THEORIZING THE ROLE OF METAPHORS IN CO-ORIENTING COLLECTIVE ACTION TOWARD GRAND CHALLENGES: THE EXAMPLE OF THE COVID-19 PANDEMIC

Dennis Schoeneborn, Consuelo Vásquez and
Joep P. Cornelissen

ABSTRACT

This paper adds to the literature on societal grand challenges by shifting the focus away from business firms and other formal organizations as key actors in addressing such challenges toward the inherent organizing capacity that lies in the use of language itself. More specifically, we focus on the organizing capacities of metaphor-based communication, seeking to ascertain which qualities of metaphors enable them to co-orient collective action toward tackling grand challenges. In addressing this question, we develop an analytical framework based on two qualities of metaphorical communication that can provide such co-orientation: a metaphor's (a) vividness and (b) responsible actionability. We illustrate the usefulness of this framework by assessing selected metaphors used in the public discourse to make sense of and organize collective responses to the Covid-19 pandemic, including the flu metaphor/analogy, the war metaphor, and the combined metaphor of "the hammer and the dance."

Our paper contributes to extant research by providing a means to assess the co-orienting potential of metaphors in bridging varied interpretations. In so doing, our framework can pave the way toward more responsible use of metaphorical communication in tackling society's grand challenges.

The field of management and organization studies has seen an increasing interest in addressing societal grand challenges in recent years, thus inspiring a rich set of theoretical and empirical inquiries into some of the most pressing issues of our times, including climate change, social inequalities, and pandemics (for an overview, see George, Howard-Grenville, Joshi, & Tihanyi, 2016). The majority of these studies tend to be focused first and foremost on formal (business) organizations and their role in tackling grand challenges (e.g., Bowen, Bansal, & Slawinski, 2018). In view of the scope and complexity of such challenges, however, the case has been made by Ferraro, Etzion, and Gehman (2015) that mounting effective responses to them necessitate the co-operation of a broad range of actors beyond business firms and governmental organizations. In accepting this premise, however, it must also be recognized that such multi-actor efforts tend to generate difficulties in collective sensemaking, especially in striking a balance between the need for establishing common ground among different actors and the need to allow for the multivocality of perspectives involved (Ferraro et al., 2015).

In this conceptual paper, we argue that organizing efforts to tackle grand challenges will remain limited as long as our understanding of organization is confined to a formal understanding of organizations only. As an alternative, we seek to show there is significant value in considering the agency and organizing capacities that lie in language use itself. Accordingly, we believe it is important to extend the arguments developed by Ferraro et al. (2015) or Ferraro and Beunza (2018) even further by building on the communicative dimensions underlying some of their work. In a nutshell, we suggest adopting a wider notion of organization as a communicative process of co-orientation (Taylor & Van Every, 2000). This theoretical move enables us to explain how both common ground and multivocality, which are key for tackling grand challenges (Ferraro et al., 2015), take shape in and through processes of co-orientation. This process is crucial to highlight in view of the fact that grand challenges typically necessitate collective action across multiple layers of actors (Ansari, Wijen, & Gray, 2013).

To unpack the organizing capacity of communication for co-orienting collective responses to grand challenges, this paper focuses specifically on the role of metaphorical communication and its potential to bring actors together across various levels of communication, including interpersonal, organizational and wider societal levels. As a "way of referring to and thinking of one term or concept (the target) in terms of another (the source), with the latter stemming from a domain of knowledge [...] that is not typically associated with the target" (Schoeneborn, Vásquez, & Cornelissen, 2016, p. 916), metaphors have been

shown to play an important role in collective sensemaking about grand challenges (see also Kroeger et al., in this volume). For example, previous studies of communication have explored the importance of metaphors in communication about climate change (e.g., Nerlich, Koteyko, & Brown, 2010; Thibodeau, Frantz, & Berretta, 2017). While acknowledging the key role of metaphor as a rhetorical tool for shaping how we think and orient our actions toward complex issues, however, thus far these studies have primarily focused on various metaphorical frames in public discourse and how these influence individual and collective behavior. What is still lacking in the literature to date is a deeper understanding of the *organizing* capacities of metaphorical communication itself for tackling grand challenges.

Accordingly, in this paper, we elaborate the key role of metaphors as framing devices in fostering a shared understanding around societal issues and thereby bridging multiple interpretations and discourses toward collective action (van der Hel, Hellsten, & Steen, 2018). More specifically, we aim to answer the following research question: Which qualities of a metaphor facilitate to co-orient collective action toward tackling grand challenges? To address this question we develop an analytical framework that enables researchers to examine the co-orienting properties of metaphors in the context of grand challenges in relation to two main dimensions: (1) the *vividness* of a particular metaphor, that is, the extent to which it allows for novel and surprising insights across domains; and (2) the *responsible actionability* of a metaphor, that is, the degree to which the metaphorical connection of two domains opens up specific, tangible, and ethically responsible forms of coordinated action. While these two dimensions are largely independent of one another, we argue that the co-orienting potential of metaphors in tackling grand challenges is likely to occur only when both of these criteria are fulfilled.

We substantiate these theoretical considerations by relating them to the context of the (currently still unfolding) Covid-19 pandemic, one of the most dramatic grand challenges of recent decades, especially in terms of the numbers of fatalities worldwide. More specifically, we focus on how different forms of metaphorical framing and sensemaking about the Covid-19 pandemic offer varying capacities for co-orientation and thus varying potentials for coordinated action to tackle this grand challenge (see also Oswick, Grant, & Oswick, 2020). We illustrate the usefulness of our framework by analyzing three metaphors that have been prominent in the public debate around the Covid-19 crisis: (1) the *flu* analogy/metaphor; (2) the *war* metaphor; and (3) the combined metaphor of the *hammer and the dance*. Our paper thereby contributes to extant research by providing a means to assess the co-orienting and bridging potential of metaphors. We furthermore hope it can serve to help pave the way toward more responsible use of metaphorical communication in tackling societal grand challenges.

