* and *target* (Cornelissen, 2005; Fauconnier & Turner, 1998).

Yet, not all metaphors are equal, nor do they yield the same effects. Thereby a rich debate has kindled around what metaphors are, their different types exist, and their effect has been central for management studies (Biscaro & Comacchio, 2018; Cornelissen, 2005; Oswick & Jones, 2006; Tsoukas, 1991; Tsoukas, 2009). To study metaphors, we draw and extend existing classificatory approaches

(Cornelissen et al., 2008; Grant & Oswick, 1996). Yet, before continuing, we now provide a separate description of the types to then aggregate the most overlapping ones.

Conceptual metaphors

To make scholars aware that “the bulk of our everyday conventional language are structured and understood primarily in metaphorical terms,” Lakoff and Johnson (1980b: 453) devise a trickery. They introduce the *conceptual metaphor* to distinguish it from the “conventional metaphor,” which had a negative connotation (ibidem), for it was far from the ‘real stuff’ that should be described by scholars through the literal language. They illustrate that the language we normally use maps independent concepts, and such mappings deeply affect the way we think and act. For example, we usually think of an ARGUMENT in terms of *WAR*, from which it follows that claims are (*in*) *defensible*, criticisms are *on* or *off-target*, etc., or that an ORGANIZATION is a *MACHINE*. The *target* concepts of ‘argument’ and ‘organization’ are thereby structured, understood, and deployed as if they were *source* concepts, ‘war’ and ‘machine’ respectively. Only when we are able to borrow much of the vocabulary from the source to characterize the target, we are in presence of a conceptual metaphor (Ritchie, 2003), which makes us “understand and experience one kind of thing or experience in terms of another” (Lakoff & Johnson, 1980b: 455). Let us consider for a moment the ORGANIZATION as a *MACHINE* metaphor. When seen as machines, organizations are *instruments* to achieve the objective devised by the ownership (Morgan, 1986). They have *functions* geared to work independently by means of routines and communicate through an *established interface*, such as standard operating procedures and accounting rules. Indeed, when looked through the metaphor of a machine, the organization resembles a Weberian bureaucracy.

Scholars in the areas of business management have explicitly referred to *conceptual metaphors* both in empirical (e.g., Andriessen & Gubbins, 2009; Phillips & McQuarrie, 2009; Zaltman, 1997), and conceptual works (e.g., Baum & Rowley, 2002; Cornelissen, 2006). Empirically, *conceptual metaphors* have

the capacity to reveal the essence of abstract concepts, in as much as metaphors show the vocabulary with which they are connected. For example, Andriessen and Gubbins (2009) find that the distribution of words, adjectives, and verbs that co-occur with the concept of relationships profoundly differ depending on the theory of social capital in which they are mentioned. Granovetter's theory (1973) for instance insists on the metaphor of relationships as *paths*, which has the quality of strength that foregrounds how information is shared among peers. In contrast, the theory by Lin and colleagues (1981) stresses a more strategic and transactional use of relationships revealed by the metaphor of *resources*, which can be activated, used, and yield a measurable outcome. In this way, the metaphoric vocabulary connected to a key theoretical construct can reveal overlaps as well as differences between theories. Conceptual metaphors are also powerful persuasive devices to communicate. For instance, in a well-designed experiment, Phillips and McQuarrie (2009) find that highly figurative, or artful conceptual metaphors, unlike more usual conceptual metaphors, have long lasting effects on the recipient's beliefs about the quality of the target concept. For instance, subjects who are exposed to the metaphor EXERCISE is a *flame for life* gauge exercise as *beat* even some time after the exposure to the trope. Instead more usual metaphors, perhaps because are no longer surprising, fail to expand the meaning of the target. Thereby they could be taken-for-granted and not modify the understanding of the target. However, this result foregrounds the malleability of even the most familiar concepts to the activity of metaphors.

