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Facilitated personhood

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Anthropological models of personhood suggest that the individual is produced through relational ties to others, including humans and nonhumans. American ideas about the individual are deeply ideological, obscuring the human relations that make 'personhood' a possible, desirable concept that motivates subjection. Attending to neurological disorders and the technologies that attempt to remedy communication impairments shows that not only is the labour of other humans obscured in producing the individual, but so are the facilitating capacities of technologies and institutions. This article focuses on memoirs of disability and ethnographic and historiographic research on neuroscience to show how personhood is facilitated and produced through engagements with people, technologies, and institutions that attempt to render particular forms of subjection through communicative practices.

Peyton Goddard was 37 when her memoirs were published in 2012, entitled *I am intelligent* (Goddard, Goddard & Cujec 2012), a title translated from her first experience of Facilitated Communication (FC), in which she wrote, 'I am intlgent'. Peyton grew up at a time in Southern California when, for most of her childhood, adolescence, and young adult life, she was categorized as 'mentally retarded', and cared for through state institutions that relied on that categorical designation. She started in mainstream schools, only to experience a loss of language and bodily control that eventually led her to state-run special education facilities until she was in her early twenties. It was not until she was an adult that she would be diagnosed with autism, but even that category seems to fit her poorly: autism tends to include communication difficulties, motor fixations (like handflapping), sensory sensitivities (including aversion to touch), and asocial behaviour. Peyton is non-verbal, has some motor control impairments, fixates on complex behaviours (like picking up all the lint and dust bunnies in a room), does not seem particularly perturbed by most sensory experiences, likes touching others and being touched, and is intensely social. She experiences frequent, long-term insomnia, manic and depressive periods, obsessive-compulsive disorder, attention deficits, and epilepsy. To aggregate Peyton's behaviour and symptoms under any one rubric is difficult, so autism at least provides the basis for continued medical care and institutional support for her and her family. At 22, however, she began to use FC, which allowed her to 'find [her] voice', restoring her verbal capacities.

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For some, FC is controversial. In Peyton's case, the facilitator uses his or her hand as a brace for Peyton's arm or hand, loosely gripping the elbow or wrist, and helping to manoeuvre her hand to a keyboard button. Peyton uses a Lightwriter, a small keyboard with a speaker that vocalizes for her. Other uses of FC employ tablet applications that utilize simple iconographic content indicating the desire to eat, go to the bathroom, play, or other common activities. FC is also accepted to include practices like the third-party interpretation of gestures (hand, finger, and foot tapping, eye movements, blinking) and non-linguistic verbal sounds. The controversy around FC is based on the sceptical view that the communicator is not authoring the communication, but rather the facilitator is. Debunkers have attempted to establish this to be the case in a number of situations (Twachtman-Cullen 1997), as desperate caregivers seek to find the voice of their disabled friend or family member, and instead are seen as providing their own, masked by the technology of FC. But consider the attempt by Peyton's psychiatrist to outdo the debunkers:

> I had Peyton's parents leave the room, while I told Peyton a specific phrase for her to type when her parents returned. Each time I did this, over several weeks, there was 100 percent accuracy in Peyton typing the correct answer to my question. There was no possible way for Dianne [Peyton's mother and facilitator] to know what I had asked Peyton, and it was clear than Peyton was communicating her own thoughts and feelings (Quoted in Goddard *et al.* 2012: xi).

In this article, I situate FC alongside a variety of other technologies that enable communication – and, by extension, create persons. The technologies I am interested in – FC, hearing aids, 'stimoceivers', and memoirs – make communication possible; this ability to communicate facilitates normative kinds of personhood, as embedded in the logics and uses of given technologies.[1] The forms of personhood facilitated by these technologies depend upon expectations that communication is essential for personhood, and that, ideally, the technologies that support communication are invisible, unbiased, and pure in their facilitation. Facilitating technologies comprise everyday, discreet practices, like language, as well as more obvious sociotechnical interactions, including the use of prosthetic technologies; 'facilitated personhood' indexes not different kinds of personhood, but the more and less discreet technological mediation in making individuals into persons.

In this article, I bring together a variety of technologies used to facilitate individuals' communication, organized from the less to the more controversial in terms of how they trouble dominant US understandings of individuality and personhood, particularly as they relate to ideas of behavioural intent. Before returning to Peyton and her use of FC, I turn first to a memoir of deafness, CeCe Bell's *El Deafo* (2014), a graphic novel based on her coming of age with meningitis-related hearing loss. In Bell's case, technology that is first seen as stigmatic is recuperated as the basis for more-than-human status and social inclusion. I then return to Peyton Goddard to discuss FC and 'ghostwriting', a practice that is widespread in memoirs. I take ghostwriting as a metaphor for conceptualizing how these facilitating technologies are embedded in sociotechnical relations that make particular forms of communication and personhood available to their users.[2] I then turn to José Delgado, a largely forgotten neuroscientist from the mid-twentieth century who invented a technology referred to as 'stimoceivers', which allowed him to control an individual's impulses from afar with a remote control, making 'abnormal' individuals into 'normal' ones. Hearing aids are relatively mundane and uncontroversial; FC is less common, but abides by normative ideas of the speaking self; stimoceivers, however,

fundamentally change who a person is and how they interact with the world. In the analysis and conclusion, I turn to the role of technology in writing the lives of others, and how attending to facilitation as an integral function of personhood focuses attention on the ghostly influences that shape the kinds of persons that technologies make possible. These technologies expose how personhood is predicated on facilitation – and how, by extension, some kinds of facilitation uphold dominant forms of personhood, while others are deeply troubling, largely as they challenge ideas of individual behavioural intent.

Across the three cases I discuss – hearing aid-augmented deafness, FC, and affect-producing stimoceivers – I am invested in what they reveal about dominant US ideas concerning personhood, subjectivity, and individuality, three faces of what it means to be regarded as fully human. Anthropologists have long focused on the interpersonal basis of personhood and subjectivity as a social concern, and whether it is McKim Marriott's (1976) or Marilyn Strathern's version of the 'dividual' (1992), Alfred Gell's 'distributed persons' (1998), or Carol Greenhouse's 'avoidance ethic' (1992), the unavoidable conclusion is that American ideas about the individual are deeply ideological and obscure the depths and varieties of human interdependence to maintain the illusion of the self-directed, agentive self. Marriott's early work on the dividual pointed to the interconnection of bodies through shared substance, as children are connected to their nursing mothers, families, and castes through their foodways, and lovers through their secretions. Substance, Marriott argued, connected individuals across bodies, pointing to their interconnectedness. As Strathern (1988) has argued in regard to English and Mt Hagen personhood, individuality is dependent upon a complex network of relations and relationality, generally with human others, but, at times, with nonhumans; English – and American – ideas of the discrete and disconnected individual stand in opposition to models of interconnection that point to interdependence (Buch 2013; Greenhouse 1992; Rivas 2002). Gell (1998) usefully points to the ways that inanimate objects – totems, works of art – are imbued with social power, making them kinds of persons and enabling relationships between human people and between humans and the inanimate. Personhood – and particularly the ideology of American individuality – is dependent upon technologies that enrol individuals into relationships with nonhuman others in order to enable and structure relationships between humans. These nonhuman others are technologies that have logics of their own, are embedded in particular sociotechnical networks and histories, and thereby render certain kinds of relationality possible and disable others. These facilitating technologies also expose how all personhood is dependent upon prosthetic technologies, and how the self depends upon technologies that fundamentally facilitate personhood through the interior logics of the technologies available in a society.