GRAND CHALLENGES AND THE NEED FOR COMMON GROUND

The field of management and organization studies has lately directed its focus of attention beyond business firms and other organizations and their performance

toward questions of how to address societal grand challenges (for an overview, see George et al., 2016). As "complex problems with far-reaching societal implications that lack a clear solution" (Grodal & O'Mahony, 2017, p. 1801), grand challenges have been studied in relation to the capacities of organizations to tackle large-scale and persistent societal issues such as climate change (Wright & Nyberg, 2017), social inequality (Mair, Wolf, & Seelos, 2016), or the refugee crises (Kornberger, Leixnering, Meyer, & Höllerer, 2017).

The majority of debates have thus far tended to focus first and foremost on business firms and their relation to grand challenges (e.g., Bowen et al., 2018; Wright & Nyberg, 2017; Wry & Haugh, 2018). For example, in a recent call for papers by the *International Journal of Management Reviews* (Kunisch, zu Knyphausen-Aufsess, & Bapuji, in preparation), the editors of the special issue invite submissions addressing questions such as: "To what extent are *businesses* responsible for the emergence, aggravation, and alleviation of various grand societal challenges?" (p. 4; own emphasis added).

Other studies in this area have argued that tackling grand challenges will require multi-layered efforts of "robust action" involving a range of actors across society, without business firms necessarily being in the driving seat of these efforts (Ferraro et al., 2015; Ferraro & Beunza, 2018). As Ferraro et al. (2015) explain: "our approach […] suggests that corporations need not necessarily be prioritized as the focal organizations; these also can be governments, communities, NGOs, or any other entity" (p. 380). However, the complex, multi-layered, and "wicked" character of grand challenges (Grimm, 2019; Pradilla et al., in this volume) necessitates the adoption of commensurately complex and multi-layered responses involving a range of different societal actors (cf. the law of requisite variety in Ashby, 1956; see also Schneider, Wickert, & Marti, 2017). Accordingly, the question then arises as to how to ensure that the "robust action" of these various actors are consistent with a shared aim and do not work against each other. In responding to this question, Ferraro et al. (2015) as well as Ferraro and Beunza (2018) have emphasized the importance of achieving *common ground*, that is, a "set of presuppositions that actors, as a result of their ongoing sensemaking and interaction with others, take to be true – and believe their partners also take to be true" (Cornelissen & Werner, 2014, p. 212). Applying this definition to the context of tackling grand challenges, such "common ground" does not necessarily require agreement on all definitions, means and ends as long as agreement can be reached on certain baseline premises, including a shared acknowledgement that a certain grand challenge is salient and needs countering. Such basic recognition of a grand challenge can then serve as a shared reference point toward which present and future actions can be oriented.

Somewhat counter-intuitively at first sight, Ferraro et al. (2015) link the idea of common ground closely to the notion of *multivocality*, that is, "discursive and material activity that sustains different interpretations among various audiences with different evaluative criteria, in a manner that promotes coordination without requiring explicit consensus" (p. 375). The authors further elaborate on the relation between common ground and multivocality by highlighting the role of ambiguity of language use to create common ground for action around the notion of sustainability:

Key to the success of this concept […] has been its ability to enable different groups to interpret it in very different ways […] This multivocality in turn has provoked additional engagement, providing "some common ground for discussion among a range of development and environmental actors who are frequently at odds" (Sneddon, Howarth, & Norgaard, 2006, p. 254). It has proven highly useful in a complex, evaluative context. (Ferraro et al., 2015, p. 375)

Here it is important to note that multivocality in the sense of different interpretations of the same issue of course does not automatically lead to common ground but rather requires ongoing efforts aimed at "finding points of agreement despite having different frames of the same issue […], culminating in a common ground" (Ferraro & Beunza, 2018, p. 1188). In this regard, however, organizational scholarship lacks a sufficient theoretical understanding of what kind of framing activities are most likely to help facilitate the achievement of such common ground or how to gain agreement on a joint reference point toward which actions to counter a grand challenge can then be oriented. In this paper, therefore, we explore a particular framing activity, that is, communication via rhetorical figures such as metaphors. As elaborated below, this focus on metaphors is based on the unique capacity of figures of speech to help achieve common ground by allowing for multiple interpretations, i.e., multivocality (see also Ungar, 2000).

METAPHORS AND GRAND CHALLENGES

Within research on the role of metaphors in the context of grand challenges, the study of metaphors has been developed particularly in the literature on climate change (e.g., Nerlich et al., 2010). Such studies have shown that metaphors play a key role in climate change communication as rhetorical tools that can anchor novel phenomena in familiar terms and widely shared ideas (Shaw & Nerlich, 2015), by communicating complex issues in simpler terms (Väliverronen & Hellsten, 2002), thereby serving to legitimize normative claims about the impacts of global warming (Nerlich & Jaspal, 2012), and to attract and maintain the attention of the audience. This research has furthermore highlighted the diversity and ubiquity of metaphors about climate change in media, political and organizational discourses. To cite just a few examples, climate change has been framed by drawing on metaphors from the lexis of "war" (Cohen, 2011) and "(winning the) race" (Nerlich & Jaspal, 2012), as well as from the language of finance (Shaw & Nerlich, 2015) and religion (Nerlich & Koteyko, 2009). Such rhetorical repertoires offer a range of linguistic resources from which consumers, journalists, politicians and others "can construct their own arguments about climate change and which may lead to different "logical" conclusions about the need for behavior change" (Nerlich et al., 2010, p.103). A common research agenda in this scholarship has thus been that of seeking to understand how climate change is framed by various stakeholders, how people's attitudes and perceptions are shaped, and how metaphors can be used to support proposed solutions to climate change (Nerlich & Koteyko, 2009). For example, two studies by Brigitte Nerlich and her colleagues (Koteyko, Thelwall, & Nerlich, 2010; Nerlich & Koteyko, 2009) have highlighted the creation of compound words by drawing metaphorically from

various semantic fields and to combine them with the term "carbon," such as in the areas of finance (e.g., "carbon currency"), lifestyle (e.g., "carbon diet"), or religion (e.g., carbon "morality" and carbon "indulgences"); thus they were able to show how these metaphorical compounds serve as effective framing devices in communication on the complex issue of climate change by the use of language understandable to multiple stakeholders and discourses.