Vocabularies offered by conceptual metaphors can illuminate a complex phenomenon or entity and theorize it (Baum & Rowley, 2002; Morgan, 1986). In the book *Images of Organization* (1986), Morgan illustrates how a metaphor foregrounds certain aspects of the target, while hiding certain other aspects. While this occurs because the metaphor constraints our attention on the similarity between source and target, we can still enhance the knowledge of the target by employing a repertoire of conceptual metaphors. Yet, the conceptual metaphor theory does not account for the unexpected, for the

emerging elements that arise from the abductive comparison between target and source (Cornelissen, 2005; Cornelissen, 2006). We shall discover more in the § *blend* section of this array of types.

Live and dead metaphors

Not all metaphors bring fresh perspectives that cast light on hidden aspects of a target phenomenon to increase its comprehension. One feature that the reader has probably noticed is that the power of metaphors to reveal new features of the target depends on the cumulative frequency with which a source has been associated to a target. It follows that metaphors have a life cycle, or a *career* (Bowdle & Gentner, 2005). They span from *live* (Ricoeur, 2010), when the source brings novel meanings to the target, and source and target are perceived as clearly different concepts, to *dead* or *worn-out*, whereby metaphors do not offer a powerful transfer of meaning.

Dead metaphors have lost the original meaning and then dried up their imaginative power for their extensive and systematic association to the target (Cornelissen, 2006; Tsoukas, 1991), which makes them normal and taken for granted. A *dead metaphor* results from a long semantic drift of language. Once an association turns into an “established language pattern” (Spears, 2003: 36), it becomes part of the vernacular until we lose the awareness of its origin, and no longer recognize it as a metaphor (Cornelissen, Kafouros, & Lock, 2005). As an example, we now think of ‘organizational structure’ as a fixed-expression, which indexes the relations between functions and business units within an organization, help us think in terms of hierarchy, chain of command, span of control, etc., but sheds no light on new elements of an organization. Yet, the metaphor has spurred vibrant discussions once it was introduced (e.g., Simon, 1944; Weber & Parsons, 1947).

Albeit it is *dead*, a metaphor does not cease to yield an effect on our cognition: the unconscious association between domains deeply structures our interpretations (Lakoff & Johnson, 1980; Müller, 2008). Going back to the example of the metaphor ‘organizational structure,’ it requires effort to think of the relations between organizational functions in alternative or independent terms from those of the

dead metaphor: perhaps, could we employ a neuronal metaphor to model the interaction between organizational functions? Would such a metaphor cast light on new elements of the organization?

The career of metaphor suggests that the generative or heuristic power of a metaphor depends on its degree of liveliness. The distance between source and target decreases with the cumulative association between them (Cornelissen, 2005; Cornelissen & Durand, 2014; Oswick, Fleming, & Hanlon, 2011; Oswick & Jones, 2006). Therefore, a systematic and prolonged use reduces the capacity to lend rich perspectives that cast light on new elements of the target. This point, which is generally valid, but it does not consider that the knowledge of the source can vary between users of the metaphor (Biscaro & Comacchio, 2018), which can extend the life (and power) of a metaphor.

Live metaphor then becomes a powerful device that “enrich[es] our vocabulary by adding to polisemy” (Cornelissen & Kafouros, 2008: 3) and it leads to further conceptual development (Tsoukas, 1991). They are crucial in theory building since they initiate the process of creating new constructs that go beyond of ‘seeing-as’ or ‘conceiving-as’ a phenomenon. *Live* or *dead* metaphors can emerge through the enactment of certain concepts. Islam, Endrissat, and Noppene (2016) show how perfume makers rely on drawings and visuals to expand and surpass cliché association. For example, the concept of lemon led to a lemony scent perfume (a *dead* metaphor), when the choice of the scent derived directly from the idea, whereas material representations of the lemon expanded the set of possible metaphoric sources.