This article grows out of a project on individuals with neurological disorders, which explores how the capacity for communication is accepted within US neuroscience as an indication of normalcy, or, at least, normal neurological development. Rather than rely on time-limited participant observation, I turned to memoirs, either those written by a non-communicative individual or those written by their family members. The sample of memoirs totalled sixty, and was constrained by their publication date being limited to the twentieth and early twenty-first centuries to align with the development of neuroscience as a discipline (Rose & Abi-Rached 2013); they were further limited by diagnostic category, as I became focused on those conditions that were clinically understood as 'brain damage' or a 'brain injury' at some point in their history. This resulted in a focus

on three diagnoses – autism, stroke, and meningitis-caused deafness – as well as several memoirs written by the parents of idiopathic deaf-mute individuals and some about children who were never officially diagnosed, yet experienced conditions that accord with contemporary understandings of autism. Alongside these memoirs, I conducted fieldwork with neuroscientists, psychiatrists, clinical neurologists, and psychoanalysts between 2003 and 2013, first in Minneapolis and Chicago (2003-7), and then in Detroit and San Francisco (2008-13). This fieldwork was motivated by a desire to understand how professionals in the neuro- and psy- disciplines conceptualized communication and its relationship to neurological development and normalcy; during 2011-13, I also attended public events for parents and caregivers of non-verbal autistic individuals in the Bay Area in California. These more traditionally ethnographic approaches motivated my interests in archival research of neuroscientific experiments in the twentieth century focused on communication and its relationship to sociality, one of which I discuss below. Taken together, this diverse body of data helped to build a history of American conceptions of communication disorders over the course of the twentieth and early twenty-first centuries and the various interpersonal, institutional, and technological efforts to make 'normal' speakers – or communicators – of the neurologically disordered.

In disability studies, there is a growing attention to how interpersonal networks of care enable personhood and subjectivity. Drawing on the case of Stephen Hawking, whose body was progressively impaired by amyotrophic lateral sclerosis, Helene Mialet (2012) has shown how the collaboration of fellow scientists, students, kin, and caregivers distributed Hawking's body across space and time, enabling him to carry out his rigorous theoretical physics. Such an approach to the body and cognition accords with approaches in anthropology that demonstrate how personhood is distributed, sometimes as a supplement to impaired cognition (Cohen 1998; Taylor 2008), but also as a means to enact the personhood of cared-for family members. This is readily apparent in the case of parents caring and advocating for their children diagnosed with atypical neurological conditions, including autism (Hart 2014; Silverman 2013), in which parents seek to translate or explain the behaviours of their children for physicians, psychiatrists, caregivers, and strangers. In each case, what is apparent is that personhood and subjectivity are distributed. Personhood and subjectivity are made possible not through intrinsic motive powers of the individual, but through complex interpersonal and institutional practices that make individuals into persons and subjects. Less considered, however, are the technologies that mediate individual interactions with the environment and with other persons, and the ways that these technologies – from communicative forms and prosthetic devices to modes of care and diagnostic categories – have embedded assumptions that enable some forms of personhood and subjectivity while disabling others.

That technologies have embedded logics and purposes has been well demonstrated by anthropologists – especially archaeologists – and historians of technology, much of which has fallen under the rubric of 'design'. For practice-orientated archaeologists, this is most apparent in the work of Pierre Lemonnier (1992), which has focused on the ways that technologies – from pottery to airports – are produced through intentional human efforts at design. Pottery shapes and airports not only share an effort to symbolically demonstrate who made them and their systems of value, but are alos embedded with expectations about how individuals use a particular technology. In so doing, technologies are reaffirming in their use, deliberately shaping the experience of the technology through its design. These embedded uses can be beneficial in promoting

culturally valued ideas like efficiency or comfort (Murphy 2015), but they can also be harmful, leading to injury. This is the case, as Sarah Lochlann Jain (2006) has shown, in the design of workplace technologies, from the computer keyboard to the short-handled hoe, which, in their designs, produce bodily damage through their use. The harms associated with these technologies are not necessarily intentional, but the choice to not remove the harm-producing elements of the technologies is; harmful technologies persist through active negligence. Such attention to the embedded logics of technologies takes on a very different quality in the work of media studies scholars, foremost among them Marshall McLuhan (1994) and Friedrich Kittler (1986), who demonstrate how technologies are materially facilitating and dominate the structure of subjection and society. For McLuhan and Kittler, media technologies drive how humans communicate – from the road and newspaper to the typewriter and cinema – and, in so doing, make new forms of subjectivity and sociality possible. Design, particularly in technologies that facilitate communication, is far from benign, and always laden with expectations about normative modes of communication as well as what counts as communicative intent.

This is to suggest that language and all communication technologies are fundamentally what Gilles Deleuze and Félix Guattari think of as an 'organ' (1987: 176). Organs serve as a prosthetic to our bodies and shape our capacity for communication, meaning-making, symbolic production and interpretation, and value systems, in ways that are determined by the organ of language as much as by strict human intent. In working through the implications of designed facilitating technologies as organs, personhood, individuality, and subjectivity can be conceptualized not as prior to language, but as the epiphenomenal outcome of communication. The person is produced as a by-product of communication, and it is only because Americans see language as lying within an individual – which he or she can use to express him- or herself through speech or gesture – that the individual becomes the locus for understanding personhood and subjectivity as things. But, instead, if communication is conceptualized through more prosthetic devices – like hearing aids, gestural interaction, and varieties of FC – it becomes apparent, following Jurgen Ruesch and Gregory Bateson (2008), that communication is always dependent upon the social, which, from an Actor-Network perspective, includes both the human and its nonhuman others and their histories (Latour 2000). Americans epiphenomenally 'cut the network' (Strathern 1996) of relations to produce an individual with agentive, self-referential speech; but what if we conceptualize communication as something that lies outside of the individual, as a kind of symbiotic prosthesis that produces the individual, and which we are drawn to use because it reifies dominant cultural values of individuality? What if, instead, we conceptualize ourselves as ghostwritten and as unwitting ghostwriters for others, dependent upon technologies that enable sociality itself?

