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# Is collaboration during videoconferencing encounters a meaningful experience? An 'embodied' affordance approach to explore challenges and opportunities

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#### **Abstract**

As videoconferencing encounters have become 'business as usual', team members are forced to increasingly actualize technological affordances to be able to interact and collaborate to reach goals. Affordance research on virtual collaboration has neglected one fundamental dimension of the experienced relationship between humans and technology, the materiality of the 'space between', through which the situated practices become inherently meaningful. Thereby, this study endeavored to enquire the emerging experience of the human (body)-technology relationship, and its implications for relational aspects of collaboration. Empirical results indicate that due to lack of resonance of bodily movements to the things to which it attends, members are experiencing weakened intrinsic temporal dimensions of conversation in the virtual space, conducive of frustration and lack of trust in the technology. The higher level of distraction and

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disengagement that follows is suppressing 'triggered attendance' and spontaneous initiation of social interaction, two main antecedents of sharing and collaboration. Findings enrich knowledge on the body-emotions-technology relations in the novel context, while disentangling implications for aspects of work.

**Keywords:** videoconferencing, affordances, collaboration

#### 1. Introduction

With COVID-19 global pandemic, videoconferencing encounters (aka the virtual 'call') have become 'business-as-usual' affording a collective's space for interaction (Christianson and Barton, 2020; Leonardi, 2020), a space shown to matter for team related processes, such as collaboration, knowledge and social exchange, trust, etc. (e.g., Breuer et al., 2016; Hoch and Kozlowski, 2014; Maynard et al., 2014).

The use of videoconferencing technologies, just like the emergence of new modes of ICT-mediated communication, has also entailed an affordance conceptualization of the experienced relationship between humans and technology (Leonardi & Vaast, 2017). An affordance is considered as a perceived possibility for action that people may provide to one another within an environment (McKenna, 2020). In the context of videoconference technology, the "affordance" perspective is often drawn upon to understand the outcomes of virtual interactions (Leonardi & Vaast, 2017; Malhotra and Majchrzak, 2014). In fact, studies that draw on the affordance perspective, predominantly focus on demonstrating if technology's material features are able to invite social interaction and collaboration (McGrath et al., 2016). For instance, Fulk and Yuan (2013), in attempting to explore affordances that social media provide for social interaction and collaboration, have found that said technology is implicated in affording two main aspects of collaboration: an increased motivation to share and rate of social interaction.

However, affordance research on virtual collaboration has neglected one fundamental dimension of the relational experience between humans and technology, the materiality of the 'space between', wherewithin the everyday occurrence of positioning ourselves in relation to others provides the very basis of the experienced relationship, whereby the presence of the body matter plays a co-constitutive role. This space renders relations more 'palpable', if not more distinct, providing the very basis of the experienced relationship, through which the relational experience becomes inherently expressive, becomes meaningful (Fuchs, 2017; Gallagher 2008).

With remote work becoming 'business as usual', as members are forced to increasingly actualize technological affordances to be able to continue to work on their projects, to discuss, share and collaborate, it becomes ever more important to

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understand how technology "rematerializes" the 'space between', hence how it rematerializes relational processes and in turn what implications it holds for aspects of collaboration among team members. As such an 'embodied' understanding is overlooked from research (Hällgren et al., 2021; Ciarli et al., 2021), the main objective of this study is hence the enquiry of the novel socio-technical situated action, that emerges in the (vanishing) body's encounter and/or interactions with technology and with the world (Merleau-Ponty, 1962), and consequently explore implications for relational aspects of collaboration: motivation to share and social interaction processes (Fulk & Yuan, 2013).

I investigated these objectives over an 8-month field work in a knowledge intensive setting, whereby members of two units of the operation department of a big asset management bank are trying to make sense of an ongoing merger. Empirical findings offer insights on how, when technological affordances dominate, feelings of frustration and distrust in the technology surface. Implications for sharing and collaboration aspects are presented, as lack of resonance of bodily movements to the things to which it attends leads team members to experience considerate latencies or delays in information retrieval, which is, in turn, compromising the level of 'triggered attention' and initiation of spontaneous social interaction. By foregrounding the 'vanishing' human body and related emotional experience, the study provides knowledge on the experience of interaffective affordances and on its implications for the relational aspects of virtual sharing and collaboration, crucial to the understanding unintended and indirect effects of technology for work.

