



Who drives the creation of a novel vision? The role of individual insights and the ability of “letting go”

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ARTICLE INFO

Keywords:

Vision
Sensemaking
Innovation
Letting go
Front-end of innovation

ABSTRACT

This study investigates how novel product visions emerge as team members share and fuse their insights. Existing studies contrast the merits of two possible paths. On the one hand, a vision is mainly conceived by the creative lead, putting forward a direction and then buying-in ownership of the other team members. On the other hand, a vision emerges as a balanced collaborative effort where all team members contribute. Through the sensemaking theoretical lens, we expand this discussion by proposing that regardless of who the main driver of innovation is, what is important in vision creation is the individual's ability of “letting go” of early insights, namely sense-breaking. We analyze the vision creation dynamics of 26 top management teams. We capture how the verbal descriptions of a vision change from individual insights to a shared concept. We show how “letting go” of earlier creations is as important as adding new ones.

1. Introduction

The success of new product development projects extensively depends on the creation of new visions at the Front End of the process (Dziallas, 2020; Eling & Herstatt, 2017; Khurana & Rosenthal, 1998). Several studies have shown that the effective development of a new product vision is pivotal for the success of innovation initiatives (Montoya-Weiss & Calantone, 1994). The new vision drives product innovation (O'Connor & Veryzer, 2001) and the team direction, such that the goals and objectives are met (Lynn & Akgün, 2001) by providing a purpose and an action plan (Hong et al., 2004; Revilla & Rodriguez, 2011).

Studies on how new visions for product development are created in the fuzzy Front End have addressed different aspects. Early studies focused on the processual nature of the activity (i.e., where it should effectively occur in the product innovation process; e.g., Clark & Wheelwright, 1993), or the team configuration in developing new visions (i.e., the importance of multidisciplinary; Khurana & Rosenthal, 1998). A more recent research stream focuses on the way in which individuals think, collaborate, and create content in the Front End of innovation (e.g., Eling & Herstatt, 2017). The present study focuses on this latter aspect, i.e., the creation of new product visions from a human

perspective. We explore how novel visions are created as people share, clash, and fuse their individual ideas toward a shared vision with the aim of sparking a new direction for their firm.

In this regard, studies present two different perspectives. Some scholars propose that a vision originates from one party (a so-called creative lead) and is subsequently diffused within the team that sustains and engages in improving and refining the vision (e.g., O'Connor & Veryzer, 2001; Mainemelis, Kark, & Epitropaki, 2015). Others suggest that visions emerge from the team as a result of collaboration where different perspectives are integrated and further refined (e.g., Strange & Mumford, 2002, 2005; Pearce & Ensley, 2004). This underscores the crucial role of the team in the creation of a shared vision, making each member an integral part of the process.

Both approaches recognize that the synthesized vision represents a common formulation representing the preferred path or destination for the entire team (Gray et al., 2020; O'Brien & Meadows, 2007). However, it is still unclear how a new shared vision is achieved. Do people build on their mutual thoughts and ideas, or do they create novel content from scratch regardless of their previous insights and concepts? To answer this question, we propose that regardless of whether the vision is put forward by one creative lead or co-shaped by the team, a key driver of this process is the ability of individuals to review, reconsider, and let go

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of their previous ideas. The importance of abandoning earlier individual concepts concerns not only those joining the vision proposed by others, but also the creative lead. In other words, we suggest that even in cases where the creative lead drives a vision, s/he does not simply buy others into the original idea, but also significantly abandons her/his earlier insights through re-building the vision.

The dynamics of reconsidering, “letting go” and re-building have their roots in sensemaking theories (Weick, 1995; Gioia & Chittipeddi, 1991). Sandberg and Tsoukas (2020) suggest that sensemaking for vision development happens through cognitive reorientation. They build on Weick’s seminal work, which defines sensemaking as an intersubjective process where organizational actors interact to synthesize new understandings and interpretations. People negotiate their different insights and understandings so that a “joined” or “merged subject” emerges (Weick, 1995). In particular, scholars suggest that people engage in two distinct dynamics to make sense of their surroundings: sense-giving and sense-breaking (Gioia et al., 1994; Hill & Levenhagen, 1995; Maitlis & Lawrence, 2007; Mantere et al., 2012). While sense-giving mainly results in a persuasive process (Gioia & Chittipeddi, 1991), sense-breaking explains the aforementioned process of revising and letting go (Pratt, 2000). Sense-breaking forces individuals to question and review their existing understandings as they clash with contrasting cues. Hence, individuals must update their cognitive frames to co-create a new understanding (Vlaar et al., 2008).

To investigate our research question, we conducted an exploratory field study observing managers in different firms as they collaborate to create a new product vision. We focus on the Front End of the projects where the vision is progressively crafted, beginning with individual insights that are then integrated into a collective vision. In assessing the creation of the proposed visions and analyzing the evolution of the content at different stages, we specifically observed two factors: who the driver of innovation is (whether the vision is put forward chiefly by the creative lead or by all members), and how novelty unfolds throughout the process, namely whether at each stage the new vision builds on earlier individual ideas or new concepts are formulated.

Our study sheds light on the scholarly debate on who drives vision creation. Our findings have interesting implications for theory and practice. On the one hand, the study extends our understanding of new product vision creation, explaining that what leads to a novel vision is the ability of people to reconsider their previous ideas and thoughts by letting them go in favor of novel ones. In other words, novel content emerges as intense sense-breaking happens (e.g., Vlaar et al., 2008). On the other hand, we provide managers with insights on the articulation of new product visions. We suggest managers need not strive to balance different contributions, as it is not necessary: a relevant path to vision creation exists even when there is a creative lead.

2. Theoretical background

The new product development process entails two main macro-phases (Moenaert et al., 1995): first, envisioning and framing; second, developing and implementing. In this study, we focus on the first phase widely recognized as key to innovation success (Montoya-Weiss & Calantone, 1994; Brown & Eisenhardt, 1995; Cooper & Kleinschmidt, 1995), defined as concept generation (Cooper, 1990; Hauser et al., 1993; MacCormack et al., 2001), product definition (Bhattacharya et al., 1988), product planning (Clark & Fujimoto, 1991), or more generally, the Front End of Innovation (Khurana & Rosenthal, 1998; Eling & Herstatt, 2017). This phase entails understanding the opportunities and changes in the environment (Verganti et al., 2020; Magistretti & Dell’Era, 2019) and defining the strategic direction of product innovation (de Brentani & Reid, 2012), typically in the form of a product vision that embeds one or more product concepts (Revilla & Rodriguez, 2011).

2.1. Where do new product visions originate from?

Early product vision research focused on where visions occur in the development process. Studies on the Front End of Innovation highlighted the relevance of a clear definition of the vision early in the process (Dziallas, 2020; Clark & Fujimoto, 1991; Clark & Wheelwright, 1993). This led to configuring innovation processes that could support detailed product conception efforts early on (such as stage-gate systems; Cooper, 1990, 1994, 1995) to avoid costly changes later (Hayes, 1988). This perspective was then complemented with a more flexible view of innovation processes where a product vision is defined early on and then continuously adapted, as new information collected along the process enables dealing with turbulent and uncertain environments (Iansiti, 1995; Iansiti & MacCormack, 1997; MacCormack et al., 2001; MacCormack & Verganti, 2003).

Scholars also focused on the structural configuration of teams in the Front End, highlighting the power of cross-functional collaboration to develop new visions (Shane & Ulrich, 2004; Luchs et al., 2015) and the importance of the early involvement of different functional areas, including marketing, R&D, manufacturing, engineering, and purchasing (Slater et al., 2014). Cross-functional teams combine different perspectives (De Dreu, Nijstad, & Van Knippenberg, 2008), competencies, and technical skills (Khurana & Rosenthal, 1998). Their collaboration facilitates the integration of a rich array of insights and ideas (Stroebe & Diehl, 1994). Following this investigation, scholars started digging deeper into the collaborative dynamics of product vision creation, starting from team composition to a more detailed analysis of how individuals share and integrate their insights to create a vision.

2.2. Who drives vision creation? Leaders and teams as sources of new product visions

Studies exploring the collaborative dynamics of vision creation can be clustered around two perspectives: new visions driven by an individual (creative lead) or resulting from a balanced, collaborative effort. According to the creative lead perspective, a new product vision originates from a visionary individual who can then disseminate and transfer it to the rest of the team and the organization (Watts et al., 2019). Similar interpretations emerged in the field of creativity (Mainemelis et al., 2015; Perry-Smith & Mannucci, 2017), entrepreneurship (Preller et al., 2020), top management teams, and upper echelons theory (Ashford et al., 2018). Transferring the new vision entails a “buy-in” process where the leader articulates the vision in an understandable and supported way to ensure everyone embraces it and moves forward accordingly (Partlow et al., 2015).

The other perspective proposes that compelling product visions result from a team endeavor and emerge as a balanced, collaborative effort (Berson et al., 2016). To describe this process, Strange and Mumford (2002, 2005) explain that a vision entails integrating current interpretations in a “descriptive model” based on the sensemaking of the individuals involved. Pearce and Ensley (2004) illustrate that a new product vision emerges as a shared mental model of a future state co-developed by the team members (Jehn et al., 1999). More recently, Hensel and Visser (2019) argue that this co-creation is rooted in formulating individual visions and their integration, which might entail redesigning and reframing earlier ideas.

Both vision creation approaches (creative lead or balanced, collaborative effort) recognize that the synthesized vision results in a common formulation within the team or the organization (Gray et al., 2020), consciously chosen by an individual or group to indicate the preferred path or destination to pursue (O’Brien & Meadows, 2007).

