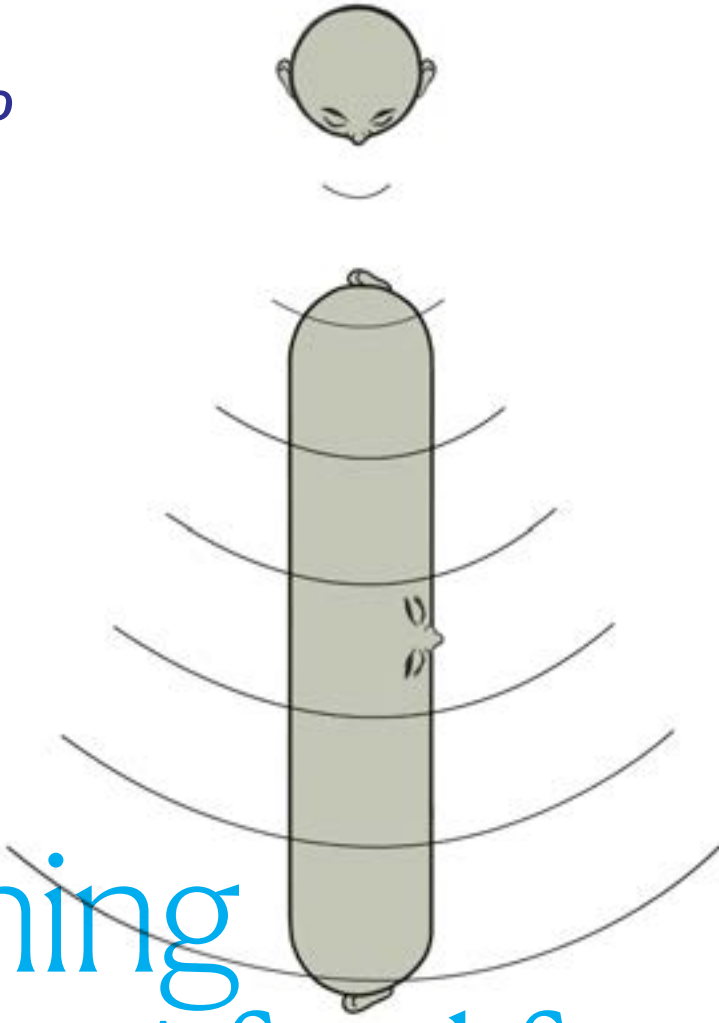
David Cecchetto



Listening *in the* Afterlife *of* Data

AESTHETICS, PRAGMATICS, AND INCOMMUNICATION

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THOUGHT IN THE ACT
A series edited by Erin Manning and Brian Massumi

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AESTHETICS, PRAGMATICS, AND INCOMMUNICATION

David Cecchetto

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With love, for:

Marshall, lunatic artist and lovable idiot;

Phannie, curmudgeon scientist and empathic savant;

Katherine, more-than and otherwise beyond compare.

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Incommunication

In all likelihood, the only thought that can be made practical is the thought that is not restricted in advance by the practice to which it is meant to be immediately applicable.

THEODOR ADORNO, *LECTURES ON NEGATIVE DIALECTICS*

How might we listen to computers in their incommunicative profiles? To be sure, this is an obscure question, but such obscurity may be the hallmark of any good question. A question that has its answer already built into its problem is less a question and more a calculation: a finite procedure for passage from one state to another that any agent would effect in the exact same way.[1] This distinction between a question and a calculation surfaces in various guises throughout the following pages, usually toward parsing obscurities that are nested within the seemingly most obvious relations. Pulling out the threads of these strange but pragmatic excesses in order to state an obvious question more obscurely is an important step in thinking the entire situation with greater nuance and more particularity—even when that nuanced particularity is itself productive of generalities! (Sometimes it is important to note exactly how things are generally true.) Over the course of

this book, then, three concepts (sound, communication, and data) will be obscured and brought together in the obscurity of a question that would chart their interrelations in particular times, places, and constellations. The book offers answers to its guiding question and does so pragmatically by engaging with (often unusual, but) specific entities and undertakings. I discuss collective experiences of listening with one-thousand-foot-wide heads, for example, as well as strange nonvisual digital audio workstations, intermedially perceptive basketball stars, quasi-suicidal dreams, and playing squash with an eleven-year-old aspiring member of the Canadian national team.

I emphasize the pragmatism of my approach to this question because it works against one of the great inversions of our time: that between abstraction and reality. This inversion is evidenced by the fact that somehow one daily encounters folks who think that business-related disciplines like marketing are part of a real world that theoretically informed arts and humanities disciplines are not; we're in a cultural moment when claiming something like having a "passion for real estate" sounds coherent. Originally a play of thought, the abstractions of classical logic have become habitual in such a way as to today too often seem aprioristic.[2] Clearly, the constitution of the real world needs to be thought more obscurely—or really, to be practiced in its obscurity—in a time when "the hard materiality of the unreal convinces us that we [must continue to protect] nothing but an illusory right to what we do not have."[3] To do so, we have to resist reducing reality to the abstract values it holds in the exchanges of (post)global capitalism, especially because these exchanges are themselves constituted in and as the antisocial interpersonal dynamics of white, patriarchal dominance. However, before this book proposes answers to its guiding question, the remainder of this introductory chapter will focus on offering some purchase on the question itself.