Another prominent stream of metaphor analysis, primarily in the field of cognitive linguistics (Thibodeau & Boroditsky, 2011, 2013), argues that the power of metaphors to influence behavior stems from their activation of existing conceptual schemata by which people can reason about a new and unfamiliar target domain and hence orient collective action. For instance, a study by Thibodeau et al. (2017) has shown how certain metaphors such as "the Earth is our home" can lead people to adopt a more nuanced and responsible conception of their place in the natural world.

The extant literature on metaphorical communication about climate change has thus far mainly paid attention to the various metaphorical framings of this grand challenge in media representations, policies, and in the public discourse more generally in order to identify and understand the ways in which metaphors orient public debate and influence individual and collective behavior. While recognizing and emphasizing the need for collective action and shared orientations among the many different stakeholders engaged in and affected by climate change, however, such scholarship has so far mostly overlooked the *organizing* capacity of metaphor that is the focus and basis of our argument. A notable exception is Ungar's (2000) pivotal article "Knowledge, ignorance and the popular culture: Climate change versus the ozone hole," which showed how coordinated action and effective organizing to address the threat to the ozone layer only took place once it had been framed metaphorically as an instance of "penetration," that is, by the use of a metaphor that people from all walks of life could relate to and which for this reason, importantly, they could then take coordinated action to address this issue. Ungar described how the grand challenge became a "hot" issue after being effectively referred to in metaphorical terms as a "hole" in the "protective shield" of the ozone layer exposing the Earth to intense bombardment by life-threatening "rays" (see also Ungar, 1998, on Ebola as a "hot crisis"). By resonating with different publics, Ungar (2000) argues, this "shield" metaphor served to "bridge" different understandings, offering very simple referential schema as well as a clear set of pragmatic cues for action to close the "hole" and restore the strength of the protective ozone layer, or "shield."

The literature on metaphors and climate change is part of a wider body of scholarship on the role of metaphors in making sense of major societal issues, including studies on metaphoric conceptualizations of poverty (Dodge, 2016), terrorism (Hülsse & Spencer, 2008), or – more closely related to the focus of this paper – the use of metaphorical communication in the context of diseases and pandemics (Sontag, 1978, 1989). Without going into any great detail, three main ideas for addressing grand challenges should be highlighted here, all of which originate from prior research on the use of metaphorical communication about diseases.

First, these studies emphasize that specific imaginations of diseases became consequential because they offer a range of resources from which political and scientific authorities, as well as other actors, including organizations, the media and citizens, can orient their actions and those of others (Nerlich et al., 2010). In terms of the negative potentiality of metaphors, Susan Sontag (1989) showed how communication around HIV/AIDS constituted a paradigmatic example of the stigmatization of the gay community through the use of "plague" and "pollutant" metaphors. Second, these works strongly criticize the use of military metaphors in discourses on diseases and illness (in some cases including Western-centric and racist connotations), showing how such metaphors tend to promote shame and guilt among the diseased, further serving to reinforce the dominance and control of governments by creating a rhetoric of fear and exclusion (Sontag, 1978; see also Rahman, 2020). As Wallis and Nerlich (2005) conclude in their study of metaphors in the framing of the 2003 SARS epidemic, moreover, military metaphors are limited, fragmented and hackneyed and thus incapable of fully capturing the complexity of grand challenges. Third, and following on from the previous two arguments, scholarly work on metaphors and diseases call for a shift in metaphorical framing from "dead" and over-used metaphors to more attractive and *vivid* analogies that can influence perceptions and policing of an emergent disease (Wallis & Nerlich, 2005) as well as collective responses (Oswick et al., 2020).

As noted earlier, Ferraro and Beunza (2018) have argued that an effective way of co-orienting collective responses to grand challenges is to seek ways of creating common ground while maintaining multivocality. In this respect, the use of metaphors as framing devices can play an important role in achieving this goal. Like boundary objects, metaphors can provide a shared understanding around societal issues, bridging multiple interpretations and discourses conducive to collective action (van der Hel et al., 2018). Exploring these bridging and organizing properties of metaphors is precisely the task undertaken in this paper. In order to further conceptualize the role of metaphors in tackling grand challenges, therefore, we turn our focus in the next section onto the theory of co-orientation.

FROM CO-ORIENTATION TO BRIDGING THROUGH METAPHORICAL COMMUNICATION

Having argued that tackling grand challenges first requires finding common ground by which to orient multiple perspectives in a collective response, and further having shown how this process can be facilitated by metaphors, in this section we further elaborate on the bridging role of metaphors by drawing on Taylor and Van Every (2000) notion of *co-orientation*. Simply put, co-orientation is a communicative process by which people align their actions toward a shared object in order to coordinate collective activities. For Taylor and Van Every (2000), co-orientation entails the involvement of two people in an interaction (A and B) agreeing on a shared reference point, such as an object of concern (X), toward

which they then orient their actions, as well as an agreement on the ways in which they will attain this object (thus also labeled "ABX model.") Since co-orientation is a contextual and interactional process, the commitments of the parties are always up for negotiation. This negotiated character is explained by the linkages between at least two worldviews (those of A and B). As Taylor explains:

> When as few as two people engage in communication each participant must independently foreground what is occurring but, in doing so, each brings to the encounter their own background frame, depending on their purpose, their expectations, their previously established assumptions about what to expect. They literally see the conversation in contrasting ways. Thus, although both participate in the "same" event they never experience it as the same. Each interprets it through a different lens. (Taylor, 2000, p. 1)

While the ABX model centers on just two actors interacting, Taylor and colleagues have emphasized that co-orientation operates across society and can link groups of people representing different worldviews and organizational domains. Indeed, a paper by Taylor, Groleau, Heaton, and Van Every (2001) goes even further in arguing that co-orientation "is the building block of all organizational processes and structures" (p. 26). In this view, organization already emerges as soon as (at least) two participants in an interaction (A + B) co-orient their sense-making toward a common reference point (X) (see also Taylor & Cooren, 1997). The overall argument is that organization, in the basic sense of co-orientation, is *built-in* to communication, understood here in the sense of an ongoing and dynamic processes of negotiating and transforming meaning (see Ashcraft, Kuhn, & Cooren, 2009).

