

From the second laboratory: technologically mediated communication

There are no research studies published specifically on psychoanalytic treatment conducted via video-conferencing. This is significant because, as outlined above, psychoanalytic communication and the efficacy of treatment depends on different modes of communication and models of treatment delivery than, for example, cognitive-behavioural therapy (CBT), supportive therapy, psychiatric interventions, and short-term, goal-orientated cognitive therapy. A group of researchers from the University of Haifa (Barak et al., 2008) published a comprehensive literature review and meta-analysis of the effectiveness of Internet-based therapy. Their collection of empirical articles published up to 2006 covers a wide range of Internet-mediated forms of communication, including automated software, online chat groups, email and chat-based counselling, self-help interventions, and video-conferencing for problems as diverse as encopresis in children, panic disorder, weight loss, smoking cessation, depression, and anxiety. The meta-analysis performed on ninety-two diverse studies determined that "in most cases, online therapy can be delivered effectively, by using various Internet applications and exploiting several online communication options" (Barak et al., 2008). The wide variation of the forms of Internet-based mediation, models of therapeutic

intervention, and patients in treatment decreases the usefulness of this study for application to psychoanalytic practice, since they include instructive, prescriptive, and didactic treatments not dependent on the analyst-patient relationship as is psychoanalysis, and patients with an extensive range of diagnoses, for whom psychoanalysis would not be the treatment of choice. In addition, there is no in-depth assessment of what makes the online therapy delivery effective. The Centre for Reviews and Dissemination at the University of York, an independent research evaluation service, assessed this paper as follows: "... the uncertain quality of the included studies, potential for bias and variability across studies mean that the authors' conclusions should be interpreted with caution" (DARE, 2010).

In a far more cautious, but equally comprehensive review, Richardson and colleagues (2009) write,

In general, efficacy studies have focused on general psychiatric services ... rather than delivery of psychotherapy, and most of the psychotherapy studies reviewed have failed to use manualised or replicable interventions. (p. 332)

In an interview with Todd Essig for Forbes.com, Lisa Richardson, the lead author states, "... the evidence base to support the clinical efficacy of tele-mental health interventions remains underdeveloped" (Essig, 2011).

These reviews and more general reviews on telepsychiatry (e.g., Hilty et al., 2004) lack the specifics applicable to an analytic context. Most research in technologically mediated communication takes place outside of the psychoanalytic field, in such disciplines as behaviour and information technology and human-computer studies, and that is where we need to begin in order to explore the foundations of effective computer-mediated communication.

The majority of the work done in the area of computer-mediated communication originated with the aim of providing effective communication channels in work situations. Increased globalisation means that organisations require employees to communicate across distances and time zones. Early research focused on written or audio-only communication, as that was the technology most easily available at the time.

There is extensive and sometimes contradictory literature comparing face-to-face with video-mediated, telephone, or text

communication (O'Connell et al., 1993, Whittaker, 2003a), but all these studies are aimed at situations of task-orientated information exchange: for example, finding locations on a map or jointly constructing a physical object. Whittaker (2003a) describes the "bandwidth hypothesis", in which it was predicted that communication would be less effective with fewer sensory cues. Counterintuitively, this proved not to be the case: adding the visual mode to the auditory mode did not improve communication performance. Because these studies were specifically task orientated, the results cannot be usefully applied to the psychoanalytic situation, where the mode of communication is not limited to manipulating physical items or exchanging concrete information. In fact, Whittaker adds that there has been no work in the effects of sensory modes other than sight and hearing, and that findings from one sort of task cannot be generalised to another.

Isaacs and Tang (1994) differ in that they find, when comparing collaboration via video-conferencing to audio only, interactions became more subtle, natural, and easier. They point out that while it might not make a group complete a task more quickly (the measure used to assess effectiveness in these studies), it provides an important channel for social communication.

Significantly, other studies find that although audio-only and video inclusive systems are equivalent, *only full physical co-presence* (O'Connell et al., 1993; Rutter et al., 1981; Sellen, 1995). In one interesting study, Rutter and colleagues (1981) studied subjects in less task-focused situations in which they conversed about sociopolitical issues. They were divided into four groups: face-to-face, audio communication only from separate rooms, audio-video link from separate rooms, and co-presently in a room divided by a curtain preventing visual communication. The face-to-face communication was shown to be superior to the other modalities studied, as cues were available both visually and from physical presence. This was followed on a decreasing scale by the audio-visual and co-present curtained off situations, which were roughly equivalent. Finally, the subjects who used audio only from separate rooms ranked lowest in richness of communication.