The impossibility of communication is a trope that variously appears in diverse historical and cultural settings. J. D. Peters outlined this brilliantly in his history of the idea of communication, *Speaking into the Air*, noting the historicity of "communication," the varied senses of the term, and the different disciplinary and creative approaches toward it. Put simply, Peters is interested in communication as "one of the characteristic *concepts* of the twentieth century," and as such he tracks its conceptual latches, mutations,

and vagrancies; as often as not, these are most perceptible in and as communicative failures.[4]

Peters unfurls a complex narrative throughout the course of *Speaking into the Air* that merits attention in its own right, and that has had a certain well-deserved influence. And yet one of the things that has most stuck with me as the book has aged is a certain kind of formulation—a certain trope—that expresses itself in several places throughout. This trope is that of a reciprocal causality between communications and the perspectives or disciplines from which they are understood as such. For example, discussing the distinctly psychological perspective that humans are "hardwired by the privacy of our experiences to have communication problems [such that] the impossibility of communication between minds may be a fundamental psychological fact," Peters notes in passing that this impossibility may alternately be understood as "the fundamental fact of the field of psychology."[5] We can observe a similar dynamic if we approach communication informatically: by conceptualizing communication in terms of signals that are subject to noise, we describe a situation in which communications are literally hardwired to be noisy by the physical systems in which they are enacted. However, just as the impossibility of intersubjective communication establishes the possibility of psychology as a field, the impossibility of a noiseless transmission is foundational to the field of informatics. The point, which is a resonant theme throughout *Speaking into the Air*, is that part of communication's historicity—that is, part of communication's historical changes in its concepts, practices, and materialities—comes about by virtue of its being always caught up in something that at once exceeds and conditions it.

Of course, this observation of a feedback relation between "whats" and "hows" is by no means unique to the concept of communication: if a person with only a hammer tends to treat everything as a nail, the corollary to this is that additional tools will procure additional hardware. Moreover (as McLuhan knew well), multiplying tools also retunes existing hardware such that a conventional nail might look like an impediment to speedy labor to a person with a pneumatic nail gun. As Patricia Ticineto Clough notes (in a discussion of measurement), "there is a participation of the [observing/measuring] and the [observed/measured] in which the participation in one another is affective," which is to say, beyond measurement proper.[6] In whatever context one considers it—from quantum physics to manual labor—

observation is itself at once historical, contingent, and in some sense occultly impactful on that which is being observed.

And yet there is something else worth noting specifically about the communicative profile of this reciprocity. If every communication is a what-how coupling, then "whats" and "hows" are not only entangled in the causal tautologies of feedback, they are also in secondary feedback loops with something that can't be explained because it exceeds communication. This is something that is "artful" in that it "is about how a set of conditions coalesce to favor the opening of a process to its inherent collectivity, to the more-than of its potential."[7] This "aesthetic yield" is also historically affective in that it charts the terrain of a bidirectional relationship between communications and their conditions of appearance.[8] The causal knots themselves—the observation/observer couplings—are enactive: they condition the conditions that condition them. This in turn means that a failure of communication is always also something of an unknowable and paradoxical excess: the impossibility of fully communicating one's psyche, then, is not only the fundamental fact of the field of psychology but also precisely the disclosure of something quasi-psychological that remains outside of psychology. That is, there is something psychologically aesthetic.

To invoke aesthetics in this way is to understand it—following Deleuze—as an investigation into the real conditions of experience that exceed representation. Conceptually, aesthetics is thus intertwined with affect and excess. The terms are not precisely interchangeable, but they are also never entirely extricable from one another: throughout this book I use *aesthetic* to indicate something like a motive, value-laden, inarticulable sensory knowledge that at once grounds and exceeds valuation, and does so according to multiple, not necessarily coherent temporalities. I invoke the term *affect* similarly, but usually in relation to signification rather than value per se, with the term *excess* nominating the performativities that are always immanent to these and other constative claims.

With respect to the "psychologically aesthetic," Erin Manning powerfully parses this concatenation in her work on neurotypicality and neurodiversity, wherein she limns an ecological understanding of perception: perception, for Manning, is always first of an ecology, and only secondarily of subjects and objects.[9] In making this clear, Manning works from the ways that people with autism gradually form the entities of their environment rather than instantaneously engaging in the reductive chunking of neuro-

typicals. Importantly in the present context, this chunking includes the production of interiority (i.e., the subject). Manning thus demonstrates that the interiority that is constitutive of psychology is not a given, but is rather the result of psychological practices; like all practices, these are never fully determinate, always in progress, and always productive of and in conjunction with a more-than-themselves.

Put differently—and to move toward introducing incommunication, a key concept through which this book (in)coheres[10]—the impossibility of communication is always enacted through actual miscommunications that are themselves always also something else, something that can never quite be fully articulated. This is the lesson of Peters's trope: communication isn't just another observation/observer conundrum but also constitutes the conundrum itself in and as the actualization of a process that (like every enaction) is productive of excesses that can never themselves quite be observed. Aligning with Whitehead's well-known concept of "nonsensuous perception," we might say that there is a force of observation that is at work before it actualizes as a process and that persists as a strange excess to that which is observed. That is, there is something parasitic in communication that makes it a system that "works because it does not work."[11] Echoing Manning—herself echoing Moten and Harney—there is a fugitivity at the heart of communication: in communication there is "the quality of a reorientation moved by a spark that connects to an intensity already moving transversally," such that the inevitable mis(s)es of communications create openings for socialities to travel "in directions as yet in germ."[12] Put simply, the impossibility of communication itself—of pure communication—is enacted through actual, material, miscommunications.

I will ultimately argue that this enaction is indicative of (in)communication being first social, rather than indicating something that is secondary to autonomous communicants: as Michel Serres famously argues, the noise in a communicative relation comes before the establishment of a connection between sender and recipient.[13] But it bears noting first that a resonant point to the one I've been making has been argued through an emphasis on excommunication in the book of that name by Galloway, Thacker, and Wark. Emphasizing the fact that "there are certain kinds of messages that state *there will be no more messages*," the authors insist that there is thus a correlative excommunication for every communication, which is to say that "every communication harbors the dim awareness of an excommunication

that is prior to it, that conditions it and makes it all the more natural."[14] The point, in the context that I am building presently, is that "excommunication is itself communicated": "at the center of excommunication is a paradoxical anti-message, a message that cannot be enunciated [. . . and] that has already been enunciated, asserted, and distributed."[15]

As I am mobilizing it here, incommunication aligns with the assertions proffered by excommunication, as well as with Serres's more widely known argument that (as Marie Thompson puts it) "noise does not simply destroy but constitutes the relation."[16] However, incommunication gives greater emphasis to the role that an appearance of communication plays in latching otherwise incoherent relations to one another. There is (always) something aesthetic in the mix, and it is precisely the excessive relationality of this register that produces the relata that will themselves appear to have produced relations. Incommunication thus works in the future anterior, naming the bundle of materials, concepts, and phenomena that will have been the enaction of communication through miscommunications. In this sense, it is the (non)experience upon which the concepts of aesthetics, affect, and excess converge. Indeed, in this perspective, "miscommunication" is something of a misnomer, since communication is always in some important sense incommunicable.