The paper reflects also on the salience of the working body (such as that of the middle manager vs the employee) and describes tactics that members adopt to mitigate experienced threats.

# 2. Theoretical Framework

### 2.1 An affordance perspective to virtual sharing and collaboration

COVID-19 pandemic turned organizational life upside down, requiring organizations to question how to continue working. Organizations continuously adjust work routines making use of social media technology of real-time communication. Hence the forced switch to remote work, moved virtuality well beyond its once use for connecting global teams; teams now communicate routinely and coordinate via videoconferencing tools, aka the 'virtual call', that has replaced the typical routine face to face meetings and have become the new space to make sense, share and collaborate (e.g., Meinecke et al., 2020)

Videoconferencing technology has been analyzed as part of new modes of the larger group of ICT-mediated communication and interaction. The emergence of new modes of ICT-mediated communication has been accompanied by attempts to not understand them in deterministic terms (Leonardi, 2012), promoting instead an affordance

approach that argues, that both, technologies and human users, co-constitute each other in the process (Beane & Orlikowski, 2015). Affordances are in fact possibilities of action that animals have within their environment (Gibson, 1977) and are known as environmental affordances, while technological affordances are useful for examining

technology and human relationships (Majchrzak and Markus, 2012). The perspective on "affordance" (Leonardi and Vaast, 2017) is often drawn upon to understand the outcome of virtual collaboration in terms of sociotechnical practices rather than in terms of the ICT type and its level of reliance (Malhotra & Majchrzak, 2014).

There is limited work on technological affordances and collaboration (Waizenegger et al., 2020), however disparate accounts have attempted to fill the picture. Based upon such approach on affordances, Fulk and Yuan (2013) have theorized that social media technological tools can afford to support the following aspects of sharing and collaboration behaviors (a) motivation to share, that relates to awareness, whereby bodily and sensory knowledge are especially important, as they can in the brain's surveillance system 'activate/trigger' the force of the awareness directionality, hence lead to a higher degree of motivation to search. According to Fulk and Yuan, the public nature of social media can generate awareness of connective sharing among close friends, increasing the likelihood of critical mass. The authors also argue that research has found that visibility affordance (in terms of visible feedback, for example in the form of posted comments) increases members' motivation for participation, and (b) social interaction, which refers to an extent to the fact that both, experts and novices need share information freely, and hence they need also to find an appropriate and trusted method of connection, as team members share information more freely when they trust each other's capabilities and competencies (Zand, 1972). Social media affordances are also found to support social interaction, particularly informal interaction and communication, which can contribute to the kind of shared goals that provide a positive contextual effect on sharing and collaboration (Nardi, 2005).

## 2.2 Moving forward to an embodied view of human-technology experience

Most affordance studies predominantly focus on the "goal-oriented" and functional aspects of interactions (Strong et al., 2014). However, technological affordances are often shaped by the social environments (McKenna, 2020), and take into account the goals of the users as also their responses (Cai et al., 2020). In fact, Volkoff and Strong (2013) defined affordances as "the potential for behaviors associated with achieving an immediate concrete outcome and arising from the relation between an object (e.g., an IT artefact) and a goal-oriented actor or actors". In this context, the concept of affordances has often been drawn on to argue that technologies are formative of different action possibilities and can be enacted differently through different socio-technical practices (Leonardi & Vaast, 2017).

Thereby, post-humanist accounts (Rosenberg & Verbeek, 2015; Chughtai, 2020), influenced from the work of Barad (2003) that enquires the relational conditions of human-technology experience that involve objects, tools, bodies, etc., have criticized the 'dire' neglect of the emerging social situation of the actor, constitutive of relational and emotional dimensions (Vidolov, 2021; Strong et al., 2014), wherein the human body is understood as more-than-physical, is understood as relational and "othered" (Merleau-Ponty, 1962), a "resonance board" in which emotions reverberate (Ihde, 2019). For instance, being looked at by another is not a neutral seeing, as it involves various possibilities for co-responding or co-affording each other (Vidolov, 2021). Hence actors affect and become affected by each other, they produce inter-affective affordances, that are perceived as an opportunity to come closer, to walk away, to smile or disagree. In this way, the process of co-responding (relating) to each other becomes an emotional pattern (Fuchs, 2017), becomes inherently expressive, becomes a meaningful action (Fuchs, 2017; Gallagher 2008). Given the above reflections, following post-humanist work, I argue that significant changes in one part of the sociomaterial system will cause changes or adjustments in the embodied experience of such, through which the situated experience of affordances emerges.