It is interesting that the quality of communication where the subjects were co-present but out of sight was ranked at least as high as full audio-visual communication. These research studies support

the reports of analysts I interviewed, who stressed that even if the whole body could be visible on screen, their experience of relating differed radically from that of physical co-presence. This was particularly underlined by Maria Celano, who described her vivid experience of her analyst's presence when they shared the same environment as very different to her technologically mediated experience of her analyst, despite not being able to see in either condition.

Common ground

Shared perspective with mutually viewable objects in a common physical environment is a crucial non-verbal aspect of relational understanding, and disjointed visual perspectives can undermine communication processes (Olson & Olson, 2000; Whittaker, 2003a). This research comes from the studies in human-computer interaction in which researchers have identified various constraints that mediated communication places on participants, including failure to establish common ground without physical co-presence (Kirk et al., 2010).

The theory of common ground, a very important precursor to trust, comprises the collection of "mutual knowledge, mutual beliefs, and mutual assumptions" that is essential for communication between two people (Clark & Brennan, 1991). This theory acknowledges that the constraints of a medium might impose limits on communication, causing participants to adjust to those constraints in order to establish common ground (Hildreth et al., 1998). There are various constraints that mediated communication places on participants, including those on co-presence (not sharing the same physical environment, not having access to the same objects in the environment that allow mutual reference and a shared context), visibility (though video-conferencing allows participants to see faces, it does not provide the same information and richness of cues as co-presence, such as what the other is looking at), audibility, co-temporality (an experience of different circadian contexts) and simultaneously (lags in communication affect shared experience), individual control (each participant cannot freely choose what to attend to in the environment and change attentional focus easily), implicit cues, and nuanced information through multiple channels—voice, facial expression, body posture (Clark & Brennan, 1991; Olson & Olson, 2000, p. 149).

... Behavioural studies instead suggest that videoconferencing systems fail to support an adequate sharing of the physical frames of reference that make mutual actions and interaction intelligible ... [There is the difficulty] of framing of people in relation to the objects they are interacting with. Most video systems fail to adequately support awareness of people's relative views of objects and other collaborators requiring the participants to reconcile images and perspectives of others to understand relative orientations. A final issue concerns establishing shared perspectives more generally. ... Video systems [create difficulty] in establishing reciprocity of awareness amongst collaborators. Being mutually aware of perspectives and orientations is fundamental to a *shared physical space* but is difficult to recreate in a *shared video space*. (Kirk et al., 2010, p. 136)

The capacity for joint attention has importance for communication in general, technologically mediated communication, and psycho-analytic communication in particular. George, a musician who uses to perform, explains, "When I am in the same room with my analyst, looking at things in her office is a way of engaging. I can look at her face, but that can be distracting, so I look at things we can both see. On Skype, I can only see her face, but in the room we share the understanding that we see the same things."

Goldberg (2012) suggests that a shared, communal perception between analyst and patient contributes to an inherently transformative experience for the patient.

something not found in the act of an individual perception alone, or in the context of relating to an object. The distinctive thing about being jointly alive in the act of shared perception is that one is, in a sense, sharing the sensorium-of-the body of the other ... what is at stake is the expansion of individual consciousness. (p. 796)

George continues, "[Skype] feels very different [to the consulting room]. It is much easier to dissociate when I look away from the screen and set eyes on something on my desk that my therapist can't see, only I can see. In that moment I retreat. I don't feel it occurs the same way in the consulting room. I look at things we can see together."

The therapeutic couple engage in a shared sensory experience, "a kind of perceptual commons". This shared sensory experience enables the patient to use objects in the external world in a new way. It lays the foundation for a "communal dreaming" (cf. Ogden, 1996), making possible Winnicott's concept of "appereption", which leads to a sense of self and of feeling real (Goldberg, 2012, pp. 796-797).

The static and limited view of the webcam makes for a greatly different experience of bodies to that in a shared environment: "Not seeing the whole body makes a big difference. The patients' face is either very close or very far away, depending on where she put her laptop ... she moves a lot. She's a very physical person, she can't sit still ... movement would be picked up in an exaggerated way by the camera ... It felt, almost, ghostly, in a way: ghostly in terms of seeing body parts—I'm glad we're talking about this: I've never thought about this before—not having a complete perception," comments an analyst.