Put differently, incommunication (in)coheres both transitively and intransitively—it brings specific things together into a specific constellation of relations (i.e., it is transitive), while also naming a process of ongoing, open-ended enaction (intransitive). In this, incommunication highlights the paradoxical sense in which it is not only the case that there is a continuum connecting total, partial, and nonexistent communications, but also that these are each qualitatively distinct: there is something of a partial communication that can't be described in the terms of that communication, because the part is not just a part of something but also its own thing altogether. If both are true, however, they are not equally so because the qualitative distinctions condition the quantitative ones in a way that does not invert. That is, incommunication enunciates the (paradoxical, contingent, relational, and actual) primacy of qualia and asserts the sense in which the relationship between full and nonexistent communication is a nondialectical one. A miscommunication thought incommunicatively is not a partial communication—that is, a part that has been extracted from a whole—but rather its own kind of thing with its own particular affor-

dances: it's not that we've communicated less, but that we've communicated something different. To fail to understand this is to risk erasing precisely what makes a particular communication particular, which is to say, what makes it an incommunication.

And so, if the impossibility of communication appears and reappears throughout a wide range of philosophical, artistic, and cultural histories, it is worth keeping in mind that it does indeed appear. There is something entirely singular about each instance: incommunications are the singularities of every failed communication, and they each have specific textures; they have moments, contexts, trajectories, promiscuities, densities, roughnesses, speeds, buoyancies, frequencies, amplitudes, and so forth. Listening incommunicatively, we are reminded that worlds don't somehow stop worlding during their failures to communicate, even if worlding itself is in some sense the primal act of communication.

At times, I've been tempted to parse this as a problem of attention, thinking that incommunications are clearly perceptible if one simply attends to them closely enough. Indeed, this has been the gambit of a certain history of art wherein to understand art in its historical dimension is to put aside attempts to define art categorically in favor of embracing the ways that aesthetic practices work in tandem with other protean historical processes to articulate moments simultaneously in their absolute particularity and in their contributions to the reproduction of cultures. In the context of completed global capitalism, for example, one such art historical trajectory can be plotted by attending to that in an artwork which unveils something inexchangeable at the heart of an exchange. Ironically, the tropes of this are most familiar in artists' claims that the work of their work is to defamiliarize: such a claim is supported by the contrasting beliefs that experience can be drawn out in its particularity by being made unfamiliar and that experience is always experienced under the threat of departicularization (especially through the various alienating forces that contour contemporary life for the globally privileged).[17]

Even though I'm sympathetic to such a perspective, my sense today is that one is not required to pay particularly close attention in order to perceive incommunications. Instead, they are regularly perceptible in daily life. To feel frustrated—as a very simple example—by the inefficacy of speaking to one's local political representative is to feel a specific impossibility of communication: one has the feeling—which is to say, one knows

because one feels, and one feels because one knows—that the communicative situation of political representation entirely precludes not only anything like a "matching of minds" but also even anything more pragmatic like "the cultivation of fruitful activity in an evolving community," which is how John Dewey, Willliam James, and Charles Sanders Peirce understood communication.[18] Instead, one feels the qualitative discontinuity between the democratic-informatic myth of being part of a voting populace (which would, in principle, give one a partial say in things) and the lived reality of political disenfranchisement that comes with trying to introduce anything political that is not already accounted for in the mix. Again, particular attention is not really required. One feels this; one knows this. Who really expects the theater of "unprecedented access" to politicians via social media to yield a performance that hasn't been scripted in advance?[19]

So if the impossibility of communication abounds once and for all, it also does so again and again: once and for all in the invariance of the impossibility, but again and again in the particularities of this invariance. Incommunication names this paradox that constitutes communication itself, namely, the fact that communication is a process that is at once impossible and unavoidable, locatable and excessive. Specifically, incommunication names this paradox in its performative dimension, because incommunications come about in the strange singularities of iterability and are constituted always in excess of themselves.

In our present moment (if such a thing can be said to exist) I would venture that the privileged form of incommunication is that of computational data. As Alexander Galloway perversely paraphrases Stuart Hall, "the digital is both the site and the stake in any contemporary struggle."[20] A computational perspective hallucinates an idea of information as something that would remain unchanged as it moves between contexts, such that data can be raw, pure, and fundamentally nonrelational.[21] This is a paradigm no doubt inherited from the interpersonal exchanges of white, patriarchal capitalism, where exchanges fail to cultivate collectivities because they are understood to flow from and return to the presupposed interiority of the individual. However, a computational perspective substitutes data—as discrete bits of information—for the individual in this economy, resulting in what Steven Connor calls an exopistemological perspective: an economy of computational exchange yields knowledge without a knower.[22] As Clough

explains (via Latour), "with massive amounts of data and the technologies to parse them, access to data about the individual or the collective is always the same: they are [indistinguishable because they are] both nodes of a network."[23]