Hence, considering the novel emerging sociotechnical situation of team members (given the 'vanishing' body from routine working arrangement), whereby technological affordances dominate, the first goal of this study is to explore how team members, situated in a knowledge intensive setting, are experiencing virtual meetings, while aiming to make sense of tasks, share ideas and collaborate. Moreover, this study aims to more broadly understand affordances and constrains that videoconferencing technological tool offers for aspects of sharing and collaboration. Given the distinct yet complementary nature of these goals, an in-depth case study research was conducted.

### 3. Method

# 3.1 Qualitative research, in-depth case study research

This study seeks to offer insights into how videoconferencing technology is experienced among team members that are working together in virtual context during the Covid-19 pandemic, and what are its implications for aspects of sharing and collaboration. Given that the research focus lies in a very recent phenomenon that has not yet been considerably explored in academic research, an in-depth case study research was deemed appropriate as it allowed the exploration of collaborative dynamics within the collective in their natural setting (Yin, 2003).

# 3.2 Case study description

The data for this study were collected at the Italian subsidiary of world third largest asset management bank headquartered in Boston, USA. American Assets (a pseudonym) offers local investors a full range of financial services, including investment servicing, investment research and trading and investment management. Through the Italian branch, investment servicing and custodian bank services are offered on the local market. Currently the Italian subsidiary counts over 650 specialized professionals, divided by their Milan and Turin offices. Our research took place in the operation department of the bank, involved in strategic restructuring (during the first half of 2021), as the client services units have been under pressure to enhance the quality of services to capture flows, grow assets and protect margins. For that reason, two of the units merging into one, were meant to operate based on the segmentation (structure, size, etc.) of client base, moving away from a product-push distribution model. The objective of the merger was to reshape the client service distribution models in order to enhance client relationships and increase their relevance to the client and better position themselves to grow. To that end, middle managers, higher middle managers, and lower middle managers of both units are challenged to demonstrate a deeper understanding of client needs and provide thereby better value, services and solutions. The formal 'merger' of two old operational units into one new unit marked the start of implementation in March 2021. Based on such events, the research team took the decision to activate a research project, aimed at addressing the broad research question on how the virtual work during the pandemic is impacting formal and informal communication and interaction structures and nature among teams. In order to perform the research project, a researcher-practitioner research team was established. The scope of the project, framed jointly by operation department representatives, and the research team, broadly concerned team functioning in terms of collaboration and sharing.

### 3.3 Data Collection and Analysis

In this research project, nonparticipant observation methods have been utilized as a means of understanding communicative and interaction performances (Pettigrew, 1990). Thereby, the researcher participated in the weekly team meetings and observed team member virtual interactions for a period of three months. This involved immersion in our subjects' interaction experiences during formal routine WebEx session meetings (for a total of 25-30 hours). Moreover, to gain access to employee's perceptions the researcher used direct online interviewing techniques. In total, 32 individual semistructured interviews (see Table 1) have been conducted. The interviewees included various roles, client service unit employees, higher and lower-level middle managers, higher management, such as Human Resource manager, Country Manager, Media

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Manager, and Head of IT department. The framework of the interviews was constructed along a problem-focused approach that simultaneously allowed the conduct of a personalized discussion (Mayring & Brunner, 2007). The interviews were conducted using WebEx videoconferencing technology and were audio recorded. The interviews were semi-structured and lasted between 0.5 and 1 h. As it is not unusual for research participants to struggle to discursively capture and articulate the participants' day-today interactions (Barley & Kunda, 2001), the use of videoconferencing tools for conducting the interviews enacted the situation they were asked about. The interview guide aimed to elicit insights into the interviewee's experience and concerns (Larkin et al., 2006) during videoconference encounters. Initial emphasis was put on exploring the participant's emotional experiences, struggles and how they cope with challenges. Further down the line, the interview guideline consisted of questions around the implications that virtual interaction has on collaboration performance. Participants were asked about how the different functionalities of videoconferencing technology in use led to or mitigated challenges encountered in terms of engagement in discussions, quantity and quality of interaction and collaboration among peers and superiors.