These questions are especially important when considered in the context of disability and in relation to the growing field of disability studies scholarship (Davis 1995; Siebers 2008). In anthropology, there has been a growing attention to disability in cross-cultural contexts (Frank 2000; Grinker 2006; Ingstad & Whyte 1995), often showing that what counts as disability in one context, usually the United States, does not count as disabling in another context, whether it be blindness in the Ivory Coast (Geurts 2003) or mobility impairments in China (Kohrman 2005). This variance in how disabilities are conceptualized has to do with understandings of the body and its capacities, institutional contexts, and local histories. In US contexts, disability has often been focused on as

it relates to the politics of care, which collectively points to the ways that families, care providers, institutions, and the state are entangled with ideas about individuality (Buch 2013; Rapp & Ginsburg 2001; Rapp, Heath & Taussig 2001); the individual, disability studies shows in ways akin to anthropology, is an ideological construct that obscures the human labour – and facilitation – that makes the idea of the individual possible (Greenhouse 1992; Rivas 2002). That the anthropology of disability focuses on the human efforts entailed in the facilitation of the lives of disabled individuals is no surprise; but what is equally important is attention to the nonhuman technologies that attempt to remedy disabilities and make normative forms of communication and sociality possible.

In the following, I seek to connect three unrelated cases, all of which demonstrate how technologies serve to facilitate communication, personhood, and subjectivity. These technologies are far from benign and transparent in their effects, in each case bundling social expectations of communication and intent into what the technology makes possible. Rather than tell a limited history of FC, however, I focus on three very different technologies that seek to make persons and subjects through communicative action. I turn first to Cecelia Bell's use of various hearing aids for her childhood hearing loss, which enable her to hear her world, but also subject her to the social machinations of her peers and expectations of parents and teachers. I then return to Peyton Goddard's use of FC as a way to think about the ghostwriting that these facilitating technologies do. By using 'ghostwriting', I seek to highlight the spectral (Gordon 1997) quality of the social influences embedded in technologies of facilitation, extending discussions of the cultural expectations of technologies (Bijker *et al.* 1987; Latour 2010; MacKenzie & Wajcman 1985) by putting them into dialogue with discussions of personhood. Finally, I turn to José Delgado's experiments with 'stimoceivers', remote controls that produce affective responses in their subjects. My purpose in doing so is to consider the long history of technologies that facilitate personhood in the United States, and to show how beyond straightforward conceptions of communication, material interventions in personhood are pervasive in more and less discreet ways. Across these cases, what becomes apparent are the ways that the ghostly influences of individual inventors, cultural expectations, the material conditions of everyday life, and neuroscientific norms and forms of communication and personhood structure the kinds of persons technologies make possible.

From less-than-human to more-than-human

Cecelia Carolina 'CeCe' Bell experienced hearing loss at the age of 4 owing to a bout of meningitis. Up until that point in her life, she was a healthy child, born to two hearing parents and the youngest of three children. Hearing loss is often associated with bacterial meningitis, and can result in anything from mild hearing loss to profound deafness – in Bell's case, her hearing loss was almost complete. In 1974, she was offered hearing aids that augmented her remaining capacity to hear to the extent that she can differentiate syllables; over time, with lip-reading, she was able to understand most face-to-face communication. Bell's memoir, *El Deafo* (2014), is a graphic novel, and she is able to use the language of graphic media to convey her experience of hearing loss – and its augmentation with hearing aids – with visual tools that are unavailable in a textual memoir. For example, Bell recounts her experience of losing her hearing, which occurred while she was hospitalized with the bacterial infection, by making voices appear to become fainter and fainter, until the television is silent, as are the people around her.

Word bubbles that cartoon characters use to communicate with one another and that emanate from televisions and radios appear with ever fainter words in them until they are presented empty, signifying her total loss of hearing. The graphic novel form also allows Bell to depict herself and the people around her as anthropomorphic bunnies, their faces mostly human except for a pink, triangular nose, and their ears extending up from their heads in an exaggerated way. A world full of long-eared creatures points to the centrality of hearing as a sense, means of communication, and token of personhood. Bell's experience of near total hearing loss at a young age leaves her to guess what has happened to her as she is too young to read, too deaf to hear. The world is suddenly silent, and Bell is able to communicate this to the reader through the use of empty word bubbles and the inscrutable behaviour of the adults around her: her parents, the hospital staff, and eventually the audiologist who fits her for her hearing aids. Across her experiences with the various hearing aids she wears, social expectations of normative communication structure how she uses the technologies and shape her experiences of herself and others.

When she enters a hearing school, Bell begins to use a device that provides her with more-than-human hearing, and lays the foundation for her alter ego, El Deafo. Bell requires her teachers to wear a special closed-circuit microphone called the Phonic Ear, which is linked to a receiver and headphones that she wears; this enables her to hear the teacher wherever he or she might be in the room, and helps her to isolate her teacher's voice from the noise of the other students. When, as often happens, the teacher forgets to remove the microphone on leaving the classroom, Bell is able to track his or her movements around the school, talking with other teachers, smoking in the teachers' lounge, making copies of assignments, going to the bathroom, and heading back to the classroom. Writing of her first grade teacher, Bell explains, 'The Phonic Ear makes Mrs Lufton's voice louder, just for me. It even *clarifies* her voice – really sharpens it! Even when I don't see Mrs Lufton's face, I understand *every word she says* without having to lip-read at all' (2014: 40, emphasis in original). She goes on to consider the role that the Phonic Ear plays in her abilities, accepting the prosthetic as enabling her to be more-than-human: 'I have *amazing abilities* unknown to *anyone*! Just like Bruce Wayne uses all that *crazy technology* to turn himself into Batman on TV' (2014: 43, emphasis in original). Bell keeps this newfound 'superpower' to herself, for fear of drawing more attention to her deafness and reliance upon the Phonic Ear. Most important in a classroom setting, however, is that the Phonic Ear transmits a speaker's voice with such clarity that Bell does not need to be able to lip-read in order to understand what is being spoken. This means that she can clearly hear lessons and class discussions, and she can also hear her teacher talking with other students in the classroom, although she cannot hear her classmate's side of the conversation. Bell's normal hearing aids, which she wears while at home, lack this kind of fidelity, and, later in elementary school, when the Phonic Ear is accidentally broken and she has to wear her hearing aids, she finds herself adrift, unable to hear her teacher speaking clearly enough to succeed in school; frustration sets in, in no small part because she has become dependent upon what the Phonic Ear provides her. As a facilitating technology, the Phonic Ear becomes integral to how Bell communicates, and also how she thinks of herself. It is the foundation of her social connectivity, her personhood, and her subjectivity, enabling her to develop one-on-one relationships with teachers and peers, thereby ratifying her status as an individual, albeit dependent upon specific facilitating technologies.