Apparent distance (proxemics) affects behaviour. Normally, in a co-present situation, we would move our bodies closer or farther from each other to adjust volume and image. The virtual world has disconnected these physical features, requiring us to move the microphone, the camera, or the monitor (or, in the case of a laptop, the whole device) (Olson & Olson, 2000).

When the visual distortion of bodies with views often limited to only parts of bodies occurs, with frequent poor transmission and delays, the perception of the "gestalt" of the other is obstructed: "Not seeing the whole body makes a big difference"; "You are working with a part object: literally the head and shoulders ..."

George, the musician, compares his screen therapy experience to remote music lessons: "It is impossible easily to see both hands playing a guitar on a screen. They have solved this problem by introducing a split screen so that you can see both your teacher's hands simultaneously. This is better than nothing, but the student is not experiencing the complete physical and musical gestalt. There is a disconnection. It is not like having the teacher in the flesh."

Recent research has found that during peak intensities of emotion, positive and negative affects were successfully discriminated from isolated body postures, but not isolated faces. The facial expression alone in periods of peak intensity is inherently ambiguous. It shows an overlap in the expression of positive and negative emotions, and

does not convey diagnostic information about a specific affect. In the study, it was the posture of the whole body that was crucial in conveying affect. This was true when participants were viewing images of a face without a body, a body without a face, a body with a congruent face, or a body on which a "Photoshopped" face is displaying an incongruent emotion. In each case it was the posture of the body that communicated the accurate emotional information. These findings are counterintuitive and, in keeping with that, the viewers reported that their perceptions were dependent on the facial expressions, despite the fact that it was the body from which they actually gleaned the information. These results challenge the standard models of expression of emotions and highlight the crucial role of the whole body in expressing and perceiving emotion (Aviezer et al., 2012).

Lack of a shared perspective and the potential for joint attention and only partial or distorted views of bodies impede communication and the establishing of mutual common ground. Without common ground, it is difficult to develop a sense of trust, crucial to any functional relationship.

Trust

Trust is very tenuous in the world of technologically mediated communication. Yet, it is a necessary condition not only in the work environment, but in all relationships. Trust allows one to be honest, sincere, and vulnerable. Shared experiences encourage the development of trust. In a study of trust in group interactions, Rocco (1998) found that trust broke down during group collaborative activities when using electronically based formats. In a two-stage experiment, she analysed the effect of face-to-face interaction *vs.* electronic communication and found that trust between participants succeeded only with face-to-face communication. In the second stage of the investigation, she found that a face-to-face meeting prior to a group interaction promoted trust in the electronic context. The findings were that face-to-face communication promotes socialisation. Although she did not use video-conferencing in the study, Rocco included it in her examples of communication that required prior face-to-face contact to establish trust.

In a later study including video-conferencing, researchers found that including video and audio in communication significantly increased the sense of trust between participants (in the case of audio only, less so), though trust built more slowly in the mediated condition and it took some time for the video-conferencers to "catch up" with the face-to-face participants. In addition, their data indicated that the trust built up between mediated participants was more fragile: quickly built up, but not lasting (Bos et al., 2001, 2002). Like Rocco, later researchers confirmed that meeting face-to-face prior to communicating with technology helped people to establish and maintain trust (Olson & Olson, 2006). These results are significant for those who use technologically mediated communication for treatment. They indicate that establishing a foundation of co-presence is useful prior to communicating with technology. This makes intuitive sense and has been supported anecdotally by therapists and patients.

I think the unconscious in the verbal communication can be picked up and made use of and there is still an atmosphere between you, even on Skype, at least after having seen the person for real, because *there's a residual trust and understanding* which allows for the other person to be more free associative than they otherwise might be.

Therapists who spoke to me agreed that their memories of working with their patients in a shared environment better enabled them to continue a perceptive and receptive connection with them using technologically mediated communication.

Gaze

Mutual gaze is impossible with current video technology. While mutual gaze may be infrequent when two participants are engaging in a task, the exchange of social affective information is dependent on facial expression and gaze. People tend to evaluate each other by their patterns of gaze (Whitaker, 2003a). We are adept at perceiving other's gaze direction and, along with other contextual indicators, interpret the other's state of mind through gaze. Sherry Turkle (2011), psychologist and Professor of the Social Studies of Science and Technology in the programme in Science, Technology, and Society at MIT, speaks of

this very issue when she describes using Skype with her daughter, "On Skype you see each other, but you cannot make eye contact ... My daughter has the expression of someone alone" (p. 299).