Incommunicative egresses are particularly palpable when the heterogeneous and incommunicative textures of reality are flattened in this way. Communication might well be—among other things—"the interactive computation of a reality,"[24] but the recursive nature of the relation between individuals and collectives guarantees that any formalist description of either will miss something vital. From an incommunicative perspective, the crucial thing to note about this paradigm of acontextual informatic exchangeability is that it continues to circulate its postcapitalist fever dreams of universal exchange independent of anyone's belief in its communicative disguise. This paradigm can persist even in the absence of understanding or belief per se. For example, nobody knows what a "97 percent match" in the context of a dating app really means—and no reasonable person would take that ranking as indicating that a successful coupling is a foregone conclusion—but the number has a certain allure nonetheless.[25] Likewise, R. Joshua Scannell notes that most individual members of the New York Police Department don't believe in the accuracy of crime-tracking systems and predictive policing data, but act on them regardless.[26] Similarly, we know (from copious studies and statistics) that the lived realities of democratic political processes mean that the two-stage reduction of (first) collectives to individuals and (second) individuals to votes—that is, data points—can never be a fair, level, and robust process for cultivating collective political discourse, but the process is recognized regardless.[27] Like recent studies suggesting that placebos work even when one knows one is being given a sugar pill, consciously knowing that data is a trick doesn't seem to curtail its impact. This is the sense, then, that we are living in the afterlife of data: we are living in a time when data persists as an impactful element in the absence of any material existence.[28]

Because something *is* happening in these exchanges. As Sun-Ha Hong remarks, "what is being sold to us is not what data knows or can do, but what [data] allows us to do in its name."[29] Racist, homophobic, ableist, patriarchal hegemony is actively sustained both through the alibi of data and through the absence of belief in it. The former dissimulates the weight of historical prejudice that is borne in the present through inherited wealth,

values, and space: the purported neutrality of data underwrites the neoliberal belief in individual agency. The latter—the lack of belief in data—is equally and simultaneously forceful, though, because it provides a plausible deniability against commentary that would deploy the erroneous results of such systems as evidence against the broader neoliberal paradigm of exchangeability. For example, if one were to note the racially disproportionate outcomes of data-driven approaches to policing and, from this, argue that policing itself should be acknowledged as racially biased, the unconvincingness of data offers a built-in response for police to blame the (data-based) implementation of their values rather than the values themselves.[30] Likewise in elections where a fascist's victory is explained as a failure to get a specific demographic's vote out (e.g., the Black or youth vote). Again, it is the appearance of data that sustains both sides of this universal (in)exchangeability such that failed technologies can persistently and repeatedly fail, rather than simply disappearing.[31]

M. Beatrice Fazi—whose agenda-setting work features prominently in the third chapter of this book—connects this understanding of computation as universal exchange to Leibniz's concept of a universal conceptual language that could unambiguously represent all that can be thought and expressed, and that could be acted upon according to a general mathematical science. As Fazi demonstrates, it is "impossible to ignore the influence that [this] dream of universal symbolic calculation has exerted upon the development of contemporary computing" because it crafts "a generalization of the rules of thought itself" that amounts to "an attempt to construct . . . a *machine of thought*."[32] Specifically, Leibniz's perspective gives thinking "an inferential, normative, and procedural form" that is completed in Turing's algorithmic method wherein reasoning becomes axiomatic. Reasoning—in Turing's thought and the computers that come from its legacy—is "fully automated insofar as it needs nothing but itself in order to prove its validity."[33]

Crucially, for Fazi, Leibniz's proposed "machine of thought" and Turing's treatment of thought "as if its behaviour was already similar to that of a machine" work together to suture the notion of calculative validity to generality: "if calculation is valid reasoning . . . , and if valid reasoning always aims to be universal . . . , then a valid calculative method is one that tries to be as general as possible."[34] That is, "the automation of thought thrives on this procedural determinism of rules of inference: it is its com-

plete determination that makes a machine (of thought, as of anything else) a machine."[35] Simply put, the computational understanding of thought is "predicated upon the assumption that both proof and function can be placed outside of space and time, and outside of context and content."[36] To be blunt: thought is conceived as data, and data is thought as soul.

Of course, there are ample criticisms of this understanding of thought, which inevitably involves abstracting from the spatiotemporal and affective dynamics that are immanent to lived experience. As Fazi concisely summarizes, such processes "can only be reduced to their logical representation by way of the approximation and generalization of those dynamics," which is to say, by robbing them of the dynamism that defines them.[37] And yet it is worth keeping in mind just how deeply naturalized this perspective has become. While it is easy enough to find instances where such deterministic thinking is refused in the name of embodied processes, the logic of generalization nonetheless remains ubiquitous: it is easy enough to say that Facebook interactions, for example, fail to cultivate the level of intimacy that face-to-face conversation affords, but the reasons for this—interindividual affective exchange, shared contextual cues, scents, sounds, touches, and so on—remain generally true rather than singularly so. After all, how could the actual and specific intimacy of a particular interaction be robbed by Facebook if the specific interaction only ever took place on Facebook in the first place? If we feel like we can feel a loss that never actually happens, this suggests that we have given up something of the openness to other possibilities that would have made it special in the first place. In this way, the sense of incompleteness that comes with such interactions further entrenches a formalized, schematic understanding of communication.

The point is, computational communication—the offspring of white, colonial, patriarchal capitalist exchange, adapted for postmaterial consumer culture—crafts a particular topological invariant between humans and machines.[38] Recent geopolitical events demonstrate that "the symbolic order is alive and well, whether it be in the command of the sovereign or the infrastructure of the machine. The digital is the site of contemporary power. The digital is where capital exploits labor. The digital organizes technologies, bodies, and societies."[39] Data is a master schema of the social, and this is only more the case in the era of its afterlife, when it is unfettered by the constraints of actuality. It has become a cliché to note

the wild abandon with which the term *algorithm* is thrown around, but it is less noted that this irresponsible ubiquity nonetheless actually makes algorithmic thinking more impactful: particular instances might be criticized, but such criticism both reinforces the legitimacy of proper uses of the term and circulates that quality of algorithmic legitimacy as something worth defending.