Primary, or embodied, and secondary, or complex, metaphors

There are metaphors that draw on our daily experience, which tend to be unconscious, and pervasive (Lakoff & Johnson, 1980a). One example is GOOD is UP. This metaphor is reinforced by multiple experiences. For instance, when we pour a drink into a glass, or when we put more food in our dish, the level goes up. More food, more drink, and more of anything in general are associated with positive feelings, while less is generally associated with scarcity and negative feelings. It should not

surprise that when we are excited, we feel *high*. When we feel bad, we feel *down*; and when things go wrong, they go *downhill*. We experience and describe positive and negative experiences, the target, in terms of a vertical scale, the source. We therefore call such metaphors *primary* or *embodied*. We need to note that often primary and embodied metaphors are treated separately in the literature, but such a distinction is not justified when we take a closer look at their definition as also *primary metaphors* are “metaphorical mapping[s] for which there is a direct and experiential basis” (Gibbs 2006: 117, cited in Cornelissen and Kafouros 2008). For there is no experience that is not at least indirectly mediated by senses (Lakoff, 2012), by our body and its sensory nervous system, who are crucial in the acquisition and reinforcement of the metaphor, we can therefore aggregate the two metaphoric groups. We therefore can think of primary metaphors as low-level (source) constructs by which we experience phenomena in the world (target).

Secondary or *complex* metaphors assemble multiple *primary* metaphors to create novel metaphoric constructions. Unlike primary metaphors that “arise spontaneously and automatically without our being aware of them” (Lakoff & Johnson, 2008: 256), *secondary* or *complex* metaphors may be the outcome of a cognitive effort. For example, ‘population ecology’ borrows meanings from the biological sciences to signify a theory directed at explaining the rise and mortality rate of firms in a competitive environment (Hannan & Freeman, 1977). Or, again, the combination of the two primary metaphors ‘glass ceiling’ to render the gender gap (Bendl & Schmidt, 2010; Cornelissen & Kafouros, 2008).

In management studies, *primary* and *secondary* metaphors are seen as useful tools to unpack the complex and often abstract nature of organizations, their problems, and their evolution (Cornelissen & Kafouros, 2008). For instance, the reference to the metaphor of glass ceiling helps render vividly and theorize the perception of gender discrimination by women at work. Moreover, as experience of new situations is mediated by the body, a new line of inquiry aims at exploring how strategies are constructed by attending to the embodied metaphors organizational members use (Heracleous &

Jacobs, 2008b, 2008a). Worth mentioning, is a recent line of experimental research on ethical leadership and decision making that draws on the connection between the moral system and the bodily experiences, which constitute its foundation: for instance, morality and immorality are commonly associated to clean and dirty (Zhong & Leonardelli, 2008; Zhong & Liljenquist, 2006; Zhong, Strejcek, & Sivanathan, 2010). On this line, calculative cues nudge decision makers towards more selfish and deceptive behaviors, whereas emotional cues solicit more altruistic and less deceptive behaviors (Zhong, 2011).

Root and Surface

A *root* metaphor has been defined as a frame (Lakoff, 2008), a model (Black, 1962), meta-metaphor (Morgan, 2016), and, in specific instances, an abstraction (Gentner, 1983). Essentially, root is a metaphor that organizes concepts that are not necessarily metaphoric. Classic is the example of the PAINTBRUSH as a PUMP (Schön, 1993). When thought as a pump, a group of inventors repurposed the elements and rethought of their relations. Bristles deemed until then elements to smear paint became conduits for paint. Thus, from attending to the properties of a bristle in isolation, became salient the properties of sets of bristles.

Root metaphors vary in their degree of explicitness. It is for they structure so deeply thought, that they can be implicit or even unconscious. Lakoff (2008) illustrates two highly institutionalized and often-implicit root metaphors that structure the political debate in the USA, the one of strict father vis-à-vis that of the nurturing father. Yet, for such metaphors are an alternative, the speeches of speakers who draw on both of them result confusing and not so effective. Incidentally, when root metaphors are highly institutionalized, they rarely are new metaphors (Morgan, 2016), because they are part of our socio-cultural environment. Other times, root metaphors appear in the discourse or conversations, in the abovementioned case of the paintbrush, one of the inventors uttered the metaphor aloud (Schön, 1993).

When a root metaphor structures concepts that are in turn metaphoric, the latter concepts are *surface* metaphors. It is to note that when surface metaphors are part of the same metaphoric vocabulary of the root metaphor, the root metaphor is a conceptual metaphor. We found some examples in the literature. Biscaro and Comacchio (2018) report the story of a group of scientists, who attach a set of metaphoric concepts to the root metaphor of network. The surface metaphors help to translate the functioning of the experimental material into the language of the root metaphor and are necessary to make full use of its generative power. Alternatively and more usual to the readership are the surface metaphors that we commonly employ to explain organizational concepts (Boxenbaum & Rouleau, 2011). For example, the root ‘ORGANIZATION as *THEATER*’ sees *actors*, *script* and *performance* as its surface metaphoric instantiations.

