Technology and the Simultaneous Collapsing and Expanding of Organizational Space: A COVID-19 Experience

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Introduction

A curious thing happened to me during the complete lockdown in France between 17 March and 11 May due to the coronavirus pandemic of 2020. Having close family abroad—specifically in Canada and India—I felt compelled to keep closer contact with them than usual. I would organize daily Skype calls with those in Canada and daily phone calls to those in India. Some in my family being elderly, and in one case isolated, this daily contact felt like an obligation. I was worried, like many, that my family may go through the terrible experience of others where members get taken to hospital and die in solitude without ever having any contact with family. This daily contact made me feel closer to those I love and even gave me the time to get to know them better. Although lockdown conditions have
eased since 11 May in France, I have maintained this daily contact and have organized my routine to include these precious moments. These pleasant breaks somewhat rhythm my day, especially since I need to take into account the various time-zones and time differences. So far, nothing surprising or original about my experience—I have many friends who seemed to share similar experiences, even those who had relatives in the same country. What is interesting is that this specific family experience was very spatial and could be contrasted with my other online experiences, especially those involving my work as a university lecturer.

How could my spatial experience be any different during these calls with family far away when compared to when I was performing other tasks, such as reading a book or just composing emails? After all, I was in the same room the whole time. But over a period of several weeks, and with repetition on a daily basis, I was able to notice specific patterns in my experience—specifically regarding my perception of space. What would happen is that I would feel somewhat transported to my parents’ home in Canada or my uncle’s rooftop terrace in India (he would almost always take calls there in the evenings). Although my parents’ webcam was fixed in one of the rooms, I could perceive the whole flat from my position thousands of kilometers away. I could hear the footsteps of my father approaching the computer from the hallway, the television in the living room, the phone ringing occasionally. I could see movement in the room, get a sense of the atmosphere, and also a feeling of the time of day and weather conditions with the ambient light coming in from the window. Similarly, when I would call my uncle in India, he would describe to me current weather conditions, pollution levels, and how starry the night sky was on the particular evening (the lower levels of air pollution due to the significantly lower levels of traffic made stars visible for the first time in years in big cities in India). Being in a tropical climate, my uncle would occasionally describe the various fragrances emanating from the evening blooms. In both cases, I was there! Yet, at the same time I wasn’t! The experience of space very much peculiar, especially when compared to my experiences while doing virtual classes with my students, or virtual meetings with my colleagues.

When doing virtual classes or online meetings, the perception of space was very different. Absent was the impression of being ‘somewhere’, not even in my immediate physical environment. There was an underlying
desperation of trying to get clues as to where my interlocutors were located—an impression of their environment. Were they in their kitchen? Basement? With others around them? Why does the person keep on peering over the screen of their laptop? What is distracting them? A cat? Another screen? These were the sorts of signals I felt my perceptive tentacles reaching out to capture. And these were instances where a webcam was used. In other instances, where a webcam wasn’t used, it would be even more frustrating since the presence of the various individuals on the call was never certain—had they stepped away from their computer? (always a suspicion when the microphone would be muted). This impression would be accentuated during virtual classes with the larger number of persons connected, along with the fact that most would never say a word during a three-hour long session. This leads to the widespread suspicion that most students were slackers during the period of institutions being closed and would only connect to appear as ‘present’ without much involvement in online interaction (I don’t necessarily believe this to be true for the vast majority of students). The problem here is that there were few signals to go with in order to perceive the spaces occupied by the others involved, let alone their presence. I was unable to project myself into the homes of my colleagues or students. Not having any sort of representation of the remote spaces, the experience was diminished and reduced to an abstraction of common presence. Unless one looks at the list of those connected, one cannot be aware of whether one is in the company of a handful of students, or 50 of them. What was helpful with students was that I had met them in person during regular class sessions. It was therefore useful to imagine their persona during interactions with them.