This is the context in which I offer the neologism *dataphasia*, naming not just that which data cannot speak (which may in fact be unnameable) but also the fact that in important senses computational communication is expressive of the specific ways in which data cannot speak at all because it is at once tied to the fixity of a presumed subject and indistinguishable from networking.[40] This neologism leverages something of a perverse understanding of aphasia wherein it is rethought less as a communicative incapacity and more as an enunciative-receptive situation.[41] That is, this gambit takes the position that an aphasic (non)utterance communicates plenty, so if interlocutors are frustrated it is because the communicational collectivity is incapable of being receptive to that which is communicated that doesn't originate in—and flow directly from—conscious thought. The nonevent of aphasic communication conveys oodles and does so according to the terms that are in play, but in a way that can't be traced to an origin or will. Speech in this way evinces an originary technicity that means it is always under the threat of being wrested from the idealism of conscious thought and self-possessed intention, so that aphasia is in fact the first condition of speech. Analogously to the way that noise comes first for Serres, aphasia enunciates the relation that it seems to impede.

Likewise, in a culture of completed dataphasia there is no shortage of datic (in)communications, but this is the case because the purported content of these—the bits and bytes one hears so much about—are more the effects of social forms (or quasi-consensual hallucinations, if you like) than the agents that they are regularly imagined to be. As Jodi Dean argues, today "values heralded as central to democracy take material form in networked communications technologies," but in doing so, any particular contribution "need not be understood; it need only be repeated, reproduced, forwarded."[42] Since, as Dean concludes, this means that "circulation is the context," the situation is fully dataphasic: the circulation of (in)communications develops an economy that speaks only its own circulation rather

than particular messages, and this circulation (by the same logic) does not exist except as an aesthetics of computational incommunication. Messages circulate spectrally, evincing and texturing their own nonexistence.

If the computational alibi persists in the face of its having been so thoroughly critiqued, a tack other than critique is called for: "uncut devotion to the critique of this illusion [of politics] makes us delusional."[43] Rather than assuming the Sisyphean task of critiquing communication directly, the gambit of this book is that we might begin by simply listening to these siren songs of smooth computational space. Such a listening would be undertaken not so much in order to show (yet again) the impossibility of communication, but rather to hear what is disclosed in the specifics of the alibi itself, by its appearances.

There are reasons aplenty for adopting listening as a method. Insofar as "resonance"—a key acoustic concept—describes the "patterned intensity of a flow, expressed as a rate or a frequency ratio,"[44] it seems naturally suited to the relational and distributed understanding of agency that incommunication develops, especially in its computational appearance. To listen in this environment is less to craft a stable subject/object relation and more to adopt a posture that acknowledges one's entanglement in ongoing processes of attunement and differentiation. Listening is in this sense not tied to literal sound per se, but is instead a material-semiotic sociotechnical practice that engages the world in its acoustic registers.

And yet, if listening seems like a natural ally for the afterlife of data, that should equally give us pause. In terrible times, anything easy is also suspect. As Robin James has convincingly demonstrated (building on Foucault's concept of the episteme), we live in something of a "sonic episteme," in which "acoustically resonant sound is the 'rule' [that] otherwise divergent practices use 'to define the objects proper to their own study, to form their concepts, to build their theories.'"[45] Moreover, "this rule is the qualitative version of the quantitative rules neoliberal market logics and biopolitical statistics use to organize society."[46] In this way, "the sonic episteme misrepresents sociohistorically specific concepts of sound" as though they were natural, and then "uses sound's purported difference from vision to mark its departure from what it deems the West's ocular- and text-centric status quo."[47] This episteme remakes and renaturalizes the white supremacist po-

litical baggage inherited from Western modernity "in forms more compatible with twenty-first-century technologies and ideologies."[48] Inflected differently, James demonstrates that sonically oriented theoretical approaches too often prescribe under the guise of description, and in so doing naturalize the ontological foundations of contemporary power relations. If sound, resonance, and even listening are to be productive models for theorizing, then they must model "intellectual and social practices that are designed to avoid and/or oppose the systemic relations of domination that classical liberalism and neoliberalism create."[49]

There is a pragmatic dimension to this insight, in that it weds the meanings of propositions to what they actually do. In that spirit (and in light of James's argument), this book adopts a double stance toward listening: it asks what we might learn from listening to data incommunicatively, but also how might we go about doing so in ways that listen to listening differently in order to tune into the strange aesthetic affordances that come with transducing the unvisualizably immense scales of contemporary data practices (which are themselves transductive abstractions, like real estate is). Since, in the following pages, I often approach these questions according to specifically pragmatic protocols, a brief gloss of that thinking may be warranted (even if an extended scholarly engagement with pragmatism proper is beyond both the scope and commitments of this book). In short, pragmatism is an experimental theory of knowledge that dissolves the opposition between theory and practice that appears in other approaches, as well as that between appearance and reality. Likewise, metaphysical paradoxes tend to be cast aside, as there is a general rejection—through what is called the pragmatic maxim—of the notion that there are facts that are unknowable in principle. As discussed in chapter 1, the perceived opposition between ontology and epistemology is also immaterial. In this sense, pragmatism is akin to religious agnosticism: just as for the agnostic the very question of the existence of divinity isn't sensible in its own right, so for the pragmatist such questions are not properly askable.

If the conditions for being able to ask such questions are not available, we can nonetheless interrogate the stakes of answering them: we can ask what is really being claimed when an untenable claim is made. The stakes of pragmatism are thus themselves pragmatic in that it is an approach that stays close to the question of who/what a given utterance is in service, as well as the correlative questions of exclusion. Glosses of pragmatism often

state that there must be a practical difference tied to the truth or falsehood of a proposition in order for it to be part of a genuine (i.e., rather than simply semantic) disagreement or problem; while this is true as far as it goes, I prefer to emphasize the ways that a pragmatic approach palpates the work of a proposition—what it does. In this, a pragmatic attentiveness bends our ears toward the ongoing production of differences as they act in the world, including the weights, forces, speeds, and redirections that they add to actual situations.