We postulate that both perspectives are valid and that other factors explain effective collaboration in vision creation beyond who drives the process. In particular, we focus on the ability of team members to abandon the insights they developed (explicitly or implicitly) earlier in the journey. Indeed, although the development of a new product vision

is a creative process (Perry-Smith & Mannucci, 2017) requiring the ability to produce novel and useful ideas (Amabile et al., 1996), creativity at the Front End of innovation is distinctive in nature. Differently than in the development phase where the problems have been defined and creativity is aimed at problem solving (Girotra, et al., 2010), the creativity enacted early on is aimed at problem framing (Dell’Era et al., 2020; Röth & Spieth, 2019). In a heated scientific debate with Herbert Simon, Mihaly Csikszentmihalyi (1988, p. 184) argued that problem solving and framing require orthogonal cognitive strategies, meaning “not just rational, but emotional and motivational as well”. More specifically, creativity in the Front End is aimed at defining new desired states of what is possible in the market and technology space, also driven by personal values of what the future should look like (Verganti, 2017). In this regard, Pendleton and Brown (2016) speak of “moral” imagination to underline that vision creation is often driven by the search for personal meaning, beyond the rational interpretation of insights. Thus, interactions among people are also driven by values, culture, and purpose (Watts et al., 2019). This interpretation of product vision as a discursive and relational process where individuals confront their cognitive frames to create a new shared understanding (Hensel & Visser, 2019) has increasingly led scholars to look at vision creation as an act of sensemaking (Partlow et al., 2015; Maitlis & Christianson, 2014; Watts et al., 2019; Andriopoulos et al., 2018). Hence, we leverage sensemaking theory to explore the vision creation process.

2.3. Sense-giving and sense-breaking: Two pathways to novel visions

Sensemaking is a cognitive and emotional process that enables people to understand changes in their surroundings (Weick, 1995). Since Weick’s seminal work (1995), the study of sensemaking in management and organization studies has been prolific and variegated (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2020; Kleinaltenkamp et al., 2022). To clarify such variegated knowledge production, Sandberg and Tsoukas (2020) recently proposed a typology of sensemaking by identifying different sensemaking types according to sense-action nexus, temporality, and language dimensions. According to this typology, vision creation consists of “detached-deliberated sensemaking”: people are located in their habitual organization activities and perform an abstract-detached activity of prospective interpretation (Sandberg & Tsoukas, 2020). When people collaborate to create a new product vision, sensemaking is mainly cognitive-discursive. It involves the envisioning of a novel desired state (Reid & de Brentani, 2010) that does not yet exist but is plausible for further development (Weick et al., 2005; Maitlis & Christianson, 2014; Huarng & Ribeiro-Soriano, 2014). During visioning activities, organizational actors think more explicitly about “how we/I want to be” (Balogun et al., 2015; Luscher & Lewis, 2008). As a result, people need to “understand, interpret, and create sense for themselves and others of their changing organizational context and surroundings” (Rouleau & Balogun, 2011, p. 955; see also Balogun & Johnson, 2004; Bartunek et al., 2011). Thus, sensemaking shifts from a pure individual cognitive and emotional perspective (Weick, 1995) to a highly relational and interactive one, where discourse and language are crucial and highly tangled (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015). Sensemaking is, therefore, increasingly understood as a collective process where people negotiate their insights so that a novel “joint” or “merged subject” emerges (Weick, 1995).

Precisely, people create an intersubjective shared space of reflection (Dougherty et al., 2000). Within this space, each individual advocates for a particular view (the result of their sensemaking) and engages in mutual influence and creative abrasion dynamics (Ahn & Hong, 2019). The parties involved create new content in the form of new conceptual combinations through a dialogical exchange. Each part brings individual contributions, which are partially carried forward; additionally, new concepts emerge during the dialogue (Tsoukas, 2009). These dynamics mediate the development of mutual understanding and shared values (Geijssels & Meijers, 2005; Maitlis & Christianson, 2014; Dougherty et al.,

2000).

The process is triggered by an act of sense-giving that takes place as a person advocates for her/his view and aims to engage others in its refinement (Gioia & Chittipeddi, 1991). As such, sense-giving requires the sensemaking of other individuals searching for a new meaning (Maitlis & Lawrence, 2007; Prior, Keränen, & Koskela, 2018). Sense-giving has been traditionally considered the central act of prospective sensemaking (Hill & Levenhagen, 1995), as it is future-oriented and happens when organizational actors try to explain what an organizational change means to others (Sandberg & Tsoukas, 2015).

More recent studies argue that sense-giving might correspond with the sense-breaking of others who perceive sensemaking’s destruction or breaking down (Pratt & Foreman, 2000). Indeed, according to Pratt and Foreman (2000: 464), “sense-breaking occurs as one’s current sense of self becomes devalued as one becomes impregnated with new, ideal selves.” Sense-breaking makes individuals question their understanding of reality, causing them to see and experience their views as incoherent and obsolete when new ideas and knowledge emerge (Lawrence & Maitlis, 2014). Therefore, as sense-giving occurs, sense-breaking appears crucial to trigger the “cognitive reorientation” typical of detached-deliberate sensemaking (Balogun et al., 2015; Gioia & Chittipeddi, 1991).

However, the abovementioned interplay between sense-giving and sense-breaking might have different implications on the overall sense-making both from a cognitive and an emotional perspective, as the intensity of sense-breaking might depend on the sense-giving received (Kleinaltenkamp et al., 2022), as explained in what follows.

On the one hand, sense-breaking might be less intense when the sense-giving receiver is persuaded and follows the sense-giver toward her/his idea that is likely to become more well-defined thanks to the contribution of the affected (Gioia & Chittipeddi, 1991). From an emotional and psychological standpoint, both the sense-giver and the receiver might experience enhanced engagement and motivation toward the creative task (George & Zhou, 2001). According to the literature on creativity (Li et al., 2020; Girotra et al., 2010), brainstorming (e.g., Diehl & Stroebe, 1987), and design thinking (e.g., Johansson-Sköldberg et al., 2013), dynamics such as “build on top” (Rouse, 2020; Dirks et al., 1996) and “yes, and” (Vera & Crossan, 2005), might be manifested among the sense-giver and the receiver whereby the content is accepted and added to.

On the other hand, sense-breaking might be more intense, causing a meaning void that needs to be filled, a seeking process that eventually leads individuals to reframe their previous meaning into new ones (Pratt & Foreman, 2000; Mantere et al., 2012). From a psychological standpoint, the bigger the meaning void experienced, the more disruptive the experience for the receiver from an emotional and psychological standpoint (Toivonen et al., 2023). In a way, the harsher the sense-breaking experienced, the higher the risk of perceiving the sense-giver as threatening, causing deep levels of negative affect and existential crisis (Baer & Brown, 2012; George & Zhou, 2001). However, in their recent study, Toivonen and colleagues (2023) demonstrate how the experience of meaning voids does not necessarily stop people from progressing along their search for meaning. Instead, they might jolt this search towards a new trajectory, by letting go of their preliminary sensemaking in favor of a new one. Therefore, when individuals engage in an exchange of mutual sense-giving and sense-breaking (Pratt, 2000), the higher the relative incidence of sense-breaking compared to acts of sense-giving, the higher the likelihood that members co-create understandings that are new for both parties (Vlaar et al., 2008; Mirbabaie & Marx, 2020), giving birth to a “re-building” dynamic where novel content is created and the pre-conceived is abandoned (Balogun et al., 2015).

In both the dynamics described, the sense-breaking dynamics are transformative and cause individuals to at least partly reconsider their previous ideas (Kleinaltenkamp et al., 2022; Luscher & Lewis, 2008; Pratt, 2000). Every time sense-breaking takes place, people are

stimulated to challenge the validity of preexisting understandings toward more compelling ones. Thus, sense-breaking prevents the simple incorporation of new knowledge into existing understandings, requiring reframing and updating the meanings by letting go of previously held conceptions and redirecting attention to different solutions (Vlaar et al., 2008).

2.4. Research goal

The present study explores how new product visions are formed in the Front End of innovation.

As mentioned, scholars identify two new product vision creation sources: the creative lead (e.g., Strange & Mumford, 2002; Perry-Smith & Mannucci, 2017) or the group of individuals who jointly create a new vision (e.g., Pearce & Ensley, 2004).

In addition, sensemaking scholars indicate two pathways through which novel content is created based on the intensity of the sense-breaking experience. On the one hand, there is a “build on top” process based mainly on sense-giving and poor sense-breaking, where individuals build on a preexisting vision (Gioia & Chittipeddi, 1991). On the other hand, the re-building process is characterized by intense sense-breaking, when people let go of preexisting understandings and frame new ones (Pratt & Foreman, 2000).

We combine both pathways to investigate who drives the vision (creative lead or balanced, collaborative effort) and the sensemaking dynamics (whether based on light or intense sense-breaking). We might expect that when the creative lead drives the process, the dominant sensemaking dynamic is sense-giving; but does the creative lead also let go?

We investigate these dynamics through an exploratory study observing how individual visions converge into a novel and shared vision. Specifically, our focus lies on the transition from individual visions to their integration into the team’s vision.

3. Methodology

To answer our research question, we performed an exploratory field study during 6 innovation projects. Our sampling strategy consisted of selecting companies that had identified an innovation opportunity and were in the phase of developing a vision. Our observations took place during a three-day workshop in each organization, during which the participants iteratively developed a set of visions for each innovation project.

Because cognitive-discursive sensemaking involves the iterative creation of a vision through discourse and language (Sandberg & Tsoukas, 2020), we studied the language used to express the vision as the result of the sensemaking endeavor. Indeed, the construction of meaning through sense-giving and sense-breaking is situated in the discussion around the creation of a vision and culminates in its formulation (Maitlis & Christianson, 2014).