In the same line of thinking, a central assumption is that in ongoing processes of discourse and communication about topics as complex as grand challenges, individuals tend to build "common ground" between each other, at least in the sense of a shared point of reference, i.e., the "X" in the ABX model, and can subsequently make use of this common ground as a resource for deriving pragmatic inferences (as well as a way to cut the costs of ongoing speech production). In other words, with common ground the idea is that participants of a speech community tend to settle on a set of joint references, such as a set of key terms or metaphors to describe a topic, and then use these references not only as a "model of" the situation they have jointly described but also as a "model for" that situation by pragmatically fueling further inferences (in talk) and coordinated action (Cornelissen, Mantere, & Vaara, 2014). Common ground thus essentially refers to a stock of shared presumptions that is established in ongoing communication and which in turn fuels ampliative inferences (Grice, 1989).

Common ground serves both to facilitate co-orientation – such as a collective response to a grand challenge – and at the same time is affected by such co-orientation. Participants cannot interact without presupposing at least some kind of common ground about the phenomenon they are jointly addressing, while by the same token the more common ground they share the easier it will be for them to co-orient and thus to respond to the addressed phenomenon. Indeed, in groups and communities that share extensive common ground, interactions often proceed smoothly with little need for further talk (adjustments, repairs, etc.) to coordinate activity. Common ground is also itself affected

by co-orientation, however, as people incrementally expand common ground through the process of interacting and may even shift the basis of their common ground altogether.

When a new situation is encountered by members of a large and heterogeneous community, such as the outbreak of the SARS-CoV-2 virus (hereafter Coronavirus), research has found that people will first try to create a provisional sense of the new situation through the use of analogies and metaphors, that is, by referring to the novel phenomenon in terms they already understand and can relate to. Such rhetorical figures are powerful ways of ascribing meanings to an initially new and thus empty signifier such as the Coronavirus. Metaphors and analogies have accordingly been used since the outbreak of the pandemic, portraying the Coronavirus either as similar to or dissimilar from other viruses and/or as a killer or enemy invading our countries and our lives. This use of metaphors to form an initial sense of something new or unfamiliar is a response that has been observed across various settings (e.g., Thibodeau & Boroditsky, 2011). Studies in the management and organizational domain, for example, have shown that metaphors are a key resource for teams and groups collaborating on new tasks and innovations, providing participants with a familiar reference that cuts across specialized domains and thus affords a scaffolding on which to build (Biscaro & Comacchio, 2018) or a boundary object that makes ideas understandable to anyone (Seidel & O'Mahony, 2014).

Thus far in this paper we have discussed a model for co-orientation based on the process of building common ground around a grand challenge as a means of providing a meaningful "model of" a grand challenge as well as a pragmatically useful "model for" organizing and co-orienting collective action. Metaphors, as we have highlighted above, constitute a key resource in this process. While metaphors are typically used at the start of a process of grounding, they may also further evolve to become the key conceptual resource for making sense of a grand challenge, as in the case of the ozone hole for example (Ungar, 2000). Given the prominence of metaphors in this process (as evidenced by prior research), it is crucial to ascertain which qualities of a metaphor make it more (or less) likely to achieve common ground and collective action toward tackling grand challenges. Accordingly, in the following section we identify two central qualities of metaphors that contribute to the specific functions of establishing common ground and of "bridging" understandings in co-orienting responses to grand challenges.

ANALYTICAL FRAMEWORK: THE VIVIDNESS AND RESPONSIBLE ACTIONABILITY OF METAPHORICAL COMMUNICATION

Based on the considerations above, this section elucidates the organizing capacities of communication, focusing particularly on metaphor-based communication. As prior research has demonstrated, the degree to which metaphors can fulfill a co-orienting function tends to depend at least in part on the characteristics of the particular metaphor being deployed, including the type of relation the

metaphor establishes between the source and the target domain. From the wealth of research on metaphors since Lakoff and Johnson's (1980) foundational book *Metaphors We Live By*, we can derive some key dimensions of relevance for their co-orientating potential. In particular, we propose to focus on (a) the *vividness* of a metaphor, that is, the extent to which the connection between source and target domain it establishes is novel and surprising and offers new insights and implications; and (b) the capacity for *responsible actionability* of a metaphor, that is, the degree to which the metaphorical connection of the two domains opens up specific, tangible, and ethically responsible forms of coordinated action. Here it is important to note that this framework primarily serves the purpose of analyzing metaphors and their qualities per se rather than the performative effects of their use in broader discursive fields (the latter, however, would constitute an empirical research question that goes beyond the scope of this paper).

First, a metaphor's degree of *vividness* tends to depend on the distance between the source and the target domain, with greater distance generally increasing the likelihood of generating surprising and fresh insights. If this distance is too large though the metaphorical connection may be considered too loose or even absurd, hence the need for balance between proximity and distance (see Cornelissen, 2006). Conversely, a metaphor can be considered "dead" if the connection between the source and the target domain has become so established and taken-for-granted that the metaphor's imaginative capacity figuratively "runs dry" (Cornelissen & Kafouros, 2008; Schoeneborn, Blaschke, & Kaufmann, 2013; see also Deutscher, 2005). In assessing a metaphor's co-orienting capacities, therefore, we argue that researchers need to consider the vividness of the relation between the source and target domains as established by the metaphor. The higher the degree of vividness the greater the likelihood that the metaphor can provide an important precondition for co-orientation by loosening up established ascriptions of meaning to a signifier.

Second, the vividness of a metaphor does not by itself guarantee the potential to change individual or collective behavior. This potential is rather a matter of the degree to which the metaphorical connection of the two domains opens up *responsible actionability* in the sense of specific, tangible, and ethically agreeable forms of coordinated action. Assessing the actionability of a metaphor in terms of the pragmatic inferences it provides thus entails considering the capacity of the metaphor to co-orient any kind of action as well as exploring the degree to which the metaphorical image can help generate ethically responsible capacities for action in response to a grand challenge.

