Unpacking researchers’ embodied sensemaking: A diffractive reading-writing of Mann Gulch disaster

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ABSTRACT

The Baradian optical metaphor of diffraction grounds a methodology at the core of Feminist new materialism. It considers materiality, included the corporeal materiality of the body, as vital and vibrant and thus it may be the entry point for exploring embodiment in sensemaking. Diffraction is put to work to explore embodied sensemaking of researchers by performing a diffractive reading-writing of two notable sensemaking texts that make use of the Mann Gulch disaster, Weick’s (1993) account of the Mann Gulch disaster with sensemaking breaking down, and Introna’s (2019) re-appreciation of this disaster, which develops sensemaking as always already present. Based on two neologisms, comprising a noun and a verb - fire-burning and death-dying - a diffractive grating is built for discussing reading and writing as embodied sensemaking activities. As a result, the concept of sensemaking may be appreciated not only as a cognitive but also as a material and affective process. Diffractive reading-writing, as a methodology, contributes to organization theory an ethical alternative to critique and grounds a corporeal ethics of more-than-human care in academia that may help researchers to make embodied sense of the research phenomena they study.

Introduction

Meaning is not an ideality; meaning is material. And matter isn’t what exists separately from meaning. Mattering is a matter of what comes to matter and what doesn’t (Barad, 2014, p. 175).

The aim of this article is to enrich the sensemaking perspective through a reading of sensemaking informed by feminist new materialism and its core concept of diffraction. We engage with Weick (1993) and Introna (2019), as two notable sensemaking texts that make use of the Mann Gulch disaster. Both papers make important contributions to theorizing sensemaking, albeit taking it in different directions. The rationale for proposing a diffractive reading of these two texts on sensemaking is to make visible our own embodied sensemaking practices as authors and researchers. We have been challenged by the observation of a lack of attention to embodiment and to the senses and by the possibility of enlarging embodied sensemaking not from phenomenology but from the philosophical perspective of feminist new materialism that has opened up a conversation with phenomenology (Gherardi, 2022) alongside the concept of embodiment.

Sensemaking as a theoretical concept came into play in relation to the work of Weick (1969, 1979, 1995) and has had an enormous influence in organization studies (Brown, Colville, & Pye, 2015; Holt & Cornelissen, 2014; Introna, 2019; Maitlis, 2005; Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2020). It has become a specific perspective that developed based on social-constructionist, interpretative and phenomenological assumptions (Holt & Sandberg, 2011), and has had a notable impact on process organization studies (Bakken & Hernes, 2006; Hernes & Maitlis, 2010; Langley, Smallman, Tsoukas & Van De Ven, 2013; Tsoukas & Chia, 2002). Several reviews of the sensemaking perspective have been conducted both with the aim of mapping its uses and suggesting developments (Helms Mills, Thurlow, & Mills, 2010; Maitlis & Sonenshein, 2010) and with critical intentions (Allard-Poeti, 2005; Cunliffe & Coupland, 2012; Introna, 2019; Sandberg & Tsoukas, 2015).

Over time two main approaches, both grounded in Weick’s work,

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have developed and are known as the cognitivist (conceiving of sense-making as occurring in the mind) and the discursive approach (sense-making occurring primarily in language), following a constructivist-discursive orientation (Sandberg & Tsoukas, 2015). In both cases, it is useful to distinguish between sensemaking as enacted through primary and through secondary practice worlds (Sandberg & Tsoukas, 2020). The primary practice world of sensemaking provides the context within which actors in organizations are accomplishing organizational activities related to the primary task of their organization, as they are embedded in contexts of action. The secondary practice world provides a context for members of inquiry committees or academics who are representing, reflecting on, thinking about, and explaining the accomplishment of organizational activities that are part of the primary task of the organization under scrutiny. The secondary world of sensemaking tends to be textual and with limited access to the primary empirical context of action. However, they suggest a way of complementing sensemaking, focused on specific episodes and ambivalent events, with immanent sensemaking, a mode of engagement whereby actors are immersed in practice without being aware of their involvement as they spontaneously follow the situation at hand (Sandberg & Tsoukas, 2011) in a more ongoing and routine way.

Sandberg and Tsoukas (2020) argue that compared to the primary practice world of sensemaking the secondary practice world is under-studied. Developing this argument, we suggest that we still lack insights into the sensemaking practices of academics whose research practices theorize about sensemaking. However, exploring the second order sensemaking practices of academics maybe problematic especially if we adopt a ‘performative approach’ to sensemaking (Hultin & Mähring, 2016) where theory and practice are inseparable, and therefore the actions of representing, explaining events in the ‘secondary’ world end up enacting the primary practice world anew. If we accept that knowledge-practices are ‘performative’ then according to Barad (2003, 2007) we need more insights into how our acts of ‘research’ can have ‘worlding’ effects that shape how we come to know, understand and act in the world and the ethical lens that informs our embodied engagement with the world.

We engage with this impressive literature on embodied sensemaking through the problematization of first and second order sensemaking but from a specific angle that departs from Sandberg and Tsoukas’s (2015) review of the constituents, limitations and opportunities for further development of the sensemaking perspective. The authors suggest that the ‘mainstream cognitivist origins of SP [sensemaking perspective] prevented it from taking the body more seriously, and called for paying closer attention to embodied sensemaking by drawing on phenomenologically oriented enactive cognitive science’ (p. S26).