We found several instances of root and surface metaphors in the management scholarship. Organizational theories often deeply draw on root metaphors and refer to surface metaphors to describe smaller instances and phenomena (Boxenbaum & Rouleau, 2011; Morgan, 1986; Oswick et al., 2011). A root has the capacity to render “each theory unique and coherent” (Boxenbaum & Rouleau, 2011: 276), but that can also vividly express something complex. Other root metaphors that create coherent understanding of organizations are the eight images suggested by Morgan (1986), but we have already ascribed them to the conceptual metaphor group. Studies on the knowledge-based view of the firm the cognitive processes of knowledge creation have found that root metaphors assist the collective generation of knowledge in two ways. First, they help reorganize concepts for they provide intelligible blueprints (Majchrzak, More, & Faraj, 2012), what Nonaka calls externalization (1994). Then, they allow for multiple creative cycles if surface elements or metaphors are modified (Biscaro & Comacchio, 2018). In organizational behavior, studies on leadership that have attended to the discursive processes have shown that root metaphors can serve a leader to heighten her charismatic image and pass her values and worldviews on to employees. Root metaphors become stable anchors that employee can use

to navigate complex organizational realities (Amernic, Craig, & Tourish, 2007). Studies on organizational learning have shown that organizational members can draw on institutionalized root metaphors as justificatory rhetoric tools. Metaphors can help members decouple and disengage with the organizational consequences, and in turn minimize members' reflexivity and capacity to learn from bad events (Tourish & Hargie, 2012). In the literature on entrepreneurship, we found interesting the attempt to refocus the theoretical debate from one root metaphor to another (Clarke, Holt, & Blundel, 2014: 249). Specifically, the root metaphor of growth relegates the idea of growing to an exogenous and somewhat un-agentic process, whereas it would be more fitting to consider the root metaphor of co-evolution, whereby "entrepreneurs and markets are seen as effects created in relational exchanges, and where the focus of analysis is on processes of formation rather than social forms." In sum, we have seen the structure that root metaphors offer to the thought and the flexibility to couple them with surface metaphors make them useful for both organizational members as well as theorists.

Visual metaphors

Not all metaphors are expressed through words. When we perceive them through our vision, we call them *visual* (or *pictorial*) metaphors (Forceville, 2008). Throughout the history, organization have often relied on visuals for their communication. If we take an example that is reoccurring in several cities, political regimes have adopted the equestrian statue to prompt in bystanders feelings of reassurance and the sense of identification with it and the state. A visual representation, in fact, can express "complex relationships and a vast amount of data in a way that can be processed rapidly" (Höllerer, Jancsary, & Grafström, 2018: 18). Specifically, to the case above, the position of the riding hero is metaphoric riding. His arm is forward-stretched and his finger points ahead, which represents the future. His stern expression stands for his strong leadership, while the other arm stretched laterally or backward is a request to follow. Nowadays organizations continue using visuals in their communication to accompany and enrich their verbal claims (Jancsary, Meyer, Vettori, & Höllerer, 2013; Nigam & Ocasio,

2010), alter their meaning (Meyer, Jancsary, Höllerer, & Boxenbaum, 2017), or as unique, stand-alone, communicative affordance as in the example above.

The first advantage of visual metaphors is the capacity of embedding complex message which are immediate to process (Kress & Van Leeuwen, 2006). Visual metaphors, moreover, can give validity to a message. A photograph, for example, illustrates a different ‘objective’ reality, that is more tangible and ‘naturalistic,’ and therefore easier to trust than a verbal story (Graves, Flesher, & Jordan, 1996). These elements of facticity can bolster a narrative and its attempt of sensemaking (Höllerer et al., 2018). For instance, the Financial Times article on the new regulatory plan aimed at thwarting a new financial crisis, which was accompanied by a photo with a frog’s eye view of a man in the rain dominated by the high bank towers (*ibidem*, page 26). The visual metaphor renders more legitimate the attempt to protect society against the influence casted by dark and potent institutions.