With the term "responsible actionability" we refer to the extent to which a metaphor implies (and potentially inspires) forms of collective action that would avoid harm and serve to advance common interests. To conceptualize the dimension of responsible actionability, we turn to Habermas's (1984) theory of communicative action (see also Ferraro & Beunza, 2018). Communicative action can be defined as the interactive process through which "actors achieve a mutual understanding of a situation via the exchanges of utterances and thus coordinate their actions" (Rasche & Scherer, 2014, p. 161). Importantly, in communicative action, "participants are not primarily oriented to their own individual successes; they

pursue their individual goals under the conditions that they can harmonize their plans of action on the basis of common situation definitions" (Habermas, 1984, p. 285). The medium of language, and in our particular case the use of metaphors, can frame communicative action in order for the "speaker and listener [to] keep the conversation going with a pragmatic commitment to mutual respect and attention to a common text or issue" (Arnett, 2001, p. 321). This triple focus on maintaining an open conversation, respecting the Other, and acting in concert enables an assessment of the degree to which metaphors can generate ethically responsible collective action.

The "shield" metaphor examined in Ungar's (2000) article on the hole in the ozone layer well illustrates the responsible actionability of metaphorical communication, since in this case providing a simple referential schema and a clear program of action proved consequential in creating a joint understanding of the stakes involved in this environmental challenge. Moreover, the capacities of this metaphor to serve as a bridge between different worldviews facilitated mutual understandings of the challenge and the need for collective action. Indeed, the "shield" metaphor not only served as a bridge but also respectfully involved others and their interests as part of a common metaphorical framing of shielding the earth from lethal rays. On this basis, we argue that the responsible actionability of a metaphor is directly related to its capacity to bridge different worldviews toward a common goal. While the use of other figures of speech such as metaphors based on war and race do offer specific and tangible applications, as well, these metaphors tend to divide rather than "bridge" different understandings and are thus less capable of co-orienting imagination and organizing collective action in a responsible manner (see also Oswick et al., 2020). In the following section, we illustrate the usefulness of our two-dimensional framework by assessing selected metaphors used in public communication about the Covid-19 pandemic.

ILLUSTRATING OUR ANALYTICAL MODEL IN THE CONTEXT OF THE COVID-19 PANDEMIC

Context: The Covid-19 pandemic

In December 2019, the Chinese government alerted the world to cases of pneumonia in the city of Wuhan, the capital of China's Hubei province. Initially referred to as 2019-nCoV and later named Covid-19, the disease spread quickly in the Hubei province and from there to the rest of the world. On March 11, 2020, the World Health Organization declared the outbreak a pandemic and many countries around the world responded by enacting essential protective measures to prevent the saturation of intensive care units and to reinforce preventive hygiene. The Coronavirus has since affected millions of people and countries all over the world. At the time of writing this paper (May, 2021), over 150 million cases and 3 million deaths had been registered. Containment measures have repeatedly been implemented by authorities to slow the contagion, including the shutting of schools, the cancelation of sporting and cultural events, and the closure of

borders. Many workers have lost their jobs or are working from home, locked down at home and leaving only for basic necessities. The pandemic has also exacerbated (existing) social inequalities and economic instability.

Assessing Selected Metaphors in the Context of the Covid-19 Pandemic

(1) The flu metaphor/analogy. Politicians, health experts and journalists around the world have framed the Coronavirus as comparable with the flu. Most notably, former US president Donald J. Trump and Brazilian president Jair Bolsonaro persistently used this framing in communication to their citizens, primarily as a way of downplaying the severity of the virus and creating support for their government's response (or lack thereof) to the resulting health crisis. It is only fair to add that many medical and health experts also used this comparison at the onset of the pandemic, albeit in a more provisional (as opposed to declarative) sense based on their best guesses about the virus and as a way of describing what the experience of Covid-19 would mean for the majority of people with no comorbidities if they contracted the virus. Importantly, it can be presumed that many contributors to the public debate in the early stages did not use this framing as a way of categorizing the virus wholly as such, nor as a frame or basis for policymaking. Rather, as soon as more details of the virus became available to these experts through research and direct experiences in hospitals, their references to the flu as a more general model for considering the Coronavirus were abandoned.

However, because the analogy was used repeatedly by a number of high-profile experts, as well as state leaders, it nevertheless became a fixture and a common reference for talking about the virus in the public domain, including on the traditional news media, online, or in other informal settings. Part of the reason for the continued use of this metaphor in informal settings, such as in interpersonal interactions within families, on the street, etc., is that it mediates emotions in ways that makes something novel, unfamiliar and threatening more bearable or even comforting (Cornelissen, 2012). The virus becomes less threatening by reference to a common seasonal flu from which everyone tends to recover and which typically has no lasting impact on most individuals. Although the comparison thus might have personal relevance and use for individuals, however, we argue that the metaphor did not serve to foster concerted and collaborative efforts within societies to combat the virus but actually may have limited the sense of urgency about the pandemic and downplayed its dramatic impact on communities and countries. This is evidenced in the case of the United States and Brazil, for example, where both presidents staunchly in 2020 clung onto this metaphor as an antidote to alternative framings and as a way of rationalizing what were seen by many as their botched attempts and fatal failures to combat the virus (Weir, 2020).

The limited effects of the flu metaphor can be explained in relation to the two dimensions of our analytical framework. When assessing the effectiveness of the comparison of Covid-19 with flu in terms of vividness and actionable responsibility, it is important first to recognize that this comparison is more of an analogy than a *figurative* metaphor; in other words, the comparison is literal, merely

conflating two viruses from within the same domain of diseases. With so little distance between the two domains the comparison thus fails to fulfill the criterion of vividness in the sense of evoking novel connections and associations and thus potentially new readings toward combatting the virus, instead merely highlighting a limited number of commonplaces. In fact, the focus of the analogy is more on how Covid-19 is like the flu than vice-versa, thus positioning the target as an example of the source. Glucksberg (2008) defines many metaphors of this kind as "class-inclusion statements" that position the target as a typical instance of a broader source category or class. From this perspective, the framing works through inductively extrapolating from the known symptoms of Coronavirus (sore throat, cough, fever, etc.) to generalize the new virus as an instance of the flu or flu-like diseases. The source term (flu) is thus understood here as referring to a category that its literal referent exemplifies (on the basis of the Coronavirus having similar symptoms) and hence may plausibly include the target concept as a member (or suggests that it does). When such a category is further used to characterize the Coronavirus on an ongoing basis it solidifies this reading over time and functions primarily as an attributive category in that it provides properties that can be attributed to the topic. A further interesting point to note here, and one that also contributes to the limited vividness of the flu metaphor, is that the comparison is not only initially from the source to the target (with the asymmetry between target and source that is common to most metaphors as a way of understanding the novel and abstract in more concrete and familiar terms) but then also back from target to source, with the target being seen as simply embodying the properties of the broader class or category.