There are important exceptions to the lack of consideration of the situated, embodied, and affective dimension of sensemaking – however these contributions are heavily informed by phenomenology (Dall’Alba & Sandberg, 2021). For example, Camilfe and Coupland (2012) focus on how embodiment is an integral part of making sense of our surroundings as we make our experience ‘sensible’ in embodied interpretations and interactions with others within contested ‘narrative performances’ that construct sensible and plausible accounts that are responsive to the moment and to retrospective and anticipatory narratives. Similarly, Yakhlef and Essin (2013) consider the body as a carrier of practices and the locus of innovative action as it emerges in our bodily expressive-responsive skilful coping mode. Another interesting study links care to sociality with embodied organizational sensemaking (de Rond, Holeman, & Howard-Grenville, 2019). The authors conducted an ethnographic study of the first-ever attempt to scull the navigable Rond, Holeman, and Sandberg (2019) meshwork of life, the authors argue for a generalized symmetry between humans and nonhuman elements. The aim of their work is to challenge human-centred sensemaking’s conviction that disasters can be avoided by better sensemaking.

This paper aims to further decentre the human subject and its presumed exceptionalism. From a feminist post humanist and new materialist perspective, neither ‘Man’ nor Anthropos, as the depiction of an exceptional species, can claim a central position in knowledge production practices (Braidotti, 2013, 2016). We contribute to the literature on embodied sensemaking by exploring the embodied sensemaking practices of researchers from a feminist new materialist perspective.

The remainder of the article is structured in the following way. First, we elaborate on diffractive reading-writing as an embodied methodology and we propose a diffractive grating. The second section explores a re-turn to Mann Gulch – not return as in reflecting or reproducing the original interpretation of the texts but re-turning as in turning it over and over again (c.f. Barad, 2014) – while in the third and fourth sections, we conduct a diffractive reading-writing of the two texts passing through the diffraction grating constituted by the images of fire-burning and death-dying. In the concluding section we sum up the idea that diffract as a feminist methodology (Cozza & Gherardi, 2023) takes forward a more-than-human ethics of care that expresses scholarship as corporeal generosity and openness toward others.

2. Diffractive reading-writing as an embodied methodology

The term feminist new materialism, designates a conversation going on within feminist posthumanism (Ferrando, 2020), feminist science and technology studies (Haraway, 2016), the environmental humanities (Neimanis & Walker, 2014), transgender and queer studies (McMillan, 2015), affect studies (Stewart, 2007) and post-qualitative inquiry (MacLure, 2013a). In particular, we will illustrate diffraction as one of the core concepts of feminist new materialism and put it to work in relation to one of the core concerns in organization studies – sensemaking. Diffraction is a metaphor that refers to the physical phenomenon of wave interference and the patterning that appears. In contrast to reflection (Barad, 2007, 2014), following Haraway (1992), proposes an alternative optical metaphor – diffraction. Whereas reflection is about mirror and sameness, diffraction attends to pattern of difference.

A diffractive reading of the two notable texts on sensemaking makes visible our own embodied sensemaking practices as authors and researchers. In this way, we aim not only to contribute to the sensemaking perspective by exploring the embodied sensemaking practices of researchers’ reading and writing, but also to respond to calls to theorize sensemaking as a relational and materially embedded and embodied practice. Moreover, we aim to push forward the ethical implications of how researchers engage with academic texts and how it can be done differently. Diffraction as an apparatus moves beyond other forms of relating with existing literature such as critique or synthesis. Both critique and synthesis assume the separation of texts and ideas as their starting point. These practices enact ‘cuts’ that separate ideas from their ongoing, constantly reconfigured flow of connections and relations (Barad, 2007). In reverse, a diffractive reading-writing methodology aims at a respectful engagement and response-able approach to texts that permit new images of thought to proliferate. It is this respectfulness that we aim to bring to the fore with the help of two images of thought – fire-burning and death-dying – with which we construct a diffractive grating that allows new possibilities of thinking and being (Visser &
As a methodology, diffraction is put to work to provide a different take on embodied sensemaking, and in future, diffraction may be used for inquiring and reading differently other organizational foundational concepts.

The denomination ‘diffactive methodological approach’, as introduced by Barad (2007), is defined as ‘reading insights through one another’ in order to illuminate differences as they emerge. As a methodology, diffraction is organized around the question of how different differences get made, what gets excluded from mattering, and how those exclusions matter.

To focus on reading insights through one another, we may start from the assumption that “knowing is a matter of part of the world making itself intelligible to another part of the world” (Barad, 2007, p. 185), thus framing becoming and knowing in a state of interdependence. This understanding of ‘knowing-in-being’ goes for any material body – for example, a fruit – makes itself intelligible to our bodymind, through our hands, our mouth, teeth and other corporeal elements that simultaneously make themselves intelligible to the material body in the encounter (Mol, 2021). Therefore, diffraction moves away from the traditional representationalist ontology and epistemology where the knowing subject, the object that is being represented, and the produced representations or knowledge are seen as separately existing entities, towards the idea of a phenomenon. If a phenomenon is an entanglement and the boundaries between entities do not pre-exist the phenomenon, then the process of demarcating one entity from another within a phenomenon, what Barad calls agential separability, occurs via ‘agential cuts’ which are not the result of any one person or force but, instead, the cuts that demarcate the boundaries of entities are the result of manifold material-discursive practices.

Diffraction has been approached in very different ways in existing literature. In organization studies it has been used mainly for its metaphorical power in contrast to reflection (Keever & Treleaven, 2011), whilst Harding, Gilmore, and Ford (2021) take forward both Butler and Barad’s theories of performativity to introduce flesh as an agential actor which constitutes working bodies in unexpected ways. Additionally, Harris, MacFarlane, and Wieskamp (2019) analyse sexual violence in the military and at university. Also, embodiment in organizations has been read diffractively through several short stories (Gherardi, 2022). Harris, MacFarlane, and Wieskamp (2019) analyse sexual violence in and the boundaries between entities do not pre-exist the phenomenon, another ‘qualitative scholars (mainly educationalists) who challenge the orthodoxy of humanist conventional qualitative research by placing the human subject at the centre of knowledge production (Lather & St Pierre, 2013). They question how to do empirical research once we consider that we are dealing with intra-acting and always entangled concepts from Derrida, Spivak, Foucault, Butler, Deleuze and Barad. For the analysis of this stream, Barad, Barad, and Nicolini and Roe (2014) found a diffractive methodology useful for drawing attention to differences in what might be otherwise conceived to be a homogeneous practice, and Mengis and Nicolini (2021) expand the same approach into video-based research. Moreover, Kuismin (2022) uses a diffractive methodology to draw attention to how differences in sensing are created and the effects these have in the ongoing production of space.