Confronting these two experiences has been a fascinating exercise. Why in instances where I would be interacting with my family over long distances, my experience of space was richer and made it seem like my space was augmented, whereas little or no such perception was in evidence during my interactions with colleagues and students? Of course, ICT-mediated interactions with one or two persons at a single site are certainly less complex and demanding than those involving many persons scattered over several physical sites. It is easier to project spatially onto a single site over a Skype or telephone call than onto several sites.
However, it seems to me to be more complex than this dimension. The reason perhaps why I felt I could project easily onto sites that were familiar to me is that I could imagine myself there. Having never been in my colleagues’ homes, I am unfamiliar with their surroundings, and therefore confused and disorientated about what I see on the screen. It seems the more familiar I am with an environment, the easier it is to ‘be there’ while on a call (with a camera or not). This was particularly evident from the active role I took in organizing grocery deliveries for my parents remotely. Grocery stores found their IT infrastructure overwhelmed overnight with increased online shopping and a surge in delivery service demand. This meant that for my parents’ usual grocer, orders needed to be placed in the night of Sunday to Monday so as to obtain a delivery slot within the next week. Otherwise, orders would be delayed for up to three weeks. Given the time difference between France and Canada, I would have the advantage of being able to place the order on Monday morning well before all of the available slots would be taken. I carefully coordinated delivery slots such that they would be convenient and fit into my parents’ routine. It was as if I was there, imagining the space in which they lived, where and how the groceries would be delivered, even the doormen who would be present to help my parents take the delivery. Again, I was ‘there’.

The COVID-19 crisis has been a running experiment on how we organize ourselves in space. These are rare occasions when previously invisible assumptions about how we live and work are exposed. For example, we have seen that many office workers are able to perform many tasks from their home and switching university programs entirely online is possible overnight. Of course, the process has been painful, and much economic activity has been stopped in its tracks—factories, small shops, cafés, and restaurants have all fallen silent in many jurisdictions during the lockdown. However, the demonstration wouldn’t have been possible without such a crisis. This demonstration that it is indeed possible to organize society differently in terms of space will likely have lasting impact on organizational space. As we can see from my personal experience of space during the COVID-19 crisis, it is important to understand how new practices influence the manner in which our perceptions are altered while interacting with others via ICT. The radical shift in attitudes and
practices necessary for us to cope with the situation where much of our interaction is done online means that a detailed understanding of how our perceptions and experiences are shaped by our spatial practices is required.

In this chapter, I will argue that recent advances in the field of neurosciences have provided added support to the thesis that organizational space is both simultaneously collapsed and expanded thanks to ICT as far as our experience is concerned. I will first present the findings of my research on the experience of space by academics before showing how neuroscientists have provided—perhaps unwittingly—support for the phenomenology of perception of Maurice Merleau-Ponty. Support for specific key concepts of Merleau-Ponty will be focused on before showing how the concept of the Bayesian brain helps explain the experience of organizational space, both proximate and remote.

The Spatial Experience of Academics—Findings of My Thesis Research

Overall Findings

At the time I started my doctoral thesis project in 2012, I was as struck in a similar way about how my experience of space would vary according to my engagement with screens. I, like most other academics, would spend hours in front of a computer screen. I realized that during certain long periods of work in front of the screen, my state of mind would have peculiar characteristics which would be contrasted with other periods when I would not be in front of the screen. This realization made me wonder about how organizational space was affected by ICT, especially for those of us who worked most of our time in front of a computer screen. I specifically wanted to understand how ICT-supported practices helped shape organizational space. I ended up studying the work practices of academics in business schools (Mukherjee, 2017)—specifically two business schools in a comparative case study. After some exploratory work, my research question ended up being: How is technology shaping
the experience of organizational space more broadly? By studying how ICT was involved in the day-to-day organization of various tasks, it emerged that the experience of space was significantly shaped by ICT and in unexpected ways.

The findings show how academics’ experience of space, while engaged in a practice, shapes their bodily movements, and how this in turn shifts their experience. The experience of space is the result of phenomenological engagement of the body in the world, this engagement being directed at a certain physical environment. The study proposes a theoretical perspective based on the phenomenology of perception of Merleau-Ponty (1945). This perspective suggests that, based on the experience of academics, technology simultaneously collapses and expands space. ICT acts as a point of singularity where proximate and remote spaces converge to produce a singular sphere of experience. This study further develops Merleau-Ponty’s concepts of intentionality, body schema, habitus, knowing body, and habitual body in the context of the spatial practices of academics. As a matter of experience, space is not rendered irrelevant with technology, but rather it is both collapsed and expanded simultaneously. The combination of proximate and remote spaces for a given practice expands the space in the sense that the individual has at-hand more space (remote), yet it is collapsed because it is condensed into his experience as being at-hand at the same level as proximate space.