Besides a lack of vividness, the flu metaphor also falls short in prompting responsible collective action. For while the analogy may have emotional value for certain individuals, the metaphor downplays the severity of the pandemic as a grand challenge. It thus offers little to unpack that is conducive to collaborative work and coordinated action. Indeed, the metaphor may even serve as a guide to *in*action insofar as it suggests that with Coronavirus being (fully) like the flu there is no need to do anything other than what we are already currently doing in relation to a disease that is largely under "control" from a public health perspective (albeit leading to a limited number of seasonal deaths, mostly amongst the elderly).

(2) The war metaphor. Military metaphors are abundant in public discourses about many grand challenges (e.g., Atanasova & Koteyko, 2015; Cohen, 2011), including diseases (e.g., Sontag, 1978, 1989; Wallis & Nerlich, 2005), and the Covid-19 pandemic is no exception (Bates, 2020; Craig, 2020; Oswick et al., 2020). Leaders around the world brandished war-like rhetoric in the wake of the pandemic. Former US president Donald Trump declared "war" on Covid-19, for example, while President Emmanuel Macron of France used similar framing when he declared France to be "at war" against an "invisible enemy." While many other examples could be given of political leaders who have mobilized war-related metaphors, it should be noted that this military rhetoric is not exclusive to the political realm. International organizations such as the United Nations and the World Health Organization, as well as journalists, have also embraced the war

metaphor, as in the Canadian *Globe and Mail*'s headline "We are at war with [Covid-19]. We need to fight it like a war" (Potter, 2020).

Researchers have noted that the use of war metaphors tend to create a sense of urgency, which itself has the potential of uniting people around an issue by foregrounding the seriousness of a problem and calling for action in response (Atanasova & Koteyko, 2015). The use of war metaphors in relation to the Coronavirus, for example, instills effective commands to "stay at home," "self-isolate," "quarantine," and "curfew." At the same time, this military rhetoric pays tribute to "frontline" and "essential" workers by proclaiming them "soldiers" and "warriors" who are "fighting this battle for us" (Transcript Library, 2020). The effectiveness of military rhetoric in framing grand challenges has been demonstrated in an empirical study by Flusberg, Matlock, and Thibodeau (2017), who attribute this effectiveness primarily to the fact that such war analogies and metaphors succeed in capturing people's attention, leading them to infer serious risks (e.g., of loss of life and livelihoods), and forcefully convey the need to form a united front to avoid destruction. Over time, however, war metaphors tend to lose support, and their effectiveness as a long-term messaging strategy for grand challenge remains to be seen. Moreover, as empirical research on communication about climate change has shown (e.g., Atanasova & Koteyko, 2017; O'Neill & Nicholson-Cole, 2009), the use of fear-inducing representations of the challenges of climate change as a means of increasing public engagement can actually be counterproductive, leading to denial and apathy and ultimately contributing to general sense of "climate fatigue." In addition, war metaphors tend to be divisive in that they identify certain "actors" as enemies to be fought and overcome (Chapman & Miller, 2020). As Shaw and Nerlich (2015) aptly conclude: "war metaphors make clear you are either with us or against us" (p. 39).

In the case of Coronavirus, it is the virus itself that has been targeted as the "invisible enemy" or "invisible menace." The personalization and anthropomorphization of epidemics is somewhat problematic, however, as noted also by Wallis and Nerlich (2005), since it portrays the virus in misleading ways as a singular entity and "actor" with its own intentions and motivations. Furthermore, Donald Trump's not-so-subtle shift from the Coronavirus to "Chinese virus," "Wuhan flu" (Coleman, 2020), or even "Kung flu" added a yet further layer of implication by racializing the virus and identifying China as the actual enemy in the "battle." With the later emergence of the "British variant" of the Coronavirus, assumed to be "more contagious" and "more lethal" than other variants (Associated Press, 2021), the association of the enemy with a specific country or nation has persisted, reinforcing expressions of nationalism.

In line with our analytical framework, we observe that the prevalence and generalization of military rhetoric in framing the challenge of Coronavirus and other diseases ultimately decreases the *vividness* of the war metaphor as the connection between the source (war) and the target domain (the virus) is by now so well established that it leaves little space for re-imagination (e.g., Sontag, 1978, 1989; Wallis & Nerlich, 2005). As mentioned above, military rhetoric is commonplace in the political arena, particularly with reference to diseases. Even though

the domains of war and disease are quite distant, linguistically speaking at least, the mere fact that this comparison has been repeatedly used over time has to some extent brought them closer together, thereby reducing the chance of the metaphor generating any further surprising insights (see Cornelissen, 2006) or for the metaphor to be leveraged in new and potentially actionable ways. Following Atanasova and Koteyko (2017), we can say that the war metaphor is thus a "dead metaphor," that is, "figures of speech that have lost their force and imaginative effectiveness through frequent use" (p. 466).

Regarding the dimension of *responsible actionability*, the war metaphor does make sense at least for some people as a way of capturing the empirical reality of Covid-19 by offering more tangible symbols ("frontline workers," "soldiers," "warriors," "curfew," etc.) that can be translated into prompts for collective action. This is particularly the case when war as the source domain is associated with the target domain in relation to countermeasures against the pandemic or with the global scale of the crisis. Military-style commands such as "stay at home," "wash your hands," and "maintain social distancing" to combat the "enemy," combined with the militaristic terminology deployed to describe further personal restrictions of freedoms and sacrifices such as "curfews" and "states of emergency" that echo wartime experiences and discourse, do serve to help people make sense of these exceptional times to some extent. In our assessment, however, the metaphorical connection between war and the coronavirus pandemic, while suggesting concrete forms of action, nonetheless falls short of conveying responsible actionability, particularly when the target domain (the enemy) is depicted as another country or nation state. As Bates (2020) aptly noted, identifying the enemy as the "Chinese flu" serves to divide rather than ally international forces. In this sense, therefore, the dimension of mutual respect for responsible communicative action is unlikely to be attained by deploying militaristic metaphorical communication. The divisive and combative character inherent in such military rhetoric severely limits the capacity of war metaphors to bridge different worldviews and therefore co-orient action responsibly, as illustrated in current debates regarding "vaccine nationalism" (CBS, 2021). In sum, metaphorical domains like war are not very likely to succeed in serving the dual function of creating a common ground while maintaining multivocality since their capacity to evoke new forms of imagination is rather low (i.e., they lack vividness), as is their likelihood of leading to responsible collective action.

