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What kind of intimacy is meaningful to you? How intimate interactions foster individuals' sensemaking of innovation

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This study examines how intimacy affects individuals' sensemaking of innovation in their organization. Although sensemaking facilitates understanding innovation and envisioning new worldviews, it involves a delicate process of self-disclosure, reflection, personal contact and communication. Intimacy focuses on time-bounded interactions that foster individuals' progressive self-disclosure and perceptions of mutual understanding. Therefore, drawing on intimacy theories, we investigate from a micro-level perspective how temporally bounded intimate interactions foster the meaningfulness of innovation for individuals. As sensemaking processes differ in large-scale radical and incremental innovations, we examine both contexts in a post hoc analysis. Through a field study, we show that different intimacy dynamics (emotional, cognitive and listening) influence meaningfulness perceptions. In particular, we find that the emotional intimacy dynamics positively influence meaningfulness perceptions in the context of radical innovation initiatives, while the cognitive and listening intimacy dynamics positively influence meaningfulness perceptions in the context of incremental innovation initiatives. This study contributes to the sensemaking innovation literature by introducing intimacy as an enabler of sensemaking. Our study also suggests that managers should encourage moments of intimate interaction when pursuing innovation to facilitate sensemaking of change.

KEYWORDS

dyad, field study, innovation, intimacy, sensemaking

1 | INTRODUCTION

Managing innovation in organizations is an important but challenging task. As people are considered the driving force behind any type of innovation (Amabile et al., 1996; Zhang & Bartol, 2010), it is essential to enable them to make sense of the innovation in order to contribute (Dosi et al., 2020; Hölzle et al., 2020; Mascareño et al., 2020; Weiss et al., 2022). Any innovation activity requires people to engage in a sensemaking process (Weick et al., 2005), namely, the individual and social process of constructing new meanings to understand the nature

of the innovation initiative and develop a novel worldview (Konlechner et al., 2019).

Sensemaking is closely related to innovation throughout the innovation journey. For example, people engage in sensemaking during the early stages of concept and vision development, where individuals seek to understand the current state of things and determine a direction for further development (De Brentani & Reid, 2012; O'Connor & Veryzer, 2001). Sensemaking is necessary in these situations, as individuals must find meaning in the new and uncertain circumstances that emerge (Weick et al., 2005). Furthermore, in the later stages of the

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innovation process, people engage in creative activities to envision solutions, a process that involves first imagining ideas and concepts, then evaluating whether they are appropriate in the new context (Perry-Smith & Mannucci, 2017). This activity may require them to shift, transform or let go of ideas and beliefs in favour of new ones (Toivonen et al., 2023), experiencing a meaning void to be filled through social interactions and sensemaking (Kaffka et al., 2013). Thus, sensemaking is also required in the final stages of developing plausible and sustainable outcomes in a new environment (Pendleton-Jullian & Brown, 2016).

Given its pervasiveness in innovation, studies emphasize that sensemaking is crucial in determining the success or failure of an innovation initiative (Logemann et al., 2019; Weick et al., 2005). The resulting meaning represents the essence of the change, either facilitating or constraining future actions (Sandberg & Tsoukas, 2015). If individuals do not resolve the sensemaking challenge by framing a compelling meaning of the new scenario, no action will follow, and the innovation process will be irreparably compromised (Maitlis & Christianson, 2014).

Sensemaking of innovation is also influenced by the nature of the innovation initiative (Röth & Spieth, 2019). Large-scale strategic and radical innovations (second-order changes; Ghoshal & Bartlett, 1996), which aim not only to improve a specific dimension of innovation, such as products, services or processes, but also to design an entirely new set of values and norms for the organization, will trigger significantly different sensemaking processes than incremental innovations (first-order changes; Nadler & Tushman, 1989, 1990). Indeed, the latter mainly affect people's competencies and skills without disrupting the entire organizational value system.

Therefore, it is critical to understand (i) how meanings unfold when people embrace innovation, (ii) how to facilitate the sensemaking process that leads to meanings and (iii) how these outcomes are affected by innovation type. This study therefore aims to advance current knowledge about sensemaking of innovation on these three fronts. We focus on innovation at work as a behaviour rather than performance (Caniëls et al., 2022), considering intimacy as an enabler of sensemaking. Sensemaking occurs primarily in the individual mind and can be fostered through collaborative sensemaking in which people create a shared meaning of a changing scenario (Maitlis & Christianson, 2014). However, individual sensemaking of innovation is a delicate process of self-disclosure and understanding, where ideas emerge as fragile thoughts that can be easily flattened or compromised when shared with others in an attempt to create a shared understanding through collaboration (Weick et al., 2005). In this regard, scholars suggest that intimacy may facilitate sensemaking by fostering the comfortable communication of half-baked ideas and the creation of new meanings (Leonard & Sensiper, 1998). Examples of innovation-focused sensemaking and intimacy are innovators pairs who conceived and developed some of the most groundbreaking innovations of our time, including Steve Jobs and Jony Ive for the iPhone (Isaacson, 2011), Sergey Brin and Larry Page for Google (Hunter et al., 2012), Daniel Ek and Martin Lorentzon for Spotify (Lane, 2014). All these pairs worked as part of larger teams or organizations, yet several accounts report close, intimate interactions in which the two individuals engaged in breakthrough sensemaking. The intimacy

of the partnership provides a collaborative space in which preliminary ideas and thoughts are shared for further refinement (Farrell, 2003).

Intimacy studies agree that 'intimacy is far from the sole preserve of the romantic couple (friendship, family)' (Marar, 2014, p. 9). Nevertheless, it is defined as a kind of time-bounded interaction in which people '(i) reveal something private; (ii) experience positive feelings about themselves, the other person, and the interaction; (iii) perceive the interaction to have advanced or reflecting the partners' understanding of each other' (Prager, 1995 in Prager & Buhrmester, 1998, p. 436). Intimacy concerns the perception of closeness (Aron et al., 1992) and is a characteristic of small numbers, such as dyads and triads, as distinctive forms of association (Rouse, 2020; Simmel, 1902). It allows for an individual's progressive self-disclosure and fosters perceptions of self-validation, mutual understanding and caring (Reis & Shaver, 1988).

Thus, this study investigates the following research question: How does intimacy influence people's meaningfulness of sensemaking for innovation?

In particular, we conducted a field study involving five companies: three engaged in incremental innovation and two in radical innovation. A total of 115 people were involved in a longitudinal experience replicated identically in all companies. Employees participated in three workshops designed to support their sensemaking of innovation. During the workshops, participants experienced repeated moments of reflection in pairs. The pair was chosen as the most intimate form of collaboration because the intimacy dynamics are expected to be more evident (Rouse, 2020). After each session, we assessed the intimacy and meaningfulness perceptions of individual sensemaking of innovation (Bellis & Verganti, 2020b; Prager & Buhrmester, 1998). Our findings show that the emotional, cognitive and listening intimacy dynamics foster individual perceptions of meaningfulness.

Because it is reasonable to assume that different types of innovation initiatives (i.e., radical or incremental) differently affect the influence of intimacy on meaningfulness, we further explore our research question in both the incremental and radical innovation contexts through a post hoc analysis.

In particular, we show that emotional intimacy is crucial in the context of radical innovation while the cognitive and listening dynamics are relevant in the context of incremental innovation.

By observing how intimacy can foster sensemaking, we aim to continue and expand the conversation about sensemaking for innovation (e.g., Röth et al., 2019; Verganti et al., 2020). To date, sensemaking has been primarily viewed as an individual (performed by one person) or collective (performed by many) activity, neglecting what happens in intimate interactions where cognitive and emotional dynamics are expected to be more evident. Thus, we explore this space by examining whether sensemaking benefits from intimate interactions. Intimacy is a well-developed concept in sociology and psychology but remains underexplored in management studies. By investigating the intimacy dynamics in sensemaking, our study extends knowledge about the situated, embodied and affective dimensions of sensemaking (Cunliffe & Coupland, 2012; Maitlis & Christianson, 2014), which are also critical to innovation success (Csikszentmihalyi, 1988).

pt?>In practical terms, the study provides managers with a better understanding of how people make sense of innovation initiatives. Our study also suggests the importance of promoting intimate moments of reflection to facilitate sensemaking. These moments appear to be critical for people to experience mutual caring, collaboration and closeness, while also promoting self-disclosure, idea generation and mutual criticism.

The remainder of the paper is organized as follows. First, we provide the literature background on sensemaking and intimacy. We then present our research model and hypotheses. Thereafter, we present our research methodology before presenting the results and concluding with a discussion.

2 | LITERATURE BACKGROUND

Sensemaking is a creative and interpretive process whereby individuals in an organization assign significance to unfamiliar or unforeseen occurrences (Brown, 2000; Weick, 1995). It is a fundamental way of dealing with the mismatch between expectations and experiences caused by innovation processes (Bryant & Cox, 2004). Therefore, individuals engage in sensemaking to construct new and more meaningful frames of reference (Reissner, 2011). In the context of innovation, sensemaking is crucial for the individuals and the collectivity involved (Fairhead, 1998; Weick et al., 2005): the new worldview provided by the innovation initiative must be meaningful to the actors, both as individuals and as an organization. The main dynamics that characterize sensemaking for innovation are presented next, followed by the concept of intimacy.

2.1 | Individual and collective sensemaking for innovation

Sensemaking refers to the cognitive and emotional process that enables individuals to make sense of a new worldview (Maitlis & Christianson, 2014; Weick, 1995). Sensemaking is triggered when a discontinuity in the state-of-the-art occurs (Weick, 1995, 2010). Typically, the unexpected events that people encounter elicit an emotional response, a situation of arousal in the individual who then engages in the formation of new meanings and understandings (Weick et al., 2005). Emotions provide the disruption necessary for sensemaking to be initiated (Dougherty & Drumheller, 2006, as cited in Sandberg & Tsoukas, 2015). Once emotions trigger sensemaking, meanings are created through the encounter of individual cognitive frames with the cues gathered from the environment (Bartunek et al., 2006; Weick, 1995). The individual's frames are what is already in her/his mind: to perceive a situation and understand what is happening or not happening, the individual must already have something in mind that has been previously learned. What is in people's minds 'frames' their ability to perceive and make sense (Lundberg, 2004). Cognitive frames and emotions provide warnings about cues that should or should not be considered as sensemaking occurs (Weick et al., 2005). Cues are simple and familiar structures that provide the foundation from which individuals cultivate a broader sense

(Weick, 1995): a cue within a frame is what makes sense and represents the minimal sensible structure (Weick, 1995).

Transferring these considerations to the context of innovation, meaning making is the creation and nurturing of this cognitive and emotional process that is embedded in the environment and culture to which an individual refers (Fellows & Liu, 2016). This means that when an innovation initiative occurs, the organizational culture, values and social practices define the individual's conceptual frames and directly influence their ability to notice cues that can be extracted and connected to a new worldview (Lundberg, 2004). When innovation occurs, new cues are available for individuals to extract and interpret in terms of the conceptual framework adopted and the emotional state experienced (Weick et al., 2005).