It can be argued the experience of the academic in a business school is similar in nature to those of other knowledge workers from the perspective of spatial practices. Like freelancers or consultants, academics are freer to choose when and where they work when compared to other categories of workers. Their technology-mediated experience of space is therefore more likely to shape their daily work practices. Understanding the relationship between the daily spatial practices of workers and technology is of paramount importance given the increasing amount of time spent staring at screens (Introna & Ilharco, 2006; Twenge, 2017). Such is our absorption into our screens, the city of Honolulu has started handing out fines to pedestrians crossing the street while distracted on their mobile devices (Mohn, 2017). The risk to life and limb is taken even more seriously for those using their mobile phones while behind the wheel in
France where one in ten road accident deaths is due to distraction from a mobile device (Richebois, 2017).

**Theoretical Framework Based on Merleau-Ponty**

The theoretical framework developed from this study of the spatial practices of academics was primarily based on Merleau-Ponty’s work on the phenomenology of perception (1945). Phenomenology is the study of experience which, by definition, removes the epistemological limits of the subject-object dichotomy. Experience is unitary and doesn’t distinguish the subject from the object. Both are the same when it comes to experience in phenomenological terms. From the perspective of space, by definition, experience is spatial. Therefore, spatial practices are the basis of all experiences. Without motion, our world as we know it is inconceivable. In fact, it is for this reason we have developed brains with evolution—in order to be able to move in space. Perception is what allows humans to survive when moving within the environment. Our brains have also evolved to perceive the environment with the primary goal of survival—feeding, reproducing, evading danger, and so on. These hard-wired circuits are the basic building blocks of how we experience the world and can explain our most natural gestures and engagement with our environment. However, as conscious beings with large brains, we experience the world and this very experience shapes our future experiences through memory. Basing his phenomenology of perception on evidence collected from psychology and neurological studies of his time, Merleau-Ponty was able to provide a theoretical framework for understanding how our conscious minds experience the world and the naïve contact with this very same world that is perception. It is based on the concepts of intentionality, body schema, habitus, and knowing body. Each of these concepts will now be defined.
Intentionality

In Merleau-Ponty’s phenomenology of perception, the body and mind are not separate entities. For him, the body (and mind) is as much a part of the world we experience as the environment. There is no distinction or boundary. For example, he describes how the hand grasps a fork or a hammer just as much as the hammer ‘grasps’ the hand itself. It is as if the hammer is one with the hand and body, forming a unified whole with one intended action—to strike a nail. This is the operational intentionality, or what Husserl refers to as *fungierende Intentionalität*: that which unites our being and the world in a natural and antepredicative manner. Intentionality is what gears our body to encounter the world with a certain posture, a certain predisposition. For example, when playing football, our bodies are geared toward following the motion of the ball and preparing for reception of the ball should it ever come our way. When composing emails, one is absorbed by the text on the screen and our bodies are postured over the keyboard for typing without requiring any conscious effort. Intentionality determines the manner in which the body engages in the world and calls upon a certain body schema.

Body Schema

The body schema is a pre-conscious awareness of available bodily movements and spatial relationships. It is a repertoire of kinetic possibilities in the world that our body projects unto the world. For example, the body schema will project ‘grasping’ when engaged in hammering a nail into a piece of wood or of ‘catching’ when playing baseball. This ‘grasping’ or ‘catching’ doesn’t depend on conscious effort or calculations—they are already available and activated at a pre-conscious level by intentionality. Our hand seems to grab the hammer or reach out to catch a ball in flight without the mobilization of concepts such as ballistics or the calculation of force and distance. Our hand just reaches out for the hammer or the ball, even with the ball in full flight. ‘Grasping’ or ‘catching’ is part of the body schema associated with hammering a nail in wood and playing baseball. In the case of an academic in front of a screen—be it his
smartphone or his desktop—‘grabbing’ the mouse is part of the body schema for ‘doing emails’. These body schemata are composed of possibilities for bodily engagement in the world and these possibilities are drawn from habitus.