The linguistic perspective of sensemaking analyses how organizational actors use language, discourse, and narratives to express meaning (see Maitlis & Christianson, 2014: p. 95 for an overview). Text analysis has been extensively used to investigate meaning creation in sensemaking (Gephart, 1993; 1997). When two parties merge their ideas and visions, their collective elaboration reflects the words each of them has used. Word-count analysis allows untangling this phenomenon, computing metrics on which party contributed most to its creation.

In the following paragraphs, we first discuss the research setting in depth. Then, we discuss the details of the text analysis method, presenting how we measure the composition of new visions.

3.1. Research setting and data collection

Our data collection occurred during a series of strategic development workshops held by a consulting firm between 2017 and 2020 in 6

different organizations (Table 1). The companies involved in the study included both B2B and B2C organizations from different industries. The primary intent was to develop a new product vision to be pursued in subsequent years. In each workshop, the team included first- and second-line managers from different business units. Our sampling strategy is coherent with previous vision creation studies, as managerial teams are recognized as essential in influencing new product visions and outcomes (Carmen et al., 2006; Heyden et al., 2012). In total, we engaged 106 individuals. The data collection process was part of a larger ethnographic process and lasted several months for each project. At least one researcher was present during each workshop without interfering with the vision development activities (Rosenthal & Capper, 2006). For the purpose of this study, we focus exclusively on the vision generation, which represents one part of the projects, while other ethnographic data gathered were not considered. The researchers did not interfere in the process to allow participants to develop their vision through extensive dialogue (Tsoukas, 2009).

All participants followed the same process for developing the vision. They started by writing down their vision and proceeded with a development critique, first from a sparring partner (in pairs) and then in a team comprising two pairs. Pairs consisted of two individuals working together, while teams consisted of two pairs.

Both pairs and teams were created according to the “roommate algorithm” (Irving, 1985). After each step, participants were asked to synthesize their considerations and final vision by writing a brief text in a specific format. After the initial presentation of their vision, everyone could express his/her preferences for a partner, choosing the most captivating vision. The algorithm maximized the satisfaction of matches thus created. Moreover, adopting choices based on the vision’s content ensured that the activities’ focus would be the development of a meaningful vision rather than political influence or power dynamics (Hope, 2010).

In all the companies, the process lasted three days and involved mainly pair and team activities. All participants were asked to develop their vision individually before the workshop session. This setting was expected to provide greater opportunities to observe how people reconsider their ideas as the collaboration process moves forward and different visions are progressively integrated into novel vision statements.

Furthermore, the process assured coherence throughout, standardizing the outputs that the authors had access to: to ensure the comparability of the visions, we provided structured templates, which were filled in under the guidance of the consultancy firm throughout the process.

Finally, the setting also allowed the comparison of different constellations of pairs and teams. Studies show that a pair cannot be considered a team (Simmel, 1902), as the full reciprocity and co-responsibility that characterize pairs enable dynamics that are not visible in constellations of more than two members (Rouse, 2020; Hunter et al., 2017). Therefore, even if not through direct comparison, we were curious to see what happens in the two collaborative environments for further exploration in subsequent studies.

3.2. Data analysis methodology

We adopt an approach based on text data to analyze the written texts collected in this process (Johnson et al., 2007). First, we collected the content produced by participants (at the individual, pair, and team level) throughout the workshops. The vision statements formulated at each step have been used as the main object for our analysis. As a vision statement is crafted collaboratively through dialogue and language, it represents the materialization of collective thoughts and aspirations. On the one hand, despite being an intermediate output, the formulated vision represents the culmination of extensive deliberations that will inform subsequent reflections and sensemaking endeavors. On the other hand, it constitutes the basic element that will guide subsequent

Table 1
Sample description.

ID	Sector	Company Size (number of employees)	No.	Group Composition	Key Business Unit	Nationality	Main Goal of the Project
1	Energy	300	17	24 % Female 76% Male	Human Resources, Sales, Digital, New Product Development, Communication/Marketing, IT and Digital Development, Legal, Procurement	Italy	Exploit the desire for personalization to provide a flexible digital service solution
2	Pharma	1,400	20	40 % Female 60% Male	Marketing, Brand and Communication, IT and Digital Development, Sales	Italy	Develop a healthcare solution based on natural treatments
3	Food and Beverages	1,000	16	40 % Female 60 % Male	Product Marketing, Digital Marketing, Sales, R&D, Operations	Italy, France, Germany	Exploit changing consumer habits of Gen-z to provide a new drinking experience
4	Healthcare	134,000	12	50 % Female 50% Male	R&D, Legal, Marketing, Sales	Sweden, France, Germany, Switzerland	Exploit the increasing awareness of drug consumption to provide new forms of treatment
5	Photo	1,700	21	30 % Female 70% Male	Product Marketing, Product Engineering, Sales, Brand and communication	Italy	Exploiting the increasing demand for content to provide high-quality solutions to professional content creators
6	Grocery Chain	7,800	20	18 % Female 82 % Male	NA	Italy	Develop an innovative loyalty program designed for customers to increase company's service level.

reflections toward developing the new product once the final product vision is conceived.

The contents were in written and visual form, i.e., text representing their proposed vision and a visualization of the same. An illustrative example of a vision for each project is shown in Table 2. We focused our

Table 2
Illustrative example of a vision for each project.

ID	Project	Vision	Terms
1	Energy	The tailor of energy ; I want a supplier that costs less; a supplier who knows my needs , is my consultant , improves the use I make of energy and can help me get the most out of what I spend .	'energy', 'supplier', 'tailor', 'consultant', 'improve', 'spend', 'need', 'know'
2	Pharma	NaturalPharma intelligent health ; Natural Pharma herbs and health : from our cultivation , the best of nature for welfare ; NaturalPharma intelligent health to feel good tomorrow	'health', 'tomorrow', 'cultivation', 'NaturalPharma', 'nature', 'welfare', 'intelligent', 'herb'
3	Food and Beverages	A cup of delicious coffee to be like a barman ; I want to have the quality at home; what I like, everywhere , and always .	'everywhere', 'barman', 'quality', 'coffee', 'always', 'delicious'
4	Healthcare	Designed for ME; The most effective medicine , that gives me the best chance of relief ; Customized solutions that work best with my body & situation	'solution', 'situation', 'relief', 'chance', 'customized', 'medicine', 'designed', 'effective'
5	Photo	Designed by me, made in Italy ; I choose the best available , and create my own perfect instrument	'create', 'choose', 'italy', 'instrument', 'perfect', 'designed', 'available'
6	Grocery Chain	Purchase products at the most convenient price , necessary to balance the family budget ; Purchase what I need at affordable prices with ethical values : I believe in values that go beyond the act of purchase	'value', 'believe', 'beyond', 'price', 'budget', 'purchase', 'convenient', 'ethical', 'family', 'product', 'necessary', 'balance', 'affordable'

analysis on the textual data for two main reasons. First, the benefits of a vision relate to the creation of common formulations, which manifests in the language adopted by the individuals (Kleinaltenkamp et al., 2022; Mitchell et al., 2017; Weick et al., 2005; Gephart, 1997). Second, the analysis of textual data allows identifying the objective metrics of individual contributions. Throughout the process, some words recur from one vision to the other, while others are introduced *ex novo*. Tracking the changes in the words from one phase to the other enabled computing the metrics presented in the next sections.

To analyze the textual data, we adopted a content analysis measure based on word count, given the importance of language in human cognition (Duriau et al., 2007; Antons et al., 2020). Content analysis allows to understand the cognitive schemata and processes of individuals and teams (Gephart, 1993). Analyzing the frequency and centrality of words allows for charting the individuals' cognitive processes (Huff, 1990; Abrahamson & Hambrick, 1997), measuring cognitive maps based on textual data, defining concepts (Edwards-Schachter & Wallace, 2017), and objectively extracting meanings (Short et al., 2018; Gaur & Kumar, 2018). Qualitative researchers benefit extensively from this methodology to code data using computer-aided software such as NVivo, DICTION, or LIWC (Pennebaker et al., 2001; Krippendorff, 2004; Short et al., 2010). Gephart (1997) uses quantitative analysis to analyze the sensemaking process in hazardous situations. He describes quantitative content analysis as a process where “[...] software is used to automatically code and/or classify data in texts, and to count the codes or categories which are evidenced in the text (Wolfe et al., 1993). The classified and counted data are used to compose operational indicators of variables” (Gephart, 1997: p. 585). We use the same approach, elaborating text fragments representing product visions to analyze how these visions are iteratively formed in a group. We adopted a word count strategy based on the visions proposed in different steps of the development workshops. All contributions were transcribed and translated into English before pre-processing. We used an automatic Machine Translator (MT) to ensure coherence among the translations because human translators could involuntarily use different words for the same concept. We adopted the most diffused MT system, Google Translate, which yields more accurate translations than other engines (Rivera-Trigueros, 2021). The translations were then verified for internal consistency by two of the authors. Next, we carried out preprocessing through WordNet lemmatization (Miller, 1995) and the exclusion of short and stop words (see the Appendix for examples of the cleaned raw data).

3.3. Variables

To analyze the textual data extracted, we developed a set of variables to explore how new product visions are created by tracking both individual and collaborative contributions (Hensel & Visser, 2019). In contrast to previous studies that analyze the formation of a vision according to individual perceptions (e.g., Tsai & Ghoshal, 1998), our analysis concerns the structure through which the vision is expressed. Tracking the language used to frame a product vision and whether these words are kept or discarded along the process enables us to perceive how the sensemaking process evolves (Deichmann & Baer, 2023; Kaplan & Vakili, 2015). For example, the extent to which people discard words along the process might be linked to the intensity of sense-breaking experienced; similarly, the extent to which the words proposed by an individual to articulate a vision survive along the process explains what extent that individual act as a creative lead and a sense-giver.

Fig. 1 exemplifies how vision are expected to incorporate both individual and collaborative contributions. Table 3 provides the variable definitions, measurements, and formulae. We next explain how we built the presented variables. In the Appendix, we provide examples of how we evaluated our variables both for pairs and teams.