In addition to extracting and connecting cues to a new meaning, the envisioned meaning must be realistic (accurately perceived) and plausible (agreed upon and explained). Plausible inference requires going beyond directly observable or at least agreed upon information: it is a type of inference that is not necessarily correct but fits the facts (Pendleton-Jullian & Brown, 2016). The plausibility of the new meaning provides coherence and reasonableness, which is responsible for social acceptance (Weick et al., 2005) and future actions (Maitlis & Christianson, 2014).

Moreover, plausibility is also important from an identity perspective because sensemaking is grounded in identity construction, which leads to both self-enhancement (a positive cognitive and emotional state regarding one's identity), self-efficacy (feeling capable, competent and effective in one's abilities) and self-consistency (perceiving coherence and consistency with the past) (Seligman, 2006). In sensemaking, individuals continuously evaluate their experiences (which define their conceptual framework), actions (which enable sensemaking) and sense of identity in relation to what they make sense of (Cunliffe & Coupland, 2012). This process facilitates the embodiment of the new meaning and enables the sensemaking process itself.

Sensemaking is also defined as a social process: it benefits from interactions among people that allow them to exchange cues and create better understandings (Weick, 1995). When sensemaking is enacted collaboratively, people enter an intersubjective space of reflection, where they advocate for a particular viewpoint based on their sensemaking, and employ various influence tactics to shape others' understandings (Dougherty et al., 2000). People engage in a dialogical process of self-disclosure. Their sensemaking is shared in search of new depths and fresh connections to frame new shared meanings of the changing scenarios (De Luca Picione & Francesca Freda, 2016; Shotter & Billig, 1998). Thus, collaborative sensemaking for innovation is a process that allows people to understand the nature of the transformation at play and create a new shared worldview (Konlechner et al., 2019).

2.2 | Sensemaking hindering factors and the concept of meaningfulness

Collaborative sensemaking does not come without costs: it can be a delicate process (Bissola & Imperatori, 2011). Speeches are not

produced consistently, and insights and concepts may be communicated in verbal and nonverbal ways (Stigliani & Ravasi, 2012). Leonard and Sensiper (1998) emphasize that several factors may inhibit sense-making interactions, such as perceptions of inequality among individuals, physical and temporal distance, and group work, which may favour a communication style based more on logical hard data. In addition, people deal with tensions during the sensemaking endeavour: it is a spiralling process that intertwines various enactments and divergent phases with more convergent phases of selection and retention, ultimately leading to the development of a shared understanding (Thrane et al., 2010). These tensions can either enrich or compromise the overall collaborative process and the subsequent meaning derived from it. Rather, when tensions arise, they are often associated with critique and contestation of the 'plausibility' of the new meaning and individual identity (Cunliffe & Coupland, 2012). So how can people successfully make sense of innovation? How can they develop new meanings that are plausible to themselves as individuals and as an organization? Answering these questions requires examining the quality of the outcome of the sensemaking process and the dynamics among individuals during the process.

Regarding the quality of the sensemaking process, measuring the quality of outcomes is something that very few scholars have attempted. Most studies rely on grounded theories (Ravasi & Turati, 2005) or examine people's ability to construct shared mental models (Akgün et al., 2014). However, the essence of a sensemaking process is whether what is developed makes sense to the individual (Weick, 1995). The only study that measures the goodness of the process in these terms and looks at the sensemaking output in its key attributes is that of Bellis and Verganti (2020b). They define the concept of 'meaningfulness' as the extent to which an individual perceives the result of a sensemaking activity to be plausible and part of his or her knowledge and being. They show that in the context of innovation projects, the higher the level of meaningfulness perceived by individuals, the greater the willingness to engage with others in search of even more meaningful interpretations.

From a process perspective, Leonard and Sensiper (1998) suggest that intimacy can facilitate comfortable communication that mitigates sensemaking tensions, potentially leading to a more meaningful outcome. In addition, Bellis and Verganti (2020b) show that intimate dyadic collaborations outperform larger constellations in sensemaking for innovation. Thus, we adopt the theoretical lens of intimacy to explore how sensemaking for innovation may benefit from intimate interactions and specifically how intimate interactions may directly influence the level of perceived meaningfulness.

2.3 | Intimacy for fruitful sensemaking

Intimacy concerns the perception of closeness between individuals (Aron et al., 1992) and requires sensitivity to the needs of others and the willingness to act towards them (Roloff, 1987). Historically, intimacy has been seen as strictly related to the type of relationship experienced, an instance of a well-established and long-term

relationship (Roloff, 1987; Roloff et al., 1988). A more recent notion is that intimacy is manifested in the interaction between people and is not granted by the pre-existence of a long-term, consolidated relationship (Marar, 2014). According to Marar (2014), 'Intimacy is far from the sole preserve of the romantic couple (friendship, family) (...). In contrast with relationships that aim, and often fail, to perfect a technology of intimacy (whether as partners, lovers, friends, or family), intimacy is more anonymous encounters: the myriad threads that briefly link strangers, acquaintances, colleagues, even enemies. (...) It sits in the small spaces that happen in everyday life' (p. 9). Other scholars suggest that an interaction becomes intimate when people perceive that emotional and cognitive energy fosters collaboration (Parker & Corte, 2017).

The concept of interaction as the locus of intimacy was introduced by Prager (1995) who defined intimacy as a type of time-bounded interaction in which partners: '(i) reveal something private; (ii) experience positive feelings about themselves, the other person, and the interaction; (iii) perceive the interaction to have advanced or reflecting the partners' understanding of each other' (Prager & Buhrmester, 1998, p. 436). Following Prager (1995), Prager and Buhrmester (1998) posited that intimate interactions trigger multiple dynamics, a feature of intimacy recognized by other scholars (Hetherington & Soeken, 1990; Marar, 2014; Parker & Hackett, 2012). More precisely, three main dynamics occur when people experience intimate interactions: (i) emotional dynamics, which deal with feelings and emotions (Hetherington & Soeken, 1990; Sinclair & Dowdy, 2005); (ii) cognitive dynamics, which deal with verbal communication and the exchange of ideas (Talmadge & Dabbs, 1990; Zeedyk, 2006); and (iii) listening dynamics, which deal with active listening and understanding (Prager & Buhrmester, 1998). The emotional dynamic of intimacy (hereafter *emotional intimacy*) involves a sense of closeness to another that allows sharing personal feelings and emotions (Hetherington & Soeken, 1990). It leads to progressive self-disclosure (Sinclair & Dowdy, 2005) in which people share their innermost selves with others (McAdams, 1988), reveal something private (Prager, 1995) and engage with others. Through this dynamic, individuals experience self-validation, understanding and a sense of being cared for (Reis & Shaver, 1988).

The cognitive dynamic (hereafter *cognitive intimacy*) involves mutual criticism and open feedback, and represents the path to mutual growth (Farrell, 2003; Zeedyk, 2006). This dimension refers to the cognitive exchange between individuals through conversations (Hetherington & Soeken, 1990) and the depth of awareness they develop of their partner's cognitive world and sharing ideas (Moss & Schwebel, 1993). This intimacy component leads to a transformative element: once an individual perceives that the other's attention is confidently and reliably focused on them, they not only begin to bring content to the interaction, but also begin to build on the other's content, making it richer, more complex and varied (Parker & Corte, 2017; Zeedyk, 2006).

Finally, the listening dynamic (hereafter *listening intimacy*) refers to mutual, active listening and understanding (Prager & Buhrmester, 1998), which is intended as an attentive response to each other's messages (Prager, 1995). This dynamic results in the active

demonstration of caring (Sinclair & Dowdy, 2005), promotes mutual self-validation (Prager, 1995), self-affirmation (Reis & Shaver, 1988) and enhances skills (Zeedyk, 2006).

These three dynamics are expected to coexist in an intimate interaction (Prager & Buhrmester, 1998). Intimacy is considered a transformative tension during interactions between individuals (Zeedyk, 2006), it is situated in the interaction and allows individuals to freely disclose their innermost selves, promoting mutual listening, mutual understanding and full reciprocity (Marar, 2014). It keeps individuals exclusively engaged with each other during a close exchange (Zeedyk, 2006).

In the following sections, we deepen these considerations in the context of sensemaking for innovation, highlighting that intimate interactions can enhance the meaningfulness of the sensemaking process.

3 | RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

In this study, we focus on the microorganizational dynamics that occur as people experience temporally bounded intimate interactions while making sense of innovation. Below, we present our research model and the related hypotheses.

3.1 | Hypotheses development: Intimacy dynamics and sensemaking meaningfulness

We explore how intimacy facilitates the sensemaking process for innovation and measure the quality of the output in terms of its meaningfulness. We present intimacy as a broad concept characterized by a defined temporality (situated in interactions) (Marar, 2014) and the three main dynamics (emotional, cognitive and listening) (Hetherington & Soeken, 1990). We hypothesize that when experiencing moments of intimate exchange, all three intimacy dynamics support sensemaking for innovation.

Beginning with *emotional intimacy*, we expect it to facilitate individuals' mutual self-disclosure of feelings and emotions, along with expectations of mutual understanding and demonstrating caring (Sinclair & Dowdy, 2005). In sensemaking, emotions play a crucial role. First, they trigger the following process: when something unexpected happens, individuals experience emotional arousal and commit to making sense of it by triggering the gathering of cues (Weick, 1995). Second, emotions provide warnings about which cues to consider to frame a plausible meaning (Cunliffe & Coupland, 2012). Thus, experiencing the emotional intimacy dynamics through sharing emotions safely and feeling cared for by the other (Talmadge & Dabbs, 1990) is expected to enhance the perception of meaningfulness of the sensemaking process. Moreover, experiencing emotional intimacy is expected to enhance the individual's self-validation (Hetherington & Soeken, 1990), another prerogative of successful sensemaking (Seligman, 2006). Thus, we propose that the emotional

intimacy experienced in intimate interactions facilitates the sensemaking process by positively influencing the individual's perception of meaningfulness. Hence

H1. Experiencing emotional intimacy in sensemaking positively influences the meaningfulness of the output of the sensemaking process.

Cognitive intimacy is described as the transformative dynamic of an intimate interaction (Parker & Corte, 2017; Zeedyk, 2006) and refers to the extent to which individuals engage in the cognitive exchange of ideas and thoughts for mutual growth (Talmadge & Dabbs, 1990). These considerations are consistent with the cognitive aspect of sensemaking: making sense of a changing environment requires people to exchange ideas and cues in search of new connections that are meaningful to both the individual and the organization (Dougherty et al., 2000). More precisely, the cognitive intimacy dynamics imply that the individuals involved perceive that the others' attention is reliably focused on them (Zeedyk, 2006). From a sensemaking perspective, when experiencing cognitive intimacy, individuals directly perceive whether they are understood, even if what they say is not perfectly articulated (Stigliani & Ravasi, 2012). Furthermore, cognitive intimacy implies that individuals mutually build on each other's content (Parker & Corte, 2017). This dynamic could foster collaborative sensemaking and prevent compromising outcomes when managing the tensions between the divergent and convergent phases (Cunliffe & Coupland, 2012). Thus, it is reasonable to assume that the cognitive intimacy experienced in an intimate interaction facilitates the development of meaningful understanding. Therefore,

H2. Experiencing cognitive intimacy in sensemaking positively influences the meaningfulness of the output of the sensemaking process.