The rules that govern the use of gaze in communication are complex and culturally dependent (Donath, 2001), but there is no question that eye to eye contact and mutual gaze are behaviours that are established very early in an infant's development and continue to create input and output of communicative information throughout life. Philosophy professor Kim MacLaran (2008) writes that gaze between mother and infant confirms humanity and intentionality. Seeking eye contact is an attempt to be in relation with the other. By taking up the baby's gaze, the adult confirms that he/she is indeed relating to the baby as a communicating intentional being and that the baby is also a communicating intentional being (p. 86).

Bringing gaze to the mediated world is difficult because gaze bridges the space between people—and the people in a mediated conversation are not in the same space. Addressing this problem requires not only a means for the participants to signal meaningful gaze patterns but creating a common, virtual space for them to gaze across ... with videoconferencing, the basic problem is that no common space is shared by the participants. (Donath, 2001, p. 381)

At the present state of technological development, the only way to *appear* to be meeting the other's eyes in a technologically mediated communication is to gaze at the camera, which, in fact, precludes the experience of mutual gaze. "You have to look at the camera to make your gaze appear to connect, but it is a simulation of a connection anyway," an analyst tells me.

The use of the screen in mediated communication isolates the head and shoulders and potentially enlarges the view of the face and eyes. At the same time, the frequent poor quality of transmission adds to the distortion by introducing delays and representing gaze as off-centre. Peripheral vision is limited or impossible. Even with the most advanced equipment, the gaze does not match our real world expectations.

Simon Baron-Cohen (2011), Professor of Developmental Psychology at Cambridge University, points out the importance of being able to make eye contact in order to make judgements about

people's emotions and mental states. He cites a study of a patient whose damage to her amygdala specifically limited her ability to make contact with people's eyes and thereby interpret their emotions (Spezio et al., 2007). The amygdala is a small region of the brain located deep in the temporal lobes. It processes sensory information and is connected with emotional processing, as well as memory and decision-making. It is involved in the "empathy circuit". The eyes are key to interpreting people's emotional states, and the inability to make eye contact limits the ability to recognise emotions in others (Baron-Cohen, 2011, p. 39).

While it may be the model for some psychoanalysts' patients to use the couch during treatment, there is still potential for direct facial contact between the analytic couple during the session before and after the use of the couch, along with peripheral vision and all the differences of both being embodied in the room. These are joint embodied communications that have the potential to go on regardless of a temporary posture.

Attention

The brain retains plasticity throughout life, and it has been demonstrated that the way we use the Internet reroutes our neural pathways. The use of the Internet encourages rapid skimming of the surface of incoming data and picking out the relevant details (Carr, 2011, Small & Vorgan, 2008). While the brain regions that enable people quickly to scan, search, and evaluate, processing multiple sensory stimuli are improved, the capacity for making rich mental connections and contemplative thinking is under-stimulated. "The more we use the Web, the more we train our brain to be distracted—to process information very quickly and very efficiently but *without sustained attention*" (Carr, 2011, p. 194, my italics). The immediately accessible technology, upon which, in fact, the therapist and patient are dependent to communicate remotely, imports the possibility of an "always on" divided attention into the session.

Linda Stone, a former senior executive with Apple and Microsoft Research, calls this "continuous partial attention" (2009). The process of continuous partial attention, familiar to most people who use the Internet, involves paying synchronous attention to a number of

sources of incoming information, but at a superficial level. If you have teenage children, you will have seen them in front of the screen doing their homework on a Word document, while at the same time maintaining a number of windows open to chat with friends, check out Facebook, listen to music, and watch their incoming email. They might also have their mobile phones sitting next to them, on which they are receiving and sending numerous texts. When you attend a conference, you and your colleagues might be listening to the speaker while checking your smartphones for calls, texts, and emails. This use of attention differs from multi-tasking in that multi-tasking is defined by the wish to be more productive, automatically and with very little cognitive processing. It is an activity with the aim of producing more time at a later point, in order to do something different. Continuous partial attention describes a state in which attention is engaged in multiple activities that all require cognition (e.g., reading an email and participating in a conference call). It also involves being involved in a primary task

whilst at the same time scanning for other people, activities, or opportunities and replacing the primary task with something that seems, in this next moment, more important . . . Continuous partial attention is always an "on," anywhere, anytime, any place behavior that creates a sense of crisis . . . We are demanding multiple cognitively complex actions from ourselves. (Stone, 2009)