A more elaborated understanding of diffraction is found with post-qualitative scholars (mainly educationalists) who challenge the orthodoxy of humanist conventional qualitative research by placing the human subject at the centre of knowledge production (Lather & St Pierre, 2013). They question how to do empirical research once we consider that we are dealing with intra-acting and always entangled elements. Post-qualitative inquiry offers several examples of diffractive methodology. For instance, Jackson and Mazzei (2013) use diffractive methodology to examine the same set of data by different post-structural concepts from Derrida, Spivak, Foucault, Butler, Deleuze and Barad. For the analysis of this stream, Barad (2007) reads Whitehead with Haraway and Barad; Geerts and Van der Tuin (2016) use a diffractive reading to replace conflict-based reading of Beauvoir and Irigaray; Ulmer (2016) reads critical policy analysis with Jane Bennett and Gloria Anzaldua; Murris & Bozalek (2019) read Barad and Deleuze through one another, paying attention to the differences that matter in engaging with philosophical texts and particularly to the inventive provocations they bring. What these texts have in common is the basic assumption that diffraction is attuned to widening of possibilities rather than articulating meaning.

Our work is inspired mainly by these last two understandings of diffraction since our aim is to experiment with an embodied engagement with the materiality of reading diffactively Weick’s and Introna’s texts. We refer specifically to diffractive reading – and we also introduce the concept of diffractive writing – because we are fascinated by the idea of reading and writing as a material and transcorporeal engagement with texts (others and ours), thus going beyond the idea of thinking about reflexivity and interpretation as mental activities of researchers that are isolated from ‘data’ and from the language that is materially constituting them.

A few words are necessary to make explicit how ontology, epistemology and ethics are entangled, thus forming an ‘ethico-onto-epistemology’ (Barad, 2007) – and how this concept is relevant for a diffractive reading-writing framework. In an interview for the book New materialisms: Interviews & cartographies Barad explains how intrinsic a respectful, detailed ethics, that is founded on entanglement rather than externality, is to a diffractive methodology: ‘diffractive readings bring inventive provocations; they are good to think with. They are respectful, detailed, ethical engagements’ (Dolphins and Van der Tuin, 2012, p.50).

Engagement takes the place of critique and opposition to other ideas or texts, since diffractive methodology means reading a text through another, reading insights through one another, building new insights, and attentively and carefully reading for differences that matter in their fine details (Murris & Bozalek, 2019).

Hence, we experiment not only with a transcorporeal reading – that is a material engagement with the body of texts (Alaímo, 2008) - we also experiment with embodied writing of our encounter with the texts we read and how they may be open to further engagements. For this reason, we became to elaborate a diffractive reading-writing methodology which make visible our becoming-with the texts we read. More concretely, as authors we engaged in many discussions (mostly over Zoom because of Covid restrictions and being geographically dispersed). What fed these discussions is us individually reading and re-reading both papers numerous times, formulating questions that we asked the papers, typing in and sharing answers that we thought we were reading in the papers, making copious notes on what we thought we learned and felt, consulting many feminist new materialist and other texts, having plenty of moments of puzzlement, frustration and despair, occasional sadness, and a few moments of inspiration, and obviously had dealings with editors and reviewers.

We found ourselves particularly inspired by Barad’s story of the two slits experiment, in which light from a source on the left passes through two slits in the barrier in the middle and the beams of light from the two slits interfere with each other, leaving a diffraction pattern, that is
marked by alternating patterns of bright and dark areas (Barad, 2007). A simple visual representation, inspired by Visser and Davies (2021, p. 1828), may help to visualize how we approach diffractive reading-writing (Fig. 1). With this figure, we wish to convey the sense of our construction of a diffraction grating, with which we diffractively read the two texts on sensemaking. On the left of the figure, we place the two texts as an entanglement of intra-acting elements (for simplicity we mention only a few of these elements such as the fire, the smokejumpers, the Forest Service, plants, animals, language, discourse, researchers and other non-living elements as examples of the intra-action of human and more-than-human elements) and on the right we place the diffraction patterns that appear as we move in reading intra-actively as a process of producing differences.

Our metaphorical ‘slits’ can be visualized in relation to how and why we construct a diffraction grating through two concepts: fire-burning and death-dying, two neologisms that associate a noun and a verb. The combination of verb and noun are meant to convey a sensation of both experiencing what is happening and appreciating what has happened; generating an affective experience with the two texts that we read and with the paper that we write and that you read now. Since the purpose of our diffractive reading-writing experiment is to produce different knowledge and to produce knowledge differently, we have not followed a ‘method’ in the traditional sense. Moving away from prescription, we have focused more on the materiality of language where we as readers and writers allow ourselves to intra-act with text, to transform our corporeal engagement with the texts, the materiality of language and the material entanglement of matter and meaning. They are good for thinking-with and they open up new images of thought. Moreover, they are put to work by subjects to do something to objects. Western languages are entitative, referring to states that contrast and differ from each other, and where verbs are activities that are put to work by subjects to do something to objects. Western language, and therefore western thought, has difficulty referring to movement itself and to a reality that is constantly in flux; that is not anymore what it was and not yet what it is going to be, especially when this is movement between two opposing states. The Chinese language, as it is based on characters, allows for combining characters to convey meaning that is more than just adding them up. When two characters are combined, and when these characters on their own are exact opposites or contradictory to each other (for example, yin-yang with yin representing darkness, femininity and passivity and yang representing light, masculinity, and activity), the combination expresses their entanglement and the in-betweenness of both being present concurrently. Such combinations do not refer to a steady state or an entity but to the presence of movement and a being that is in process. Hence, Chinese language, and therefore Chinese philosophy, much better allows for expressions that invoke a reality that is in constant flux than Western thought because of how the different languages allow for mattering differently. This observation underpins Jullien’s (2011) point that Chinese thinking much better appreciates that life and existence is a journey of silent transformations rather than a sequence of destinations or points of passage.