Finally, *listening intimacy* is associated with mutually attentive listening and understanding (Prager & Buhrmester, 1998), resulting in an active demonstration of caring (Sinclair & Dowdy, 2005), which is expected to foster self-validation (Prager, 1995) and self-affirmation (Reis & Shaver, 1988). Such perceptions of self-enhancement and validation are critical to successful sensemaking. Meaning-making forces individuals to constantly evaluate themselves, their understanding of the world, and their actions (Seligman, 2006) in search of social acceptance and credibility (Weick, 1995). By providing self-validation and enhancement, listening intimacy is expected to facilitate the embodiment of new meanings (Cunliffe & Coupland, 2012), thereby fostering the perception of meaningfulness. Therefore,

H3. Experiencing listening intimacy in sensemaking positively influences the meaningfulness of the output of the sensemaking process.

Figure 1 presents our research framework.

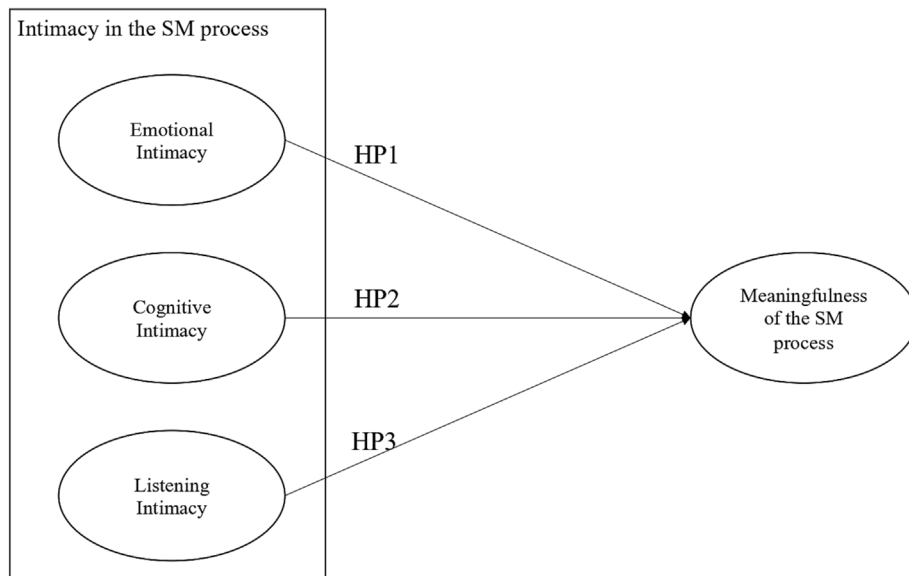


FIGURE 1 Research framework.

3.2 | Post hoc testing: Intimacy and meaningfulness according to innovation type

It is reasonable to expect that the nature and extent of innovation will affect people's sensemaking in different ways. Thus, to contribute to our understanding of the relationship between intimacy and sensemaking, we examine both the incremental and radical innovation contexts.

Theoretically, scholars distinguish between first-order and second-order change as extremes of a continuum (Blumenthal & Haspeslagh, 1994). The former are most likely to occur in the context of evolutionary or incremental innovation initiatives (Del Val & Fuentes, 2003): they lead to the improvement of a specific instance of innovation (e.g., a product, a service or a process) and require updating competencies and skills, but the general organizational framework and value system remain stable (Goodstein & Burke, 1991; Greiner, 1989; Levy, 1986; Mezas & Glynn, 1993; Nadler & Tushman, 1989, 1990). The latter are defined as transformational and revolutionary, and typically occur in the context of large-scale and radical innovation initiatives (del Val & Fuentes, 2003). These innovation initiatives seek a breakthrough transformation in which the organization changes its overall framework in terms of values, norms and behaviours (Marshak, 1993; Nadler & Tushman, 1989, 1990). Both types of innovation initiatives require people to engage in sensemaking, so it is reasonable to assume that intimacy plays a critical role in both. However, we can also assume that people benefit from specific intimacy dynamics to make sense of the type of change they face.

Incremental innovation initiatives are associated with incremental changes in the status quo (del Val & Fuentes, 2003), thus requiring people to rely on well-established knowledge schemas and behavioural scripts to respond to the situation (Fiedler & Bless, 2000). The sensemaking process during such changes is much more related to the *how* of things than the *why* (Verganti, 2017).

In contrast, in radical innovation initiatives, people are asked to innovate and dramatically rethink their value set, the *why* of things as the organization embraces a radical new direction (Verganti, 2017). Thus, sensemaking is expected to be of a very different magnitude. While in incremental innovation sensemaking is mainly aimed at problem solving (Dell'Era et al., 2020), in radical innovation, sensemaking is about constructing a new scenario of what is possible and what is not by evaluating the external stimuli (Forgas, 2002). Personal values also drive the process, culture and purpose in framing what the future should look like (Dougherty & Drumheller, 2006, cited in Sandberg & Tsoukas, 2015). In addition, affective events theory studies explain how people's emotional responses influence the content and valence of the subsequent cognitive processes (Ashton-James & Ashkanasy, 2008). Specifically, in the context of innovation initiatives, the authors explain that radical innovation initiatives require higher emotional responses than incremental ones due to the complexity and perceived risk (Daly & Wiemann, 2013). Thus, we also test whether the innovation initiative (incremental or radical) affects the relationship between the different intimacy dynamics and the meaningfulness of sensemaking. Although we do not explicitly develop hypotheses in this regard, we perform a post hoc test that is presented in the results section.

4 | RESEARCH DESIGN AND METHODOLOGY

We conducted a field study to test our hypotheses. Specifically, we collected data in the context of innovation workshops at five different international companies.

Unlike research conducted in a laboratory, real-world settings can introduce confounding variables beyond the control of researchers (Podsakoff & Podsakoff, 2019), potentially affecting the reliability and replicability of findings. However, the benefit of increased ecological

TABLE 1 Summary of the companies involved in the field study.

Company ID	Industry	Company size	Country of participants	No. of participants	Gender balance	Innovation initiative
Alpha	Food and beverage	100,000–500,000	Worldwide	20	45% women	Incremental
Beta	Commodities	10,000–50,000	Europe and Africa	20	50% women	Incremental
Gamma	Pharma	100–500	Switzerland and Italy	32	47% women	Incremental
Delta	Commodities	100–500	Italy	23	53% women	Radical
Epsilon	Healthcare	100,000–500,000	Worldwide	20	45% women	Radical

validity of field data seems relevant, as it is still lacking in this research field.

Next, we describe the research setting and procedures, as well as the measures adopted to improve the reliability and replicability of our findings.

4.1 | Research setting

The research presented in this article was developed as part of the Innovation and Design as Leadership (IDeALs) research platform¹ founded by School of Management *Politecnico di Milano* and Center for Creative Leadership. In partnership with leading organizations in different industries, IDeALs seeks to explore how to engage people in innovation. This study benefited from research involving people from five different companies (IDeAL's partners) that aimed to engage and activate people in an innovation initiative to be pursued in subsequent years. Of these five companies, three pursued incremental innovation and two radical innovation initiatives. IDeALs teams supported the companies for 3 months by supervising the innovation workshops and providing the methods and tools. All companies followed the same process timeline and activities (detailed in the following section) regardless of the type of innovation initiative pursued.

The chosen setting ensures adequate levels of both external and internal validity. The ability to replicate the manipulation across multiple companies enhances external validity (Dipboye & Flanagan, 1979) while internal validity is strengthened because the individuals involved were selected randomly or without adhering to any specific criteria (Podsakoff & Podsakoff, 2019). Table 1 provides a synthetic description of the companies. Overall, 115 individuals participated in the 3-month experience. In the next section, we describe the process and the activities conducted for the purposes of the study.

4.2 | The process

Participants were guided by the IDeALs research team in a 3-month longitudinal study to maximize internal validity and minimize the influence of external variables (Crano et al., 2014). The study included monthly innovation workshops at each company, facilitated by the research team and conducted digitally via Microsoft Teams and Zoom. During the workshops, participants were supported in making sense

of the innovation taking place in the company while proposing new ideas to drive the innovation itself. In the first workshop, participants were introduced to the innovation initiative by senior management and asked to propose actionable ideas that could be implemented in the short term to support the transformation and drive innovation. As an example, we report the brief that company Gamma gave its participants:

We live in a world where digital technologies are increasingly pervasive and offer us ever-growing opportunities.

Gamma, in its value proposition, aims to have the person always at the center. Digital transformation is often confused with replacing people with machines, but this is not what we want.

We want technologies to be able to support Gamma's development by increasing people's capabilities and not destroying them or making them obsolete ... so we ask: How can Gamma take advantage of the opportunities of digital technologies? What do you have to learn to do to take advantage of digital opportunities while keeping you at the center?

During the workshops, participants alternated between moments of individual and collective reflection (Figure 2). The individual activities were designed to help them understand the new corporate context and its impact on their daily lives. At the end of each session, participants were asked to commit to a small actionable idea in response to the brief to be implemented by the next workshop.

Collective activities were designed to facilitate understanding the innovation initiative and provide peer feedback on individual sensemaking. Collective reflection took place in pairs where individuals shared their understanding of the innovation and received and gave feedback to improve their sensemaking of the innovation.

In the first workshop, participants were randomly paired to share their initial sensemaking of the innovation initiatives and brief. In the second and third workshops, participants were randomly paired with a focus on avoiding previous pairings, then asked to reflect on their previous commitments, the extent to which they fulfilled them, and any challenges they faced.