Many of the ideas in this book were born in the midst of precisely such specificities, developed as they were from pragmatic methods: readers will no doubt note that many of the argumentative strains in this book are carried by artistic and technical engagements that I myself undertook. Such practices are, for me, integral to staying with the trouble of signals' more-thans: this is the case because it helps me focus not only on the technical affordances and constraints of a given situation but also on the ways that these technicalities are actually and constitutively caught up in social, semiotic, and historical realities that both exceed and condition them. The situatedness of artistic and technical practices is real. Hence, I share elements of my own creative practice in this book not because I think the resulting artworks are important in an art historical sense (I resolutely don't think this), but rather because these practices are lived in tandem—literally coproductively—with the ideas about which I'm writing.

There are evident parallels between pragmatic philosophy and contemporary, nonessentialist understandings of sound (and, relatedly, listening). The first chapter of this book—"Networking Sound and Medium Specificity"—prepares the ground for the pragmatically conceptual understandings of listening that feature throughout the monograph by working through questions and stakes of medium specificity as they relate to sound. In service of this argument, the chapter extensively discusses a custom software tool and internet-based artwork—*Exurbia* (2011–14), created by myself and William Brent—that leverages a strange pragmatics of sound against existing understandings of specific forms of network communication. *Exurbia* is characterized by four distinct features:

- the interface is time intensive, being predominantly aural and executed in real time;
- editing is destructive (i.e., there is no "undo" feature);

- all source materials (i.e., sound samples) are shared among all users, but are used to produce discrete pieces; and
- each edit on a single user's computer impacts every instance of a single file throughout the *Exurbia* community (i.e., the materials are dislocated).

As I argue, the particular way in which these features are brought together in *Exurbia* results in a work that undermines the equation of networks with exchange and the prioritization of data over relations, while affording a strange, aurally modulated individual compositional experience that is in important senses secondary to the experience of an online community: experience itself is felt in its relational dimension, untethered from the presumptions of individuality.

Chapter 2—"Listening and Technicity"—extends this engagement with sound to the disposition of listening, specifically in a way that acknowledges the technicity that obtains in listening (whether a computer is involved or not). Focusing this engagement is a discussion of the wearable technology Fathead, a device that variously simulates how it might sound to have a one-thousand-foot-wide head. Crucially, the chapter not only attends to Fathead as a prosthetic technology but also details the work's development in order to tease out its more obscure potentials as a device for palpating the role of experiential (in)variance in knowledge sharing. In this way, the chapter attunes less to what listening is and more to the ways that elaborations of listening's technical assemblages can disclose and even be productive of different incommunicative registers.

In some respects the heart of the book, chapter 3—"Incomputable and Integral Incommunications"—further interrogates the collective experiential knots that are textured by the specific technical relations of listening by asking how the machinations of computers specifically impact their processing of sound, and what can we learn from this. To answer these questions, I closely consider the recent work of M. Beatrice Fazi on incomputability (and, to a lesser extent, Wolfgang Ernst's concept of time criticality), which parses a constitutive contingency that is internal to computation. From this reading, I proceed to consider the Fourier integral—the function from which sound (re)synthesis derives—in its contingent potentials in order to map a terrain of processual computational excesses that operate

incommunicatively even as they cannot be accounted for in the logic of computation proper.

The excesses that chapter 3 explains are pressured for their aesthetic affordances in the art practices discussed in chapter 4—"Algorithms, Art, and Sonicity"—especially in their production of strange temporalities that emerge alongside the interscalar relations that digital technologies privilege. Moreover, in this chapter I demonstrate how listening affords a specific position in these encounters. With its characteristic coupling of human activity with unthinkable machinic speeds and scales, contemporary technoculture intensifies the basic but essential incommunicative problem of how to act responsibly when one's actions are implicated in nonlinear networks that exceed the purview of consciousness. In this chapter, I listen alongside the ways that art has textured this bind by bringing aesthetic practices to bear on digital technologies (and to the algorithms through which they operate), specifically attending to works by Colin Clark, Kelly Egan, Shilpa Gupta, Ryoji Ikeda, Renee Lear, Evan Merz, and Juliana Pivato. Importantly, this situates listening as a not-necessarily-sonic experience, working from the position that it is not only possible to listen to visual processes, but it is arguably necessary to develop nonvisual techniques for steering human-technology coupling—of becoming agential through distributed attunement—in order to address the unvisualizably immense and minute scales that subtend so many contemporary experiences. The aesthetic component of this address is a crucial technique for denaturalizing the logics at work in these experiences that come to fruition in the sonic episteme, and provides the ground for a critique of creative capitalism by insisting on something that remains inexchangeable.

The final chapter of the book—"Listening and Technicity (Once and for All, Again and Again)"—is perhaps the book's strangest and most adventurous, unfolding the relational, mediatic, and multicausal logics of incommunication in settings ranging from basketball and squash courts to video games to dreams and intuitions. I begin this chapter by working again through the technics of listening, but this time with a rigorous ear for the experiential (in the full, distributed sense of the term) that would not have been coherent without the earlier chapters. From this grounding, I work through several examples of the (a)systematic, extra-auditory operations of (incommunicational) listening, and especially those that leverage the pro-

ductive powers of adjacency that come with collectivities. Through these examples, the incommunication thesis that both motivates and captures so much of this book becomes—if still not quite graspable—as legible as it can ever be, charting a multiverse of never-quite-possible actualities that may nonetheless (in a different sense) be fated. If, as I argue above, the impossibility of communication abounds both once and for all and also again and again, this closing chapter demonstrates how that paradox forms a resonant frequency through which relations attune. (Though pitched in a different register altogether, this is also the aim of the postscript.)