In the next section, we re-turn to Mann Gulch as the theatre of intra-active encounters with the materiality of written texts and our corporeal materiality as readers and writers of texts.

3. Re-turning to Mann Gulch: an intra-active encounter

SpaceTime Coordinates: Upper Missouri River, Lewis and Clark County, Montana, USA, August 5, 1949 [a wildfire disaster that resulted in the death of 13 firefighters known as smokejumpers, leaving just 3 survivors], diffracted through Maclean (1992) [an award winning book that describes the events leading to the Mann Gulch disaster] diffracted through Weick (1993), [a highly influential article that reanalyses the Mann Gulch disaster using findings from Maclean (1992) as a means of...
proposing a theory of organizational resilience based on sensemaking), diffracted through Introna (2019) [an article that reanalyses the Mann Gulch disaster using findings from Maclean (1992) as a means of proposing an alternative account of sensemaking theory to Weik’s], diffracted through this paper [an article inspired by feminist new materialism, which returns to Mann Gulch by paying attention to differences that make a difference].

The Mann Gulch disaster refers to the death of 13 young men, out of a crew of 16. They were parachuted into a remote part of Montana, USA, to extinguish a wildfire that had started the day before. As they were descending along the north side of a stream that flowed at the bottom of the gulch, with the fire raging on the south side, they were surprised by this fire jumping the stream and moving quickly towards them. Apart from Wayne Dodge, the crew foreman, they all ran away but were unfortunately overtaken by the fire. Dodge survived because he lit an escape fire that burned the vegetation around him so that the big fire could not reach him. He hobbled to his crew to join them, but they failed to take heed. Two more survived, Sallee and Rumsey, because they noticed a crevasse in the rockface through which they climbed out of the path of the fire. There was one more man who survived by a lucky coincidence, we could say, that in any case affected his life. In fact:

Wind conditions that day were turbulent, and one smokejumper got sick on the airplane, didn’t jump, returned to the base with the plane, and resigned from the smokejumpers as soon as he landed (Weick, 1993, p.628).

Our point of departure is that academic texts, far from being static records of events that are already past, are “an iterative and mutually constitutive working out, and reworking” (Barad, 2007, p. x) of the concepts and events, and of ourselves as integral to, and crystallized within, those concepts and events. Therefore, we are not focused on ‘accurate’ or ‘truthful’ depictions of what happened in Mann Gulch in 1949. Rather, we appreciate that all storying comprises diffractive movements, capable of affecting the readers—of animating the readers—of working on our indefinite boundaries as readers. Therefore, the intra-active encounters with Mann Gulch are not separate from us who read their multiple storying.

The concept of animating a text through reading and storying it again and being animated by the texts we read is well expressed by Davies (2017) in her story about her ancestors that she told by animating a letter from the past. Animation enables us to move away from the notion of representation where texts are regarded as ‘lifeless’ dead matter, but rather text can be animated and bring to life lines of force and intensities that affect the reader. In reading Weick’s and Introna’s texts and writing our paper we animate them since we make ourselves permeable to the materiality of their words (and worlds) and thus the boundaries between us and the texts, between the readers of this text and Weick’s and Introna’s texts, are blurred and they release new powers in the capacities of our bodies to act and respond. The capacity of Weick’s and Introna’s texts to disorient us – readers and writers of today that animate their texts and the readers of the future – proves that the texts are alive, animating us, affecting us even if the tragedy happened so many years ago. The impact of those bodies of knowledge on us as authors and readers opens up new possibilities, starting from the sense of disorientation that affects us as we engage with what is made to matter and what is excluded from mattering in these two texts. Disorientations are constituted by feelings of shock, surprise, unease, and discomfort that are experienced through corporeal and affective processes. Felt disorientations almost always make us unsure of how to go on. Ahmed (2006) notes that disorientation, as a bodily feeling, can shatter one’s sense of confidence and it creates a sensuous uncertainty that affects us viscerally; furthermore, Harbin (2012) argues that experiencing disorientation can strengthen the moral agency of individuals. We propose to cultivate dis/orientation in reading, not to control it.

We re-turn to those two texts iteratively intra-acting, re-diffracting, diffracting anew, making of new temporalities, making new diffraction patterns to animate differently and think and write differently about sensemaking. When the story of Mann Gulch told by Maclean is animated in Weick, and again in Introna, we as readers are transported back to Mann Gulch in 1949, re-imaging the parachute jump into the Montana wilderness with the strong winds scattering the men and the equipment on the way down, the preparations to start dealing with the fire, the walk down the gulch, the sensation of fright when the men realized the fire was coming for them, and the intensity of the fire that melted watches and burned skins; creating heroes, victims and villains of humans, nonhumans, and more-than-humans (Whittle, Mueller, & Mangan, 2009). Our own reimagining in this paper is not just free floating but informed by concepts of entanglement, intra-activity, ethico-onto-epistemology, and feminist new materialism, which cultivate bodily disorientation and which, in turn, animate the texts that we are reading and we are affected by our own writing.

Reading diffractively is not separated from writing diffractively and we stress that the texts themselves are not the outcomes of an ‘I but interference patterns in the making, intra-acting with multiple others of which we are a part. Hence, we do not assume that we are at any privileged vantage point, or that we are offering a superior or more realistic account of the disaster. Rather, we ask: How does engaging with bodies of texts and the intra-acting phenomena that come alive affect us as we read these bodies of text? What imaginings do they provoke and how can these enable us to write and think differently about sensemaking? In the following two sections we put to work our diffractive grating constituted by two neologisms: fire-burning and death-dying and, illustrating ‘what can a neologism do’, in analogy to knowing a body not for what it is, but for what can a body do (Thanem & Wahlenberg, 2014).