Visuals metaphors can twist the meaning of concepts, messages, or institutions. For instance, Biscaro and Comacchio (2018) have shown that scientists were able to think of a same concept under a new light upon the exposure to particular images that visually prompted a new metaphor. Specifically, seeing carbon nanotubes and neurons intersect prompted the metaphor of the *network* reframing concepts and a problem, and affecting activities. As to meanings at the macro level, visual metaphors can be employed to tweak the legitimacy of a message by adding a connotation (Höllerer et al., 2018). In 2011, the Financial Times included a photo of a man playing at the roulette in a casino within an article on the economic recovery in Asia. Perhaps by telling us that the measures taken were risky, the visual metaphor of *gambling* served to cast a shadow on the foundations of such a speedy turnaround³.

The meaning carried by visual metaphors however cannot be too complex in order to be effective and appreciated. A few studies have explored the so-called tipping point of a metaphor (McQuarrie & Mick, 1999; McQuarrie & Phillips, 2005; van Mulken, van Hooft, & Nederstigt, 2014), which relates to

³ Kwong R., 2011. Continent excels in a year of two halves. *Financial Times*, May 25. Page 6. Personal communication with Denis Jancsary.

the elaboration time required to understanding its meaning. Metaphors' whose elaboration time is too short are deemed too simple and therefore are not appreciated, while those whose elaboration time is too long are cognitively too demanding, which frustrates the recipient and get rejected (van Mulken et al., 2014). Thus, moderately difficult metaphors, whereby some metaphoric elements substitute concept-genuine ones, bolster the effectiveness and persuasiveness of communication.

Blend

Sometimes a metaphor does not simply enrich a concept but alters it and create one that that differs from both its source and target. When this happens, the metaphor creates a blend (Fauconnier & Turner, 1998). In this case, the new concept cannot be explained by the mere difference of the elements of source and target, and therefore it is useful not to think in terms of source and target, but rather in terms of two independent inputs. In the example of the 'blind lawyer' (Thagard, 1997; Tsoukas, 2009), the attribute of 'courage' of the lawyer, who is brave enough to face rough cases is not subsumed in the input two originating inputs: blind and lawyer.

Blends therefore create meaning that exceed those of its inputs, and for this reasons they can be useful to develop new knowledge (Biscaro & Comacchio, 2018; Cornelissen, 2005; Cornelissen, 2006; Cornelissen & Werner, 2014; Oswick *et al.*, 2011; Tsoukas, 2009). Organization theorists have used the concept of blend to ascribe non-obvious meanings to organizations, exploiting its capacity to be "apt and fitting to create stronger and more meaningful imagery" (Cornelissen, 2005: 762). For instance, 'organizational learning' ascribes the capacity to acquire new knowledge and routines to an abstract collection of individuals. Although the blend is quite difficult to grasp when trying to pin down its constituting elements, its imagery is powerful and convincing. Following the career of metaphor theory, Cornelissen has argued that blends are most powerful when they relate inputs that are not similar to each other, or at least which have not often been associated.

Blends can be also a way out of the dependence of our scholarship from the theories of other disciplines (Oswick et al., 2011). The bulk of theories used in management, e.g., transaction cost theory, social network theory, and institutional theory to name a few, derive from the worlds of engineering, sociology, psychology, economics, and mathematics. Oswick and colleagues have argued that by letting the incoming theory interact more openly with the input of our domain, we could perhaps obtain an even more reflective domesticated theory.

Also, organizational members use and form blends to solve problems and create new knowledge (Biscaro & Comacchio, 2018; Tsoukas, 2009). For instance, blends can result from metaphors that occur in dialogs and exchanges within organizations. Biscaro and Comacchio (2018) have shown that a group was able to reason in a ‘biological’ way of a concept, which had been so far associated to inorganic properties. The metaphoric association of *electric wire* and carbon nanotubes allowed a group of scientists to transform the properties of the latter and make it become carrier of a type of electric signal sourced by neurons, altering its way of use. In other words, the blend was the result of a metaphoric association, which prompted the transformation of the properties of a concept, altering its fate.