To summarize, *Listening in the Afterlife of Data* begins by accepting that communication isn't actually possible, which is an observation that every communicative discipline has at least partially acknowledged. By accepting this at the outset, I am able to more clearly think through the ways that communication, as a metaphor, seduces us into certain assumptions, affording certain sorts of activities while constraining others. Even knowing that *communication* is a radically fictitious term, it circulates apparitionally in and as the afterlife of data: that is, it remains remarkably difficult to avoid falling into the habits of thinking-acting that imagine information to be something that is passed, unchanged, between senders and receivers. The ubiquity of computation marks the ascendance of this metaphor of communication to a hegemonic position. The effective equation today is simple: for the most part, communication = computation = data = exchangeability. That this equation evinces a thoroughly impoverished understanding of relations as they actually exist has had little bearing on its usability. Of course it matters that the word *communication* doesn't just mean consumer computing technologies, but it also matters that for many people, much of the time, it does (even as computation remains metaphorical).

Incommunication, then, is about hijacking the communicative metaphor, wrestling its undeniable powers of (cultural) production from the iconography of computation. Data is never really a representational mediation of experience, but rather is an incommunicative thing that finds itself in a complex relation between the possibility of universalizing (computational) abstraction and the necessity of living and perceiving upon singular (or particular) experiential grounds. By shifting the metaphor to incommunication—by working from and through the incoherence of universals and particulars—we can pervert the established orthodoxy of interpreting rela-

tions in the digital age through the tired metaphor of the network, opening up new investigative avenues in media studies.[50]

Listening—understood beyond its mere sensory implications—is the mode in which this book undertakes such investigations, not because listening has somehow been culturally suppressed (it hasn't been) but because it is a metaphor that is particularly suited to engaging these notions of exchange. As discussed above, this suitability is itself Janus-faced insofar as sonic metaphors align with those of the market, so that to critique listening is, in part, to pull apart the founding assumptions of the particular form of neoliberalism that computation naturalizes and intensifies—especially as computation migrates to artificial intelligence, moving toward a moment when computation will have fully hegemonized our cultural understanding of knowledge even as it has entirely shed its skin of recognizable, hardware computers.

To listen in the afterlife of data is thus a pragmatic undertaking, approaching communication, listening, and data by asking what practical and material differences their figurations make, to whom, and most importantly how. I am not advocating a redefinition of these concepts, but instead describing the ways that they are—like all concepts—lived, and thus open to nudges that would have us live them otherwise. That is, *Listening in the Afterlife of Data* joins a growing body of literature that suspends the question of definition in favor of asking what experience can do: "whats" have always also been "hows," and I'm curious if the psychedelic incoherence of this claim can be taken a little more seriously with respect to communication. Certainly, the artworks, experiments, scenes, and stories that I take up all open onto such definitional excesses; can thought, in its theoretical profile, also do so?

NOTES

Introduction

1 Dutilh Novaes, *Formal Languages in Logic*, 25.

2 Brouwer, *Collected Works*, vol. 1, 94.

3 Harney and Moten, *The Undercommons*, 18.

4 Peters, *Speaking into the Air*, 1, emphasis added.

5 Peters, *Speaking into the Air*, 4–5.

6 Clough, *The User Unconscious*, xii.

7 Manning, *The Minor Gesture*, 58.

8 Ruyer, *La genèse des forms vivantes*; quoted in Manning, *The Minor Gesture*, 58.

9 The *neuro* prefix in these terms is potentially misleading, as Manning is acutely aware that brains are productions of bodily ecological practices.

10 As will become clear, the parenthetical *in* is not an expression of authorial modesty, but an assertion that there is something incoherent about coherence. Indeed, I'm grateful to Josh Dittrich for pointing out that (in)coherence may itself be a key concept of this book's argument even in not being named as such, because it formulates the contradictory notions of inherence, excessiveness, coalescence, and particularity that characterize incommunication. More simply, this book proceeds from an assumption that the universe is not coherent with itself (i.e., there is no such thing as "the world," but rather worldings upon worldings that are always more-thans).

11 Serres, *The Parasite*, 13.

12 Manning, "Fugitively, Approximately," 10.

13 Serres, *The Parasite*, 63 and passim. Marie Thompson parses Serres's position specifically in the context of a sound studies argument about noise in chapter 2 of *Beyond Unwanted Sound*.

14 Galloway, Thacker, and Wark, *Excommunication*, 10.

15 Galloway, Thacker, and Wark, *Excommunication*, 15–16.

16 Thompson, *Beyond Unwanted Sound*, 62.

17 This position has certain elements of experience and perception a bit backward, as will become evident throughout this book.

18 Peters, *The Marvelous Clouds*, 44.

19 Eve Tuck and K. Wayne Yang make the consequences of one vector of such insidious scripting palpable in their agenda-setting article "Decolonization Is Not a Metaphor."

20 Galloway, "Peak Analog."

21 This perspective yields the corollary belief that the universe would be revealed to be fully determinate if we only had enough information. We don't need quantum physics to tell us that this isn't the case, although it does do just that.

22 Since this knowledge (and really, all knowledge) only appears as such in being communicated, communication always fails to succeed because the knowledge it shares discloses a not-knowing (in the form of a drive to know). See Connor, "Exopistemology."

23 Clough, *The User Unconscious*, xviii. Clough cites Latour, "'The Whole Is Always Smaller Than Its Parts,'" 595.

24 Krippendorf, cited in Umpleby, "Reviving the American Society for Cybernetics," 19.

25 There is, moreover, an urban legend—which may well be true—that companies use high match rankings as a future anterior psychological tactic. That is, an invented/inflated high match percentage increases individuals' confidence in a match, thus making it more likely that they will give the prospective relationship the benefit of the doubt, in turn making it more likely that the prediction will turn out to have been correct all along. There is thus a priming effect of the statistic that works despite nobody, at any point in the process, really understanding or believing the percentage (which belief would be impossible, given that the concept of a percentage in this context is literally meaningless).