4. Diffractive reading-writing through fire-burning: animating heroes, victims, and villains of Mann Gulch

The neologism fire-burning, a combination of a noun and a verb, is an attempt to conjure up with you – the reader – the simultaneous sensation of the phenomenon of a wildfire as an event having an effect and as a process that is playing out.

In animating the Mann Gulch disaster, Weick attributes the dramatic outcome to the interactive distribution of role structure and sensemaking. Our reading of Introna sees the outcome attributed to the prevailing mood at the time of the Mann Gulch disaster, a more-than-human entity that implicates human sensemaking. Nonhuman elements like firefighting equipment, timber, oxygen, ashes, flammable materials, watches and even records, and more-than-humans forces in the form of wind, forest, trees, grass, earth, fire, and moods appear in both Weick and Introna as passive matter, albeit with different emphasis and roles.

Weick animates Dodge as the hero of the story. Dodge’s heroism is linked to his skill as a bricoleur who remained creative under pressure. This skill involves knowing nonhuman materials and more-than-human threats and opportunities intimately and being able to use them to master the situation. The 13 firefighters, who lost their lives, are narrated as victims who were not intimidated by nature but were unable to follow Dodge or to invent a different solution for themselves. Therefore, Dodge’s survival is linked to his ability to dominate, use, and control key firefighting knowledge, tools and materials to think up the solution of the escape fire. For Weick, survival was a question of control and manipulation over earthly forces and he reanimates nature, and the more-than-human fire and wind as destructive forces, which, over time, can change from benign to threatening, and to evil-self and other as separate:

The year before, 1978, during the trip into the gulch with Sallee and Rumsey, Maclean located the rusty can of potatoes that had been discarded after Hellman drank its salty water through two knife slips Rumsey had made in the can (Maclean, 1992, p. 173). He also located the flat
rocks on which Hellman and Sylvia had rested while awaiting rescue, the juniper tree that was just beyond the crevice Sallee and Rumsey squeezed through on the ridge (Maclean, 1992, p. 207), and Henry Thol, Jr.’s flashlight (Maclean, 1992, p. 183). Considering the lapse of time, the destructive forces of nature over 28 years, and the power of a blow-up fire to melt and displace everything in its path, discovery of these traces is surprising as well as helpful in reconstructing events (Weick, 1993, p. 630).

When the noise created by wind, flames, and exploding trees is deafening; when people are strung out in a line and relative strangers to begin with; when they are people who, in Maclean’s words, ‘love the universe but are not intimidated by it’ (Maclean, 1992, p. 28); and when the temperature is approaching a lethal 140 degrees (Maclean, 1992, p. 220), people can neither validate their impressions with a trusted neighbour nor pay close attention to a boss who is also unknown and whose commands make no sense whatsoever. As if these were not obstacles enough, it is hard to make common sense when each person sees something different or nothing at all because of the smoke (Weick, 1993, p. 630).

Introna’s animation of Mann Gulch is also a story of victims and villains where humans are positioned to think that they can dominate nonhumans and more-than-humans. The sense that is already given and taken for granted by the original papers. Although the notes we present were made by an individual author, we like to emphasise that it is impossible to attribute any of our positions, within the flow of the mesh, as able firefighters who could take on the fire confronting them on the ridge (Introna, 2019, p. 756).

Differently stated: in this technological mood, they were already disclosed, or made sense of in a particular manner – which framed what they were about to do, and who they were in this doing. They were firefighters, and Mann Gulch was a fire in need of fighting. This mood did not just disclose them, of course, also the world they were already being thrown into – quite literally (Introna, 2019, p. 756).

However, the 13 firefighters who died are animated as confident heroes who became victims as a consequence of the prevailing moods that told them they were in control of the situation and nature was in need of domination.

Would a more-than-human ethics of care induce a different reading-writing of the two texts? How would we reanimate the phenomenon of fire-burning differently? We will share some excerpts from the original texts by Weick (1993) and Introna (2019) as well as some notes that we typed in, during the course of our engagements with these texts, feeling affected and resonating with the excerpts from the Weick and Introna papers. Although the notes we present were made by an individual author, we like to emphasise that this is impossible to attribute any of our writing to a single person. Rather what we wrote as individuals are superpositions of our readings, writings and discussions, which continues to go on with anyone reading this text, as these all are co-emergent affective entanglements.

In reading both Weick and Introna’s animations of human, nonhuman and more than humans involved in the phenomena of firefighting, I can feel my skin heating up as I imagine the feeling of fire upon the skin of the firefighters in 1949. This feeling leaves me with clammy palms and evokes the reaction of a quick search on the internet for the kind of protective equipment worn by firefighters these days. This body-mind disorientation enables me to reimagine that for young, less experienced firefighters the heat and burning sensation of the fire would be felt in a way that was shocking, unfamiliar to them. These disorientations which are experienced by shock or surprise could lead to feelings of being out of place, unfamiliar, or not at home, and could create the instinct of flight causing the firefighters to run away from the ‘escape fire’ created by Dodge. I am finding it really difficult to image or conjure up an image of the 13 firefighters who died as ‘confident fire fighters’; rather, in those final moments when their embodied everyday practices were disrupted, amidst feelings of disorientation, they were unsure of how to go on. This enables one to think differently about some questions about Introna’s assertion that they were confident of their positioning, within the flow of the mesh as able firefighters who could take on the fire confronting them on the ridge. I feel saddened as I read this, I cannot describe why.