3.3.1. Dependent variable

Novelty. The novelty of the vision developed collaboratively is the dependent variable in our study. It indicates the extent to which the parties (two individuals or two pairs) introduce new words not previously conceived. Thus, we measure the *novelty* parameter for each vision as the extent to which the vision has words not used before (Table 3). It is important to note that our operationalization of “novelty” does not measure the extent to which the vision is new in absolute terms (i.e., in relation to the competition). In fact, our purpose is to study the extent to which collaboration *within* the process enables the creation of new content. A high *novelty* measure means that individuals have developed new content together.

3.3.2. Independent variables

The driver of the vision. In the literature background section, we mentioned that new visions might derive from the creative lead or from a balanced collaborative effort within a team. Observing pairs and teams, the creative lead represents the party (individual or pair) which drives the creation of a novel vision. The *driver of the vision* variable measures the extent to which everyone contributes to the content of the new vision. It is measured as the percentage of words used already in that person’s former vision over the words that are not new (Table 3).

The perceived driver of the vision. In addition to assessing the *driver* of the vision by way of the number of words, we also collected a perceptive measure of individual contributions. While words represent the underlying cognitive schemata, perceptions represent individuals’ beliefs (Gephart, 1993; Duriau et al., 2007). The *perceived driver* variable, therefore, aims to explore the subjective origins of the vision measured for each member on a continuous 1–100 scale. Each person assessed the extent to which she or he perceives to be the driver of a vision. A low

Table 3
Description of variables and their computation.

Variable	Definition	Measurement	Measure
Novelty	The novelty of a vision represents the extent to which the vision has words not used before, e.g., the words of the pair’s vision are not mentioned by either member of the pair in her/his individual vision.	For each pair, the parameter represents the percentage of new words over the number of total words of a vision.	$Novelty (C) = V_C' / V_C = V_C' / (V_A' + V_B' + V_C')$
Driver of the Vision	The driver of a vision represents the extent to which everyone’s previous vision determines the content of the new vision, e.g., one member of a pair has many words of her/his original vision in the pair’s vision.	For each individual, the parameter represents the percentage of words that came from each individual vision over the number of words in the new vision already present in either of the previous visions.	$Driver (A) = V_A' / (V_A' + V_B')$ $Driver (B) = V_B' / (V_A' + V_B')$
Perceived Driver of the Vision	The perceived driver represents the extent to which everyone perceives that the vision comes from themselves, from the other, or from a shared effort, e.g., one member of a pair perceives that the vision was developed collaboratively in the pair (perceived driver = 50)	For each individual, the parameter (PD) was measured on a continuous 1–100 Scale. In the case of the pair, 1 represented oneself being the driver, 100 the partner and 50, the pair.	$Perceived Driver \in [1:100]$
Letting Go	Letting go represents the extent to which an individual does not use words from her/his previous vision, e.g., one member of a pair does not use any words s/he used in the individual vision.	For each individual, the parameter represents the percentage of words which are not used again in a pair over the total number of words in the individual vision.	$Let Go (A) = 1 - (V_A' / V_A)$ $Let Go (B) = 1 - (V_B' / V_B)$
Word Count	Word count represents the length of the vision.	For each vision of the individual, pairs and teams, the parameter represents the number of words used.	$Word Count (A) = length (V_A)$
Word Increase	Word increase represents the extent to which the average number of words increases in collaboration, e.g., the average increase from the length of individual visions to a pair’s vision.	For each pair, the parameter represents the percentage of words in the new vision over the average word number in the previous visions.	$Word Increase (C) = Count_C / avg. (Count_A + Count_B)$

*Notes: V_A, V_B, V_C =Visions of member A, member B, and collaboration C (pair or team) respectively; the collaborative vision $V_C = (V_A' + V_B' + V_C')$, where $V_A' \in (V_A \text{ AND } V_C), V_B' \in (V_B \text{ AND } V_C), V_C' \notin (V_A \text{ OR } V_B)$.

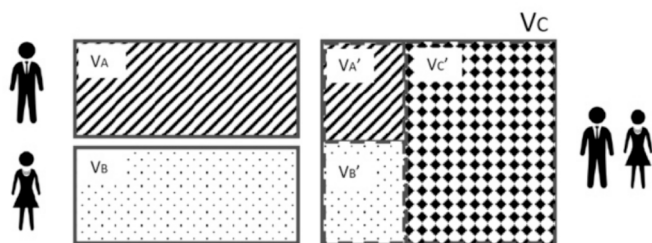


Fig. 1. Definition of vision-related variables: in the case of pair, the resulting vision is expected to incorporate both individual (V_A' and V_B') and collaborative (V_C') contributions.

value ($pd = 1$) means the person perceives she is the driver; a high value ($pd = 100$) means the other person is the driver. A middle value ($pd = 50$) means that the driver is the pair, i.e., the person perceives that the vision results from a balanced contribution. For the team, a low value means that the pair is a driver; a high value indicates that the other pair is perceived as a driver, while a median value means that the result is a balanced contribution of all team members.

Word count and word increase. As team members share and combine their visions, they may create a new joint concept that sums up words from each formulation. In such cases, we expect longer concept descriptions, especially when members “build on top” of each other, while

for a synthesis, we expect shorter descriptions. In other words, the total number of words of a vision can fluctuate and might be used by the team as a strategy to ease abrasion between individual views. Therefore, the length of the vision formulation acts as an independent variable. Specifically, *word count* is the number of words in a vision after pre-processing, and *word increase* indicates the extent to which a pair (or team) uses more words than the members' average.

Letting go. When individuals engage in discursive sensemaking to create a new vision, they may also undergo a sense-breaking process, revising their previous formulations, and establishing new shared ones. Therefore, we introduce the *letting go* variable, which, from a theoretical standpoint, indicates the extent to which an individual or pair leaves the previous vision behind by discarding words previously used in favor of new ones. From an operational perspective, we measure *letting go* as the percentage of words in an individual's earlier vision not carried over to the new collaboratively created vision, over the total words used in the earlier vision (Table 3).

3.4. Descriptive statistics

The vision development process is articulated in two steps: first, two individuals join in a pair; second, two pairs join in a team. Tables 4 and 5 show the mean values for all variables in each step.

Our findings show that the number of words used to describe the vision decreases significantly from the initial individual reflection to those of the pair (*word count* decreases significantly at $p < 0.01$), with a non-significant decrease in teams. This is confirmed by the *word increase variable*: value 1 means that the number of words used to express a collaborative vision remains equal to that of its two members. A value below 1 for pairs and teams further suggests that, on average, pairs and teams use fewer words than the members did previously. The fact that the number of words decreases throughout the process suggests that members do not merely fuse their visions but also abandon previous concepts.

Further, it emerges that individuals, on average, have a higher propensity to let go of their previous vision when working with one partner in a pair rather than when part of a team (*letting go* values decrease significantly at $p < 0.01$). We also find that the *novelty* of a vision developed in pairs is significantly higher than in a team ($p < 0.01$).

In the following sections, we analyze and discuss the effect of each independent variable on our dependent variable *novelty*. The correlations are shown in Tables 6 and 7.

As presented in the Research Goal section, our interest is to investigate who drives the vision (creative lead or balanced, collaborative effort) and the sensemaking dynamics (whether based on light or intense sense-breaking). Given that the latter goal is informed by the former, in the following sections, the results and discussion are presented for each research goal. Then the overall theoretical implications are outlined.

4. Who drives the creation of a new vision?

4.1. Results

In this section, we analyze the relation between the *driver* of the vision and the development of *novelty*. Figs. 2 and 3 illustrate the results

Table 4
Descriptive statistics of the word count.

	Step 1		Step 2	
	Individual	Pair	Pair	Team
Word Count (average)	18.09	11.62	11.62	9.50
N	106	52	52	26
U	1695.5		522.0	
Sig. (2-tailed)	0.000		0.102	

Table 5
Descriptive statistics of vision-related variables.

	Vision-related Variables			
	Word Increase	Driver	Novelty	Letting Go
Pair	0.71	0.58	0.67	0.85
Team	0.93	0.62	0.52	0.74
N	158	146	158	158
U	1986	2258	1758	2016
Sig. (2-tailed)	0.004	0.547	0.000	0.006

for the *driver* of vision creation for pairs and teams respectively, considering both the *perceived driver* and the *driver* measured through the word count strategy.

In both figures, the two extremes represent situations in which there is a creative lead driving the pair's (or team's) vision creation: an individual in the pair case, a pair in the team case. Cases in the middle of the figures represent cases where the creation of a new vision is the result of a balanced collaboration between the parties. We observe that high *novelty* is reached when there is a creative lead and when the vision is the result of a balanced collaborative effort. This result is visible both in the figure showing the *driver* (panel A in Figs. 2 and 3) based on word count and the *perceived driver* (panel B in Figs. 2 and 3).

Focusing on the *driver* based on word count, we find no statistically significant correlation between the *driver* and the *novelty* of a vision (Tables 6 and 7). This further suggests that novel visions may be developed either when there is a creative lead or a balanced collaborative effort. For pairs and teams, we find cases where a vision was proposed that was novel compared to the formulations shaped respectively at the individual or pair level.

To clarify these findings, we provide two examples from our data.

As a first example, we consider the Photo case, which illustrates that *novelty* can be developed in the presence of a creative lead. The teams in this organization were tasked with envisioning a vision that captures how the meaning of photography is changing. One developed a vision that revolves around a new creative act, described as "*capturing and creating a picture*". The *novelty* of the vision is equal to 0.75, meaning that 75 % of the words in the new vision were developed by the team and did not come from a pair.