Bell thinks of her more-than-human self as a young superhero; she does not fight crime, but she does use her difference as the basis for conceptualizing herself as potentially more than her neighbourhood and school peers based on her augmented hearing. This plays into the recurrent trope in memoirs of disability of the recuperation of a perceived stigma into the basis for some claim to being more-than-human, what has been referred to as the 'supercrip' (Schalk 2016). Children – and sometimes adults – come to learn that what they first perceived as a limitation on their claims to full personhood enables capacities that mere normal people do not share. In memoirs of deafness, these tend to include the ability to lip-read and thereby eavesdrop on those who thought they were safe behind glass or on the other side of a room, and, as Bell discusses, the ability to use prosthetic hearing aids to enable more-than-human hearing. In this way, the Phonic Ear provides Bell not only with hearing capacities, but also with a system of meaning that facilitates her developing subjectivity.

Amidst her late elementary school crush on Mike Miller, Bell explains to him the powers the Phonic Ear bestows upon her, and he quickly sees ulterior uses for the technology. During their shared homeroom class, their fifth grade teacher, Mrs Sinklemann, often leaves the children in the classroom for twenty minutes unattended, during a period she refers to as 'quiet math'. As one might expect, students take liberties during this period, sometimes getting caught when Mrs Sinklemann returns early and catches them out of their seats and playing. With 'quiet math' in mind, Miller convinces Bell to conduct a small experiment: he takes the Phonic Ear's microphone for a walk to see what its range is. Once they have established how far its powers reach, Miller hatches a plan: 'When Mrs Sinklemann leaves today for quiet math, you can use your stuff to listen out for her. We can all have fun until you tell us she's coming back! You'll be a *hero*! What d'ya say?' (Bell 2014: 211, emphasis in original). Bell reluctantly agrees to the plan, and finds herself the enabler of her peers' delinquent behaviour – not necessarily behaviour befitting El Deafo. El Deafo might have problems with her new role, facilitating the bad behaviour of others, but Bell experiences social inclusion – predicated on her prosthetic technology – easing what moral frictions there might be, and leading to a rewarding reunion with her estranged best friend, Martha, who shares in the excitement of the experimentation with Bell's Phonic Ear technology. Miller's delinquent strategy works, and *El Deafo* ends without Bell facing any repercussions for her enabling her classmates' unruly behaviour. Instead, she seems to finally enjoy unfettered social inclusion, enabled in no small part by her acceptance of the Phonic Ear and the capacities that it provides her with.

The Phonic Ear facilitates for Bell. Although she can also lip-read with some proficiency, especially in face-to-face situations, this technology enables forms of sociality that would otherwise be impossible. It at once expands her communicative capacities – it makes her able to hear when she otherwise cannot – and expands her sociotechnical environment; she becomes as capable as her peers, and in some ways more so. The Phonic Ear bundles together sets of relations that enable it as a technical object; it also enables new relations for its wearer. At first, it is the very intimate, one-way relationship that Bell has with her teachers, enabling her to eavesdrop on them as they go about their extra-classroom business. Eventually, it bridges her relationship with her sought-after neighbour, albeit not in the way that she had hoped would come to pass. When she finally uses the technology to enable her peers' less-than-studious behaviour in the classroom, Bell garners their respect and is included into normative schoolyard sociality. In these emergent social relations that she enjoys, the relations bundled into

the Phonic Ear that make it an effective actor become invisible; they become ghosts, animating their host with new social possibilities, built upon sociotechnical histories focused on facilitating the individual as a locus of personhood, self-determination, and agency.

Communicating intelligence

As a memoir, *I am intelligent* is a collaborative effort between Peyton Goddard, her mother Dianne, and, for lack of a better term, ghostwriter Carol Cujec. I call Cujec a ghostwriter here because it is unclear how much of the book she wrote, and how much rewriting of Dianne's and Peyton's writing she did; so, although she is named on the cover, her actions are diffuse and potentially profound. If one compares Peyton's unedited writing – which can be found on her blog – to the writing in the memoir, there is significant polish in the latter in terms of spelling and syntax, and also in phrasing; Peyton writes in a freeform, verseless poetry that Cujec has an ear for turning into more direct communication. Peyton writes of trying to relearn how to speak that,

> After 25 silent years, I'm trying ready I initiater again my freed very great voice. I was muted by heartbreak of hubbub trauma as it tipped red emotions epoch in I. My red awe I answered by truth teethed together I told by typing my book. Now I'm returned to me. My quest I'm on is freeing red as I'm lip tried join in. Heartbreak tread is healing.[3]

When Cujec edits Peyton, minor typos that lead to syntactic misunderstandings get ironed out, and phrasing is parsed so as to produce more straightforwardly meaningful sentences, even if they are filled with Peyton's poetic word play. The memoir is constructed around the interplay of Dianne's and Peyton's voices, with the majority of each chapter focusing on the events in their family's ongoing struggles with Peyton's undiagnosed condition, told from Dianne's retrospectively omniscient perspective. This is interrupted from time to time by Peyton's reflections on the events discussed by her mother. Cujec ghostwrites for both mother and daughter, editing their textual interplay to produce a narrative that flows from one event to the next, following Peyton through public school, to her eventual adoption of FC, to her enrolling in local community college, and eventually graduating and participating in the dissemination of FC as a reliable method of communication for the otherwise impaired. There are moments of drama and crisis throughout the book, largely told in Dianne's voice, but based on Peyton's experience – temporally, they occur before Peyton begins to use FC, but are told from Dianne's omniscient perspective; these include, most importantly, what is happening to Peyton in school or at home when her parents are away, including a series of abuses by older cousins and school staff members. There might be other ways to convey this information instead of making Dianne omniscient, but the conceit of the text as a family memoir depends on the story being told in a familial voice, which is actually a time-travelling, ghostwritten Peyton as voiced by her mother and written by Cujec. This practice of ghostwriting is analogous to other technologies that facilitate the construction of social subject through communication; like the Phonic Ear, ghostwriting depends upon a set of relations that have become obscured in the technological object of the memoir, and which are made to construct a recognizable life for Peyton for her readers. Unlike Bell's experience of the Phonic Ear, however, ghostwriting is limited to the text of the memoir itself – but FC serves the same purpose in Peyton's everyday life, albeit with the assistance of her mother and other caregivers.