Working in pairs, participants had to share their experience of the innovation in question, their main findings, the hurdles they

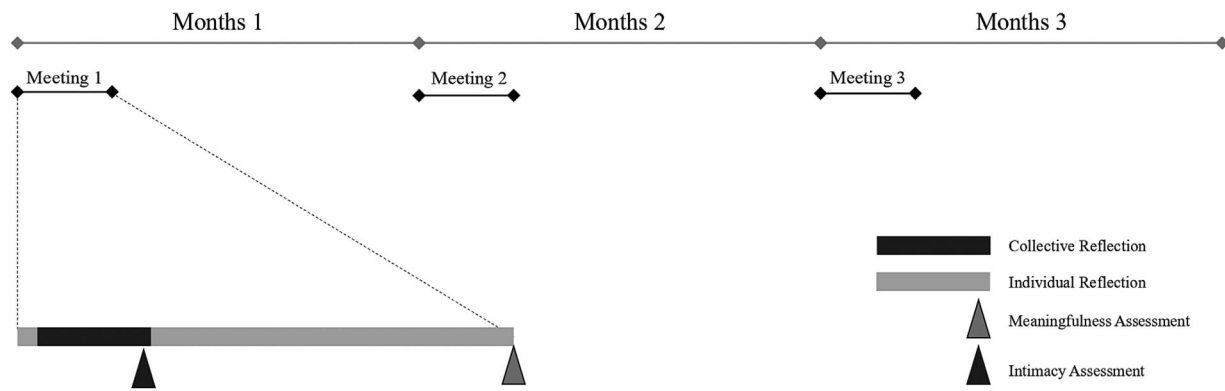


FIGURE 2 Experience design: the overall sensemaking process (distinguishing moments of individual and collective reflection in pairs) and variable assessment.

encountered, and how they intended to overcome them. They acted as sparring partners, providing support and suggesting new ideas, integrating something missing or highlighting possible obstacles. During each meeting, the pairs had 30 min to support each other in the innovation process. Among the different forms of collaboration, we chose pairs as the most intimate form of collaboration where the dynamics of intimacy are expected to be more evident (Rouse, 2020). To ensure maximum privacy for the pairs, the pairing activities took place in breakout rooms: virtual rooms where only the two individuals were present.

In total, participants alternated three moments of individual reflection with three moments of pair interaction. After each session, the intimacy dynamics and the individual perceptions of the meaningfulness of the innovation initiative were assessed. Alternating moments of collective and individual reflection ensured that a change in the independent variable (intimacy) preceded a change in the dependent variable (meaningfulness) (Antonakis et al., 2010; Podsakoff & Podsakoff, 2019). Figure 2 shows the activities and assessments that took place during this process.

We standardized the experience across companies to ensure internal validity. To select the community of participants, companies were asked to (i) engage a diverse and randomly selected group of people across business units and countries, and (ii) avoid power relationships among participants so as not to influence sensemaking and ensure openly sharing their feelings and ideas (Schildt et al., 2020).

To minimize selection bias, no rewards or encouragement and inducements were offered. The initiative was presented to participants as part of the company's overall transformation (Lonati et al., 2018). In addition, the data collected were not visible to other participants or top management, but only to the research team.

4.3 | Definition and assessment of the variables

Across all the companies, we measured the two key variables of intimacy and meaningfulness via a survey using a 5-point scale where 1 = not at all and 5 = completely.

We evaluated and tested several scales to assess intimacy immediately after the pair session (Hetherington & Soeken, 1990; Prager & Buhrmester, 1998; Roloff et al., 1988; Schaefer & Olson, 1981), and found Prager and Buhrmester's (1998) Interaction Record Form-Intimacy (IRF_I) to be the most appropriate.

As explained in the literature background, the notion that intimacy is manifested in the interaction between individuals rather than as an attribute of long-term relationships has been consolidated (Marar, 2014). However, empirical studies are still mainly concerned with the context of long-term personal relationships. Moreover, intimacy is a construct that is still under-studied in the management field (Parker & Hackett, 2012; Rouse, 2020), where time-bounded and floating interactions are most likely to occur (Hargadon & Bechky, 2006), and to our knowledge, there is no scale that directly refers to the managerial or organizational context. Therefore, Prager and Buhrmester's (1998) IRF-I scale is the most appropriate for our context, as it covers all the intimacy dynamics (*emotional, cognitive and listening*) and refers specifically to the intimacy developed in the direct interaction between two individuals during verbal exchanges. Thus, we adopted a six-item scale based on an adapted version of the Prager and Buhrmester (1998) scale. Although we removed some items that were not directly applicable to our research context (e.g., *the interaction was pleasant*), this may represent a potential limitation of our study, which we discuss below.

Meaningfulness was measured with four items selected from the scale of Bellis and Verganti (2020b). This scale distinguishes two factors: plausibility and novelty. As the latter does not apply to our context, which focuses on innovation at work as a behaviour rather than performance (Caniëls et al., 2022), we included only items from the plausibility factor. We assessed meaningfulness at the end of each meeting with the research team.

The survey to measure meaningfulness and intimacy was administered digitally through Qualtrics, and participants were asked to respond immediately to maximize the response rate. All observations were considered as independent, given that participants worked with a new partner in each session and were asked to make sense of a new commitment. In total, we collected 312 responses (response rate 90.43%). As control variables, we considered gender, as women and

men may differ in their emotional responses (Gohm & Clore, 2000), and company, to maximize external validity and control for any possible confounding variables (company culture or values) that could affect the results (Crano et al., 2014).

5 | RESULTS: HYPOTHESES TESTING AND POST HOC ANALYSIS

5.1 | Data cleaning and factor extraction

In this section, we present the results of our field study. All analyses were performed using STATA.

The first step in data analysis is to check the quality of the data. Outliers (detected by the Mahalanobis distance) or non-valid responses (e.g., completely missing or partial values) were discarded, leaving a final database comprising 306 observations: 190 from companies pursuing incremental innovation and 116 pursuing radical innovation.

We then proceeded with factor extraction. Table 2 presents the results of the principal components analysis.

Concerning intimacy, we extracted three factors in accordance with Prager and Buhrmester (1998). The first is related to the emotional dynamics of intimacy, labelled emotional intimacy ($\alpha = 0.64$). The second is related to the cognitive dynamics of intimacy, labelled cognitive intimacy ($\alpha = 0.83$). The third, related to the listening and understanding dynamics, is labelled listening intimacy ($\alpha = 0.87$). Regarding meaningfulness, we extracted one factor ($\alpha = 0.82$), in line with Bellis and Verganti (2020a).

5.2 | Hypotheses testing

Table 3 shows the descriptive statistics and correlations among the variables. Interestingly, all three intimacy dimensions are correlated with meaningfulness. To test our hypotheses, we conducted a regression analysis on the entire database (Table 4). The overall regression

TABLE 2 Factor extraction for intimacy and meaningfulness (Cronbach alpha threshold at .6).

	Listening intimacy	Cognitive intimacy	Emotional intimacy	Meaningfulness
Intimacy				
My partner listened attentively to me during the interaction	0.83			
I listened attentively to my partner during the interaction	0.84			
My partner was critical about the story I proposed		0.876		
I was critical about the story my partner proposed		0.929		
My partner told me about their feelings related to the story and the project we are developing			0.929	
I told my partner about my feelings related to the stories and the project we were developing			0.911	
Cronbach alpha	.872	.833	.64	
Meaningfulness				
For me, the direction I committed to regarding the change in place is plausible				0.727
For me, the direction I committed to regarding the change in place is promising				0.875
For me, the direction I committed to regarding the change in place is compelling				0.78
For me, the direction I committed to regarding the change in place is effective				0.857
Cronbach alpha				.824

TABLE 3 Correlations.

	No.	Mean	Std. deviation	Listening intimacy	Cognitive intimacy	Emotional intimacy	Meaningfulness
Listening intimacy	306	-0.01	0.99	1			
Cognitive intimacy	306	0.00	0.99	.003	1		
Emotional intimacy	306	0.03	0.93	.026	-.005	1	
Meaningfulness	306	0.01	0.98	.152**	.119*	.177**	1

*Correlation significant at the .05 level (two-tailed).

**Correlation significant at the .01 level (two-tailed).

TABLE 4 Results of regression on meaningfulness predictors.

	Coef.	Std. err.	t	$p < t $
Listening intimacy	.1456087	0.0566107	2.57	.011*
Cognitive intimacy	.1198619	0.056344	2.13	.034*
Emotional intimacy	.1974904	0.0562558	3.51	.001**
Constant	-.1095935	0.1443799	-0.76	.448
Gender	.0077334	0.1140763	0.07	.946
Beta	.0360245	.0418166	0.86	.390
Gamma	.2167459	0.1776067	1.22	.223
Delta	.0848495	0.1460635	0.58	.562
Epsilon	.0165021	0.186555	0.09	.930

*Significance at the .05 level.

**Significance at the .01 level.

model is significant, as shown by the model summary ($F[5, 290] = 5.09, p < .001, R^2 = .0807$). The low R^2 value is expected given the nature of the scale: we assess human thoughts and perceptions, which tend to have higher variability (Henderson & Denison, 1989; Von Eye & Schuster, 1998). The predictors (intimacy dimensions) are all significant ($p < .05$), and each predictor uniquely and individually explains a significant amount of variance in meaningfulness. Therefore, we can conclude that our three hypotheses are supported.

Our findings shed light on how intimacy can foster sensemaking for innovation. Consistent with the cognitive and emotional nature of the sensemaking process, cognitive intimacy and emotional intimacy are important. From a theoretical perspective, the former is expected to facilitate disclosure and externalization of feelings and emotions, which is crucial for triggering and facilitating sensemaking (Cunliffe & Coupland, 2012). The latter contributes to the constructivist and creative part of sensemaking, facilitating the exploration of new connections between cues that will constitute a new meaning (Dougherty et al., 2000). In addition, intimacy allows for mutual attentive listening and understanding that intimacy contributes to individual sensemaking. However, while the emotional and cognitive dynamics can be carried out individually, active listening can only occur when there is a collaborative and safe space.

5.3 | Post hoc analysis: Does innovation type influence the relationship between intimacy and meaningfulness?

In addition to analyzing how intimacy affects meaningfulness, we conducted additional analyses to explore whether innovation type (i.e., incremental or radical) affects this relationship.

As noted above, three companies in our sample engaged in incremental innovation and two in more radical innovation (Table 5 provides a description of the different initiatives). This led us to perform a post hoc analysis to determine whether our findings are confirmed.

TABLE 5 The innovation initiatives.

	Company ID	Innovation initiatives
Group 1: incremental innovation	Alpha	In a world awash of ideas where companies are forced to constantly innovate, Alpha aimed to develop and nurture the innovation leadership capabilities and skills of its people.
	Beta	As a company operating in commodity, Beta aimed to tackle the opportunities provided by mega trends, such as digitalization, sustainability and urbanization, by nurturing its people's innovation mindset and capabilities.
	Gamma	Gamma aimed to embrace the opportunity provided by digital technologies, aiming to nurture the digital competencies and skills of its people.
Group 2: radical innovation	Delta	Delta aims to articulate and spread a radically new company vision that entails new values and norms for the organization.
	Epsilon	Epsilon strives for a radical and strategic transformation in how to approach new product and solution development as well as the relationship with customers. Such innovation involves the entire organization the way people work and relate to each other.

To examine the effect of innovation type, we conducted a multi-group regression analysis. This technique allows testing for significant differences in the parameter estimates (e.g., path coefficients) across predefined data groups (Chetoui et al., 2021; Hair et al., 2014; Ruiz-Palomino et al., 2022): incremental innovation (Group 1, $n = 190$), radical innovation (Group 2, $n = 116$).