(3) The combined metaphor of the hammer and the dance. The metaphorical combination of "the hammer and the dance" was coined by the French engineer and tech blogger Tomas Pueyo (2020) in a blogpost at medium.com at the outset of the Covid-19 pandemic. Even though the author does not fall into traditional categories of an "opinion leader" in pandemic contexts, being neither a politician nor a medical expert or journalist, his blogpost has been viewed by millions across the globe and has been translated into more than 30 languages. The metaphor was also picked up by various governmental leaders and chief epidemiologists in various countries, including Norway, Denmark, Germany, or the Philippines, and can be presumed to have played a facilitating role in helping people to make sense of governmental measures to counter the spread of the Coronavirus in these countries (cf. Nacey, 2020).

The hammer-and-dance metaphor refers to a two-phase process. The first phase, "the hammer," involves the rapid application of strict restrictive measures such as lockdowns of schools and the closure of shops, etc., with the aim of pushing down the infection rate as much as possible in a short space of time. The second phase, "the dance," rests on the assumption that the hammer strategy cannot be maintained for long, amongst other reasons because of the economic and social costs of such measures. Hence, the "dance" phase involves moving back and forth between medium-level restrictions (e.g., contact-tracing, wearing face masks, hand hygiene, etc.) and more restrictive lockdown measures.

In the light of our analytical framework it is relevant to observe that the hammer-and-dance metaphor does not establish a *bilateral* relation between a source domain and a target domain but rather establishes a *trilateral* relation between two source domains and one target domain (i.e., between handicrafts and the medical/epidemiological domain as well as between leisure and the medical/epidemiological domain). Assessed in terms of *vividness*, therefore, the metaphorical combination and the trilateral relation it establishes can be considered as rather unusual and thus likely to facilitate the transfer of novel insights across domains (see also Schoeneborn et al., 2013). Some further indications of the relatively vivid and fresh character of this metaphorical blend are that it has given rise to a number of associated spin-off metaphors. Danish Prime Minister Mette Frederiksen, for instance, recurrently referred to the hammer-and-dance metaphor in public announcements to lend meaning to her government's measures. Later on in the crisis (actually during what Tomas Pueyo described as the "dance" phase), the Prime Minister used the notion of many "little hammers" (Braagard, 2020) that would help the Danish population keep up with the right dance rhythms needed to deal with the pandemic. Similarly, the German epidemiologist Professor Christian Drosten who served as an advisor to the German government and who gained widespread public attention during the crisis, especially with his regular radio podcast, further developed the metaphor by employing the expression "dance with the tiger" (Ärzteblatt, 2020). With this image Drosten referred to the need to find a way of living with the "tiger" (i.e., the virus) and of seeing how far the "leash" (i.e., the restrictions) could be loosened without getting "bitten" by the tiger (i.e., without leading to an exponential rise of infections and deaths).

With regards to *responsible actionability*, the metaphorical combination of the hammer and the dance draws on two source domains (handicrafts and leisure) that are intuitively understandable and concrete. Furthermore, the combined image allows for an unusual bridging of two discourses otherwise considered incompatible in the polarized public discourse (Allcott et al., in press). This unusual metaphorical blend both acknowledges the need for strict actions, i.e., "the hammer," in the form of closed schools, shops, and restaurants, while also accommodating for the economic necessities of opening up, i.e., "the dance." In other words, the apparent contradiction between the two discourses is dissolved through the combined metaphor by bringing them in a processual/temporal order while maintaining multivocality. Another quality of this combined metaphor is that by upholding the tension between the hammer and the dance it not only provides co-orientation on these back-and-forth movements but also suggests that

the conversation be kept going about the appropriateness of collective actions – a key consideration in communication aimed at gaining consent for certain courses of action (cf. Arnett, 2001).

It will be worthwhile exploring in future research to what extent metaphorical blends like the hammer and the dance succeed in practice, at least in certain country contexts, with lending meaning to the strict and swift measures in response to the pandemic and in increasing acceptance of these measures. Indeed, initial evidence seems to suggest that this is the case, at least if we consider the comparably high acceptance rates for such measurements in countries such as Denmark and Germany (TheLocal.dk, 2020). Another point that remains uncertain but is worthy of further investigation is whether the metaphor only unfolds its co-orienting effects on account of its particular combination of the two images of the hammer and the dance or whether these images are also effective as separate stand-alone images, for instance, in news media statements that voice concerns about "hammer-like" restrictions while leaving out the (hope-giving) dance element of the metaphorical blend.

DISCUSSION AND CONCLUSION

In this paper, we have developed an analytical framework that can be used to assess the role of metaphorical communication in facilitating co-orientation as a basis for collective action in response to societal grand challenges, such as the Covid-19 pandemic. In this framework, the two dimensions that are critical for metaphors to be effective are their *vividness* and *responsible actionability*. By drawing on selected examples of the use of metaphors in rhetoric surrounding the Covid-19 pandemic, we argued that the effectiveness of metaphors diminishes if it is deficient in either or both of these dimensions. Thus, if a metaphor lacks vividness and/or only encourages responsible action to a limited extent, as in the case of the "flu" and "war" metaphors used to describe the Covid-19 pandemic, then it is less likely to become a formative concept that lends meaning to a grand challenge in a generative and amplifying manner and that can facilitate a coordinated response.