Like so many memoirs of disability, *I am intelligent* follows a generic trajectory: there is a perceived medical problem with a child; parents seek a diagnosis and cure; physicians and psychiatrists are befuddled; the child is in distress – usually institutionally and interpersonally – and so is the family; and eventually there is a breakthrough. In Peyton's case, it is learning how to use FC with the help of her mother. And she is not alone: other memoirs of children and young adults who have trouble communicating – whether owing to autism, deafness, or aphasia – similarly enter a new phase when communication becomes possible, as in Bell's case, thanks to her hearing aids and Phonic Ear. Although the individual's family's life proceeds in fits and starts, for the individual without communication, no such progression is felt. At one particularly low point, without access to verbal communication, Peyton recognizes her impulses as suicidal, as do her mother and psychiatrist. What she lacks is a way to break the repetition of her everyday life; her lack of facilitating technologies renders her an object of other people's actions rather than an actor in her own right. Consider Dianne's description of speaking with Peyton before her total loss of language, and the way that repetition and difference become critical in their conversational interactions:

> [I]f I repeat a word that Peyton has said spontaneously, then she can avoid getting 'stuck' on it and move on to say a second word, even though she may be unable to put the two words together on her own. Every day after school, I sit with Peyton on the sofa to work on reading phrases or verbalizing from pictures. When Peyton says, 'Read,' I repeat, *Reeead* with a rising inflection and this unlocks Peyton's voice to say a full phrase: 'Read the book,' much to my glee (Goddard *et al.* 2012: 53, emphasis in original).

Dianne's use of language 'unlocks' Peyton's everyday interactions analogously to how FC unlocks Peyton as a person; once Peyton is verbal again, she is able to build relationships, define her intentions, and interact with her environments in ways that had previously been obscured by her inability to speak. But there are problems in communication as well.

Once Peyton begins to use FC, she is able to enrol in a local community college, where she uses a variety of communication aids in addition to her Lightwriter, each tailored to her classes and showing common terms, ideas, and useful symbols for her classroom needs. In addition, she begins to use facilitators who are not her mother, which include a young woman named Tricia. In Dianne's retelling of Peyton and Tricia's partnership (Goddard *et al.* 2012: 205-7), Tricia is immediately interested in helping Peyton, and over time they begin to talk about the possibility of rooming together, the first time Peyton would live separately from her parents. But Dianne and her husband 'notice that when Tricia facilitates, Peyton's comments are more humorous and even include bold requests about wanting to be independent of us' (2012: 205). Things come to a head when Peyton has a guest, Gabriel, who similarly relies on facilitators for his communication. Tricia sits between Peyton and Gabriel at dinner, and facilitates for both simultaneously; after dinner, they adjourn to a nearby sitting room, where they can close the door for privacy, ostensibly to have a private conversation without parents eavesdropping (2012: 206). After the conversation, both Peyton and Gabriel are visibly disturbed, with Gabriel behaving in an agitated way and Peyton 'quiet, almost frozen' (2012: 206). After Gabriel is taken to his mother, and Tricia to her dorm, Peyton tells her parents that Tricia had used her hand to type 'lewd comments' to Gabriel and that she now fears the young woman. Peyton writes to her parents, 'She is insane. Various times I tell Tricia not to. Saw joy in Tricia in not listen to I'. A cynical reader might

suggest that Tricia's inclusion in the text is meant to serve as an inoculation against criticisms about FC: her behaviour is clearly manipulative in making Peyton into her mouthpiece, whereas Dianne's use of FC is enabling of her daughter, similar to their experimental psychiatrist. Tricia stands in for all of the impure-of-intent facilitators who corrupt FC in the public eye. But this would be to ignore the potential social worlds that are being enabled by this facilitator, however onerous they might be to Peyton, her family, and friends: Tricia is attempting to create a world, despite the interests of those who will be forced to inhabit it. Tricia is the ghost revealed, her manipulations transparent. If Dianne is the benign conduit through which Peyton's personhood is facilitated, Tricia is the technology that produces only a normative subject, aligning with expectations of romantic intent and young bawdiness. Peyton could choose to inhabit these roles, but, given her ability to communicate with her mother's help, chooses not to. Similarly, Cujec's facilitation of Peyton, Dianne, and the Goddard family through her ghostwriting of their family memoir seeks to facilitate the kind of person Peyton wants to be and which her parents see as desirable. Cujec's ghostwriting, like Dianne's facilitation, strives for transparency, hence the disappearance of Cujec in the text in all but name. In comparison, Tricia's facilitation is clearly marked by her intent; rather than a ghostly influence, she is too apparent in the communications and subjectivities she seeks to facilitate. Peyton is able to choose not to be the person whom Tricia seeks to facilitate, and, in so doing, retreats to the seemingly transparent and unbiased facilitation of her mother, her psychiatrist, and her memoirist. In the case of José Delgado's stimoceivers, no such choice is possible, and, like Tricia, Delgado stands in as the technology imposing normative ideals over the impulses of those who use the facilitating technology.

Technologizing affect

José Delgado's *Physical control of the mind: toward a psychocivilized society* (1971) is a cult classic among some neuroscientists. It is long out of print, and pristine copies online routinely sell for hundreds of dollars. Born in 1915, Delgado spent his early career at Yale, and returned to his native Spain shortly after the book's publication, ostensibly to help establish the Autonomous University of Madrid. His return to Spain may have also been due to the controversy around his book, which came out at a time when electroconvulsive therapy was being debated, and the legacy of lobotomies was near at hand. Delgado had invented what he referred to as a 'stimoceiver', a radio-activated implant that produced electrical stimulation in the brain of those it was installed in, which included cats, monkeys, bulls, chimpanzees, and eventually humans. The stimoceiver was effective, and, according to Delgado, could produce feelings of calm, elation, and sadness. For many readers, Delgado is a compelling thinker, not simply because of the invention he engineered and the applications he thought to apply it to; he is deeply invested in what control of the mind could allow in humans, arguing throughout *Physical control of the mind* that the next stage of human evolution depends upon our turning technology inwards, on making new 'minds' through the use of targeted technologies. He argues that the 'mind' is a function of the relationship between environmental stimuli, personal histories, and the physical structure of the brain. Delgado also makes plain what might be implicit in other people's thinking, namely that humans are always subject to the control of others, and what he is providing in his technology is a means to level the field, to ensure that our leaders are as subject to control as the rest of us. In making this argument, he elaborates a view of personhood that

intimately depends upon interpersonal connectivity and facilitation, of ghostwriting the other in active, deliberate ways.