Yet, both pairs had the perception that one of the pairs (pair 1) was the driver of the vision. The measure of *driver* based on word count confirms this, as pair 1 had a value of 0.95. Pair 1's vision can be summarized as "*Creativity: I [the user] focus on the scene [the object of the creative effort] and on my creative vision*", and pair 2's vision as the desire to "*make a positive difference on environmental issues*".

The visions of pair 1 (the driver) and the team are similar, as both describe a creative activity, but the content presented in pair 2's vision is missing in the team's vision. However, the team's vision is not equivalent to that of the creative lead (pair 1): in the team's vision, the words "picture" and "capturing" are present. The new vision describes the activities, but pair 1's original vision concerned a different aspect. The collaboration with another pair in this case led pair 1 to reconsider its vision, and through collaboration, adding new content to the vision in line with pair 1's initial ideas.

As a second example, we consider the Energy case, that shows situation of a balanced collaborative effort between two individuals working together in pair 1, team 1. Both the *driver* based on word count (0.66 and 0.66 respectively) and the *perceived driver* (0.50 and 0.54 respectively) suggest that the new vision is the result of a balanced collaborative effort. Individual 1 advanced a vision of a customer who "*understands energy and feels free*", while individual 2 posited that the energy supplier should be a "*consultant like a tailor*". The vision developed together integrates both aspects, and the individuals extend their previous reflections by clarifying what *freedom* and a *tight supplier* relation mean: empowerment, in the form of informed consumption decisions and deciding which aspects to delegate to the supplier. In this

Table 6
Descriptive statistics and correlations in the sensemaking process from individuals to pairs.

	N	Mean	SD	1	2	3	4	5	6	7
Count										
1. Individual	106	18.09	12.47	1						
2. Pair	106	11.62	6.37	0.079	1					
3. Word Increase	106	0.71	0.47	-0.279**	0.776**	1				
4. Perceived Driver	89	47.35	23.91	-0.208*	0.028	0.179	1			
5. Driver	96	0.58	0.38	0.122	0.033	0.022	-0.399**	1		
6. Novelty	106	0.67	0.22	0.004	-0.232*	-0.111	-0.082	-0.052	1	
7. Letting Go	106	0.85	0.17	0.142	-0.592**	-0.586**	0.044	-0.459**	0.498**	1

Notes: Table displays pairwise correlation coefficients where ** $p < 0.01$, * $p < 0.05$.

Table 7
Descriptive statistics and correlations in the sensemaking process from pairs to teams.

	N	Mean	SD	1	2	3	4	5	6	7
Count										
1. Pair	52	11.62	6.71	1						
2. Team	26	9.50	5.80	0.504**	1					
3. Word Increase	52	0.93	0.55	-0.345*	0.340*	1				
4. Perceived Driver	66	44.94	28.40	0.166	0.045	-0.044	1			
5. Driver	50	0.62	0.37	0.285*	0.002	-0.088	0.170	1		
6. Novelty	52	0.52	0.23	-0.263	-0.210	0.372**	0.081	0.066	1	
7. Letting Go	52	0.74	0.25	0.026	-0.328*	-0.084	0.062	-0.533**	0.375**	1

Notes: Table displays pairwise correlation coefficients where ** $p < 0.01$, * $p < 0.05$.

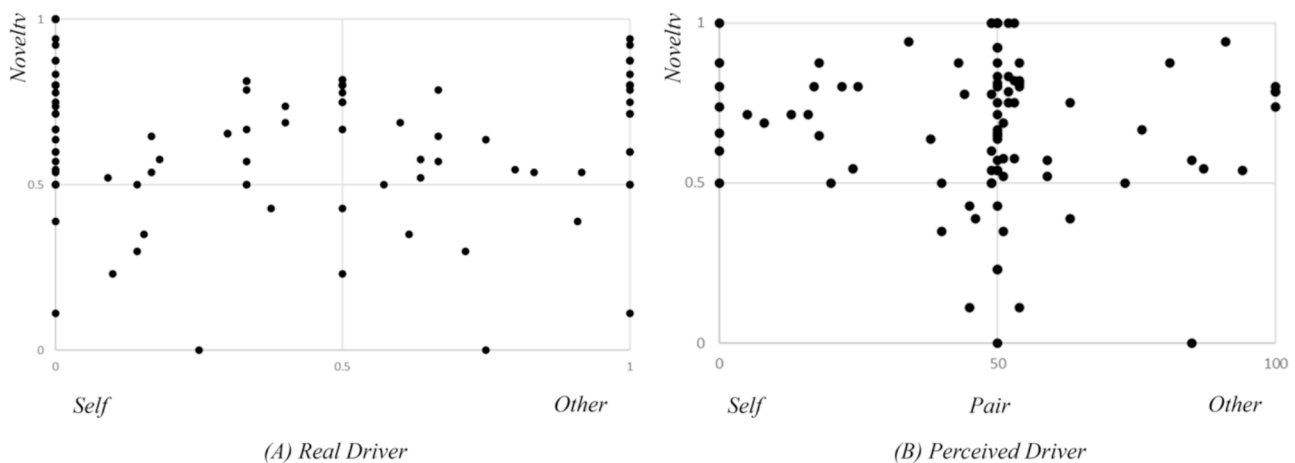


Fig. 2. Who drives the creation of a new vision: Pair-level comparison of vision novelty and vision driver. The two panels consider respectively the driver measured through the word count strategy and the driver perceived by the people engaged in the pair activity.

case, the two individuals produced a vision with a *novelty* value of 0.81.

In a further analysis, we compared the *driver* and the *perceived driver* of the vision. Analyzing the driver of the vision in pairs, we found a significant correlation between the *driver* based on word count and *perceived driver* ($R = -0.399, p < 0.01$). Thus, when an individual does not result as the driver of a pair vision (according to the *driver* based on word count), he also perceives not to be the driver (according to the *perceived driver*). These findings are not confirmed for teams' collaboration. However, in panel B of Figs. 2 and 3, we observe that data are more concentrated in the middle: both in pairs and teams, individuals tend to perceive that the vision is the result of a balanced collaborative effort. Thus, while measures based on wordcount show that often one individual acts as a driver, members perceive having evenly contributed to the new vision, a distinction that certainly deserves further attention.

4.2. Discussion

In this section, we discuss the findings emerged through the analysis of the *driver* of the vision, the *perceived driver* and the level of *novelty*. Our

findings suggest that novel visions might emerge when a creative lead pulls others toward her/his interpretation (e.g., Partlow et al., 2015) or as a result of all members' balanced, collaborative effort (e.g., Pearce & Ensley, 2004). In both paths, for pairs and teams, we find cases where a novel vision is proposed compared to the vision formulated at the individual or pair level. Hence, both paths to vision creation seem valuable for conceiving novel visions.

Nevertheless, we also note from Figs. 2 and 3 that even without a correlation, the path of collective vision creation shows more cases of low *novelty*. This suggests that in a balanced, collaborative effort integrating different perspectives, the team more easily reaches compromising outcomes, which hinders *novelty*. Somehow, collaborative teams are more exposed to the risk of simply reassembling pre-existing concepts and ideas without creating new ones. This seems to support the perspective of studies advocating visionary leaders for breakthrough innovation (Strange & Mumford, 2005), yet we found no significant correlation, and our analysis shows that in several cases, teams operating as a collective achieved a high level of *novelty*.

The findings discussed thus far emerged from the analysis of the

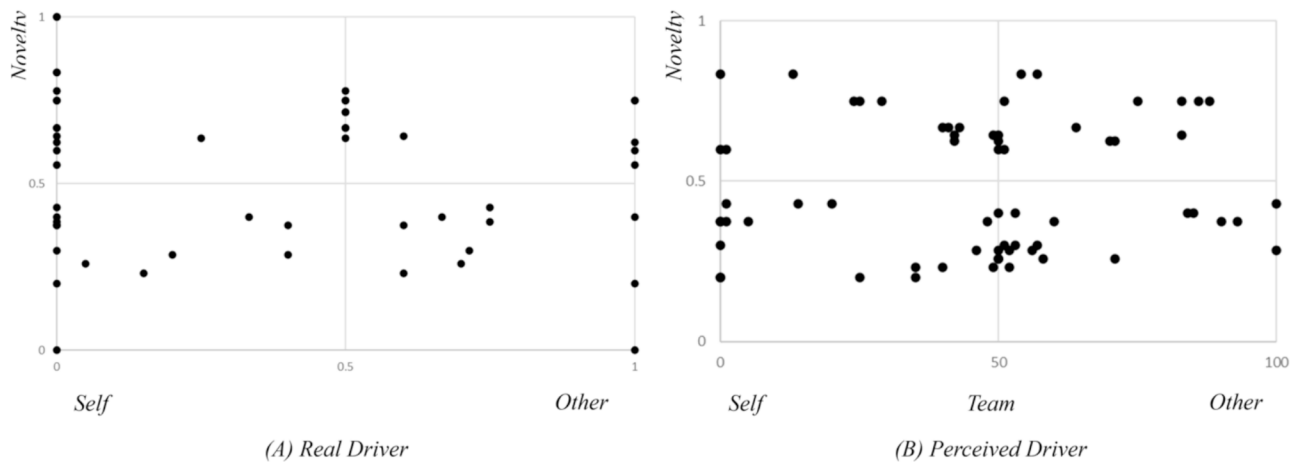


Fig. 3. Who drives the creation of a new vision: Team-level comparison of vision novelty and vision driver. The two panels consider respectively the driver measured through the word count strategy and the driver perceived by the people engaged in the team activity.

words used. But how do people *perceive* the existence of a driving force in creating a novel vision? Interestingly, our findings highlight discrepancies between the existence of a driving force (through the analysis of words) and how people perceive it: most felt that the resulting vision derived from the parties' equal contributions. This suggests that visions generated together have no clear ownership, as they are less likely to be attributed to specific individuals (Pierce et al., 2001). For instance, when collaborating as a pair, the two individuals seemed not to perceive that the vision was primarily inspired by one of them, instead perceiving it as collectively created by both. If everyone loses track of who disclosed which ideas, individuals experience a sense of collective ownership (Rouse, 2020), coherently with studies on psychological ownership (Gray et al., 2020; Hargadon & Bechky, 2020). The present study adds to this literature stream, suggesting that after sense-breaking of a previous meaning takes place, subsequent collaborative sensemaking creates a collective sense of ownership. Thus, by co-developing novel content, individuals tend to lose track of their ideas, nurturing a collective sense of ownership toward the new vision proposed (Gray et al., 2020; Pierce et al., 2001).