Other metaphors and tropes

In our investigation, we found other types of metaphors that have received a marginal attention. We found two juxtaposed types, the *literal* and *theoretical* metaphors, which mirrors the difference between *live* and *dead* metaphors. As for *dead* metaphor, the overuse of a metaphor renders a metaphor more *literal* (Boyd, 1993: 487). Boyd considers that metaphors constitute a valid device to develop scientific discussions in as much as they are not too trite or frozen into a figure of speech, therefore when they are *theoretical*, but perhaps we shall from now on just say *live*.

A special mention goes to analogies. Some treat analogies as metaphors, as both of them create mappings between domains (Gentner & Markman, 1997). Yet, analogies are subsets of metaphors in as

much as they map elements of domains. They have the form of *a* is to *X* what *b* is to *Y* (where *a* and *b* are subsets of the domains *X* and *Y*). Especially strategy scholars have written on analogies for they help make accurate predictions of fuzzy scenarios, such as product sales predictions (Lovallo et al., 2012), and market entries (Gavetti et al., 2005; Gregoire, Barr, & Shepherd, 2010; Gregoire & Shepherd, 2012). The literature in strategic management has explored various ways to study analogies. From simulations on large databases of movies, whereby analogies were detected through the descriptions of movies (Lovallo et al., 2012), to simulation on computer generated data (Gavetti et al., 2005), to experimental research on entrepreneurs and strategists (Gregoire & Shepherd, 2012).

We also found two approaches to the study metaphors: *inductive* and *deductive*, which refer to the setting in which metaphors originate (Cornelissen, Oswick, Christensen, & Phillips 2008; Jacobs et al. 2013). An *inductive* approach attempts to find those metaphors in their natural environment, and the way in which metaphors shape the way of subjects think and see the world (Palmer and Dunford, 1996; Grant & Oswick, 1996: 10). The *deductive* approach, instead, imposes a metaphor, or perspective, to a certain phenomenon and uses it as an analytic tool (Grant & Oswick, 1996).

While some scholars have recognized the limits of metaphors for being too focused on similarities and tried to attend to other tropes (Oswick et al., 2011: 334; Sillince & Barker, 2012), such as metonymy, irony, “analogical dissonance, disanalogy, and counterfactual reasoning,” so far the gravitational pull of metaphors proved to be too strong.

Organizing the contribution of metaphors in the disciplines of management

In this section, we shall illustrate how metaphors can facilitate activities that lay at the core of the organizational life and of scholars of organizations. Metaphors can aid – but also distract and hide – coordination, unlock discovery, facilitate strategizing and communication. To navigate the maze of contributions, we shall organize them along two dimensions. One being the level of analysis – micro, meso, and macro –, and the other being the disciplines to which metaphors have contributed. In this

way, we aim at discovering three common threads of metaphors: sense making, sense giving, and sense seeking, which will be the focus of the last section.

[Please insert Table 1 about here]

Metaphors as a theoretical lens

Organization theorists have contributed to introduce metaphors in management disciplines, and they have indeed converged large attention on this topic. In particular, they firsts recognized the heuristic value of metaphors to comprehend their research object. The debate has provided common criteria for evaluating metaphor, guidelines of how to use it in theory development and has finally legitimized it since it is no longer considered just a poetic embellishment (Pinder & Bourgeois, 1982). Despite Morgan (1980, 1983, 1986) and Weick (1989) argued that metaphors were pivotal linguistic device for theorizing about organizations, it took almost a decade for scholars to undertake their call. The article by Tsoukas (1991) paved the way for an academic recognition of metaphor as a valid interpretative tool in scientific discourse. In his foundational paper, Tsoukas (1991) reminded scholars that literal and metaphorical language are not mutually exclusive and they both, on the contrary, contribute to illuminate organizational phenomena, therefore as an explanatory and heuristic tool.