Consider Delgado's description of an experiment specifically designed to test what stimoceivers could do to ensure that an egalitarian society could be maintained:

> [A] monkey named Ali, who was the powerful and ill-tempered chief of a colony, often expressed his hostility symbolically by biting his hand or by threatening other members of the group. Radio stimulation in Ali's caudate nucleus blocked his usual aggressiveness so effectively that the animal could be caught inside the cage without danger or difficulty ... Then a lever was attached to the cage wall, and if it was pressed, it automatically triggered a five seconds' radio stimulation of Ali. From time to time some of the submissive monkeys touched the lever, which was located close to the feeding tray, triggering the stimulation of Ali. A female monkey named Elsa soon discovered that Ali's aggressiveness could be inhibited by pressing the lever, and when Ali threatened her, it was repeatedly observed that Elsa responded by lever pressing. Her attitude of looking straight at the boss was highly significant because a submissive monkey would not dare to do so, for fear of immediate retaliation (Delgado 1971: 166).

At their worst, stimoceivers offer a new mode of domination, with those already in power mandating their implantation in those they dominate, to ensure that the power of the few is never threatened by the masses. But Delgado offers the opposite possibility – or at least a series of variations. What if instead we implanted those in power, so that their most dangerous impulses could be curtailed? Or what if we implanted everyone, ensuring that all dangerous impulses could be stopped? Delgado sees in these possibilities the ability to progress civilization to a more utopian point, finally overcoming a history of war and violence with technologies that facilitate our better natures rather than leave us to our animal instincts.

Delgado had been publishing his research related to the use of stimoceivers since 1952. *Physical control of the mind* summarized his work, and considered the many physiological and social impacts that his research might lead to. There is an enormous social history to consider in relation to Delgado's research and the timing of his book's publication – from the rise of fascism in Europe and his view that physical control could overcome passionate manipulation of the masses emblematized in National Socialism, to the student activism and counter-culture movements of the 1960s – but suffice it to say that he saw in his research a liberatory possibility, freeing us from our Alis and the violence endemic to human social life. While he was contemporaries with lobotomists and those who performed electro-convulsant therapies, Delgado saw his work as qualitatively different: lobotomy and electro-convulsant therapies were 'non-specific' attempts to modify the physical structure or composition of the brain; what electrical stimulation of the brain offered was precise, careful, and well researched. Throughout his work, Delgado is interested in moving from laboratory and clinical applications of stimoceivers to the constitution of a utopian 'psychocivilized' society through the use of 'psychogenesis' – an understanding of the material shaping of human behaviour. This psychogenesis could be enabled – as in the case of Ali – through the use of technologies that shape the brain and its impulses in very direct and deliberate ways, through technologies that facilitate particular ways of being in the world.

One report of Delgado's is worth reproducing here by way of demonstrating how he sees electrical stimulation of the brain operating on personality and what its futures might be:

> One of the moving pictures taken in this study was very demonstrative, showing a patient with a sad expression and slightly depressed mood who smiled when a brief stimulation was applied to the

> rostral part of the brain, returning quickly to his usual depressed state, to smile again as soon as stimulation was reapplied. Then a ten-second stimulation completely changed his behavior and facial expression into a lasting pleasant and happy mood. Some mental patients have been provided with portable stimulators which they have used in self-treatment of depressive states with apparent clinical success (1971: 144).

Delgado explains elsewhere that 'automatic learning is possible by feeding signals directly into specific neuronal structures without conscious participation' (1971: 93). In his view, humans are the collection of chemicals, structures, and impulses that comprise our physiological functioning. Consciousness can be produced – and, more importantly, altered – as needed, and the more direct the means of this facilitation, the less likely there will be interference from the environment. Happiness, for Delgado, can exist outside of our social conditions, as long as the brain is acted directly upon, which electrical stimulation of the brain allows.

This conception of consciousness is all due to what Delgado refers to as 'functional monotony' (1971: 191). For him, the active response to an environmental stimulus is not pre-given. For example, implanting a stimoceiver into a cat and stimulating its brain so as to produce the set of reflexes normally associated with swatting at an enemy – which is the basis of an actual experiment – means only that the cat will enact those actions, not that it will spontaneously find an enemy in its environment and act against it. The same stimulation can occur a number of times, and each time the result on the brain is the same, but how the stimulation is extrapolated to the world will vary. If a target is nearby, the behaviour may be directed at that object, regardless of what the subject thinks of that target; cognition comes after the action in an effort, on the part of the individual, to make sense of the action in the context of what he or she thinks of him- or herself. What matters in each case is that the biological stratum that is being acted upon is experiencing an actual effect, and that, over time, this effect might be able to be retained without direct stimulation – as in the case of Ali, and patients, above, and the many other experimental subjects Delgado worked with. Consider Delgado's claim that for the patient mentioned above he was able to produce 'a lasting pleasant and happy mood'. It seems not to matter that the patient is in an asylum, separated from family and friends, work, and everyday life; these possible influences on his mental state are removed from consideration. Instead, what matters is the stimulation of his brain and the effects this produces – happiness begins in the material stuff of the brain and is extrapolated from there to the world. This inverts dominant ways of thinking about emotions – that they begin in interactions and lead to effects on the brain – but is there anything necessarily wrong with this conception of the material basis of the self and its technological facilitation?

The implication of Delgado's thinking about the tripartite relationship between the material brain, the environment, and individual interpretations leads him to the claim that 'The individual mind is not self-sufficient' (1971: 59). He makes this claim in direct refutation to the belief in 'Occidental cultures' that 'the individual personality is a self-contained and relatively independent entity with its own destiny, well differentiated from the surroundings, and able to function even when isolated from earth and traveling in an orbiting capsule' (1971: 59). Delgado makes the claim that the individual is deeply rooted in his or her environment, and that any sense of an independent self is ideological illusion; removal of the individual from an environment leads to the deterioration of 'normal mental functions'. One of the implications of this view is that the selves that individuals experience are the selves that are produced by the deliberate

or accidental production of an environment, a process that Delgado sees as a function of governance with a goal of producing 'civilization' (1971: 221), a particularly focused form of facilitation. He points to the practices of blood-testing engaged couples to ensure they are free from disease and not kin, as well as efforts to properly vaccinate travellers ahead of travel, and pervasive everyday interventions like adding chlorine and fluoride to municipal drinking water, and the regulated inclusion of iodine in table salt (1971: 220-1). Americans tolerate all of these interventions, largely without protest, and they shape the material experiences of bodies as well as the relationships that are facilitated with society and the environment through these interventions. These facilitating technologies qua governmental interventions create, however unevenly, subjects and the 'civilization' into which they fit. Delgado argues that 'Human health has improved in a spectacular way precisely because official agencies have had the knowledge and the power to influence our personal biology, and it should be emphasized that health regulations are similar in dictatorial and in democratic societies' (1971: 221). This view ultimately leads him to the claim that

> The mother certainly teaches the baby. The policeman imposes order on city traffic. To discuss whether human behavior can or should be controlled is naïve and misleading. We should discuss what kinds of control are ethical, considering the efficiency and mechanisms of existing procedures and the desirable degree of these and other controls in the future (1971: 249).