When teaching at New York University, Stone noticed that her graduate students were in a state of hyper-vigilance with their technology, existing in a constant artificial state of emergency. The capacity to be "always on", to immediately respond to any number of communications, leads to a feeling of over-stimulation and feeling overwhelmed. "We are so accessible, we're inaccessible" (Stone, 2009). This is the activity stimulated by having several windows at once on a screen, all feeding different information simultaneously.

On the Net, there are windows within windows within windows, not to mention long ranks of tabs primed to trigger the opening of even more windows . . . [this] has become so routine that most of us would find it intolerable if we had to go back to computers that could only run one program or open only one file at a time. (Carr, 2011, p. 113)

This is the way computers are designed to be used and this is the way the tool shapes the user. This is what my analytic colleague, who was thrilled to work from a hotel, and Melissa Weinblatt from the *New York Times* article, who was thrilled to work from the poolside, celebrated: you can connect anywhere, any time.

My conversations with patients and clinicians reveal that the possibility of leaving multiple windows open on the screen, or an undetected smartphone on the desk, distracts from evenly suspended attention and details shared reverie. Some members of the therapeutic couple give in to the temptation of continuous partial attention, while others are unable to "simply listen, and not bother about . . . keeping anything in mind" because of the intense concentration required to screen out distraction (Freud, 1912b). The associations to the nature of the technology's other uses creates an unconscious expectation in the users.

A recent study, published in the journal *Environment and Behavior*, suggests that the mere presence of a mobile or smartphone on a nearby table or held in the hand can lessen the quality of a co-present conversation, lowering levels of empathy between the participants, especially if they already have a close relationship (Mistra et al., 2014). The phone does not have to be actively checked for it to affect the quality of attention, it just has to be within the participants' visual field. The Virginia Tech research team (Mistra and colleagues) writes,

Mobile phones hold a symbolic meaning in advanced technological societies. Even when they are not in active use or buzzing, beeping, ringing, or flashing, they are representative of people's wider social network and a portal to an immense compendium of information. Their mere presence in a socio-physical milieu, therefore, has the potential to divide consciousness between the proximate and immediate setting and the physically distant and invisible networks and contexts. In their presence, people have the constant urge to seek out information, check for communication, and direct their thoughts to other people and worlds. Even without active use, the presence of mobile technologies has the potential to divert individuals from face-to-face exchanges, thereby undermining the character and depth of these connections. Individuals are more likely to miss subtle cues, facial expressions, and changes in the tone of their conversation partner's voice, and have less eye contact. (Mistra et al., 2014, p. 17)

The authors describe this divided attention as a constant "state of poly-consciousness" because of the continuous awareness of the possibility of instantaneous connection. They advance the idea that the proximity of a technological device, which represents relational networks, will increase the user's emotional arousal level causing "distraction conflict". Distraction conflict is defined as the attentional conflict which occurs when a person attempts to give attention to multiple stimuli at the same time (Mishra et al., p. 7). This is significant for analysts and patients using technological mediation, because the vehicle of communication, itself, represents a gateway to instantaneous information, as well as a container of a multiplicity of relational networks. Even without the smartphone on the table (and it so often is), the computer holds the same significance and, thus, the same potential distraction.

The rapid scanning, processing, and multi-tasking encouraged by technologically mediated environments is at odds with the explored "sound-bite" communication (Gergen, 2002; Mishra et al., 2014; Turkle, 2011). It need hardly be pointed out that the quality of communication typically supported by technological mediation is the antithesis of the evenly suspended attention or reverie required for the psychoanalytic process. In addition, the compensatory intensely focused attention employed by some analysts to avoid distraction or surmount technical connection difficulties also impedes free-floating attention.

Antonio Damasio did a study that revealed that the higher emotions, such as empathy and compassion, emerge from neural processes that "are inherently slow" (Marziali, 2009). His findings, in one of the first brain studies to concentrate on emotions connected with moral decision-making, suggest that digital media might be more appropriate for some mental processes rather than others. Intropective thought processing leading to empathy takes more time compared to the brain's quick processing of multiple sensory stimuli when using technology. In an interview for the University of Southern California News, USC Annenberg media scholar Manuel Castells said, "Damasio's study has extraordinary implications for human perception of events in a digital communication environment. Lasting compassion in relationship to psychological suffering requires a level of persistent, emotional attention" (Marziali, 2009).