Table n. 1- Data collection

Data Source	Bank	Unit 1	Unit 2
	(Overall Information)	(Under Observation)	(Under Observation)
Nr of teams		5 Teams	6 Teams
Semi- structured Interview	• 35 individuals, 7 (head of operation, two middle managers of Unit 1 and Unit 2, and Media and Communication Manager interviewed 2times, HR manager 2 times) • average length 30-40 min	• 14 individuals, (greater part 2 times, once in interview, the other during focus group) • average length 60 min	• 13 individuals (most members were interviewed once, and were part of focus group) • average length 45 -60 min
Unstructured Interview	• at least 1 with the operations manager, 2 with the Country Head, 2 with Head of HR, and 6 with Units Middle Managers (up to 3 with most members) • average length 20 min	• 5 members, 3 with one member • average length 20 min	• at least 1 with 9 members, up to 3 with most members • average length 20 min

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Focus Groups	• 10 foucs grups (6-8 participants)	• 2 focus groups with 6 members, 1 focus group with 7 members, 1 focus group with 8 members) • average length 25-40 min	• 2 focus groups with 6 members, 3 focus group with 7 members • average length 25-40 min
Observation of WebEx meeting		• two 2-day meetings, half of a third 2-day meeting, all breaks, demonstrations • total 10 hours observation	• no face-to-face meetings scheduled during data collection period • no face-to-face meetings of whole group held during collection period • one 2-day meeting, half of a second 2- day meeting, all breaks, demonstrations • total 25 hours observation
Questionnaires	Conducted from the company		
Company documentation	<ul> <li>vision statements reports</li> <li>product/service information</li> <li>company memos</li> </ul>	• agenda, reports, presentations	• product information, client service strategies, reports

Source: Author's elaboration

This study started inductively without firm preconceptions and theoretical framings, seeking to collect rich experiential data through semi-structured interviews and observations and then continued with developing a descriptive and interpretive explanation in iterative manner. Hence, during the first phase the researcher focused on the analysis on a case-by-case basis of the first interviews, searching for patterns across individual testimonies, and then started to cluster the data into emerging themes around (emotional) experiences situations or that emersed videoconferencing meetings. The researcher separated those that described the ways individuals coped with, reacted to or made sense of or not. This, in turn, led the researcher to focus on another dynamic: exploration of implications related to aspects of sharing and collaboration in the context of virtual work. During this stage, the author worked towards a theory-informed thematic coding framework (Guest et al., 2012), to identify commonalities and differences in data. In this step, the theory of technological affordances on sharing and collaboration (Strong et al., 2014; Fulk & Yuan, 2013) was

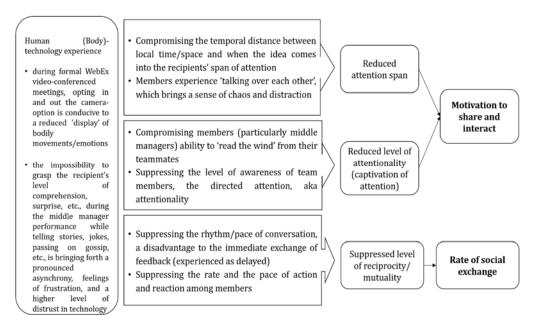
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identified as a lens to explore the patterns found in the data. Hence, attention was given to exploring user experience that consisted of the changed 'disembodied' situation into the already identified main themes of team collaboration: motivation to share and social

Figure n. 1- Mapping of findings

interaction (Fulk & Yuan, 2013) (Figure 1).



Source: Author's elaboration

An abductive logic (Bygstad et al., 2016) followed, as the researcher moved back and forth between theory and data to find the best explanation for the research question. Data analysis was both descriptive and interpretive (Denzin, 1984; Smith et al., 2009), given also the focus on the meanings that participant as "self-interpreting beings" (Taylor, 1985) assign to the use of videoconferencing technologies in interacting with peers.