The question for Delgado is settled: control of the individual for the betterment of society and the ultimate goal of an orderly civilization is already something that is done, but it is done in ways that the individual has little or no control over.

Stimoceivers, and electrical stimulation of the brain more generally, make control a reciprocal function of social life; they make explicit what is otherwise implicit – that personhood depends upon ghostwriting, which is evident in all facilitating technologies to greater or lesser degrees. What Delgado is arguing for is a deeply materialist subjectivity: individuals become subjects through environmental interactions that depend upon their normative physiological functioning, and this environment is something that is crafted to produce particular expressions of subjectivity. Knowing this, the ethical thing to do, he suggests, is to take control of the ways that the environment shapes our brains rather than leave it to others whose motives may be unclear or dangerous. But if we cannot change our environment, at least we can change the way that it materially affects us with stimoceivers. For Delgado, the ethical consideration is not why we should not use technologies that electrically stimulate the brain, but how we can possibly refrain from doing so when all of the alternatives are less effective. Stimoceivers promise to make us all the persons we hope to be – maybe with a remote control for ourselves, and a matching remote control for all those we interact with throughout the day, so that we can facilitate for others 'a lasting pleasant and happy mood'. But they make ghostwriting plain, rendering the purposeful facilitation of others explicit and untenable in a context of American individualism. Such explicit facilitating technologies chafe against the apparent self-determination that technologies like hearing aids allow, integrating deaf individuals with a dominant hearing society. As Bell makes evident, however, social integration through facilitating technologies comes at a cost, which Peyton Goddard's encounter with Tricia exemplifies. Seeing these technologies – memoirs, stimoceivers, FC, and hearing aids – as different in kind obscures the role of facilitation in their production of subjectivity and personhood; seeing their differences as differences in degrees of facilitation and its explicitness,

however, helps to show how personhood and subjectivity are always predicated on technologies that make persons and subjects possible, as well as the limits to their articulations.

We are all ghosts

Personhood is always facilitated. This facilitation can be discreet and rely on distributed technologies, like fluoride in water and iodine in salt, the infrastructures of everyday life, and the use of gesture and speech. In each case, these technologies, as discreet as they are, help to ensure that individuals become persons according to social norms and maintain that personhood through their imbrication in these technological infrastructures. Facilitating technologies can also be explicit, like Delgado's stimoceiver, and seek to create specific effects, in his case, the production of specific affective responses. These facilitating technologies, to greater and lesser degrees, are the matrices that everyday life exists within. In each case, these facilitating technologies have been designed, and although their outcomes may drift from their initial intents, their histories animate those who find their personhood comprised through their relationship with them. In this way, we are all subject to the legacies of those who have come before us and have built the world we inhabit, both intentionally and accidentally, and we gift future generations with our ghostly remains.

Facilitating technologies can go without notice, and when they do, they enable personhood to appear a natural outcome of being a member of society. But personhood is a fragile construct that has been built upon the technologies that enable it, and one need look no further than the erosion of 'full personhood' in advanced age (Buch 2018; Luborsky 1994), the historic devaluing of those with disabilities (Ginsburg & Rapp 2013; Kulick & Rydstrom 2015; Thomson 1996), and a litany of other outcomes of individuals being unable to abide by social norms of personhood. That these norms often depend on the exclusion of particular kinds of being in the world as markers of full personhood – for example, the use of non-normative linguistic forms, ranging from sign language to vernacular languages – becomes apparent when what is unremarkable becomes the subject for debate, as in the case of FC. For those who see FC as controversial, it is precisely because it lays bare the ways that communication always relies upon mediation. That mediation is usually through the institution of a shared language; when that mediation becomes the facilitation of another person, it appears to some observers as if it is not authentic language – which would appear to originate from within an individual and flow into the social sphere in an unimpaired and unmediated manner. Such a view of language, and the kinds of personhood that it supports, is deeply ableist and biased against those who rely on explicit forms of mediation for their communication.

Dominant models of personhood and subjectivity in the United States rely on liberal conceptions of the individual and self, inherited from the nineteenth century and intensified in the context of late twentieth- and early twenty-first-century neoliberalism. The liberal – and neoliberal – subject is one who can express him- or herself through language; if language is not a clear vehicle of the self, then it is at least the technology through which an individual comes to learn to express his or her thoughts, feelings, and relationships. Moreover, the liberal subject is seen as independent and self-fashioning. With these foundations for subjection, those who rely on – and call attention to – explicit technologies of facilitation are taken as varying from these norms. This can result in the apperception of 'disability'; it can also lead to forms of discrimination and bias.

These forms of exclusion both serve to uphold normative forms of subjectivity – and, by extension, personhood – and seek to obscure the facilitating bases for subjectivity and personhood. Focusing on how facilitating technologies undergird communication for those with neurological disorders also helps to show how everyday socialities are dependent upon facilitating technologies, and that, ultimately, there is no outside of facilitation. Instead, there are better and worse means of facilitation.