In entitative stories of winners, villains, and losers, someone or something is to blame. However, if we posit that humans, nonhumans, and more-than-human are ontologically relational, this releases us from the structure of binary tensions and from presumptions of an a priori incompatibility where one body human, nonhuman or more-than-human exercises dominance over the others. The question, then, is not who or what was to blame for the death of the 13 firefighters, but who and what comes to matter in our sensemaking and who or what does not.

For instance, what barely figures in the stories is Mele Stratton, the smokejumper who did not jump because he got sick on the flight and resigned from the fire service as soon as he returned to the base. Was his life not affected by the disaster? Would he be cast as a hero, a villain, a coward or disappear from Mann Gulch when the story is re-told and re-told? What about the animals and other living creatures like trees, grass, insects that died in the fire? Whose life is made to matter? And do the wounds inflicted on the ground that are still visible after 28 years make sense only for humans and not for nature? How are wildfires made to matter?

Wildfires’ discussions have been mostly limited to fires in certain Western regions, such as America (Introna, 2019; Weick, 1993) and Australia (Dwyer & Hardy, 2016; Dwyer, Hardy, & Maguire, 2020). The phenomenon of fire-burning in non-western regions have not appeared in the analysis. However, wildfires also happen in other regions such as Russia and China. The fires raging in Siberia are arguably bigger than fires in Greece, Turkey, Italy, the US and Canada combined (Dixon, 2021).

Moreover, wildfires can be considered - and this is a voice that is gaining more prominence - as a ‘normal’ and ‘natural’ occurrence, especially in Montana and the wider Rocky Mountains. This landscape of high mountains, deep canyons, grass plains, pine forests, and regular thunderstorms sets itself on fire all the time, especially during the summer months, when lightning strikes hit dry vegetation. Whole areas burn down but quickly recover as life grows back and revitalises, with the debris providing nutrients, and the emptied mountainsides giving opportunities to species that cannot thrive in thick forests or on high plains dominated by grasses. However, there is also death and destruction especially among mature vegetation, insects and mammals like chipmunks, squirrels, elk, bears, mountain lions, and the occasional human being.

It is imagined that the native Americans who lived a nomadic life in this region had developed a lifestyle that accommodated the regular burning of vast areas. Wildfires became a problem with European colonisation and settlement because this lifestyle required the landscape to be submitted to the will of the settlers. The ability of wildfires to threaten settlements, farms, ranches, mines, and livelihoods put humans opposite this force of nature. The landscape became a managed landscape even though it still looks like untamed wilderness. Part of this management is fighting wildfires when they occur. Ironically, and this is what is now being recognised, not allowing the mountains to burn naturally only exacerbates the fire risk and makes the fires larger and more devastating because the vegetation grows old, never rejuvenates, and has become an immense and readily available tinder box for the tiniest of spark (cigarette butt, barbecue, and lightning strike) to quickly grow into immense infernos, now regularly destroying towns and villages and lives. This suggests that a wildfire is somewhat queer and indeterminate as it revitalises and brings death and destruction. And
trying to prevent and fight death and destruction only makes wildfires more prevalent. In fact, the Western ‘rational’ management of resources is integral to the Western economy and its imposition on developing Third World countries is problematic, since there is a danger of marginalizing traditional knowledge to the detriment of communities who depend on the land for their survival (Banerjee, 2003). Traditional knowledge and postcolonial critiques to sustainable development are thus excluded from mattering.

Recognizing that wildfires are essentially indeterminate makes the Mann Gulch disaster not something that happened to humans, nonhumans, and more-than-humans and, in doing so, activates pre-existing latent causes to generate pre-determined consequences. Of course, a fire has irreversible effects. However, Mann Gulch as a phenomenon of fire-burning is made to matter differently to all and everything who go through it. And how it matters as a fire is a matter of the intra-activity of everything that is taken up in the burning. This applies to the men and the Montana wilderness in 1949, the US Forest Service, as well as the families and friends of those who perished. It applies to the authors and readers of the texts that have reanimated the disaster since. Mann Gulch matters because part of the Montana wilderness burned down and 13 men were killed, it mattered because the disaster taught the US Forest Service about how to survive a blow-up, for it enabled a bestselling book to be written and read, became the inspiration for a theory of organizational resilience based on the notion of sensemaking, and served as the basis for a critique of this particular notion of sensemaking. It mattered because it inspired this paper.

5. Diffractive reading-writing through death-dying: animating people, forests, animals, plants, life

Death-dying is the second ‘slit’ in our diffractive grating that we use for reading the diffractive patterns created by the superposition of Weick’s and Introna’s texts.

The dying bodies are mainly human bodies, while nonhuman bodies are tools for providing accounts of these deaths. For example, watches featured in both Weick and Introna as having agency to determine the time of death of the smokejumpers or to produce an accurate depiction of events that led to the Mann Gulch disaster:

- Dodge lived by lying down in the ashes of his escape fire, and one other person, Joseph Sylvia, lived for a short while and then died. The hands on Harrison’s watch melted at 5:56 (Maclean, p. 90), which has been treated officially as the time the 13 people died. (Weick, 1993, p. 629)
- To this day it remains unclear why the Forest Service made such a strong effort to locate the disaster closer to 6:00 pm than to 5:30, which was suggested by testimony from Jansson, who was near the river when the fire blew up, and from a recovered watch that read 5:42 (Weick, 1993, p. 630)

Similarly, Introna mentions Dodge looking at his watch when sitting in the burned area of the escape fire after the large fire has passed over:

...and I was able to sit up within the burned area and look at my watch, which indicated 6:10 p.m. (Introna, 2019, p. 755)

Describing the area as ‘burned’ suggests that destruction and death applies to nonhumans as well. However, death is predominantly depicted as a merely human phenomenon. For example, drawing on Heidegger and Ingold, Introna animates human existence as temporal stretchiness (Heidegger, 1962) or ongoing movement or flow of life (Ingold, 2011) between birth and death.