The results are reported in Table 6. Starting with the regression on Group 1, the model summary shows that it is significant ($F[5, 177] = 5.47, p < .001, R^2 = .134$). Regarding the predictor, cognitive intimacy and listening intimacy are statistically significant ($p < .05$), while emotional intimacy is not ($p = .065$), thus not contributing to the perception of meaningfulness. However, for this group, one company in the sample is slightly significant, hindering the generalizability of our findings.

Looking at Group 2, the regression analysis is statistically significant, as shown in the model summary ($F[5, 107] = 2.07, p < .05, R^2 = 0.088$). Only emotional intimacy is statistically significant ($p < 0.01$) in explaining meaningfulness. Thus, intimacy as a multifaceted concept plays different roles depending on the specific innovation under consideration.

TABLE 6 Results of multigroup regression on predictors of meaningfulness in incremental innovation and radical innovation.

	Group 1 Incremental innovation				Group 2 Radical innovation			
	Coef.	Std. err.	t	p < t	Coef.	Std. err.	t	p < t
Listening intimacy	.145017	0.072402	2.00	.047*	.0717949	0.098144	0.73	.466
Cognitive intimacy	.206721	0.071396	2.90	.004**	.0226068	0.098340	0.23	.819
Emotional intimacy	.129933	0.069973	1.86	.065	.2737491	0.093780	2.92	.004**
Constant	-.420616	0.220798	-1.90	.058	-.9217045	0.854710	-1.08	.283
Gender	-.054379	0.147116	-0.37	.712	.0909372	0.177415	0.51	.609
Beta	.233580	0.101082	2.31	.022*				
Gamma	.201162	0.186639	1.08	.283				
Delta					.1872612	0.191294	0.98	.330

*Significance at the .05 level.

**Significance at the .01 level.

6 | DISCUSSION

6.1 | How intimacy fosters the meaningfulness of sensemaking

This study explores how intimacy influences the meaningfulness of sensemaking for innovation. Sensemaking is mainly considered an individual (performed by one person) or collective (performed by many) activity, neglecting what happens in intimate interactions where the cognitive and emotional dynamics are expected to be more evident. Our research thus explores this space, as some studies highlight that sensemaking for innovation may benefit from a certain level of intimacy (Leonard & Sensiper, 1998), while others argue that intimate collaboration outperforms larger constellations when it comes to sensemaking (Bellis & Verganti, 2020b). We continue this conversation by detailing the intimacy dynamics at play.

Sensemaking is a delicate process of self-disclosure and knowledge creation that requires individuals to update their cognitive frames by crossing their semiotic boundaries and entering new ones (De Luca Picione & Valsiner, 2017). Our study shows that intimacy facilitates the disclosure of deep areas of knowledge, allowing these to grow in a protected space of reflection. Intimacy seems to provide the appropriate protection to preserve the intersubjective space of creation necessary for sensemaking (Dougherty et al., 2000). Furthermore, in the literature review, we highlighted that a crucial feature of intimate interactions is the full reciprocity of the parties who immediately recognize when attention is not directly focused on them and what they are trying to express. Attentive listening is what makes this reciprocity evident. While the emotional and cognitive dynamics can occur individually, active listening can only occur in a collaborative and safe space.

Finally, as highlighted in the literature review, scholars have recently recognized that intimacy is an instance of interaction rather than a consequence of long-term relationships (Marar, 2014; Parker & Hackett, 2012). Consistently, our study is designed in the context of interaction. Studies on the correlation between long-term

relationships and intimacy in problem-solving activities show that it is easier to find intimacy with acquaintances than with strangers (Roloff, 1987). This is related to a pre-existing language between individuals who find it easier to interact and perform activities because they can easily enact or anticipate behaviours that reduce their partner's needs, leading to higher performance. Therefore, it is reasonable to assume that a relationship plays a role in fostering intimacy for meaningful sensemaking. At the same time, innovation studies that rely on theories of cognitive distance (Nooteboom, 2000) and paradoxical frames (Andriopoulos et al., 2018; Miron-Spektor et al., 2011) offer different perspectives. They explain that the tensions created between individuals with conflicting ideas force them to activate cognitive frames that allow recognizing and building on contradictions, envisioning a third, previously unexplored innovation path. Following this line of reasoning, we might expect that if long-term relationships facilitate the establishment of intimacy (Wuyts et al., 2005), they may also hinder the creativity and radicalness of sensemaking because the two individuals already share similar cognitive frames and may become stuck in their thinking (Bergendahl & Magnusson, 2015). While these are primarily theoretical assumptions, they provide insights for future investigations into whether cognitive distance influences the relationship between intimacy and meaningfulness or the creation of intimacy itself.

By considering different innovation settings, we explore the different roles of intimacy as a multifaceted concept in specific innovation initiatives (Figure 3).

6.2 | How intimacy fosters meaningfulness according to innovation type

Starting with the incremental innovation context (Figure 3a), the cognitive and listening dynamics of intimacy emerge as relevant to meaningfulness whereas the emotional dynamics do not contribute significantly. From a theoretical perspective, the change brought about by incremental innovation is still in the realm of the known

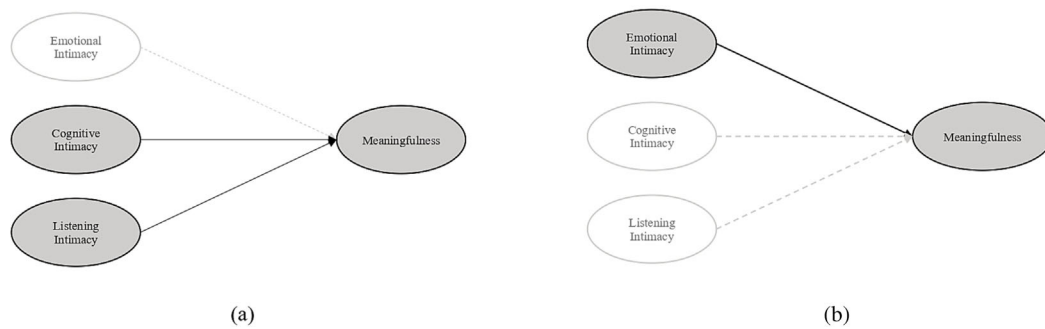


FIGURE 3 How intimacy dynamics differently influence individual perceptions of meaningfulness in the context of incremental innovation (a) and radical innovation (b). [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/doi/10.1111/cam.12568)]

reality. Moreover, in this context, individuals may feel the urgency to grow, learn and transform, as there is less space for emotions and more space for concrete ideas and thoughts for problem solving activities (Dell'Era et al., 2020). Thus, in the context of incremental innovation, the constructivist and cognitive parts of sensemaking appear to prevail over the emotional part. This is consistent with psychology studies on emotions in organizations that explore why emotional reactions are not expected to influence the outcomes of reconstructive or goal-oriented events, such as incremental innovation (e.g., Forgas, 1995). In addition, listening intimacy may play a critical role in fostering this constructive dynamic. In a sense, the pair acts as sparring partners engaging in a dialogic exchange of ideas and thoughts that may only be half-baked. Attentive listening allows these ideas to be understood and then critiquing them so as to enable them to grow (Farrell, 2003).

Regarding the radical innovation context (Figure 3b), we find that the emotional intimacy dynamics are critical. From a sensemaking perspective, radical innovations requires individuals to create a shared mental model and trajectory of where to go on the innovation journey, without a precise reference of what is right and what is wrong (Pearce & Ensley, 2004). Thus, collaborative sensemaking focuses on framing shared norms and values (Cox et al., 2003). At the same time, interactions between people are driven less by technical heuristics and more by perspectives, culture, purpose and mental frames (Pearce & Ensley, 2004; Schön, 1983). Consistently, innovation scholars explain that the creativity and sensemaking enacted in these innovation contexts are more problem-framing activities (Dell'Era et al., 2020). Problem-framing activities require cognitive energy that is not only rational but also emotional and motivational (Andriopoulos et al., 2018; Csikszentmihalyi, 1988). Pendleton-Jullian and Brown (2016) speak of moral imagination, emphasizing that large-scale strategic innovation is often driven by the search for personal meaning rather than the rational interpretation of insights. Finally, our findings are also consistent with studies on affective events theory (Weiss & Cropanzano, 1996) exploring the relevance of emotional reactions in the context of radical innovations compared with more incremental ones (e.g., Ashton-James & Ashkanasy, 2008; Forgas, 1995; Rieple & Snijders, 2018). We add to this literature by showing that intimate interactions enable people to manage these emotional reactions, positively enhancing sensemaking for innovation.

6.3 | Contributions to theory

This study contributes to the literature by expanding the conversation about sensemaking for innovation (Dougherty et al., 2000; Gattringer et al., 2021; Röth et al., 2019; Thrane et al., 2010; Verganti et al., 2020) and observing that intimacy can foster it. Specifically, our contribution is twofold.

First, our study advances the sensemaking literature by examining its occurrence in intimate interactions. Unlike studies that focus on individual or collective sensemaking (e.g., Maitlis & Christianson, 2014), we examine the influence of intimacy in facilitating sensemaking for innovation. Bellis and Verganti (2020a, 2020b) show that pairs outperform teams in sensemaking, while Myers (2021) finds that high reciprocity and vicarious learning improve team performance. Our study draws on intimacy theories to empirically examine the dynamics triggered to facilitate sensemaking. Intimacy provides new insights into the embodied, affective and situated aspects of sensemaking (Cunliffe & Coupland, 2012; Maitlis et al., 2013). It emerges as a transformative tension situated in interactions where the dynamics of self-disclosure, mutual critique and reciprocal care take place (Kijkuit & Van Den Ende, 2007). From a theoretical perspective, collective sensemaking requires individuals to articulate new meanings and subject them to the critique of others in order to elaborate them: it is a vulnerable act because new meanings may emerge as fragile thoughts that are easily flattened or compromised. As a result, individuals may discard many ideas and thoughts even before they are revealed. Intimacy allows individuals to lay themselves bare and open themselves up to each other's benevolent critique for further elaboration and interpretation: it is not just about grasping an idea or aggregating individual inputs (Woolley et al., 2010), but a continuous exchange in an intelligible way that leads to the emergence of novel and meaningful understandings.

Furthermore, studying sensemaking in intimate interactions allows us to expand the conversation about the emotional side of sensemaking (Maitlis & Christianson, 2014), highlighting the importance of emotions for effective sensemaking. Our study highlights a relationship between emotional intimacy and sensemaking, which enables some theorizing. Sensemaking studies argue that emotional responses trigger the need for sensemaking usually in the form of emotional arousal. However, they do not provide insights into

whether this emotional response conveys positive or negative emotions, and how these emotions then evolve in the sensemaking process. The emotional response to innovation can lead to joy and excitement, but also fear and uncertainty, as it requires moving into the realm of the unknown (Maitlis et al., 2013). Unfortunately, our data do not allow us to say anything about the initial emotional state experienced by individuals. However, given the positive impact that emotional intimacy has on the perception of the meaningfulness of sensemaking, we expect a positive evolution of the emotions experienced by individuals. From a theoretical perspective, as individuals successfully begin to build on each other's ideas towards more meaningful interpretations, we might expect them to experience feelings of gratitude, inspiration and satisfaction, thus fostering emotional intimacy.