This body of research mainly looked at metaphors by considering two level of analysis, namely the macro and micro. Regarding the macro level, we could notice that there are two subsections. The first one is more focused on the understanding how metaphors can advance theory and on its heuristic validity, while the second group mainly investigates the role of metaphors in the institutional scenario.

The body of research that uses metaphor to reflect on theory building has the specific aim to understanding how much metaphors ‘render each theory unique and coherent’ (Boxenbaum and Rouleau, 2011: 276), and to what extent they provide a different understanding of organizations. In their view, metaphors facilitate the transfer of knowledge among different disciplines and they bridge theoretical concepts from other fields than management such as anthropology, sociology, and history

(see Boxenbaum & Rouleau, 2011 for a detailed overview). The process of decoupling *target* and *source* domains permits researchers to learn from their comparison (Cornelissen, 2004; Cornelissen and Durand, 2014). While the *target* is usually the organization, the *source* is the domain that offer information to the *target* and this relation ‘provides a novel way of grasping, seeing and acting in any given situation in a manner that often ends up challenging taken-for-granted modes of understanding’ (Morgan, 2016: 1030). Therefore, the metaphor is an operationalized tool that fosters the generation of new theories (Cornelissen, 2004). The comparison of organization with a theatre (Boje, 1995; Cornelissen, 2004), a jazz orchestra (Hatch, 1999; Cornelissen, 2006), or an organism (Morgan, 1986) brings specific references about the organization. For instance, organizational structure described in terms of jazz music put the emphasis on memory, *tempo*, and engagement of actors (the *source*) involved in the organizations (the *target*), in which all these elements are essential to reach a common goal to the survival of the organization (Hatch, 1999). These contributions had the common attempt to legitimize metaphor as a valid theoretical tool to theorize about organizations (e.g., Cornelissen, 2005; Oswick & Jones, 2006; Oswick *et al.*, 2002; Oswick Fleming, and Hanlon, 2011). In so doing, they included recent contributions from cognitive science into management, such as Fauconnier’s and Turner’s Conceptual Blending model (1998; 2002). On this account, Conceptual Blending framework has been used to study how novel theories disseminate OT and how the combination of distant domains of knowledge adds value (Oswick, Keenoy, & Grant, 2002; Oswick, Fleming, & Hanlon, 2011; Cornelissen & Durand, 2012; 2014). They argue that the distance between the source and the target influences the metaphor heuristic value, and cross-fertilization of disciplines (Cornelissen, 2004, 2005, 2006; 2008). Recently, OT scholars have shifted their attention on how metaphors generate new categories and how they are fundamental elements of traditional scientific scripts. In regard to categories, metaphors foster theory development by correlating distant domains of expertise. When they do so, new categories or theoretical structures emerge, as in the case of *population ecology* for the former (Hannan & Freeman, 1977 cited by Cornelissen & Durand, 2014: 1001) or as *loosely coupled* and *structural holes* for the latter

(cited in Boxenbaum & Rouleau, 2011). Scholars draw also the attention on conceptual value of other managerial constructs, e.g. gender mainstreaming (Bendl & Schmidt, 2013), glass ceiling and firewalls (Bendl & Schmidt, 2010) or stepfamily metaphor (Bendl, Mayerhofer, & Schmidt, 2012) for explaining organizational phenomena and to provide practical indications, that were not previously considered.

The second subsection involves institutional scholars. This body of researchers used metaphors to stress how language shapes institutional order and its logic (Hargadon & Douglas, 2001; Amernic, Craig & Tourish, 2007; Green, Babb, & Alpaslan, 2008; Sillince & Barker, 2012; Tourish & Hargie, 2012). Metaphors might play a role in the earlier stages of institutionalization (Sillince & Barker, 2012), to frame and minimize individuals' responsibility (Tourish & Hargie, 2012). In fact, discourse of banking failure was imbued by root metaphors that were used systematically to moderate, if not delete, the bankers' involvement (Tourish & Hargie, 2012).