Since the bodies that are mourned are human bodies, the explanations of surviving are centred around human collaboration:

Intersubjectivity was lost on everyone but Sallee and Rumsey – they stuck together and lived. Dodge went his own individual way with a burst of improvisation, and he too lived (Weick, 1993, p. 642).

Similarly, in Introna, ethics is about respect to the humans that died in the disaster:

A reading which raises all sorts of questions about how we – and this includes the author of this paper – use the tragedy of others as empirical material for the production of managerial knowledge. In this we need to remain accountable, as Butler (2005) suggests. We also need to be attuned to the ways in which our own sensemaking is always and already conditioned – that is, our sense is already made. This is our scholarly and ethical obligation – something we cannot dispense of in pursuit of theory (Introna, 2019, p. 759).

Can we reanimate differently the phenomenon of death-dying in our diffractive reading-writing? Can a more-than-human ethics of care be read and written in relation to the continuum of life and death? What follows is a note one of the authors typed in at some point expressing that being bodily affected by engaging with Weick (1993) and Introna (2019) generates diffractive patterns:

Both texts animate a mortal event of death in a manner that is quite visual, leaves me with bodily disorientation. With a rapidly beating heart, I struggle to erase the image of how burnt Harrison’s wrist would have been before the hands of the watch started to melt. I cannot explain this feeling of sadness or why my vision is suddenly blurry until I realise that my eyes have watered as I engage with these texts. This image of watches, and flesh becoming one in the burning fire one is very vividly felt through a heavy, painful heart. I feel sickened, shocked with this animation of the deaths of the firefighters described as a means of setting facts straight or getting the time right.

In assuming a pre-existing separation of self from others and the privileging of human deaths by contrasting them with Dodge’s, Sallee’s, and Rumsey’s survival (almost forgetting Stratton), other voices, other stories are excluded from mattering. What about the family and friends of the smokejumpers who lost their lives? Those men, most of whom were still very young (just boys!), were not simply corpses, they were once ‘flesh’ that were loved by somebody or people: as sons, they each came into the world through birthing of a maternal body, as lovers, their flesh had been touched by caressing hands, as friends they were touched by reassuring and friendly pats on the back, as earthly bodies they experienced the pleasure of the juicy fruits that slipped through their mouths to the innermost recesses of their bodies.

The fleshy imagination that may animate differently the loss and the transcorporeal encounter with death-dying affected one of the reviewers, with our submitted text reminding this reviewer of Leonard Cohen’s song ‘Joan of Arc’ (more specifically referring to the version that he sang as a duet with Jennifer Warnes), portraying the fire that engulfed Joan of Arc as a lover and her going to the fire as a seduction:2

And who are you? she sternly spoke
To the one beneath the smoke
Why, I’m fire, ” he replied
And I love your solitude
And I love your pride
Then fire, make your body cold
I’m gonna give you mine to hold
Saying this she climbed inside
To be his one, to be his only bride.

The text of this song creates another diffraction pattern when encountering Weick’s, Introna’s, and our own text, producing a drastic disorientation in which fire is turned from a destructive force into a lover, its burning flames turned into cold arms that hug the burning flesh of a bride; with the reviewer’s association making our point of reading-

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2 We wish to thank the anonymous reviewer who inspired this image and brought back to our hearts the feeling of a transformation.
writing as a corporeal activity.

Death is not just a discrete event happening to an individual. Every individual is entangled with so many others, and the sensation of loss lasts a long time. How about the animals in the forest, and the trees and vegetation? How many died because of the wildfire? The more-than-human deaths are erased from the accounts as human deaths take centre stage. In reanimating Mann Gulch, we understand that birth and death are not the sole prerogative of the animate worlds. Inanimate beings also have finite lives. Furthermore, by being pre-occupied with establishing the times of death, the texts avoid the dying itself, the 13 smokejumpers being overrun by the fire, their bodies starting to burn, and tragically finding themselves experiencing such a painful end to their lives. Should sensemaking and the research on sensemaking include such cruel experience and the raw emotion that it conjures up and is part of life as it does in the Leonard Cohen song? If anything, these texts are a reminder of our complicity as researchers in marginalization and exclusion by foregrounding what we focus on, particularly when it becomes uncomfortable.

In reanimating the phenomena of death-dying, we would like to follow Radomska, Mehrabi, and Lykke (2020)’s invitation to queer death-dying. In the era of ‘disappearing’ nature, death is not merely a human prerogative, and we may ask how would a vitalist and materialist understanding of death work? This calls for us as researchers to work towards de-exceptionalising human death in tragic events such as the Mann Gulch disaster by doing away with its discursive construction as uniquely valuable, superior, and cast against the ‘backdrop’ of undifferentiated earthly and dehumanised others. This involves a truly careful crafting of responsibility, accountability and care for/towards the human, nonhuman, and more-than-human world. This opens up a space for a less anthropocentric and less oppressive ethics of death (Radomska et al., 2020). Indeed, as Braidotti (2016) indicates posthuman vital materialism displaces the boundaries between living and dying and the generative capacity of this life–death continuum cannot be bound or confined to the single, human individual. Rather, it connects us trans-individually, trans-generationally and eco-philosophically.

By queering death-dying, we also recognize the essentially indeterminate nature of this phenomenon. There is nothing as irreversable as death, yet how it is made to matter is what matters. Death was made to matter in Weick (1993) and Introna (2019) by both articles offering their respective takes on sensemaking as the reason why the smokejumpers died.