Finally, the setting of our study enabled analyzing our findings at two different levels: pairs and teams. In terms of team collaboration, the vision's *novelty* significantly decreased, with fewer cases of a driver in the team pulling toward his/her vision. It seems that it is more difficult to accept the sense-giving of others when working in teams, and people not only struggle to find a shared understanding in which all members participate equally, but engaging in the sense-giving of one of the members is even more challenging.

Nevertheless, the *driver* of innovation is not the only factor explaining *novelty* in vision creation. Thus, in what follows we explore the extent to which individuals rely on sense-breaking to develop *novelty*. More specifically, we analyze how *novelty* in pairs and teams is associated with the members' ability to let go of the words of their original vision.

5. Letting go as a trigger of novelty

5.1. Results

In this section, we continue the analysis of our results, focusing on variables of word count (novelty, letting go, word count, word increase). By building on the findings that emerged in previous sections, we see in detail how novel visions are framed. Starting our analysis from pairs, we find a positive correlation between an individual *letting go* and the *novelty* achieved in the pair ($R=.498, p < 0.01$). Moreover, we find a weak negative correlation between the *novelty* of a pair's vision and *word*

count ($R=-0.232, p < 0.05$). Hence, pairs whose members are willing to let go achieve higher *novelty* and also use a lower number of words.

These findings are also confirmed for teams where the most *novelty* is developed when teams let go of the visions developed in pairs. We find a significant positive correlation between *letting go* and *novelty* ($R=.375, p < 0.01$), and between *novelty* and *word increase* ($R=.372, p < 0.01$). This suggests that team members let go of their pair's vision to develop *novelty*, but do so to a lesser extent than pairs. Rather, they build longer visions to include new aspects. In contrast to collaboration in pairs, teams appear to develop more *novelty* when the vision is related to only one of the pairs. These findings suggest that the sense-breaking dynamic in teams is weaker compared to pairs.

These findings, illustrated in Fig. 4, show a direct correlation between *novelty* and the ability to let go of previous ideas.

Specifically, Fig. 4 shows the distribution of our sample divided by pairs (panel A) and teams (panel B). We note that most observations lie to the right-hand side of the graph for both the pair- and the team-level. To create new concepts, it is necessary that at least one party makes space by letting go of their ideas. However, our findings surprisingly show that in pairs and teams with higher *novelty*, the driver of the vision also lets go of their ideas.

Next, we compare the joint effect of *letting go* and the *driver* on the *novelty* of a vision. Panels A and B in Fig. 4 show cases driven by a creative lead (black dots), cases where a party followed a creative lead (white dots), and cases of balanced collaborations (grey dots). Even when a creative lead drives vision development (black dots in Fig. 4), the preferred approach to achieving high *novelty* is letting go (predominantly positioned in the top right corner for pairs and teams). However, as outlined in the previous sections, both the average *novelty* and *letting go* values are significantly lower for teams than pairs. Indeed, we find evidence of *low novelty-low letting go* only for teams where one pair drives vision development.

We provide two examples from the data to exemplify the relation among *novelty*, *letting go*, and *word increase*. The case of case Grocery Chain where individual 1 envisioned and extensively described a highly complex solution with multiple elements. The solution consisted of a storage space with personalized access, a membership system, and connection to the farmer/producer, with the aim of creating trust among the members of the platform and fostering the consumption of organic produce. However, individual 2 identified a different communitarian aspect, focusing on a dispenser that makes of food a public good – something she called *Agorà*. When working together though, the vision changed radically – the members of the pair let go of their vision for 0.97 and 0.83, respectively.

The new vision (*novelty* = 0.75) put convenience and speed at the

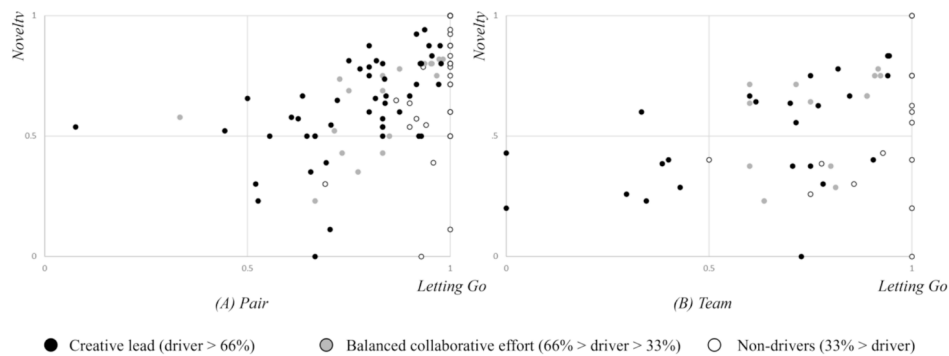


Fig. 4. Letting go as the trigger of novelty: Comparison of vision novelty, letting go, and the real driver of the vision. The two panels reveal how both a pair and team level there is a correlation between the extent an individual (A) or a pair (B) let go of their previous vision and the novelty of the new one. Black, grey and white dots represent whether a driver of the vision exist (black), does not exist (white), or the vision is the result of a balanced collaboration (grey).

center of the new product. Every product should be available in a single place to enhance the consumer’s shopping experience. The new vision the pair developed was also much shorter than the original, with a *word increase* of 0.44, meaning the new vision contains half the words of the previous two visions.

The case of pair 1 in team 3 of the Pharma case differs. Individual 1 expressed her vision as a focus on the future of medicine based on traditional herbal remedies. On the other hand, individual 2’s vision was much more related to nature: he envisioned a solution that would bring health to everyone on the planet based on natural elements from the region in Italy where the company operates. This product should also have a positive impact on the welfare of the firm’s employees. In this case, individual 2 had a *letting go* value of only 0.07, while the pair’s overall *novelty* was 0.53. The vision developed together was a replica of individual 2’s vision, but expanding some aspects: the user was described more in depth and identified in very young generations. In addition, the company image as a “*leading European human health company*” was described more in depth. The pair took the vision of one member, who let go of only one word, and created a new vision by adding content on top, as evident from the *word increase* equal to 2.7.

5.2. Discussion

In this second analysis, we discovered that the ability of pairs and teams to shape a novel vision resides in their ability to let go of their original visions. This occurs both when the driver is collectively the pair/team and when the driver is one of the parties. Thus, novel visions are spurred when individuals abandon and reconsider their previous formulations and start looking for novel ones. This is coherent with sense-breaking (Vlaar et al., 2008), indicating that people shape new meanings when they recognize their previous ideas as incoherent in the current scenario (Mirbabaie & Marx, 2020).

Fig. 4 shows these dynamics that enabled us to delineate a typology of the potential dynamics that occur as people collaboratively shape a new product vision (Fig. 5).

The bottom-left quadrant (low letting go, low novelty) represents a situation in which members do not let go of their previous visions and do not bring new content. This describes a compromise dynamic: none of the parties relinquish their contents, and no new contents are spurred from the collaboration. People simply integrate their vision into a compromising one (Hensel & Visser, 2019).

The bottom-right quadrant (high letting go, low novelty) describes a situation where members let go of their previous visions, yet do not develop new contents. In this situation, the members select some specific aspects of one or both visions and use these to represent their collective vision (Sukhov et al., 2020).

Third, the upper-left quadrant (low letting go, high novelty) shows a situation where members do not let go of their previous content but

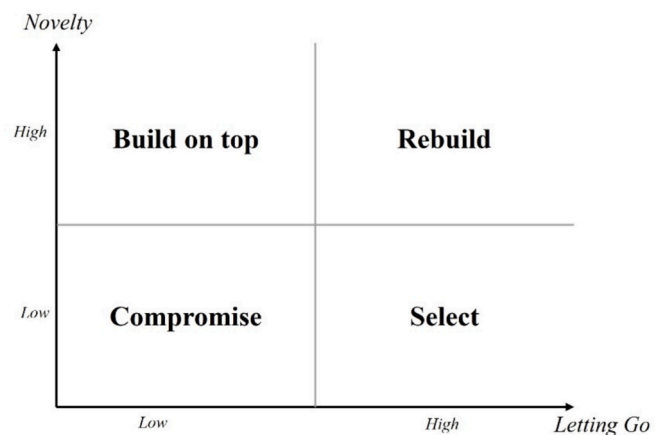


Fig. 5. Novelty vs Letting Go: a typology for vision development dynamics.

succeed in developing a new vision. In this situation, members build on each other’s vision by introducing a novel concept that determines an increase in novelty (Sutton & Hargadon, 1996; Girotra et al., 2010). Starting from the vision in the previous phases, new elements are added to form a new vision. This vision incorporates both a high number of previous elements and many that were developed collaboratively.

Last, the top-right quadrant (high letting go, high novelty) represents a situation where members let go of their previous concepts while collaboratively building a new vision. In this situation, the members rebuild the vision using some of the elements of the previous vision, while most of the content is produced ex novo. In this case, sense-breaking is particularly evident, as the meaning constructed in the previous vision is substituted with a new, collectively designed meaning (Lawrence & Maitlis, 2014; Vlaar et al., 2004; Pratt, 2000).