**Habitus**

According to Merleau-Ponty’s phenomenology of perception, habitus is the full range of possibilities for bodily engagement in the world. These are either hardwired in our brains through evolution or can be acquired with experience. In terms of experience, we do not distinguish these two sorts of habitus. As beings with large brains and culture, our habitus is mainly acquired through experience. Habitus is a general repository of renewable action that can be drawn upon to generate specific body schemata serving a particular intentionality. For example, ‘grabbing’ and ‘catching’ are renewable actions which can be just as useful when engaging in hammering a nail in wood than when reaching for a mug of coffee while reading an email on the desktop screen. ‘Grabbing’ is a renewable action drawn from habitus which is then added to the repertoire of available bodily movements for ‘doing emails’.

**Knowing Body**

The knowing body is a body already in contact with the world before the machinery of judgement kicks. The body takes for granted its relationship with the world—the face on the other side of the head, the room behind the closed door, the hand at the end of the arm, or the phonograph in the next room. Merleau-Ponty studied amputees and their enduring perception of having continued use of the limb which has been severed. Their body had memory of the possibilities for action provided by the arm and the hand at the end of the arm. These actions were readily available to the amputee, even if this was not in reality possible. Likewise, when hearing music originating from a phonograph located in another
room through a wall, the body continues to be aware of the presence of the phonograph without ever having to see it. The body knows it is there.

Loose Ends

Although Merleau-Ponty based his phenomenology of perception on empirical data, through interviews and observations of amputees, access to the most important source of data—the brain—was inaccessible at the time. Since more than a decade, the field of neurosciences has been actively researching the phenomenology of perception using the most advanced understanding to date on how the human brain functions.

Neuroscience and Perception

The so-called cognitive revolution initiated by Noam Chomsky in the middle of the twentieth century has broadly eclipsed behaviorism as the dominant paradigm in understanding human perception (Miller, 2003). More recently, advances in neuroscience research have provided the most compelling evidence against the behaviorist model, as we will see in this section. It is in fact very easy to demonstrate the significant limits of the behaviorist model of perception that conceptualizes the human being as a passive receiver of stimuli to which there is a predetermined brain response. For most behaviorists, the human perceives the world as it is through all the available senses and that which is received from the ‘outside’ is sufficient to generate a corresponding response. Some of the most advanced neuroscience research to date shows that what we perceive to be the world is as much generated by external stimuli as by our own brains.
Proof of Behaviorist Limits

Electromagnetic Spectrum

Perhaps the most fundamental limitation of the behaviorist model of perception is the fact that our senses are from the start limited. For example, our sense of hearing is limited to a certain range of audible frequencies (and this range diminishes with age). We also know that a very small fraction of the electromagnetic spectrum is ‘visible’ to our eyes. The electromagnetic spectrum is composed of wavelengths of 1 picometer (Gamma rays) to thousands of kilometers (extremely low frequency). Humans can only see those frequencies between 400 (ultraviolet) and 700 (infrared) nanometers, making us practically oblivious to much of the electromagnetic radiation bathing our universe from the gamma rays emitted by solar flares to the various man-made radio waves generated by terrestrial broadcasters or all of our connected devices using Wi-Fi and Bluetooth technologies. As far as the electromagnetic spectrum is concerned, we are mostly blind.

What is more interesting, as far as perception is concerned, is we believe that colors are received by our visual system exactly as we perceive them. In fact, the receptive capacity of our sensory organs (eyes) is more limited than most of us imagine, and much of what we perceive as color is in reality generated by our brains. This is explained by the mechanism of trichromatic color vision where our visual system combines signals from three types of cones in the retina to produce the rich set of colors we perceive (Rowe, 2018). In short, the retina in our eyes is able to respond to an even smaller set of wavelengths than that of the fraction of the full electromagnetic spectrum represented by the visible light. What we perceive to be the full visual spectra is in fact produced by our brains using the mechanism of trichromatism sensing an even smaller subset of wavelengths from our environment. Perception is therefore happening in large part in the brain.
Lilac Chaser

The construction of our visual experience is not limited to trichromatism. Our brains will, depending on our visual focus, exclude certain elements in the field of vision from perception. There are usually several mechanisms at work at once, and all are likely to have evolved to help us survive in environments full of motion and danger. Although the explanations are complex and beyond the scope of this chapter, an empirical demonstration can be made with Jeremy Hinton’s Lilac chaser experiment.