Finally, the study involved data triangulation (Yin, 1994; Yardley, 2009), as a presentation of data was conducted in two different points in time with key professional roles from all the observed operation units, the country head, the Media Manager, and the Human Resources manager, as an opportunity to share our data analysis and interpretation.

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# 4. Examining the human (body)-technology experience; what and whatnot the videoconferencing encounters let members do

Following a description of how the videoconferencing technology is experienced from team members that participate in WebEx sessions is provided, trying to make sense of the current merger project. In line with the 'embodied' affordance approach, the analysis of findings foregrounds the role of the body into the examination of implications. Thereby, findings (see also Figure 1) are categorized into the following subsections:

- (1) How members experience the 'virtual call', whereupon team members build their sensemaking of organizational objectives, and what are the implications for two main aspects of collaboration: (i) motivation to share, and (ii) social interaction.
- (2) Description of tactics that respondents have adopted to mitigate the challenges they experience

# 4.1. Implications for aspects of collaboration

#### 4.1.1 Motivation to share

During the WebEx formal sessions, the researcher observed how members would continually opt in and out of the camera-option. The interviews held with team members of Unit 1 show that during formal WebEx sessions they experience frustration, due to lack of space to 'display' bodily movements/emotions. For instance, 'not being able to 'gaze their peers in the eye' brings forth an impossibility to grasp the recipient's level of comprehension, surprise, etc. Thereby feelings of frustration and a higher level of distrust in technology dominate. The following excerpt extracted from the interview held with the lower middle manager (LMM) of Unit 1 is also an illustration of such:

'It is difficult to express yourself when you don't see the faces of the people you are speaking with, because the big problem of not seeing each other in the eye is that I can talk for hours and hours but if I don't see any faces, hence they give me the feeling that they haven't understood some of the problems I have....a whole series of small signals is lost. Now if we want that now there is, sometimes there is the video, but in presence you see the distracted, strange face, etc. .... you lose a series of things that now are less evident. you do not understand, if people are convinced, if they like it, that frustrates me'

The impossibility of acting upon the body of the 'recipient' has in turn compromised recipients' span of attention during virtual meetings. In fact, during the anonymous team sessions, when the units' lower middle manager was attempting to cascade change plans down to his direct reports, there was no clear understanding if the 'audience' was paying attention or trying to make sense of the operational, technological and resource

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allocation changes in both units. A higher level of disengagement and ambiguity followed. In fact, the middle manager would be asking a few times if there were uncertainties. However, when face/video camera option was reactivated, the level of engagement/motivation among participants resurfaced. The following interview excerpts held with focus group of Unit 2 show how not attending to the 'other' bodily movements is constraining resonance of bodily movements with the things to which it attends, suppressing the level of captivated attention:

A-The simple tool that I have available at the moment does not allow me to have a complete overview of the sensations, emotions, and the state of life of my collaborators. I do not deny that these tools although very powerful although we have learned to use them with some familiarity, now we know that the information is quickly sent from one side to the other, however not seeing things, not talking to people, it is sometimes as if we work in void, it creates a state of apathy, and it is more difficult to concentrate on the issues.

B-All emotions, sensations, remain hidden and sometimes we take for granted some aspects that given you take them for granted ... unseen they remain under the rug. It impacts our focus, our concentration, and our quick understanding of what is going on

Moreover, the following quote extracted from the focus group held with Unit 2 members is indicative of how lack of resonance among bodies is conducive of a pronounced level of distraction, which brings forth chaos as members 'talk over each other':

Apart from having sometimes technical problems, the fact of not being in person yet from time to time via video but almost always without video is more difficult. Communication has become more difficult. We must be careful, because we keep also speaking over each other and it becomes chaotic.

'It is also more difficult to listen to each other because especially if there is no eye contact it is much more difficult working from home. We can be easily distracted. In fact, it is quite typical that in meetings some of us are taken by surprise when our opinion is asked

#### 4.1.2 Social interaction

Interviews are illustrative of how the delayed synchronicity in communication (as response times are perceived not as predictable as during face-to-face encounters), is experienced as a pronounced disadvantage to the immediacy of exchange of feedback. The following quote from the interview held with the MM of Unit 1 shows how digital platforms allow for a quick movement of information from one place to the other, but a slower exchange of ideas in the virtual space:

Getting people's attention has become very complicated. This means that often then maybe you can't find the three or four people you need to talk about a problem, or that it takes more time for them to be aligned, so getting immediate feedback is no longer possible. In addition to the fact that even in internal communications among offices in my opinion everything is much more distorting because maybe before, it was very easy to get up from your chair and go and talk to the colleague who was sitting two desks after yours. Now you have to do a team meeting, organize to call everyone back together, at the same time which is not always easy because maybe they are busy in other meetings. It has become much more complicated to exchange opinions.