The key process that constitutes the capacity of metaphors to co-orient collective responses around grand challenges is identified here as ensuing from their potential vividness and actionable responsibility, since it is these attributes of metaphors that can facilitate and foster a shared understanding, thereby establishing common ground by bridging different interpretations of grand challenges among individuals and collectives (see also Stjerne et al., in this volume). In theoretical terms, this underlying process is one in which the initially idiosyncratic conventions generated in the course of small-scale interactions – for example around what might initially be a relatively obscure metaphor like "the hammer and the dance" – can spread from one interaction to another, leading to the emergence of cultural conventions and communal common ground around such shared metaphors as a basis for sensemaking and dealing with the crisis (Fay, Garrod, & Roberts, 2008; Garrod & Doherty, 1994). Research in the

field of sociolinguistics has shown how repeated interactions among members of a community can lead to the emergence of linguistic conventions that are more robust than the conceptual pacts elaborated by dyads (Brennan & Clark, 1996). A study by Fay, Garrod, Roberts, and Swoboda (2010), for example, demonstrated how entire symbolic systems (such as coded vocabulary for a certain referent) can emerge from communication that is initially iconic (e.g., highly idiosyncratic, with ad hoc metaphors) via social collaboration and co-orientation as opposed to simple linear transmission (Fay et al., 2010). As we have shown in the case of the "hammer and the dance" metaphor, key opinion leaders, such as the Prime Minister of Denmark, can provide and seed key metaphors and idiomatic expressions which, if taken up and elaborated by others in the community, may proceed to become the foundation of common ground established at community level.

The two dimensions of our framework for assessing the potential of metaphors can further serve as an important guide for establishing fertile common ground that "encourages [a] new way of thinking; one which is inclusive, caring, supportive, collaborative, democratic and connects people, has the potential to facilitate new ways of acting and being in society" (Oswick et al., 2020, p. 287), This is not to claim, of course, that the combination of vividness and actionable responsibility of a metaphor can in itself ensure that a society will harness its potential for establishing common ground. Depending on the linguistic choices of opinion leaders and the motivated reasoning of individuals in society, other figures of speech may prevail – including war-like rhetoric – that are more divisive and do not lead to responsible actionability. Within this mediated process, however, we argue that it is the degree of accessibility and broader resonance of a metaphor itself that determines its conduciveness for responsible action. As Ungar (2000) has shown in the case of communication around the hole in the ozone layer, for example, it was the broader resonances between the metaphor of a "protective shield" and popular imagery (e.g., from *Star Wars* and *Star Trek*) that ultimately led to the uptake of this metaphor and thus to a collective response to this crisis.

These and other examples demonstrate that in assessing a metaphor's performative potential and its capacity to inspire and co-orient follow-up actions it is important to look not only at the characteristics of the metaphor as such (as our analytical framework suggests) but also, in future research, at the ways in which a metaphorical image is interpreted in different societal contexts (in this regard, see also the argument by Austin (1962) that a speech act needs to match certain "felicitous conditions" in order to unfold its performative potential). Accordingly, we hope our conceptual considerations can inspire future empirical inquiries into the organizing and co-orienting capacity of metaphors and other rhetorical figures such as metonyms and synecdoches (Sillince & Barker, 2012) in the context of identifying and responding to grand challenges.

Overall, this paper makes two main contributions to research. Based on a communication-centered understanding of organization (Ashcraft et al., 2009), with a specific focus on the capacity of metaphors for co-orientation, our study shows how research at the intersection of communication and organization can add to

our understanding of the role of language in promoting a collective response to grand challenges (e.g., Ferraro et al., 2015; George et al., 2016). Our findings imply that in order to understand organized efforts to counter grand challenges such as the Covid-19 pandemic, researchers should focus not only on the responses of national governments and other formal organizations but also consider the organizing capacities of metaphorical communication. Effective metaphorical communication has the potential to spread rapidly within and across societies, facilitating shared understandings and co-orientation toward a common reference point and thus providing a basis for "organizing" coordinated responses to counter grand challenges. In addressing the need to understand more precisely how metaphorical communication can succeed in playing such a key role, we have drawn on insights from research on metaphorical communication (e.g., Shaw & Nerlich, 2015) while linking these findings to contemporary debates on organization and organizing. Taking into account the organizing capacities of language use more generally (Cooren, 2000), including communication at public and/or interpersonal level, is especially crucial in the context of the Covid-19 pandemic, since countering such grand challenges requires the responsible and caring behavior not only of institutional actors but on the part of a wide variety of individual and collective actors.

In this respect, our co-orientation framework further extends the considerations elucidated in studies by Ferraro et al. (2015) or Ferraro and Beunza (2018) by arguing that when metaphors succeed in becoming picked up across various areas of societal communication they can thereby provide orientation for individual and collective action, thus enabling society to come closer to achieving the "requisite variety" (Ashby, 1956) to counter complex, "wicked" and "grand" challenges. This is not to suggest, of course, that organizations do not play a pivotal role in tackling grand challenges, especially business firms and governmental organizations; however, our considerations suggest there is also a need to trace the organizing capacity of language use itself (cf. Schoeneborn, Kuhn, & Kärreman, 2019).

A second key contribution of this conceptual paper is the development of an analytical framework which allows to evaluate the vividness and responsible actionability of metaphorical communication, thereby providing researchers with a tool to assess the capacity of a metaphor to be useful for achieving common ground and multivocality when responding to grand challenges. This framework has both theoretical and practical implications. In terms of theory, it can complement other frameworks that offer criteria for assessing of the qualities of metaphors, including Cornelissen's (2004) call for the aptness and heuristic value of metaphors to be taken into account. However, the framework further extends prior work by combining such criteria with the dimension of "responsible actionability," which is especially relevant in the context of grand challenges.

In practical terms, the framework can be applied by policymakers and other opinion leaders in their considerations of the most effective language to use in seeking to elicit a collective response to social challenges, and in particular can serve to encourage more effective and responsible use of metaphors in public

discourse. As we have seen in several examples of communication around Covid-19, the use of metaphorical communication can only lead to concerted efforts if the metaphor itself has a co-orienting and bridging potential (cf. Oswick et al., 2020). The analytical framework developed here not only applies in the specific context of the Covid-19 pandemic, of course, but also to the assessment of metaphorical communication on other pressing grand challenges, such as climate change. Also in such contexts, our framework can help to ascertain whether, how, and when the use of certain metaphors is likely to be conducive to novel ways of imagining and thereby co-orienting collective and responsible responses to the large-scale and complex problems we face.

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