Second, our study extends intimacy theory beyond its focus in the psychology and sociology fields. Rouse's (2020) is the most significant study of intimacy in creativity and innovation, but only examines how ideas are co-created in a long-term intimate relationship in pairs, without addressing what happens in more complex settings, such as organizations engaged in complex innovation initiatives. Our study expands the conversation about intimacy in innovation by moving from intimacy as an instance of long-term relationships to an instance of time-bounded interactions, and from contexts in which the entire creative endeavour is completed by the individuals in the relationship to a context in which innovation is performed by many (a more typical instance of innovation in organizations), where intimate interactions represent time-bounded moments along the journey in which sensemaking is fostered. While Hargadon and Bechky (2006) and Jakonen et al. (2017) study fleeting interactions and shared insights in organizations, our study delves deeper into the interaction mechanisms through the intimacy lens. We propose that an intimate space of interaction allows individuals to begin to bring content to the interaction and to build on the other's content, making it richer, more complex and varied. When these dynamics occur in the context of innovation-focused sensemaking, the intimate tension created acts as a disruptive force that enables the individuals to envision and elaborate a more meaningful worldview. Consistent with other studies, we do not pretend to consider these dynamics in a vacuum (Wu et al., 2019): the innovation team and the organization are still critical to making innovation happen. However, we theorize that if the team and the organization represent the space where resources and competencies are available to harness innovation, intimate interactions represent the cognitive and emotional space where things take on meaning. We observe these dynamics in a controlled environment, but expect that in a field environment, once an intimate interaction fosters sensemaking, individuals are more likely to seek out the same intimate experience again to foster self-validation and self-affirmation. An interesting question to explore is whether new interactions are enacted with the same partner or with others. Moreover, our observations involved individuals who were all on the same innovation journey, and their sensemaking efforts were to some extent aligned in a common direction (Talmadge & Dabbs, 1990). From a theoretical perspective, this may have implications for the intimacy creation process: it may be

easier to establish intimacy and foster sensemaking with someone on the same path.

6.4 | Contribution for practitioners

From a practical perspective, our study provides insights into the cognitive and emotional aspects that characterize the micromechanisms people engage in when doing sensemaking for innovation. Typically, competencies and skills are the main drivers of team formation. With our study, we offer managers a complementary perspective that opens the door to several implications.

Initially, we recommend that leaders encourage intimate reflection to support the cognitive and emotional dynamics of sensemaking for innovation, as intimacy creates a safe environment for sharing half-baked, bold ideas and receiving constructive criticism, leading to more meaningful results. This could include creating smaller groups or pairs that allow deeper connections and trust to develop. By fostering intimacy, organizations can encourage individuals to share their ideas, thoughts and concerns more openly and promote emotional healing. These initiatives would make innovation more digestible, leading to richer and more meaningful sensemaking. In addition, organizations can encourage intimate interactions by creating platforms or settings that facilitate intimate conversations and the exchange of ideas. This can be achieved through small group discussions, brainstorming sessions or designated spaces where individuals feel comfortable expressing their thoughts without fear of harsh judgements or evaluations.

Finally, our study provides managers with guidance on the intimacy dynamics required for different types of innovation. By comparing different innovation scenarios, we offer a fresh perspective on how to organize for effective sensemaking in innovation. In the case of breakthrough innovations, managers should encourage mutual listening and emotional exchanges, which are crucial for individuals to reflect and find a meaningful direction. Incremental innovation requires more practical support. In this sense, managers could organize coaching sessions to modulate the conversation according to the innovation context faced.

7 | CONCLUSION

7.1 | Study limitations and future research

Despite these contributions, our study is not without limitations that also provide future research avenues. First, although a field study provides a high degree of realism, it cannot ensure complete control over the setting (Podsakoff & Podsakoff, 2019). Although we strived for external and internal validity, we had moderate control over environmental factors that may have influenced the study.

Second, in assessing the sensemaking process in intimate interactions, we did not focus on the conversations people had when working in pairs, but intentionally used a self-report survey to provide participants with as much privacy as possible. Future studies should

consider capturing people's conversations as they engage in sense-making in intimate interactions to improve our understanding of how meanings are created and evolve.

Third, the survey we used to assess intimacy has limitations. Although it addresses intimate verbal interactions, it was developed in a context where people already had a relationship and knew each other, referring to interactions outside of a managerial context. However, to our knowledge, our study is the first to assess perceptions of intimacy within interactions. While we evaluated various scales in the literature (e.g., Hetherington & Soeken, 1990; Roloff et al., 1988; Schaefer & Olson, 1981), they mostly refer to long-term relationships and do not consider the intimacy dimension according to Prager's (1995) definition that we adopted in our study.

Fourth, although we attempted to maximize randomization in the selection of participants within the companies and to encourage interactions between individuals who did not know each other, some of the participants knew each other and had already collaborated at work (this is especially true of Gamma, the smallest company). Although this was something beyond our control, it opens up possibilities for future studies on how the degree of acquaintance affects the level of intimacy experienced in the context of innovation. Similarly, we only controlled for gender and company, without including other control variables, such as age or tenure. It is reasonable to assume that more mature individuals are more likely to engage in intimacy with others. Therefore, future studies could explore how personal characteristics influence the intimacy dynamics.

Finally, we focused on the microorganizational dynamics that occur when individuals engage in intimate interactions without considering the broader network effects. Recent studies on the micro-foundations of organizational networks have explored how meanings created within dyads foster sociocultural structuring in organizations (Basov & Brennecke, 2017), and future research could continue along this path.

Our findings also suggest avenues for future research. We found that the intimacy dynamics play different roles depending on the type of innovation people are engaged in. Future studies could explore how to foster and facilitate different intimacy dynamics for innovation, and particularly how to cultivate the emotional intimacy dynamics for radical innovation or the cognitive and listening intimacy dynamics for incremental innovation.

In conclusion, we find that intimacy has a positive impact on the perception of meaningfulness. At the same time, it is reasonable to assume that intimacy also has some downsides. Indeed, Järvinen et al. (2015) explain that intimacy boundaries can be problematic: intimacy can lead to relationships characterized by boundaries that create too much exclusivity, leaving no space for others to interact. This would create a sense of otherness, even though the intimate unit (e.g., the pair) may be a well-functioning unit on its own (Järvinen et al., 2015; Simmel, 1902), ultimately leading to the failure of the innovation endeavour itself (Hunter et al., 2017). Therefore, future studies should more closely observe the intimate interactions, both alone and with others who are not part of the constellation, highlighting the potential downsides and suggesting ways to successfully manage them.

DATA AVAILABILITY STATEMENT

Data available on request due to privacy/ethical restrictions

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ENDNOTE

¹ The platform name and the founders names have been anonymized for the review process.

REFERENCES

- Akgün, A. E., Keskin, H., Byrne, J. C., & Lynn, G. S. (2014). Antecedents and consequences of organizations' technology sensemaking capability. *Technological Forecasting and Social Change*, 88, 216–231. <https://doi.org/10.1016/j.techfore.2014.07.002>
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154–1184. <https://doi.org/10.2307/256995>
- Andriopoulos, C., Gotsi, M., Lewis, M. W., & Ingram, A. E. (2018). Turning the sword: How NPD teams cope with front-end tensions. *Journal of Product Innovation Management*, 35(3), 427–445. <https://doi.org/10.1111/jpim.12423>
- Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On making causal claims: A review and recommendations. *The Leadership Quarterly*, 21(6), 1086–1120. <https://doi.org/10.1016/j.leafqua.2010.10.010>
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63(4), 596–612. <https://doi.org/10.1037/0022-3514.63.4.596>
- Ashton-James, C. E., & Ashkanasy, N. M. (2008). Affective events theory: A strategic perspective. In W. J. Zerbe, C. E. Härtel, & N. M. Ashkanasy (Eds.), *Emotions, ethics and decision-making* (pp. 1–34). Emerald Group Publishing.
- Bartunek, J. M., Rousseau, D. M., Rudolph, J. W., & DePalma, J. A. (2006). On the receiving end: Sensemaking, emotion, and assessments of an organizational change initiated by others. *The Journal of Applied Behavioral Science*, 42(2), 182–206. <https://doi.org/10.1177/0021886305285455>
- Basov, N., & Brennecke, J. (2017). Duality beyond dyads: Multiplex patterning of social ties and cultural meanings. *Structure, Content and Meaning of Organizational Networks*, 53, 87–112. <https://doi.org/10.1108/S0733-558X20170000053005>
- Bellis, P., & Verganti, R. (2020a). Pairs in innovation: How working in pairs helps organisations to move into a new shared direction. *International Journal of Innovation Management*, 24(3), 2050072. <https://doi.org/10.1142/S1363919620500723>
- Bellis, P., & Verganti, R. (2020b). Pairs as pivots of innovation: How collaborative sensemaking benefits from innovating in twos. *Innovations*, 23(3), 1–25. <https://doi.org/10.1080/14479338.2020.1790374>
- Bergendahl, M., & Magnusson, M. (2015). Creating ideas for innovation: Effects of organizational distance on knowledge creation processes. *Creativity and Innovation Management*, 24(1), 87–101. <https://doi.org/10.1111/caim.12097>
- Bissola, R., & Imperatori, B. (2011). Organizing individual and collective creativity: Flying in the face of creativity clichés. *Creativity and Innovation Management*, 20(2), 77–89. <https://doi.org/10.1111/j.1467-8691.2011.00597.x>
- Blumenthal, B., & Haspeslagh, P. (1994). Toward a definition of corporate transformation. *MIT Sloan Management Review*, 35(3), 101.
- Brown, A. D. (2000). Making sense of inquiry sensemaking. *Journal of Management Studies*, 37(1), 45, 1467-6486.00172-74. <https://doi.org/10.1111/1467-6486.00172>