In addition, some members also speak of how through videoconferencing option of camera deactivation it is now possible to 'escape the gaze' of others. In fact, they narrate that to reduce one's visibility they adjust videoconferencing features, such as temporarily disactivate the camera, or position oneself further away from the camera, as a way to mitigate the gaze of others and 'do away' with the meeting. While through these tactics members might seek to get away with meetings, these 'tactics' are perceived as a threat to the spontaneous instantiation of action and reaction among members. The weakened temporal dimension of conversation (non-sequentially of virtual discussions) is constraining the development of a common 'space or plane' to share and collaborate and hence align and converge meanings and interpretations.

... I participate in the mock-up team that was created to manage the change. The whole initiative is now online. And everyone says it's not the same. Communication becomes much more one-sided. People disappear from the camera, if they want to. ...it is easy now not to be 'seen' if you know how to position your camera, if you know what I mean.

The whole network is missing, it is more difficult to establish connections, business context, to make sense of the reasons for change we are going through, everything informal you need to know from that perspective that you carry it with you when you perform is gone.

### 4.2 Tactics members adopt to cope

### 4.2.1 Redetermining rules of virtual interaction

Videoconferencing technologies possess in-built features, such as the "mute" icon or 'camera off' option, that allow the users to designate the status of self and of the other. A number of respondents expressed how such affordances turned out useful. For example, they would position oneself further away from the camera or blur its background. To encourage an active participation, the lower middle manager (LMM) of Unit 1 explained

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that he endeavored to determine basic rules of virtual participation, consisting in imposing a standard protocol about the proper camera/screen positioning, encouraging the camera use, limiting the agenda items, etc. considered as facilitators to virtual interaction. This is nicely captured by the following quote of this manager:

Not seeing the faces that others make, they too may not perceive the message correctly because unfortunately, a sentence said, for example, I can tell you when said if smiling, takes another turn, in this period it is clear that the messages should be as simple as possible also in terms of language so it must be as simple as possible because it must not be misunderstood ......hence we risk perceiving the information negatively ... and so the other day, I prepared some basic rules, and told my team that there is no justification for turning the camera off, show your face. Moreover, I try to keep such meeting shorter than usual

# 4.2.2 Adjustment of self-presentation and of illocutionary effects

One frequent topic of discussion in the interviews was the fact that members have learned to be 'to the point'. For example, participants have self-assessed that now they enter the 'call' more prepared, how they also modify their look, their communication style, and aim to 'be right to the point' as talking time is precious during the virtual call. Asked about why this was the case, one of the respondents argued as follows:

During this new way of working, with the WebEx meetings, it is basically always about to anticipate people that something has happened or that something is about to happen that they want to tell you something, it is not a discussion, hence it is a communication that is one sided and not very transparent. In this way you have information accepted in a more 'analogue', a linear way, in a calmer, slower way, there is no discussion, ...hence I need to spend more time to prepare before the meeting, as I need to be more concise and right to the point.

### 4.2.3 Strong reliance on previous 'friendship' ties

Interviews show that where 'face to face' accrued friendship ties exist, team members tend to more actively engage in expertise location (information search, etc.). The following quote extracted from interview held with focus group employees of Unit 2 illustrates the above:

A-you have the impression that the colleagues with whom you worked closely before are closer to you in respect of the telephone call as well. It is easier to pick up the phone and call them. We used to go for coffee and lunch before, and there is more trust. And yes, I think that I prefer to have the call with the colleagues that I know

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*C- I know that I would be more comfortable calling a colleague with whom I had more interactions prior to remote work.* 

D-In my view there is no more lateral interactions, and it is very limited anyway. And if we were in the presence, from simply my gaze, my colleagues could understand many other things...for sure it is different...before we would look in the eye, and simply like that you could filter out so much information. However, I mostly contact with my friends, or with the colleagues with whom I shared the desk...when I need information I call them first, I'm more comfortable, it is quicker, I know how they react, know their sensitivity...There is more trust.