6. Concluding discussion

A re-turn to Mann Gulch disaster is diffracted through the two neologisms of fire-burning and death-dying that generate the simultaneous sensation of an event having an effect and being a process that is playing out. Thus, in this text we materialize the interdependence of knowing and becoming by offering to the readers some examples of ‘knowing-in-being’. These neologisms highlight that knowing is a sensation rather than an activity that separates us, as knowers, from the known since both are part of the world in its ongoing becoming. In other words, as readers and as writers we are not separated from the materiality of a text, the materiality of language, our own corporeal materiality. Similarly, knowledge is not (only) produced by standing outside from the activity of reading, nor (only) produced by being immersed in it. Both ways of reading are possible and legitimated in our discipline; however, an immersive and relational reading is less common, and it is here that feminist new materialism offers a methodology for “producing different knowledge and for producing knowledge differently” (Lather & St. Pierre, 2013, p. 620).

We aim to offer a substantial contribution to the embodied sense-making perspective through the sensations invoked by the neologisms of fire-burning and death-dying. Our contribution supplements the dominant narrative in sensemaking theorizing focused on the human sense maker, which considers self and others as different and differentiated and considers meaning and matter as separate yet intersecting processes.

The fire-burning neologism opens up a possibility of thinking differently about wildfires and their queerness and indeterminacy as well as who and what come to matter when thinking about wildfires such as the one that led to the Mann Gulch disaster. Approaching reading and writing as a corporeal activity generates new possibilities for imagining heroes, villains and victims differently. How was a wildfire made to matter? The taken for granted understanding of humans’ ability to dominate, use, and control key firefighting knowledge, tools and materials enables a belief that humans are supposed to be in control of wildfires. Additionally, nature is assumed to be indifferent to human beings and the more-than-human fire and wind are represented as destructive forces. This is a story of victims and villains where humans are positioned to think that they can control and dominate nonhumans and more-than-humans. Through the painful reanimation and reimagining of dying during the Mann Gulch disaster we became able to think differently about death. The death-dying neologism illustrates our capacity to be affected through reading-writing can connect us as human bodies to multiple others and invite ethical questions which generates new possibilities for relating with others in the world. In queering death and dying, we are able to think of death and dying in a less anthropocentric way and imagine death as happening not just to human but also to nonhuman and more-than-human others. How is death made to matter in Mann Gulch stories? Death is assumed to be a wholly human affair. The animals and other living creatures like trees, grass, insects that died in the fire are a part of more-than-human bodies that are not made to matter when human exceptionalism matters.

We also aim to offer a methodological contribution. Diffractive reading proceeds from a corporeal engagement with the texts and from a disposition of ongoing disorientation in reading, that is, a becoming-with the texts that leads to writing other texts and following the diffraction patterns generated by reading a text through one another. Moreover, writing materializes our becoming-with the texts we read and in which we are immersed. Writing expresses a worldly of connections and ordinary affects (Stewart, 2007). We relate corporeally to the texts and become-with them and through our capacity to affect and be affected in the embodied activity of diffractive reading-writing. Our corporeal engagement is realized at the border between theory and methodology. We stress how diffraction contributes towards opening and multiplying the meaning of sensemaking. Diffraction is, in fact, attuned to widening possibilities rather that articulating alternative meaning. The ‘sense’ of sensemaking has been turned into ‘sensing’, activating our senses and our embodied capacities of relating with the sensuous materiality of language and affectively writing for the readers to come. What we propose for an open discussion is, thus, to enlarge the theorization of embodied sensemaking to embrace its constitutive entanglement with the material and the affective.

Furthermore, we also offer an ethical contribution calling for an ethics of care in our academic research practices. Barad (2007) refers to the inseparability of ethics, ontology and epistemology when engaging with knowledge production as ethic-onto-epistemology. A feminist new materialist perspective draws on ethic onto-epistemology and demands that we pay attention to provocative questions about how we are mutually implicated in research practices. Therefore, it is important to consider that entanglement of what we read, and how we respond to it, involves being responsible (to the political and ethical effects of different ‘cuts’) and response-able (staying with the trouble of co-producing the cuts that we help to make), attuning to the new insights that emerge in thinking-with and feeling-with. What practices of knowing and being are mobilized by choosing to foreground the suffering of some bodies while ignoring others (Davies, 2017); how can we become “open and alive to each meeting, each intra-action, so that we might use our ability to respond, our response-ability, to help awaken, to breathe life into ever new possibilities for living justly?” (Barad, 2007, p. x). In fact, a feminist corporeal ethics of care (Pullen, Rhodes, & Thanem, 2017) emerges from openness and generosity towards other people, nonhuman and
more-than-human. It induces a different sense of reading-writing, by exploring the diffractive patterns that run through stories, that open and close down possibilities of thinking and being. This ethical positioning in academia moves beyond critique as a practice of engaging with scholarly work. Feminist new materialist scholars have asked questions about how we can live in a world of difference(s), a world in/as ongoing differentiation, in such ways that the outcome is no longer about separation and antagonism, exclusion and the fear of others, but one that envisions new senses of commonality (Thiele, 2014). Critique is too easy, especially when a commitment to reading with care no longer seems to be a fundamental element. Reading and writing are ethical and political practices, and critique misses the mark (Dolijnhi & Van de Tuin, 2012). We highlight how a diffractive reading-writing methodology aims at a respectful engagement and response-able approach to texts, thus performing a different academic ethical subjectivity and constituting an alternative to arid critique.

In concluding, this article contributes a fine-grained articulation of embodiment in the sensemaking perspective and offers a methodological insight to organization studies by illustrating diffraction as an ethics of care in research practices. Moreover, diffraction as a feminist methodology may help researchers to make embodied sense of the research phenomena they study.

CRediT authorship contribution statement

Etieno Enang: Conceptualization, Project administration, Methodology, Analysis, Writing–final draft, Writing – original draft, Writing – review & editing. Harry Sminia: Conceptualization, Methodology, Writing – original draft, Analysis, Editing. Silvia Gherardi: Conceptualization, Methodology, Writing–final draft, Supervision & Editing. Ying Zhang: Analysis, Validation, Review & editing.

Declaration of Competing Interest

We declare that we have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

Data availability

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