It consists of a set of blurred magenta colored discs arranged in a circular fashion on a gray background. This image is animated in that each disc disappears for a fraction of a second in a circular, clockwise motion. The illusion occurs when one stares at cross placed at the center of the circle for longer than five seconds: The magenta discs disappear and instead we see a green disc moving around in a clockwise motion. This green disc appears at the location in the circle where the briefly disappearing magenta disc is located. This experiment accessible to anyone demonstrates how our visual experience is constructed. We can observe as we stare at the cross our peripheral vision fading for all static objects yet maintaining a perception of movement. Although the discs have no edges, our brains infer movement. The appearance of green discs where the magenta discs disappear to leave the gray background is called the afterimage effect. Although we don’t yet understand why our visual systems perceive in this manner, we can imagine these mechanisms had evolved when humans needed to maintain an awareness of movement in the environment.

Adelson’s Checkerboard

Adelson’s checkerboard (Fig. 14.1) is another optical illusion demonstrating how our visual systems construct experience. In this experiment, a green cylindrical object is positioned on one corner of a checkerboard with its shadow cast upon the rest of the checkerboard. We perceive the squares ‘A’ and ‘B’ as being of different shades of gray, ‘A’ being darker
than ‘B’. However, ‘A’ and ‘B’ are exactly the same shade, and this is shown in Fig. 14.2. This illusion can be explained by the brain compensating the perception of dark objects in shadow by making them appear lighter in contrast to other objects outside of the shadow.
Undecipherable Image in Black and White

Other visual experiments demonstrate another manner in which our brains construct our visual experience. One of these experiments demonstrates how our visual experience can be shaped by previous visual experiences and our memory of it. In one such experiment, a black and white image is shown with undecipherable shapes depicted (see Shores, 2019). One is unable to make out the objects in the image. This is followed by a high-definition photo revealing the objects in the first image of which only some of the outlines were visible. Once this high-definition photo is seen, upon looking at the first image, we recognize the objects which were undecipherable at first glance. Nothing has changed in terms of sensory input when looking at the first image after having seen the photograph. All that has changed is previous visual experience which has provided your perception with a template or a filter assisting this perception and helping you make out the objects in the first image. Once this process is complete, the first image is no longer mysterious, and one is unable to reproduce the same visual experience at the first glance.

Audible Experience

The equivalent phenomenon can be observed with the perception of sound and the making out of voice recordings. Anil Seth, neuroscientist at the Sackler Centre for Consciousness Science at the University of Sussex, performed an experiment during his famous TED Talk in 2017 where he played back a recording of someone speaking for a few seconds. Speech was undecipherable, yet upon hearing the recording, one could make out a human voice speaking. Immediately after, Anil Seth played the original recording and we can clearly perceive his voice and him saying, “I think Brexit is a terrible idea”. The first version of the recording was doctored to render speech undecipherable, in much the same way that it can be when a vinyl record is played at the wrong speed. Once one has heard the original recording, the doctored version is decipherable when it is played back. The brain fills in the blanks with its previous audible experience.
Modeling the Brain as a Bayesian Inference Machine

What neuroscience has found is that our visual cortex—along with other sensory systems—constructs our experience. It is a combination of brains, bodies, and histories which construct our experience, as demonstrated by the experiments just reviewed. Neuroscientists such as Anil Seth describe our brains as prediction machines. They provide us with the best guess of what is happening in the world by combining sensory inputs with memories of prior experience. This theory, also known as Bayesian brain (Seth, 2014), posits that perception is the result of the brain inferring the most likely causes of sensory input by confronting these inputs with expectations of signals based on predictive models formed over time with experience. The gap between that which is predicted, and sensory input is called prediction error, and this error ‘corrects’ perception by updating predictive models. Perception is therefore the product of prior ‘belief’ and sense data, or an estimate ‘best guess’ of reality (Fig. 14.3).

Prediction Error

Prediction error is a concept which has been developed for some time in neuroscience (Friston, 2009; Seth, 2013) and is based on the theory that
the brain continuously sends predictions out to the world in order to confront this with sensory data. There being a difference between this expectation and the sensory input is a perfectly normal situation since perception is a continuous process of calibration that explains away prediction errors to refine approximate inferences about the world. Our perception is therefore in large part generated by the brain and not purely based on sensory input as behaviorists believed. It is as if we start with what we believe to expect from the world in a given situation and see how sensory input matches that expectation. Our brains then adjust these predictions to better fit the sensory input. Much of our perception therefore depends on our prior ‘beliefs’ about the world and what we have learned over time with experience.