The micro level of analysis has instead attracted less attention. Very few are the contributions that employ metaphors to analyse the micro organizational processes. A recent study by Biscaro and Comacchio (2018) investigate metaphors used by a group of scientists to comprehend how different teams could reach a common understanding and generate new knowledge. How organizational groups make sense of their actions through metaphorical language is also analysed by Srivastva & Barrett (1988). Metaphors unfold tacit awareness of group members and support its development (Srivastva & Barrett, 1988). These small group of scholars exploit metaphors to study how organizational groups build their own social realities and how they frame events and actions (Srivastva & Barrett, 1988), how new knowledge emerges across different worldviews (Biscaro & Comacchio, 2018), and how creative teams coordinate themselves to design new product (Seidel & O'Mahony, 2014).

In sum, contributions from OT scholars put mainly emphasis on the sense making power of metaphor, and neglecting the other two strands, namely sense giving and sense seeking. Metaphors are used by scholars because of their explanatory capacity to illuminate a certain phenomenon and then generate new theories or to assess the validity of a theoretical construct.

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Table 1. Main contributions according to the stream of literature and level of analysis

Level of analysis Discipline	Micro	Meso	Macro
	Individual level	Organizational level	Theoretical level
Organization theory	Biscaro C. & Comacchio A. <i>Org Science</i> . 2018	Biscaro C. & Comacchio A. <i>Org Science</i> . 2018	Boxenbaum E. & Rouleau L. <i>The Academy of Management Review</i> . 2011
	Heracleous L, Jacobs CD. <i>Org Studies</i> . 2008		Cornelissen J.P. Oswick C. Christensen L.T. Phillips N. <i>Org Studies</i> . 2008
	Srivastva S, Barrett Fj. <i>Human Relations</i> . 1988		Cornelissen J.P. <i>The Academy of Management Review</i> . 2005
	Boje D. <i>The Academy of Management Journal</i> . 1995		Cornelissen J.P. Kafouros M. Lock A.R. <i>Human Relations</i> . 2005
			Oswick C. Keenoy T. & Grant D. <i>The Academy of Management Review</i> . 2002
			Hatch M.J. <i>Org Studies</i> . 1999
			Palmer I. & Dunford R. <i>The Academy of Management Review</i> . 1996
			Tsoukas H. <i>Org Studies</i> . 1993
			Marshak R.J. <i>Organizational Dynamics</i> . 1993
			Tsoukas H. <i>The Academy of Management Review</i> . 1991
		Institutional field	
		Bendl R. & Schmidt A. <i>Gender, Work & Organization</i> . 2010, 2013	
		Sillince JAA & Barker JR. <i>Org Studies</i> . 2012	
		Andriessen D, Gubbins C. <i>Org Studies</i> . 2009	
Organizational Behavior	Oswick C. & Montgomery J. <i>Journal of Organizational Change Management</i> . 1999		
	Jacobs CD, Oliver D, Heracleous L. <i>The Journal of Applied Behavioral Science</i> . 2013		
Strategy	Gioia D. A, Thomas J.B., Clark	Riad S. & Vaara E. <i>Journal of</i>	Cornelissen JP, Holt R,

	S.M., Chittipeddi K 1994. <i>Org Science</i> Sackmann S. <i>Human Relations</i> . 1989.	<i>Management Studies</i> . 2011 Gavetti G., Levinthal D.A., Rivkin J.W. <i>Strategic Management Journal</i> . 2005.	Zundel M. <i>Org Studies</i> . 2011. Audebrand L.K. <i>Academy of Management Learning & Education</i> . 2010
Marketing	van Mulken M, van Hooft A, Nederstigt U. <i>The Journal of Advertising</i> . 2014 McQuarrie EF, Phillips BJ. <i>The Journal of Advertising</i> . 2005		Toncar M. & Munch J. The 2001. <i>The Journal of Advertising</i> Zaltman G. <i>Journal of Marketing Research</i> . 1997
	Dahl DW, Moreau P. <i>Journal of Marketing Research</i> . 2002		Gregan Paxton J, John D.R. <i>Journal of Consumer Research</i> . 1997
	Moreau C.P. & Lehmann D.R., Markman A.B. <i>Journal of Marketing Research</i> . 2001		McQuarrie E.F.& Mick D.G. <i>Journal of Consumer Research</i> . 1996 Zaltman G. & Coulter R.H. <i>Journal of Advertising Research</i> . 1995