It would seem that the very tool we use, hoping to enable a process of "surrendering [ourselves] to our own unconscious . . . to catch the drift of the patient's unconscious" (Freud, 1923a, p. 239), encourages and accustoms us to the inverse use of the mind.

Distance still matters

"I see a patient in China," says a North American therapist. "Because of the time difference, the session is very early in the morning for me, and late at night for him. At the end of a session he said, 'I have been watching the sun rise in the window behind you.'"

Therapists use technologically mediated communication to see patients who live in dramatically different geographical areas, different time zones, and cultures. But even therapeutic couples who live in the same country one or two time zones away are affected by the difference in time and weather. Sessions often begin with a sort of alignment or orientation. "You look tired; it is very dark." "It looks like it is cold there." "I read in the news that you are having floods." A UK therapist describes her first moments of a session with her patient in the USA: "She's just got out of bed and switched me on, as if she hadn't lived at all that day . . ."

Technology has shrunk the world, and bridged vast distances. Not only can I meet with my son in London in my morning and his evening, but he can give me a tour of his flat, in which I have never set foot. Cairncross (2001) argues in her book *The Death of Distance: How the Communications Revolution Is Changing Our Lives* that new communications technologies are quickly making geography, borders, and time zones irrelevant to how we conduct our personal and business lives. Does technology, as psychoanalyst Ricardo Carlini suggests, decouple the feeling of closeness from the significance of the effect of geographical distance (2011, p. 103)? What does it mean to the analytic relationship when the therapist and patient do not share the same points in their circadian rhythms or a common experience of climate? Is it enough to make contact mind-to-mind, without sharing a joint experience body-to-body?

Gary and Judith Olson, psychologists and professors of information and computer science at the University of California, Irvine, have spent more than two decades studying computer-mediated group work. They state,

There are characteristics of face-to-face human interactions, particularly the space-time contexts in which such interactions take place, that the emerging technologies are either pragmatically or logically incapable of replicating . . . Differences in local physical context, time zones, culture and language all persist despite the use of distance technologies. Some distance work is possible today, but some aspects of it will remain difficult if not impossible to support even in the future. (2000, pp. 140–141)

While improvement in technology might solve some communication problems, the Olsons feel that some challenges will never be met. For example, their research finds that “tightly coupled work” is very difficult to do remotely. Tightly coupled work is highly interdependent work that requires complex communication between participants, a capacity for rapid back and forth conversation, and the ability to be aware of, and repair, uncertainty or misunderstanding (Olson & Olson, 2000, p. 163). It requires an effortless fluidity of participation. The static nature of the webcam and its restricted view means that ease of rich communication (communication with numerous social cues) is limited. The effort to communicate clearly becomes quite intense, and participants develop new communication styles to compensate for these shortcomings. Giuseppe Riva, John and Eva Waterworth, and Fabrizia Mantovani, researchers in informatics, propose that we experience a strong sense of mediated presence when there is no conscious attentional *effort* to access information (Riva et al., 2009). Our awareness of the technology disappears and we perceive and often act as if unmediated. The intensity of effort of access decreases the degree of sense of presence, the vital experience of being in the world with another (Camparella Bracken & Skalski, 2010, p. 187). This recalls the experiences of intense attention reported by clinicians and patients using technological mediation that disrupted their free ranging flow of thought. Their highly concentrated focus was an attempt to compensate for the reduction in rich multisensory information and maintain a sense of connected presence. Paradoxically, this kind of concentration undermines both free-floating attention and the experience of a natural sense of presence.

The Olsons found that people required to do tightly coupled work together ultimately opted to arrange working in a co-present setting, rather than to continue to work remotely. “The work was reorganized

to fit the geography” (Olson & Olson, 2000, p. 163). While the remote communication was better than nothing, it was not the communication of choice.