# 4.2.4 Setting up additional 'spaces' for discussion

During the above virtual session, it was apparent that the strategic context of the original idea and what was communicated further down differed quite significantly. For example, the way that the initiative was communicated gave way to many misconceptions of what was being tried to be achieved. Hence, to cope with the need for reinterpretation, and to adapt their selling argument to the business context, lower middle managers of both unit 1 and 2, aimed at creating more space for 'discussion'. Thereby, they created an eight-person intra-unit team, which task was to deconstruct the design of the new Unit 'mock-up' and provide a simpler reinterpretation of allocation of resources and work. The lower manager of Unit 2 explains how the implementation of regular (weekly) virtual informal activities with team members, such as the Friday morning virtual coffee-time is aimed at facilitating social interaction:

I started a [virtual] morning coffee break with my team [...]. No work, talk, just a chance to chat and check in, because the work is not made only of work. You also need to talk a little about your life, involve colleagues in their personal family life, what you do in your free time and so on. It is logical that this before I knew everything from my colleagues. What happened to your mom or dad etc. Now I don't know anything, that's why we do a remote virtual talk precisely because we want to hold this sort of communication which in the end is like doing a one to one, like a meeting but we do it in an informal way with the camera on and with a coffee cup next to it. So, there we talk for a moment about normality, and it helps the group togetherness

### 5. Discussion and Implications

This study provides a dynamic view of the experienced human-technology relationship during videoconferencing encounters, whereby the body matter and technology are viewed as co-constitutives of such. Results draw our attention to how

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technological affordances are experienced as disempowering at the level of virtual interaction, by showing the ways such experience emerges. In fact, virtual meetings are on one side effective and efficient because members come prepared and keep their contributions brief and to the point, however, lack of resonance of bodily movements to the things to which it attends leads team members to experience considerate latencies or delays in information retrieval in comparison to face-to-face working. The weakened internal temporal pattern (compared to the hitherto 'known' level of synchronicity, pace and rhythm) of discourse, is expressed as frustrating and distracting. Trust in technology is perceived as shaken. Moreover, results are indicative of the implications that the intrinsic temporal dimensions of virtual conversation have for relational aspects of teamwork. For instance, delays that team members are experiencing in information retrieval in comparison to face-to-face work, are, in turn hindering the level of directed 'attention', which comes forth as a powerful antecedent that is compromising the motivational behavior of members to share and collaborate with each other. 'Attentional capacity' (or triggered attendance) is different from 'attention'. It does not imply a state of passivity (Hultin et al., 2021), but rather, it is constitutive of a continuously emergent practice. Attentional capacity, hence, requires a consciously directed 'attention' in order to receive immediate responsiveness and activity from the recipient. Hence, the temporal lags are hindering the level of attentional capacity, an important aspect of motivation to share and collaborate.

In addition, results of the study also further the understanding of the tactics that members use to navigate. These tactics include acts of adjustments in relation to the videoconferencing affordances, such as adjusting the location on the camera screen. Furthermore, as "being out of sync" is interfering with members' mutuality, critical for the development of social exchange, to counterbalance, they are leaning on the cooperative memory; in fact, they strongly rely on a different set of 'in-the-presence' accrued social ties. The evocation of the past in the present context serves as a binding condition to them. However, in turn, it is compromising the rate of development of novel social interactions. Hence, as members are strongly relying on prior existing friendship ties, such a dimension of temporality, expressed in the temporal distancing of the past (Hernes et al., 2021), is forcing the human mind to keep moving back in space and time to hence recall embodied experiences. Leveraging on Weick's (2005) claim that collective knowledge needs to be cultivated progressively, and if the human mind will also need to anticipate experiences, as time goes by, does virtual work represent an attempt to dilute the repository directory of collective knowledge in teams? Given the present working conditions, the future development of collective knowledge, that forms the basis for heedful interaction and collaboration between members, is thereby questioned (Weick, 2005).