- Bryant, M., & Cox, J. W. (2004). Conversion stories as shifting narratives of organizational change. *Monash University*, 17, 578–592. <https://doi.org/10.4225/03/5934cc72cb104>
- Caniëls, M. C., Hatak, I., Kuijpers, K. J., & de Weerd-Nederhof, P. C. (2022). Trait resilience instigates innovative behaviour at work? A cross-lagged study. *Creativity and Innovation Management*, 31(2), 274–293. <https://doi.org/10.1111/caim.12486>
- Chetioui, Y., Lebdaoui, H., & Chetioui, H. (2021). Factors influencing consumer attitudes toward online shopping: The mediating effect of trust. *EuroMed Journal of Business*, 16(4), 544–563. <https://doi.org/10.1108/EMJB-05-2020-0046>
- Cox, J. F., Pearce, C. L., & Perry, M. L. (2003). Toward a model of shared leadership and distributed influence in the innovation process: How shared leadership can enhance new product development team dynamics and effectiveness. In *Shared leadership: Reframing the hows and whys of leadership* (pp. 48–76). SAGE Publications Inc.
- Crano, W. D., Brewer, M. B., & Lac, A. (2014). *Principles and methods of social research*. Routledge.
- Csikszentmihalyi, M. (1988). Motivation and creativity: Toward a synthesis of structural and energistic approaches to cognition. *New Ideas in Psychology*, 6(2), 159–176. [https://doi.org/10.1016/0732-118X\(88\)90001-3](https://doi.org/10.1016/0732-118X(88)90001-3)
- Cunliffe, A., & Coupland, C. (2012). From hero to villain to hero: Making experience sensible through embodied narrative sensemaking. *Human Relations*, 65(1), 63–88. <https://doi.org/10.1177/0018726711424321>
- Daly, J. A., & Wiemann, J. M. (2013). *Strategic interpersonal communication*. Routledge. <https://doi.org/10.4324/9780203056851>
- De Brentani, U., & Reid, S. E. (2012). The fuzzy front-end of discontinuous innovation: Insights for research and management. *Journal of Product Innovation Management*, 29(1), 70–87. <https://doi.org/10.1111/j.1540-5885.2011.00879.x>
- De Luca Picione, R., & Francesca Freda, M. (2016). The processes of meaning making, starting from the morphogenetic theories of René Thom. *Culture & Psychology*, 22(1), 139–157. <https://doi.org/10.1177/1354067X15576171>
- De Luca Picione, R., & Valsiner, J. (2017). Psychological functions of semi-otic borders in sense-making: Liminality of narrative processes. *Europe's Journal of Psychology*, 13(3), 532–547. <https://doi.org/10.5964/ejop.v13i3.1136>
- Del Val, M. P., & Fuentes, C. M. (2003). Resistance to change: A literature review and empirical study. *Management Decision*, 41(2), 148–155. <https://doi.org/10.1108/00251740310457597>
- Dell'Era, C., Magistretti, S., Cautela, C., Verganti, R., & Zurlo, F. (2020). Four kinds of design thinking: From ideating to making, engaging, and criticizing. *Creativity and Innovation Management*, 29(2), 324–344. <https://doi.org/10.1111/caim.12353>
- Dipboye, R. L., & Flanagan, M. F. (1979). Research settings in industrial and organizational psychology: Are findings in the field more generalizable than in the laboratory? *American Psychologist*, 34(2), 141–150. <https://doi.org/10.1037/0003-066X.34.2.141>
- Dosi, C., Mattarelli, E., & Vignoli, M. (2020). Prototypes as identity markers: The double-edged role of prototypes in multidisciplinary innovation teams. *Creativity and Innovation Management*, 29(4), 648–666. <https://doi.org/10.1111/caim.12410>
- Dougherty, D., Borrelli, L., Munir, K., & O'Sullivan, A. (2000). Systems of organizational sensemaking for sustained product innovation. *Journal of Engineering and Technology Management*, 17(3–4), 321–355. [https://doi.org/10.1016/S0923-4748\(00\)00028-X](https://doi.org/10.1016/S0923-4748(00)00028-X)
- Dougherty, D. S., & Drumheller, K. (2006). Sensemaking and emotions in organizations: Accounting for emotions in a rational (ized) context. *Communication Studies*, 57(2), 215–238. <https://doi.org/10.1080/10510970600667030>
- Fairhead, J. (1998). Paradigm change and leveraged learning during the rover–Honda collaboration. *Creativity and Innovation Management*, 7(2), 93–106. <https://doi.org/10.1111/1467-8691.00094>
- Farrell, M. P. (2003). *Collaborative circles: Friendship dynamics and creative work*. University of Chicago Press.
- Fellows, R., & Liu, A. (2016). Sensemaking in the cross-cultural contexts of projects. *International Journal of Project Management*, 34(2), 246–257. <https://doi.org/10.1016/j.ijproman.2015.03.010>
- Fiedler, K., & Bless, H. (2000). The formation of beliefs at the interface of affective and cognitive processes. In N. H. Frijda, A. S. R. Manstead, & S. Bem (Eds.), *Emotions and belief: How feelings influence thoughts* (pp. 144–170). Cambridge University Press.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin*, 117(1), 39–66. <https://doi.org/10.1037/0033-2909.117.1.39>
- Forgas, J. P. (2002). Feeling and doing: Affective influences on interpersonal behavior. *Psychological Inquiry*, 13(1), 1–28. https://doi.org/10.1207/S15327965PLI1301_01
- Gattringer, R., Damm, F., Kranewitter, P., & Wiener, M. (2021). Prospective collaborative sensemaking for identifying the potential impact of emerging technologies. *Creativity and Innovation Management*, 30(3), 651–673. <https://doi.org/10.1111/caim.12432>
- Ghoshal, S., & Bartlett, C. A. (1996). Rebuilding behavioral context: A blueprint for corporate renewal. In D. A. Klein (Ed.), *The strategic management of intellectual capital* (pp. 141–161). Routledge.
- Gohm, C. L., & Clore, G. L. (2000). Individual differences in emotional experience: Mapping available scales to processes. *Personality and Social Psychology Bulletin*, 26(6), 679–697. <https://doi.org/10.1177/0146167200268004>
- Goodstein, L. D., & Burke, W. W. (1991). Creating successful organization change. *Organizational Dynamics*, 19(4), 5–17. [https://doi.org/10.1016/0090-2616\(91\)90050-J](https://doi.org/10.1016/0090-2616(91)90050-J)
- Greiner, L. E. (1989). Evolution and revolution as organizations grow. In C. Bowman & D. Asch (Eds.), *Readings in strategic management* (pp. 373–387). Springer.
- Hair, J. F. Jr., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26, 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Hargadon, A. B., & Bechky, B. A. (2006). When collections of creatives become creative collectives: A field study of problem solving at work. *Organization Science*, 17(4), 484–500. <https://doi.org/10.1287/orsc.1060.0200>
- Henderson, D. A., & Denison, D. R. (1989). Stepwise regression in social and psychological research. *Psychological Reports*, 64(1), 251–257. <https://doi.org/10.2466/pr0.1989.64.1.251>
- Hetherington, S. E., & Soeken, K. L. (1990). Measuring changes in intimacy and sexuality: A self-administered scale. *Journal of Sex Education Therapy*, 16(3), 155–163. <https://doi.org/10.1080/01614576.1990.11074987>
- Hölzle, K., Boer, H., & Björk, J. (2020). Driving transformational change—antecedents and influences of creativity and innovation. *Creativity and Innovation Management*, 4(29), 549–550. <https://doi.org/10.1111/caim.12417>
- Hunter, S. T., Cushenbery, L., Fairchild, J., & Boatman, J. (2012). Partnerships in leading for innovation: A dyadic model of collective leadership. *Industrial and Organizational Psychology*, 5(4), 424–428. <https://doi.org/10.1111/j.1754-9434.2012.01474.x>
- Hunter, S. T., Cushenbery, L. D., & Jayne, B. (2017). Why dual leaders will drive innovation: Resolving the exploration and exploitation dilemma with a conservation of resources solution. *Journal of Organizational Behavior*, 38(8), 1183–1195. <https://doi.org/10.1002/job.2195>
- Isaacson, W. (2011). *Steve Jobs*. Simon and Schuster.
- Jakonen, M., Kivinen, N., Salovaara, P., & Hirkman, P. (2017). Towards an economy of encounters? A critical study of affectual assemblages in coworking. *Scandinavian Journal of Management*, 33(4), 235–242. <https://doi.org/10.1016/j.scaman.2017.10.003>