The hardware itself affects perceptions of intimacy and distance, and therapists observe that their experiences can be confusing and counterintuitive. They sometimes make the choice to use headsets because the potentially improved clarity, decreased echo, and noise-screening option provides more affective information. “My patient chose to use a headset and asked me to do the same ‘because she felt closer to me.’ If I had a headset on and my analysand had a headset on I got a much better feel for how they were breathing, certain kinds of emotional tonalities . . . that I found was a better approximation of being in the room . . .” However, this analyst adds, “That is an issue in some sense. In a regular analysis, your mouth is not next to the ear of the person, but you are there in the room, so I do think there is something about keeping aware of the level of intimacy . . . which even has a sexual component to it.”

Alex, an intern who uses technological mediation to continue an analysis started in medical school, tells me, “Using a headset does not feel like a step towards a deeper reality—it’s more like a step away. There is something precarious about the feeling of a voice in your head, as if it weren’t another person, but an internal conversation.” Scharff (2012) writes, “When it enters the headset, the voice of the analysand is delivered inside the analyst’s mind in a more total way than in the room where there is more space between them . . .” (p. 81). She suggests that the voice broadcast direct to the ear fosters a sense of connection that supports containment. Another analyst has different views: “A voice in the ear can be too close, a sort of perverse closeness, a *simulated* closeness.” Whether one’s experience of the voice delivered direct to the mind is one of aural totality, perverse closeness, or, from the patient’s point of view, unreality or containment, it is significant that the relationship of voice to ear is *different* to that in the co-present consulting room. The effect of that difference, on both the analyst and the analysand, needs to be taken into account. What does the increased closeness mean? What does it mean to *change* the experience from that of a voice in the room where there is more space between the participants to that of a voice down a wire delivered straight to your ear?

The experience of perspective on the screen is confusing and paradoxical: “I see his head and shoulders, in a chair . . . he is miniaturised

on the screen, so even though the camera is closer than I would have been in the room, because he is miniaturised it doesn't seem closer." The size of the image on the screen greatly affects the way participants relate. Work in the laboratories of researchers in human-computer interaction shows that the smaller the image, the more stiff and formal the conversation and the larger and closer the image, the more relaxed and natural the interaction (Olson & Olson, 2000, p. 154).

Technology quirks and limitations are not the only influencer of technologically mediated communication. Gloria Mark, a professor in the Department of Informatics at the University of California, Irvine, and her colleague, Erin Bradner, did an intriguing study of the psychological significance of distance (Bradner & Mark, 2002). They initiated three experimental tasks measuring interactive behaviour between two participants, one a volunteer and one, unbeknown to the volunteer, a paid collaborator. One task measured persuasion, one measured deception, and one measured cooperation. The volunteers were told either that their participating partner was communicating with them from the same city or from a distant city, approximately 3,000 miles away. In reality, the collaborator was sitting in a neighbouring room. They connected via audio-video (in another version of the experiment, they used instant messaging). The amount of network delay was no different in either the same or distant city conditions.

Their results are surprising. They challenge the assumption that once a communication channel is established, the geographical distance between the participants is irrelevant. The volunteers interacted with the collaborator differently, depending upon whether they believed she was in the distant or the same city. They were less likely to trust, much more likely to deceive, and less likely to cooperate if they believed she were in the distant city. Cooperation seemed to build up over time; however, the researchers wonder if this trust is a phenomenon called "quick trust", which is a tendency exhibited by remote communicators who quickly form an initial trust which is ephemeral (Bradner & Mark, 2002, p. 232).

Bradner and Mark propose that social identity theory and social impact theory could explain their data. Social identity theory suggests that people consider the skills of those nearby to be superior to the skills of those who are distant. Social impact theory suggests that people at a distance feel less able to influence the other (thus leading to a deceptive enhancement of their self-description). In addition, they

put forward the idea that the possibility of meeting the collaborator in person might influence the behaviour of the volunteers.

These findings bring up important questions for technologically mediated treatment. What impact do different time zones and different circadian rhythms have on the attunement of the therapeutic couple? Olson and Olson suggest it makes a difference to collaborative work. How do the limitations of present-day technology affect the necessary effortless fluidity of therapeutic work, especially as research indicates that participants have to make a great effort to communicate, and adapt their normal styles of communication? Finally, how does distance affect the reliability of the communication? It is significant that the test subjects had never met. Would a previous relationship have changed the results of the findings? How does this affect those therapists who agree to see patients they have never been with in the same consulting room? Deception does occur between technologically mediated participants, and more easily than with people who meet face-to-face. How does distance affect trust and honesty in the treatment relationship?