From a theoretical perspective, we might expect that a vision with high novelty derives from the build on top dynamic, one of the most advocated perspectives in innovation studies (e.g., Giller & Bayus, 2022; Diehl & Stroebe, 1987; Johansson-Sköldberg et al., 2013). This would be the case when one individual keeps most of their vision, while adding new words when working with their pair and formulating a new one (low letting go, high novelty). Someone might expect this to be the preferred dynamic as it allows people to keep their point of view and enrich it with that of others and new content. Also, from a psychological point of view, this dynamic might be the preferred one since it confirms the goodness of the content developed so far and allows people to work on something they are already familiar with (George & Zhou, 2001; Zhou, 1998). Differently, our data show that collaboration leads to higher levels of novelty mostly in situations where individuals abandon and reconsider their previous formulations, namely engaging in the-

build dynamic (high letting go, high novelty) (Fig. 4).

This means that a simple refinement of sense-giving through partial sense-breaking is insufficient to create new product visions. People rarely keep the content they previously identified and try to update it by adding new content. Rather, they tend to completely review the content by leaving behind their vision in favor of entirely new ones.

Besides, we observe that letting go not only characterizes cases where a party abandons his/her previous vision and follows a creative lead, as one would expect (white dots in Fig. 4), or cases of balanced collaboration within the team (grey dots in Fig. 4) but innovative cases where a creative lead acts as the driving force. In other words, higher novelty is achieved when the creative lead does not act merely as sense-giver but also as sense-breaker, i.e., abandoning previous assumptions in the search for novel interpretations. More generally, regardless of the driver of the vision, the more an individual is willing to reconsider his/her ideas by leaving behind most of the previous content, the more the vision resulting from the collaborative endeavor will be novel.

Therefore, the letting go dynamic appears crucial in creating a new product vision. These findings can be linked to similar concepts in other fields. For example, in the knowledge creation domain (e.g., de Holan & Phillips, 2011; Hislop et al., 2014), theories of unlearning and forgetting explore how people tend to involuntarily forget (de Holan & Phillips, 2011) or consciously unlearn (Tsang & Zahra, 2008; Cegarra-Navarro et al., 2013) previous concepts and knowledge perceived as obsolete, making space for new knowledge creation (Grisold & Kaiser, 2017). However, our findings may not match prevailing assumptions in innovation and creativity since studies show that building on top dynamics might be preferable as it provides people with information and insights that might enhance their engagement and motivation toward the creation process (George & Zhou, 2001; Giller & Bayus, 2022). On the other hand, re-build dynamics, implying letting go, might lead to deep levels of negative affect and existential crises in people who perceive their vision as rejected by others (Baer & Brown, 2012; George & Zhou, 2001). Nevertheless, not only do re-build dynamics lead to higher novelty in the vision proposed, but they also seem to be the preferred dynamics by people taking part in new product vision creation.

In our study, these findings are particularly evident in pairs rather than in teams, where the tendency to let go is lower. It seems that as people move in larger teams, they become less prone to abandoning previous assumptions and less capable of creating novel interpretations. Hence, teams collaborate in search of a more compromising outcome, hindering the novelty of the vision. Recent studies on the power of small teams indicate that team size (and particularly working in pairs) may actually have a significant impact on innovation (Wu et al., 2019). Intimate relationships facilitate self-disclosure and mutual criticism (Rouse, 2020; Simmel, 1902), which is crucial for successful sense-making, but occurs less easily in teams larger than a pair (Leonard & Sensiper, 1998). The full reciprocity guaranteed by pairs seems to nurture higher involvement and mutual participation (Rustin, 1971), and the search for new meanings is thus easier and open to deeper reflection (Rouse, 2020). Even if the study of pair collaboration is not the focus of the present study, these findings open the door for further exploration of the dyadic dynamics in innovation activities (Hunter et al., 2017). Another competing explanation would consist in the productivity loss during creative generative ideas, according to which prolonged idea generation activities lead to fewer new ideas emerging (Sutton & Hargadon, 1996). In this case, it would be relevant to note whether the ideas generated later in the process were simply less or if they were fewer but more deeply developed.

6. Conclusions

This study has explored the process that leads to the creation of new product visions.

Through a gradual collaborative process where individuals were asked to develop a new product vision before collaborating in pairs and

later in teams, we explored how new visions are created. Through analyzing the content of working as pairs and as teams, we unveil that the creation of a novel vision relies not only on the ability to propose and integrate novel ideas and thoughts, but also, and more importantly, on the ability to review, reconsider, and let go of previous insights. Therefore, what ultimately leads to innovation is the ability of individuals to let go of their own beliefs and ideas in favor of reframed and more robust ones.

6.1. Contributions to literature

Our study contributes to the literature on vision creation from a sensemaking perspective in different ways, by focusing specifically on product visions shaped at the Front End of innovation projects.

First, Sandberg and Tsoukas's sensemaking typology (2020) allows us to focus our attention on the most appropriate type of sensemaking, providing the right lens to qualify the vision creation process. Specifically, we find that vision creation aligns with the idea of deliberated-detached sensemaking, which is predominantly cognitive and discursive in nature and involves prospective thinking.

Second, our study expands knowledge on the vision creation process by exploring how content is created and integrated into a new shared vision. Although previous studies provide several perspectives on how new product visions are created (e.g., Ashford et al., 2018), our study explores the dynamics that enable people to create a common formulation of a future state: the final vision. Through a field approach, we had the chance to study the vision creation process from inside the practice world (i.e., from the organizational actors' perspective) and delineate how sensemaking is accomplished through languages (Bolander & Sandberg, 2013).

Third, we introduce a complementary perspective to the debate between the existence of a creative lead proposing and disseminating a vision or of a balanced collaborative effort, explaining that what leads to a novel vision is the ability of people to reconsider their previous ideas and thoughts by letting them go in favor of novel ones. In other words, novel contents emerge as intense sense-breaking happens (e.g., Vlaar et al., 2008). Traditionally, vision creation processes were mainly observed from a sense-giving perspective (Gioia & Chittipeddi, 1991), mainly promoting a build-on-top dynamic. On the other hand, sense-giving has been conventionally acknowledged as the primary dynamic of prospective sensemaking, aimed at persuading and influencing others (Sandberg & Tsoukas, 2015). We add to vision creation literature by enhancing the relevance of sense-breaking, as it comes into play during vision creation in the form of a rebuild dynamic.

At the same time, the concept of "letting go" was not new to the literature. Scharmer and Kaeufer (2010, p. 23) mention the need to "let go of patterns of the past and connect to what is emerging" when sensing emerging futures (see also Scharmer, 2009). More recently, Toivonen and colleagues (2023) explained how "letting go" is crucial for individual creators to envision more novel ideas. We contribute to this conversation by showing how letting go is experienced collectively. We find that higher novelty is achieved by pairs and teams whose individuals are willing to let go off their previous visions.

Finally, even if not central to the goal of the study, we observe how these dynamics are more visible when people collaborate in a close and intimate environment, such as in pairs, while in larger constellations, as teams, people tend to seek a more compromising vision. Concerning the vision creation process, our findings also seem to confirm what was said recently concerning the role of small constellations for innovation or creative activities (Wu et al., 2019; Rouse, 2020). However, this aspect will need further investigation, given the lack of the appropriate research setting.

6.2. Contribution to practice

The study contributes to practice by providing knowledge on a

relevant and strategic concept for innovation: the development of new product visions. Previous studies have called for better practices to support companies in the Front End (e.g., Reid & de Brentani, 2004), as the articulation of new product visions is deemed one of the most critical hurdles companies face (Verganti, 2017; Bellis & Verganti, 2020).

We provide companies with concrete insights about vision formation dynamics from a practical perspective. We suggest managers need not strive to balance different contributions, as it is not necessary: a relevant path to vision creation exists even when there is a creative lead.

According to our findings, openness to others' perspectives and insights is essential: entering the vision creation process, showing openness and receptiveness to other ideas appears more important than the search for balance and compromise among contributions. When looking for a novel vision, managers need to listen first to incorporate different perspectives and, above all, to question their own point of view.

Previous studies and practices on creativity and design thinking rely on the build on top management dynamic and preach to defer criticism and judgment (e.g., Dirks et al., 1996). Differently, our findings suggest that openness to critical thinking, sense-breaking, and letting go of previous assumptions are crucial. It is essential, though, that one should question every idea from the table – regardless of its origin.

Moreover, managers involved in vision creation processes should learn to recognize novel insights when a new idea emerges in the discussion within a group. This idea could be selectively brought forward, discarding the noise around it – rather than being buried together with many other ideas in a continuous build on top dynamic. This type of sacrifice would increase the value of these ideas, a key element of the rebuild dynamic. Certainly, this would not be an easy task. Studies show that people often fail to recognize novel insights (Blair & Mumford, 2007; Mueller et al., 2012). In this regard, we highlight the critical role external facilitators, such as leaders or consultants, could play in supporting the vision creation process.

6.3. Limitations

We acknowledge some limitations in the design and interpretability of our study. First, we did not control for any power relations among the participants (Schildt et al., 2020), as we engaged primarily top management teams where no evident power relationships emerged. However, this opens opportunities for future studies, particularly how people's willingness to reconsider their ideas or challenge those of others changes as power relationships enter into play.

Second, from a methodological standpoint, we adopted lexical-based measures, such as WordNet, which are among the most widely diffused tools for text analyses in organizational studies (Geum & Park, 2016; Short et al., 2018). At the same time, it prevents us from capturing the sensemaking process in its' entirety, not considering its relational nature and feedback loops that happen during collective sensemaking. Recent advances in computer science have paved the way for new analysis techniques based on word embeddings (e.g., Kenter & de Rijke, 2015; De Boom et al., 2016; Rozado, 2019). As this study has explored the relationships among the structural dimensions of language and sensemaking, we suggest that future studies explore recent developments to deepen our understanding of individuals' cognitive and relational dynamics based on the meanings and exchange of the spoken word rather than text. This would allow capturing the richness of establishing a shared language by considering multiple meanings. In addition, using word count impaired us from considering the relevant emotional dimensions in the sensemaking dynamics (Hu & Rerup, 2019; Maitlis & Christianson, 2014). Furthermore, we excluded visual data from our analysis, but images might provide a snapshot of content that does not emerge verbally (Carton & Lucas, 2018).