This is clear in Peyton Goddard's varied experiences with her mother and Tricia, the former who seeks to be a neutral conduit through which she can speak, while the latter interferes with Peyton's desire to communicate, substituting her understanding of the person that Peyton should want to be for the person that Peyton seeks to be. Dianne, Peyton's mother, has her own motives, foremost among them the restoration of her daughter's voice, and with it, her claims to full personhood. In Peyton's case, because she relies so directly on the facilitated mediation of another person, she is particularly susceptible to the motivations of those who facilitate for her. This is less the case for CeCe Bell and her use of the Phonic Ear and hearing aids; how she chooses to use them is largely up to her. But, as in the case of her being convinced to use the Phonic Ear to support her classmates' delinquency, her decisions are shaped by the social contexts she finds herself a part of. Bell's experience of being part of her social groups is shaped by her experience of stigma associated with her hearing impairment and use of hearing aids, which are visible to her peers. Although her peers do not directly use or interfere with the technologies she relies on in the classroom, they tacitly shape her experience as a student and community member. The technologies she uses seek to be neutral in how they facilitate for her, but they can be shaped in their use to reflect the interests of those around her, which, in turn, shapes Bell as a person and subject. As discreet as they can be – and Bell would likely be the first to suggest that they were anything but discreet owing to their visibility – they also serve as lodestones to orientate her social interactions with her peers, teachers, and family, and come to shape the ways that she is facilitated by others and the facilitation that she provides for others. But it is in José Delgado's use of the stimoceiver that the social shaping of personhood through facilitating technologies becomes most apparent. Delgado seeks to render the discreetness of stimoceivers akin to the relative invisibility of fluoridated water and iodized salt. At once, Delgado wants to assure his readers that facilitation through technologies already occurs and that stimoceivers are in line with how society is already organized; he also wants his readers to accept the intervention that stimoceivers represent, most apparent in the remote controls that their users (or their user's users) will rely upon to shape the personhood and subjectivity of those they interact with. Everyday use of language and gesture may seem to be very different from each of these more obvious technologies of facilitation, but they, too, have been shaped by their previous users; they, too, are burdened with their histories, and the social pressures one faces in their use; they, too, come to shape personhood and subjectivity in specific ways.

This is all to argue that personhood and subjectivity are intrinsically distributed through the facilitating technologies that comprise a society's infrastructures. Rather than see personhood as something that is ascribed by social others, this draws attention to how it is dependent upon a diverse and complex set of interactions between individuals and their sociotechnical environments. Moreover, rather than accept subjectivity as a relatively static experience of the self, dependent upon the maturing of an interior self over time that becomes the basis for identity and experience, focusing on facilitating technologies exposes how subjectivity is a precarious process

that depends on its sociotechnical contexts. Changes in these contexts influence changes in subjectivity. Focusing on facilitation in this way situates personhood and subjectivity as temporal and temporalizing processes. Who and what are capable of being persons are dependent upon the infrastructures of technological facilitation that make personhood possible. That some individuals find their status as persons tendentious is based not on their inherent capacities – for example, their capacities for speech – but on the infrastructures that bridge their capacities with the expectations of the society they find themselves a part of. We are ghostwritten by others, through everyday interactions and through distributed technologies; we also ghostwrite others, actively and indirectly.

Conclusions

The stimoceiver makes plain the role of the ghostwriter: our social others hold in their hands the ability to change our experience of the world; they are able to facilitate for us in ways that are transparent. This naked facilitation of other people's personhood – and the ability to explicitly control their experience of subjectivity – makes the stimoceiver and related technologies challenging for American ideas about the individual. Should we be able to self-determine our affective states even when they are self-destructive or asocial? What if the intents of our remote-control-wielding social others have our best interests in mind, but chafe against our self-understanding or intent? This is clearly the problem many see in FC, and which Peyton Goddard's experience with Tricia makes plain: facilitation is indebted to the intentions of our facilitators, as well as the methods they have at their disposal for said facilitation. When a facilitator is intention-free – and this might be the case for Peyton's mother and psychiatrist – the technology is liberated from these suspicions of its impingements on the agentive powers of the individual. But can any technology of facilitation be seen as intention-free? CeCe Bell's experience with her Phonic Ear might provide an example of a benign facilitating technology that allows her to experience the world of her friends and families, and although the technology itself seems to be exempt from questionable intentions, once the technology is introduced into Bell's social world, what it facilitates in terms of her relations with others might begin to raise questions about the social value of the technology and the intentions of its use as she finds herself breaking rules for the benefit of social inclusion.

It is not simply that these facilitating technologies allow individuals to interact with their sociotechnical worlds, but that these worlds interact back, and are able to fill the facilitated individual with intentions and expectations of normative personhood and subjectivity. Bell gets caught up in the social possibilities and expectations that the Phonic Ear enables – however childish they might be – and in doing so makes obvious how being part of the social means being facilitated by others. The stimoceiver, FC, Phonic Ear, and ghostwritten memoir are all obvious technologies, but we are equally facilitated by those technologies which are largely invisible – language, institutions, society itself – which have been brought into being and control our experiences of self and world through ghostly forces. This is to suggest that we nuance earlier anthropological understandings of the individual, not as independent versus dependent, but as always facilitated by a whole range of technologies, from the human interlocutor to the discreet stimoceiver. These facilitating technologies make us not what we will in some idealist sense, but into kinds of persons and subjects that the technologies make possible. We are subjects not of our personal histories, but of our facilitating technologies, their histories, and the capacities they enable and disable.

NOTES

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[1] I employ 'technology' here in its expansive sense, bringing together modes of communication (Leroi-Gourhan 1964) and 'technologies of the self' (Foucault 1998) with more conventional understandings of technologies as objects (Bijker, Hughes & Pinch 1987). What both approaches share is an understanding that technologies serve as prosthetics, not in the sense that they are providing for something lost, but that they are super-added to the individual and build upon and make possible particular kinds of engagement with the world (Stiegler 1994). Technologies are never singular in their understanding or their usage (Pols 2017), and what allows for the facilitation of personhood in one situation in one context may have different results elsewhere. In each case, technologies distribute agencies across bodies and time (Latour 1991), shaping the interactions between bodies and environments and making some subjectivities and persons possible and suppressing others.

[2] I employ the term 'conceptualize' to index the relationship between ideational concepts and their materialization in the world, facilitated through the process of categorization. This follows the work of Gilles Deleuze (2001) in his assessment of empiricism in philosophy, as well as recent approaches in science and technology studies, largely following Donna Haraway's (1991) work in material-semiotic approaches to worlding (for a discussion of this approach in contradistinction to constructism, see Lien & Law 2011).

[3] *http://peytongoddard.com/index.php/2013/08/30/i-am-hungry-to-free-my-lip/*; accessed 25 November 2019.

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La personne facilitée

Résumé
Les modèles anthropologiques de la personne suggèrent que l'individu est produit par ses liens relationnels avec les autres, humains et non humains. Les idées américaines sur l'individu sont profondément idéologiques et occultent les relations humaines qui rendent le concept de « personne » possible et souhaitable, motivant la subjectivation. En s'intéressant au traitement des troubles neurologiques et aux technologies conçues pour remédier aux handicaps de communication, on s'aperçoit que la production de l'individu occulte non seulement le travail des autres humains, mais aussi les capacités de facilitation des technologies et des institutions. Le présent article est consacré à des mémoires sur le handicap et à des recherches ethnographiques et historiographiques sur les neurosciences et veut montrer que le statut de personne est facilité et produit par les interactions avec les gens, les technologies et les institutions qui tentent de produire des formes de subjectivation particulières par le biais de pratiques de communication.

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