**Pareidolia**

An interesting illustration of how expectations are a dominant part of perception is the phenomenon of pareidolia—when we perceive an object as being something that in reality it is not. The most common occurrence of this phenomenon is seeing faces in clouds or in food (often deities on toast). According to predictive processing, this phenomenon can be explained by our predictions overwhelming sensory data such that we ‘see’ objects that are in fact not really there, yet patterns in sensory data are unable to correct for this error.

**Controlled Versus UncontrolledHallucination**

Pareidolia can be likened to a form of hallucination, seeing things that are in fact not there. However, as we have seen with predictive processing, our perception is always somewhat removed from reality. It is as if our default mode of perception is a form of hallucination—projecting upon the world what we expect to perceive—only to be corrected to a certain degree, never completely, by sensory signals. Although these prior beliefs are based on models which have been corrected by sensory signals and experience over time—therefore somewhat grounded in a shared
reality—it would not be completely unreasonable to say that we are in fact subject to a continuous form of controlled hallucination while conscious. This can be contrasted with uncontrolled hallucinations such as dreams, where sensory input is limited and therefore perception is no longer grounded in reality. Being able to fly or be in two places at once is therefore never perceived as unusual since there is no correction. Some hallucinogenic agents are known to alter perception to the point of disrupting predictive error correction and allowing beliefs to be projected on our world without any form of grounding in reality through sensory signals. In fact, in some cases, these very same signals can reinforce errors and accentuate departures from reality.

The Beholders Share

Gombrich (1961, 181) in *Art and Illusion* says, “It is the power of expectation rather than the power of conceptual knowledge that molds what we see in life no less than in art”. This expectation is what he calls the beholders share. What our bodies and our minds anticipate in the world determines how we perceive it. Conceptual knowledge only intervenes as an after-thought, only once we’ve engaged with the world. This expectation can be likened to Merleau-Ponty’s concept of intentionality, in that one adopts a certain posture—or expectation—when engaging in the world with a certain state of mind or focus. Doing emails or catching a ball for example.

How Objecthood is Manifest in Our Experience

An experiment combining virtual reality and augmented reality technologies to understand how everyday objecthood is manifest in our experience (Suzuki, Schwartzman, Augusto, & Seth, 2019) supports theories of perception emphasizing the influence of sensorimotor contingencies on visual experience. Coupling physical objects with virtual ones, the experiment sought to understand how our brains would predict the kinetic movement of handheld objects in response to certain manipulations. The
experiment found that, as our daily experience would suggest, we perceive certain physical attributes of objects which may not be accessible through sensory input (vision or touch). That is to say, just as we perceive the room behind the door, our brains project attributes upon everyday objects in order to be able to predict how they would react to some form of manipulation. We perceive a box as having six sides and would react in a certain way when one side is pushed. These kinetic expectations are what the body schema would integrate with respect to certain types of objects and intentionality.

How Neuroscience Supports Merleau-Ponty’s Phenomenology of Perception

In his days, Merleau-Ponty was unable to benefit from the most recent advances in neuroscience and our understanding of the brain and of perception. Although his theories were based on a certain number of empirical findings, it is remarkable that his phenomenology of perception appears to be supported by recent experiments and theories in neuroscience. Each of the concepts of intentionality, body schema, and habitus seem to emerge out of the field of neuroscience without the explicit aim of testing them against new sets of findings. It seems clear that modeling the brain as a Bayesian inference machine, where the body projects upon the world its perception of it as much as the world provides stimuli, aligns perfectly with Merleau-Ponty’s theories of the phenomenal body. The sorts of predictions a brain projects unto the world are determined by a certain state depending on the activity engaged in by the body. These sets of predictions are dependent upon intentionality, or the posture one takes vis-à-vis the world. Predictions will not be the same when we are sitting in front of a keyboard and screen as when we are playing baseball. Furthermore, predictions are based on models which are mainly constructed based on prior experience, or what Merleau-Ponty calls habitus. With prediction errors, these models are refined, and thus habitus renewed. Accordingly, the repertoire of actions available to the body will
depend on these predictive models, and thus a certain body schema will be composed to catch the baseball or grab a hammer.