Finally, results of this study are also indicative of the potential agency of individuals to resist the above experienced constrains through their bodies (Elidrissi and Courpasson, 2021), as bodies are mediating individuals' response. For example, one of

the interviews held with the higher middle manager of Unit 1 reveals his concern about losing control, as virtual work is compromising the alignment of 'others' to his agenda. Accustomed to having more access to network resources, he thus perceives the situation as more disadvantageous compared to other roles. In fact, the following excerpt from the interview with the middle manager of Unit 1 shows how such an experience weakens his subjective positioning:

Informal life is a bit dead, because there is not only work. You also need to talk a little about your life. Those who want to involve colleagues in their personal life, what do you do in your free time, etc. understand the difficulties my employees are faced with. This stuff we used to discuss over the coffee machine, after we discussed about a game we watched on TV. Now, to know something about my colleagues, and have their real perceptions on the strategic change we are going through, you have to do a virtual talk, which is not spontaneous. There is much you do not know, you do not relate to others as you did, it frustrates me sometimes because as a manager you need to gather the support of your employees to have the work done.

In the same direction, the firm's competitive environment (client-oriented vs not) is also influencing the attitude toward virtual communication. For example, the lower middle manager of Unit 1 explains how customer-centric units (client service units) necessitate a higher quality communication and interactions than back-office units, as cultivating high quality communication, and hence cooperation with clients is deemed a priority in the organization. Thereby, the exploration of the salience of the working body becomes important to the understanding of body/flesh's agency in the co-constitution of experiences.

I was talking to my neighbor, but now every time I have to talk with someone, I have to organize a call, and then a meeting and so on. Especially if I have to talk to two people about it, i have to be able to fit two agendas in addition to mine ... that's right this is complexity. It really depends on the work you do because surely there are offices that do not have a client interface, and hence they are pretty happy with this way

Last but not least, findings of this study hold practical implications. Given research evidence that shows that employee satisfaction with meetings is a distinct component of their overall satisfaction and a significant source of job-related stress and well-being (Lehmann-Willenbrock et al., 2018; Rogelberg et al., 2006), findings demonstrate that the virtual mode of communication and interaction significantly affects human information processing and transmission and interaction patterns that result in experiential and behavioral consequences, which can in turn reveal the potential for other implications in terms of team cohesion, collective memory in teams, innovative behavior, etc. Thereby, practitioners should not ignore the importance of the emotional dynamics uncovered in this study. Considering the insights of this study, designers of videoconferencing technologies might incorporate functionalities that afford ways for

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mitigating feelings of frustration, distraction and facilitate the process of mutual affording.

#### 6. Limitations and conclusions

Following current studies about virtual teamwork (e.g., Whillans, Perlow & Turek, 2021) the degree to which virtual meetings can constrain or facilitate sharing behavior might also differ depending on the type of interaction, ranging between task, process, and relationship interactions. Hence, further studies are needed that control for contextual factors such as group size, familiarity between meeting participants (pre-existing ties), shared history and hierarchical structures within the group, interaction focus, self-selection, and intrinsic motivation. In addition, as this study foregrounded how different affective affordances offer/constrain action possibilities to sharing and collaboration, and conceal or disclose emotional experiences, however the exclusive focus on videoconferencing technologies is in itself a limitation. The videoconferencing encounters shape only partly virtual relationships, and it is important that they are studied as complementary to the role of other technologies in co-constituting the navigation of emotional dynamics. The investigation of such dimensions together with the expansion of the data collection will also contribute into having a wider view of the relationship between technology and work.

Finally, while past global crises have impacted the world of work (Chatrakul Na Ayudhya, Prouska & Beauregard, 2019), the nature of the Covid-19 pandemic has brought in a transformation in the overall communication and interaction approach and structure, with a potentially long-term impact on how we work (Bal & Izak, 2020). Thereby, the pandemic provided a test bed for examining and revisiting many established assumptions, concepts and practices. By focusing on dimensions, such as temporality, embodiment and materiality of the novel working contexts, this study had the unique opportunity to identify causal effects, showing that how the body engages or disengages matters, as it shapes the experience of technological affordances for interaction and collaboration, empowering and yet disempowering at the level of specific aspects. Thereby, this study hopes to have contributed into preparing organizations for the "new normal" that has emerged from the pandemic.

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