Third, some studies suggest that how a vision is formulated may affect its effectiveness (Carton et al., 2014). Also, specific features of the form of a vision – e.g., the clarity and conciseness of the vision – could influence whether it is carried forward or changed (Benassi et al., 2016;

Lynn & Akgün, 2001). We focused on the creation and refinement of an innovative vision focusing exclusively on the content of the vision. Future studies may want to explore which features of the vision structure determine how it evolves.

Fourth, our observations were limited to a specific innovation project inside a firm. We acknowledge there may be differences among the companies in our sample related to culture or product category, which determine different ways to express and describe a vision. We controlled this aspect using a standard form to collect the vision texts. Nevertheless, this limits the generalizability of our study to the closed environment of project visioning, as we do not consider how this relates to other visioning practices inside the firm (Reid & de Brentani, 2010). Future studies may explore how sensemaking during visioning practices relates to other processes of sensemaking in the firm (Stigliani & Ravasi, 2012) or how the vision relates to other projects.

6.4. Avenues for future research

Some insights for the future development of the field emerge from our findings.

From a product vision perspective, we found that visions do not necessarily come from a creative lead or a balanced collaborative effort. Future studies should explore the implications of these findings concerning collaboration dynamics and team composition for vision creation (Heyden et al., 2012). For example, Kiduff and Lee (2020) suggest that network analyses might provide further insights into group processes. Besides our findings approach the cognitive domain of vision creation, future studies should explore how individuals' cognitive styles determine vision creation (Zasa et al., 2022).

From a sensemaking standpoint, our study is limited to the tangible output of the sensemaking process, disregarding the processual nature. While our variables try to capture the process through measuring changes in interactions, we believe qualitative observations should complement our analyses. Researchers should explore the discourse and social processes surrounding the creation of the vision statement, to understand how and why certain parts are let go off, or others inserted (Maitlis, 2005). Additionally, our findings highlight that in reaching novel outcomes it is not sufficient to be persuaded by the sense-giving of others and join them (Gioia & Chittipeddi, 1991). In reality, sense-breaking appears as a necessary condition. However, the typology of Sandberg and Tsoukas (2020) allows us to confirm our findings only for deliberated-detached sensemaking. Future studies should also consider other sensemaking typologies. Deliberated-detached sensemaking is mainly cognitive, discursive, and prospective. We encourage future studies to investigate whether the role of sense-breaking differs when sensemaking is constructive rather than cognitive or retrospective rather than prospective. As well as we encourage studies about sense-breaking in fields different from vision creation, such as creativity (Dell'Era et al., 2020), leadership (Mumford et al., 2002), and engagement (Trabucchi et al., 2020). Finally, even if we cannot draw a direct comparison between collaboration as a pair or as a team, pairs evidently perform better than teams, offering opportunities for future research on how sensemaking dynamics vary when joining a team that consists of more than two individuals.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

CRediT authorship contribution statement

Paola Bellis: Writing – review & editing, Writing – original draft, Project administration, Investigation, Conceptualization. **Roberto Verganti:** Visualization, Validation, Supervision, Conceptualization. **Federico Paolo Zasa:** Writing – review & editing, Writing – original draft,

Methodology, Formal analysis, Data curation.

interests or personal relationships that could have appeared to influence the work reported in this paper.

Declaration of Competing Interest

The authors declare that they have no known competing financial

Appendix A

Figs. 6 and 7 show how the *driver*, *letting go*, and *novelty* variables were computed for two exemplar visions to demonstrate the calculations that lead to specific values. Each box represents the vision of one individual – V_A and V_B – or the pair’s – V_C. In the individual’s vision, words in bold are those also used in the pair’s vision. In the pair’s vision, words in bold are those that had previously been used by one of the two individuals.

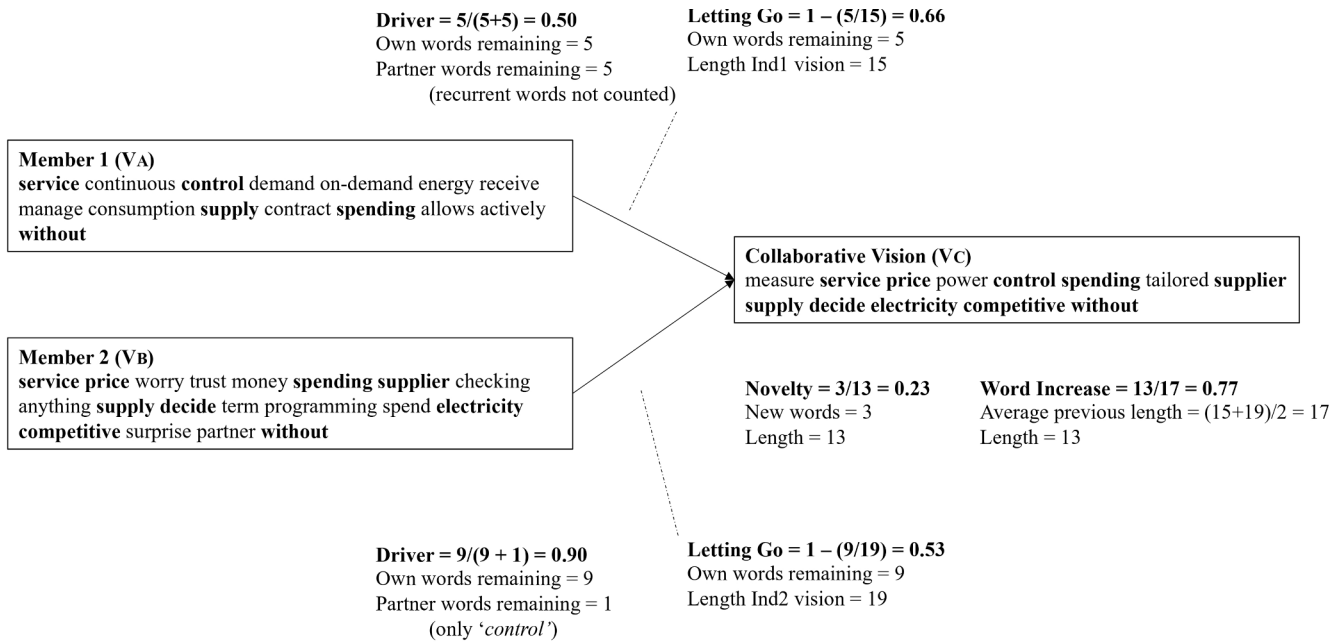


Fig. A1. Variables’ evaluation: Description of measures based on the example of a pair in the Energy case.

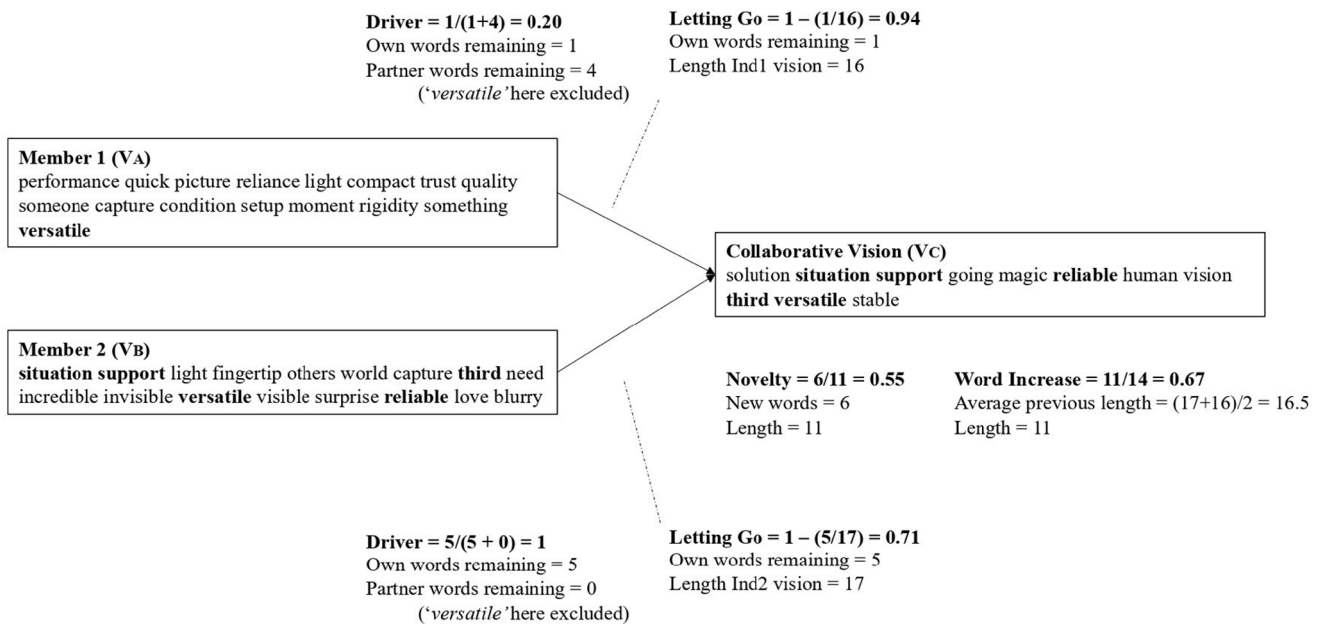


Fig. A2. Variables’ evaluation: Description of measures based on the example of a team in the Photo case.

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