- Järvinen, M., Ansio, H., & Houni, P. (2015). New variations of dual leadership: Insights from Finnish theatre. *International Journal of Arts Management*, 17(3), 16–27.
- Kaffka, G., Singaram, R., Kraaijenbrink, J., & Groen, A. J. (2013). Sensebreaking and the development of entrepreneurial cognition. Available at SSRN 2251927.
- Kijkuit, B., & Van Den Ende, J. (2007). The organizational life of an idea: Integrating social network, creativity and decision-making perspectives. *Journal of Management Studies*, 44(6), 863–882. <https://doi.org/10.1111/j.1467-6486.2007.00695.x>
- Konlechner, S., Latzke, M., Güttel, W. H., & Höfferer, E. (2019). Prospective sensemaking, frames and planned change interventions: A comparison of change trajectories in two hospital units. *Human Relations*, 72(4), 706–732. <https://doi.org/10.1177/0018726718773157>
- Lane, R. (2014). *You only have to be right once: The unprecedented rise of the instant tech billionaires*. Penguin UK.
- Leonard, D., & Sensiper, S. (1998). The role of tacit knowledge in group innovation. *California Management Review*, 40(3), 112–132. <https://doi.org/10.2307/41165946>
- Levy, A. (1986). Second-order planned change: Definition and conceptualization. *Organizational Dynamics*, 15(1), 5–23. [https://doi.org/10.1016/0090-2616\(86\)90022-7](https://doi.org/10.1016/0090-2616(86)90022-7)
- Logemann, M., Piekari, R., & Cornelissen, J. (2019). The sense of it all: Framing and narratives in sensegiving about a strategic change. *Long Range Planning*, 52(5), 101852. <https://doi.org/10.1016/j.lrp.2018.10.002>
- Lonati, S., Quiroga, B. F., Zehnder, C., & Antonakis, J. (2018). On doing relevant and rigorous experiments: Review and recommendations. *Journal of Operations Management*, 64, 19–40. <https://doi.org/10.1016/j.jom.2018.10.003>
- Lundberg, C. C. (2004). Is there really nothing so practical as a good theory? *Business Horizons*, 47(5), 7–14. <https://doi.org/10.1016/j.bushor.2004.07.003>
- Maitlis, S., & Christianson, M. (2014). Sensemaking in organizations: Taking stock and moving forward. *Academy of Management Annals*, 1, 57–125. <https://doi.org/10.5465/19416520.2014.873177>
- Maitlis, S., Vogus, T. J., & Lawrence, T. B. (2013). Sensemaking and emotion in organizations. *Organizational Psychology Review*, 3(3), 222–247. <https://doi.org/10.1177/2041386613489062>
- Marar, Z. (2014). *Intimacy*. Routledge. <https://doi.org/10.4324/9781315729404>
- Marshak, R. J. (1993). Lewin meets Confucius: A review of the OD model of change. *The Journal of Applied Behavioral Science*, 29(4), 393–415. <https://doi.org/10.1177/0021886393294002>
- Mascareño, J., Rietzschel, E., & Wisse, B. (2020). Leader-member exchange (LMX) and innovation: A test of competing hypotheses. *Creativity and Innovation Management*, 29(3), 495–511. <https://doi.org/10.1111/caim.12390>
- McAdams, D. P. (1988). Personal needs and personal relationships. In S. E. Duck, D. F. Hay, S. E. Hobfoll, W. E. Ickes, & B. M. Montgomery (Eds.), *Handbook of personal relationships* (pp. 7–22). Wiley.
- Mezias, S. J., & Glynn, M. A. (1993). The three faces of corporate renewal: Institution, revolution, and evolution. *Strategic Management Journal*, 14(2), 77–101. <https://doi.org/10.1002/smj.4250140202>
- Miron-Spektor, E., Gino, F., & Argote, L. (2011). Paradoxical frames and creative sparks: Enhancing individual creativity through conflict and integration. *Organizational Behavior and Human Decision Processes*, 116(2), 229–240. <https://doi.org/10.1016/j.obhdp.2011.03.006>
- Moss, B. F., & Schwebel, A. I. (1993). Defining intimacy in romantic relationships. *Family Relations*, 47(1), 31–37. <https://doi.org/10.2307/584918>
- Myers, C. G. (2021). Performance benefits of reciprocal vicarious learning in teams. *Academy of Management Journal*, 62(3), 926–947. <https://doi.org/10.5465/amj.2018.0875>
- Nadler, D. A., & Tushman, M. L. (1989). Organizational frame bending: Principles for managing reorientation. *Academy of Management Perspectives*, 3(3), 194–204. <https://doi.org/10.5465/ame.1989.4274738>
- Nadler, D. A., & Tushman, M. L. (1990). Beyond the charismatic leader: Leadership and organizational change. *California Management Review*, 32(2), 77–97. <https://doi.org/10.2307/41166606>
- Nooteboom, B. (2000). Learning by interaction: Absorptive capacity, cognitive distance and governance. *Journal of Management and Governance*, 4(1–2), 69–92. <https://doi.org/10.1023/A:1009941416749>
- O'Connor, G. C., & Veryzer, R. W. (2001). The nature of market visioning for technology-based radical innovation. *Journal of Product Innovation Management*, 18(4), 231–246. <https://doi.org/10.1111/1540-5885.1840231>
- Parker, J. N., & Corte, U. (2017). Placing collaborative circles in strategic action fields: Explaining differences between highly creative groups. *Sociological Theory*, 35(4), 261–287. <https://doi.org/10.1177/0735275117740400>
- Parker, J. N., & Hackett, E. J. (2012). Hot spots and hot moments in scientific collaborations and social movements. *American Sociological Review*, 77(1), 21–44. <https://doi.org/10.1177/0003122411433763>
- Pearce, C. L., & Ensley, M. D. (2004). A reciprocal and longitudinal investigation of the innovation process: The central role of shared vision in product and process innovation teams (PPIs). *Journal of Organizational Behavior*, 25(2), 259–278. <https://doi.org/10.1002/job.235>
- Pendleton-Julian, A., & Brown, J. (2016). Pragmatic imagination. Retrieved from: http://www.desunbound.com/assets/papers/a_new_muscle_for_the_white_water_world.pdf
- Perry-Smith, J. E., & Mannucci, P. V. (2017). From creativity to innovation: The social network drivers of the four phases of the idea journey. *Academy of Management Review*, 42(1), 53–79. <https://doi.org/10.5465/amr.2014.0462>
- Podsakoff, P. M., & Podsakoff, N. P. (2019). Experimental designs in management and leadership research: Strengths, limitations, and recommendations for improving publishability. *The Leadership Quarterly*, 30(1), 11–33. <https://doi.org/10.1016/j.leaqua.2018.11.002>
- Prager, K. J. (1995). *The psychology of intimacy: Guilford series on personal relationships*. Guilford.
- Prager, K. J., & Buhrmester, D. (1998). Intimacy and need fulfillment in couple relationships. *Journal of Social and Personal Relationships*, 15(4), 435–469. <https://doi.org/10.1177/0265407598154001>
- Ravasi, D., & Turati, C. (2005). Exploring entrepreneurial learning: A comparative study of technology development projects. *Journal of Business Venturing*, 20(1), 137–164. <https://doi.org/10.1016/j.jbusvent.2003.11.002>
- Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process. In S. E. Duck, D. F. Hay, S. E. Hobfoll, W. E. Ickes, & B. M. Montgomery (Eds.), *Handbook of personal relationships* (pp. 367–389). Wiley.
- Reissner, S. C. (2011). Patterns of stories of organisational change. *Journal of Organizational Change Management*, 25(4), 593–609. <https://doi.org/10.1108/09534811111158877>
- Rieple, A., & Snijders, S. (2018). The role of emotions in the choice to adopt, or resist, innovations by Irish dairy farmers. *Journal of Business Research*, 85, 23–31. <https://doi.org/10.1016/j.jbusres.2017.11.039>
- Roloff, M. E. (1987). Communication and reciprocity within intimate relationships. In M. E. Roloff & G. R. Miller (Eds.), *Interpersonal processes: New directions in communication research* (pp. 11–38). Sage.
- Roloff, M. E., Janiszewski, C. A., McGrath, M. A., Burns, C. S., & Manrai, L. A. (1988). Acquiring resources from intimates when obligation substitutes for persuasion. *Human Communication Research*, 14(3), 364–396. <https://doi.org/10.1111/j.1468-2958.1988.tb00161.x>
- Röth, T., & Spieth, P. (2019). The influence of resistance to change on evaluating an innovation project's innovativeness and risk: A sensemaking perspective. *Journal of Business Research*, 101, 83–92. <https://doi.org/10.1016/j.jbusres.2019.04.014>

- Röth, T., Spieth, P., & Lange, D. (2019). Managerial political behavior in innovation portfolio management: A sensegiving and sensebreaking process. *Journal of Product Innovation Management*, 36(5), 534–559. <https://doi.org/10.1111/jpim.12501>
- Rouse, E. D. (2020). Where you end and I begin: Understanding intimate co-creation. *Academy of Management Review*, 45(1), 181–204. <https://doi.org/10.5465/amr.2016.0388>
- Ruiz-Palomino, P., Yáñez-Araque, B., Jiménez-Estévez, P., & Gutiérrez-Broncano, S. (2022). Can servant leadership prevent hotel employee depression during the COVID-19 pandemic? A mediating and multi-group analysis. *Technological Forecasting and Social Change*, 174, 121192. <https://doi.org/10.1016/j.techfore.2021.121192>
- Sandberg, J., & Tsoukas, H. (2015). Making sense of the sensemaking perspective: Its constituents, limitations, and opportunities for further development. *Journal of Organizational Behavior*, 36(S1), S6–S32. <https://doi.org/10.1002/job.1937>
- Schaefer, M. T., & Olson, D. H. (1981). Assessing intimacy: The PAIR inventory. *Journal of Marital and Family Therapy*, 7(1), 47–60. <https://doi.org/10.1111/j.1752-0606.1981.tb01351.x>
- Schildt, H., Mantere, S., & Cornelissen, J. (2020). Power in sensemaking processes. *Organization Studies*, 41(2), 241–265. <https://doi.org/10.1177/0170840619847718>
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Temple Smith.
- Seligman, L. (2006). Sensemaking throughout adoption and the innovation-decision process. *European Journal of Innovation Management*, 9(1), 108–120. <https://doi.org/10.1108/14601060610640050>
- Shotter, J., & Billig, M. (1998). A Bakhtinian psychology: From out of the heads of individuals and into the dialogues between them. In M. Bell & M. E. Gardiner (Eds.), *Bakhtin and the human sciences* (pp. 13–29). Sage Publications.
- Simmel, G. (1902). The number of members as determining the sociological form of the group. II. *American Journal of Sociology*, 8(2), 158–196. <https://doi.org/10.1086/211128>
- Sinclair, V. G., & Dowdy, S. W. (2005). Development and validation of the emotional intimacy scale. *Journal of Nursing Measurement*, 13(3), 193–206. <https://doi.org/10.1891/jnum.13.3.193>
- Stigliani, I., & Ravasi, D. (2012). Organizing thoughts and connecting brains: Material practices and the transition from individual to group-level prospective sensemaking. *Academy of Management Journal*, 55(5), 1232–1259. <https://doi.org/10.5465/amj.2010.0890>
- Talmadge, L. D., & Dabbs, J. M. Jr. (1990). Intimacy, conversational patterns, and concomitant cognitive/emotional processes in couples. *Journal of Social and Clinical Psychology*, 9(4), 473–488. <https://doi.org/10.1521/jscp.1990.9.4.473>
- Thrane, S., Blaabjerg, S., & Møller, R. H. (2010). Innovative path dependence: Making sense of product and service innovation in path dependent innovation processes. *Research Policy*, 39(7), 932–944. <https://doi.org/10.1016/j.respol.2010.04.003>
- Toivonen, T., Idoko, O., Jha, H. K., & Harvey, S. (2023). Creative jolts: Exploring how entrepreneurs let go of ideas during creative revision. *Academy of Management Journal*, 66(3), 829–858. <https://doi.org/10.5465/amj.2020.1054>
- Verganti, R. (2017). *Overcrowded: Designing meaningful products in a world awash with ideas*. MIT Press.
- Verganti, R., Vendraminelli, L., & Iansiti, M. (2020). Innovation and design in the age of artificial intelligence. *Journal of Product Innovation Management*, 37(3), 212–227. <https://doi.org/10.1111/jpim.12523>
- Von Eye, A., & Schuster, C. (1998). *Regression analysis for social sciences*. Elsevier.
- Weick, K. E. (1995). *Sensemaking in organizations (foundations for organizational science)*. Sage.
- Weick, K. E. (2010). Reflections on enacted sensemaking in the Bhopal disaster. *Journal of Management Studies*, 47(3), 537–550. <https://doi.org/10.1111/j.1467-6486.2010.00900.x>
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16(4), 409–421. <https://doi.org/10.1287/orsc.1050.0133>
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory. *Research in Organizational Behavior*, 18(1), 1–74.
- Weiss, M., Baer, M., & Hoegl, M. (2022). The human side of innovation management: Bridging the divide between the fields of innovation management and organizational behavior. *Journal of Product Innovation Management*, 39(3), 283–291. <https://doi.org/10.1111/jpim.12624>
- Woolley, A. W., Chabris, C. F., Pentland, A., Hashmi, N., & Malone, T. W. (2010). Evidence for a collective intelligence factor in the performance of human groups. *Science*, 330, 686–688. <https://doi.org/10.1126/science.1193147>
- Wu, L., Wang, D., & Evans, J. A. (2019). Large teams develop and small teams disrupt science and technology. *Nature*, 566, 378–382. <https://doi.org/10.1038/s41586-019-0941-9>
- Wuyts, S., Colombo, M. G., Dutta, S., & Nooteboom, B. (2005). Empirical tests of optimal cognitive distance. *Journal of Economic Behavior and Organization*, 58(2), 277–302. <https://doi.org/10.1016/j.jebo.2004.03.019>
- Zeedyk, M. S. (2006). From intersubjectivity to subjectivity: The transformative roles of emotional intimacy and imitation. *Infant and Child Development: an International Journal of Research and Practice*, 15(3), 321–344. <https://doi.org/10.1002/icd.457>
- Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, 53(1), 107–128. <https://doi.org/10.5465/amj.2010.48037118>

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