In terms of our experience of space, and more specifically that of organizational space, neuroscience lends more support to the pursuit of phenomenological and experiential approaches to understanding the consequences of ICT on organizational space. With our brains as Bayesian inference machines, we can better understand how we experience space as being both proximate and distant at the same time when engaging intensely with ICT on a daily basis. Just like we have predictive models of how proximate objects will react to manipulation, we also have predictive models of how remote objects will react and behave to certain actions. Objects need not be physical, as the experiments by Suzuki et al. (2019) demonstrate, and the brain will complete our perception of full objects such that they can be useful and at-hand for manipulation. This means that virtual or digital objects are just as accessible to manipulation as are physical objects to the phenomenal body, albeit calling for a completely different body schema and sets of predictive models. Manipulating a paper folder with as content a set of A4 papers will call upon a certain set of predictive models, whereas the manipulation of a virtual folder with spreadsheets will call upon another set of predictive models. Each will be animated by a different kind of intentionality. Likewise, our experience during videoconferencing calls will be determined by a certain set of expectations of how remote objects (or bodies) will move along with their spatial relationships. When in a videoconferencing call—or even a telephone call—our bodies adopt a certain stance and our body schema projects expectations about our experience of space, whether proximate or remote. Remote space, as far as experience is concerned, is in fact proximate, even though this space is not experienced in the same way as proximate space. Predictive models for what happens in the home office of a coworker with whom one is doing a visioconference call will be different from the predictive models of what happens with the space in our immediate vicinity. Furthermore, the more experience we have of the remote spaces we encounter in our day-to-day routines through ICT, either from direct physical contact or indirectly through videoconferencing calls, our predictive models will be enhanced and produce a more unified experience of space. Over time and with the cumulation of experience, the
experience of space—remote and proximate—will merge into a unified, singular phenomenon. With ICT, organizational space is therefore simultaneously collapsed and expanded.

**Conclusion**

A phenomenological approach to understanding our experience of space in our digital age, supported by advances in the field of neuroscience, supports the thesis that organizational space is both simultaneously collapsed and expanded. The Bayesian brain, based on predictive models, allows one to experience space as a singular sphere of experience, whether remote or proximate. A richer habitus based on prior experience will enhance this singular experience of space. Merleau-Ponty’s concepts of intentionality and body schema are also supported as they determine which predictive models will be called upon depending on the posture taken vis-à-vis the world. The resulting body schema, or adapted repertoire of action, will project a certain form of objecthood upon objects in the world and make predictions about how they will react to manipulation—whether digital or physical. In the end, as a matter of experience, the digital and the physical are indistinguishable.

With the better understanding afforded by recent advances in the field of neurosciences, I feel better able to explain the differences in my experience of space during the COVID-19 lockdown and the intensive use of technology to engage with the world. When on the phone with my uncle on his terrace in India or in a videoconferencing calls with my parents in Canada, I was ‘there’ because my predictive models were well developed on the basis of prior experience of actual physical presence in these specific locations with these same individuals. This experience of being ‘there’ would break down somewhat when dealing with a large number of individuals with whom I had less direct experience engaging in those spaces from which they were connected. This meant that my experience was less unified and more fragmented, resulting in a sense of absence (on the part of my interlocutors) and in turn a decreased feeling of engagement on my part. Having a richer habitus, or an enhanced set of
experiences of those remote places where my interlocutors are located, would likely produce a less fragmented experience of organizational space.

Studying organizational space from the perspective of the phenomenology of perception, supported by findings from the field of neurosciences, will help better understand how individuals and organizations can deal with the challenges of our increasingly ‘virtual’ working and personal lives. Simplistic approaches treating organizational space as having been fragmented by ICT and regarding ‘remoteness’ as inferior to proximity in terms of human interactions will lead us to an impasse and poor decisions. The experience of ‘remoteness’, while not equivalent to proximity, has the potential to be rich and satisfying. A better understanding of our experiences of space is required for this point to be driven home in management practice. With the help of neuroscientists and phenomenologists, a path to this goal is thankfully within reach.

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