26 Scannell, *Cities*.

27 To be clear, the process is validated even when folks (rightly) protest its perversion, as in the U.S. examples of "hanging chads" during the 2000 election or of Republicans frequently being elected with less than 50 percent of the popular vote. In both cases, the stakes of the argument are as high as they are because the (post)political reality is such that predicates of the electoral process itself are largely beyond the pale.

28 I, of course, am far from the first to use the term *afterlife* to mark the effective persistence of something beyond its seeming end. I first encountered this use of the term in graduate school during a seminar leading up to a public lecture to be given by Eugene Thacker (related, I believe, to his at that time unpublished book *After Life*). Today, this use of the term is probably most strongly associated with Saidiya Hartman, who uses the phrase "afterlife of slavery" to theorize how the subjection of Black people persists after the legal end of enslavement, and how this persistence is a continuance of the racial logics of slavery. See Hartman, *Lose Your Mother*.

29 Hong, "Technologies of Speculation."

30 This works in tandem with an opposite strategy that Ruha Benjamin calls the "datafication of injustice," where a claim of needing more data serves as a justification for inaction. That is, "the hunt for more and more data is a barrier for acting on what we already know." See Benjamin, *Race after Technology*, 78.

31 Obviously, the financial investment of technology corporations throughout the public sector plays a decisive role in this paradigm.

32 Fazi, "Can a Machine Think," 817–18, emphasis in original.

33 Fazi, "Can a Machine Think," 818.

34 Fazi, "Can a Machine Think," 818.

35 Fazi, "Can a Machine Think," 818.

36 Fazi, "Can a Machine Think," 818. It is important to note that Fazi presents this line of thinking in the context of her argument that computers might nonetheless be capable of novel behavior if they are thought outside of what she calls the "simulative paradigm" that is inherited from Turing's famous test. (She coins the phrase specifically to explain the post-Turing inheritance of a certain understanding of intelligence, be it human or machine.) Such novelty, for Fazi, could thereby "come not from breaking mechanical rules, but from following them," which is to say from doing "what computers do already."

37 Fazi, "Can a Machine Think," 819.

38 For Fazi, this invariance is best explained through an analysis of the simulative paradigm.

39 Galloway, "Peak Analog."

40 This is built into the word *data* itself, which names both a single monolithic conceptual entity and a swarm of particulars.

41 I'm drawing on the etymology and early use of the term *aphasia* here, using it adjectivally to convey the loss of communicative capacity that many people—including me—have experienced in stressful, frightening, or otherwise intensified situations (most frequently, as is germane to this book, in dreams). The (admittedly more common) use of the term to indicate a pathology resulting from damage to the brain bears a different kind of consideration, led by someone who lives with that pathology. (Nonetheless, my use of the term is in solidarity with a central tenet of much critical disability literature, namely, that *disability* names a particular situation—most often a societal exclusion—rather than an impairment per se. See Mankoff, Hayes, and Kasnitz, "Disability Studies as a Source of Critical Inquiry," 3. See also Joshua St. Pierre and Charis St. Pierre on the "disciplining of the tongue" involved in speech-language pathology in "Governing the Voice.")

42 Dean, "Communicative Capitalism," 59; cited in Behar, "Speaking Volumes."

43 Harney and Moten, *The Undercommons*, 19.

44 James, *The Sonic Episteme*, 8.

45 James, *The Sonic Episteme*, 5. James notes that Jonathan Sterne's oft-cited "audio-visual litany" charts similar terrain. See Sterne, *The Audible Past*, 15.

46 James, *The Sonic Episteme*, 5.

47 James, *The Sonic Episteme*, 3.

48 James, *The Sonic Episteme*, 4.

49 James, *The Sonic Episteme*, 5–6.

50 I am grateful to the anonymous reader whose report I drew upon to formulate this paragraph.

Chapter One: Networking Sound and Medium Specificity

An earlier version of chapter 1 was published in *Evental Aesthetics* 2, no. 2 (2013) as "The Sonic Effect: Aurality and Digital Networks in Exurbia." Thank you to Mandy-Suzanne Wong and Joanna Demers for their editorial work in that setting.

1 This example borrows its impulse, if not its actual text or examples, from Wallace, *Everything and More*, 31. In the cited section, Wallace exemplifies the way that mathematics texts can tend to be "abstruse and technical . . . because of all the specifications and conditions that have to be put on theorems to keep them out of crevasses" (31n19). The question of finitude that this equation touches on in this chapter is taken up more fully in chapter 3.

2 This is the implicit drive of our initial diffidence toward the equation $\frac{x}{2} = \frac{x}{200}$, namely, that we know that if both sides of the equation are equal, and if both sides feature the same numerator, then the denominators should be the same.

3 Krauss, "Sculpture in the Expanded Field"; Youngblood, *Expanded Cinema*.

4 See Bal, *Traveling Concepts in the Humanities,* chapter 4. Bal notes that in contrast to the term *context*, the act of framing "produces an event [that is] performed by an agent who is responsible [for their] acts" and who is in turn framed by the action of framing in a potentially infinite regress that foregrounds the involvement of time (135–36).

5 See Derrida, *Of Grammatology*. Gayatri Spivak briefly discusses différance on pp. xx–lxxi in her "Translator's Introduction." Indeed, Spivak's introduction is notably lucid in parsing the vexing paradoxes that Derrida puts to work.

6 Pater, *The Renaissance*, 140.

7 Kim-Cohen, *In the Blink of an Ear*, 39. One might argue that paratextuality marks a similar vector in literary interpretation, but Kim-Cohen's general point stands.

8 There is increasingly work that takes up the position that music cannot be considered to be distinct from the physical-psychic experience of making and listening to music. For example, Nina Eidsheim's "Sensing Voice" treats music as an experience of the total sensorium and is particularly fascinating in this respect. I agree wholeheartedly, but would also point out that it is telling that even as recently as 2011 (and in a journal—*The Senses and Society*—that is not particular to musicology, no less!), Eidsheim feels compelled to begin her argument by distinguishing her methods from "common methods of musical representation and