Vibrant Matter

a political ecology of things

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Vibrant Matter

I must let my senses wander as my thought,
my eyes see without looking. . . .
Go not to the object; let it come to you.

HENRY THOREAU,
The Journal of Henry David Thoreau

It is never we who affirm or deny something of a thing;
it is the thing itself that affirms or denies something of itself in us.

BARUCH SPINOZA, *Short Treatise II*

1

The Force of Things

In the wake of Michel Foucault's death in 1984, there was an explosion of scholarship on the body and its social construction, on the operations of biopower. These genealogical (in the Nietzschean sense) studies exposed the various micropolitical and macropolitical techniques through which the human body was disciplined, normalized, sped up and slowed down, gendered, sexed, nationalized, globalized, rendered disposable, or otherwise composed. The initial insight was to reveal how cultural practices produce what is experienced as the "natural," but many theorists also insisted on the *material recalcitrance* of such cultural productions.[1] Though gender, for example, was a congealed bodily effect of historical norms and repetitions, its status as artifact does *not* imply an easy susceptibility to human understanding, reform, or control. The point was that cultural forms are themselves powerful, material assemblages with *resistant force*.

In what follows, I, too, will feature the negative power or recalcitrance of things. But I will also seek to highlight a positive, productive power of their own. And, instead of focusing on collectives conceived primarily

as conglomerates of human designs and practices ("discourse"), I will highlight the active role of *nonhuman* materials in public life. In short, I will try to give voice to a thing-power. As W. J. T. Mitchell notes, "objects are the way things appear to a subject—that is, with a name, an identity, a gestalt or stereotypical template. . . . Things, on the other hand, . . . [signal] the moment when the object becomes the Other, when the sardine can looks back, when the mute idol speaks, when the subject experiences the object as uncanny and feels the need for what Foucault calls 'a metaphysics of the object, or, more exactly, a metaphysics of that never objectifiable depth from which objects rise up toward our superficial knowledge.'"[2]

Thing-Power, or the Out-Side

Spinoza ascribes to bodies a peculiar vitality: "Each thing [*res*], as far as it can by its own power, strives [*conatur*] to persevere in its own being."[3] *Conatus* names an "active impulsion" or trending tendency to persist.[4] Although Spinoza distinguishes the human body from other bodies by noting that its "virtue" consists in "nothing other than to live by the guidance of reason,"[5] every nonhuman body shares with every human body a conative nature (and thus a "virtue" appropriate to its material configuration). Conatus names a power present in *every* body: "Any thing whatsoever, whether it be more perfect or less perfect, will always be able to persist in existing with that same force whereby it begins to exist, so that in this respect all things are equal."[6] Even a falling stone, writes Spinoza, "is endeavoring, as far as in it lies, to continue in its motion."[7] As Nancy Levene notes, "Spinoza continually stresses this continuity between human and other beings," for "not only do human beings not form a separate imperium unto themselves; they do not even command the imperium, nature, of which they are a part."[8]

The idea of thing-power bears a family resemblance to Spinoza's conatus, as well as to what Henry David Thoreau called the Wild or that uncanny presence that met him in the Concord woods and atop Mount Ktaadn and also resided in/as that monster called the railroad and that alien called his Genius. Wildness was a not-quite-human force that addled and altered human and other bodies. It named an irreducibly

strange dimension of matter, an *out-side*. Thing-power is also kin to what Hent de Vries, in the context of political theology, called "the absolute" or that "intangible and imponderable" recalcitrance.[9] Though the absolute is often equated with God, especially in theologies emphasizing divine omnipotence or radical alterity, de Vries defines it more open-endedly as "that which tends to loosen its ties to existing contexts."[10] This definition makes sense when we look at the etymology of *absolute*: *ab* (off) + *solver* (to loosen). The absolute is that which is *loosened off* and on the loose. When, for example, a Catholic priest performs the act of ab-solution, he is the vehicle of a divine agency that loosens sins from their attachment to a particular soul: sins now stand apart, displaced foreigners living a strange, impersonal life of their own. When de Vries speaks of the absolute, he thus tries to point to what no speaker could possibly see, that is, a some-thing that is not an object of knowledge, that is detached or radically free from representation, and thus no-thing at all. Nothing but the force or effectivity of the detachment, that is.

De Vries's notion of the absolute, like the thing-power I will seek to express, seeks to acknowledge that which refuses to dissolve completely into the milieu of human knowledge. But there is also a difference in emphasis. De Vries conceives this exteriority, this out-side, primarily as an epistemological limit: in the presence of the absolute, we cannot *know*. It is from human thinking that the absolute has detached; the absolute names the limits of *intelligibility*. De Vries's formulations thus give priority to humans as knowing bodies, while tending to overlook things and what *they* can do. The notion of thing-power aims instead to attend to the it as actant; I will try, impossibly, to name the moment of independence (from subjectivity) possessed by things, a moment that must be there, since things do in fact affect other bodies, enhancing or weakening their power. I will shift from the language of epistemology to that of ontology, from a focus on an elusive recalcitrance hovering between immanence and transcendence (the absolute) to an active, earthy, not-quite-human capaciousness (vibrant matter). I will try to give voice to a vitality intrinsic to materiality, in the process absolving matter from its long history of attachment to automatism or mechanism.[11]

The strangely vital things that will rise up to meet us in this chapter—a dead rat, a plastic cap, a spool of thread—are characters in a specula-

tive onto-story. The tale hazards an account of materiality, even though it is both too alien and too close to see clearly and even though linguistic means prove inadequate to the task. The story will highlight the extent to which human being and thinghood overlap, the extent to which the us and the it slip-slide into each other. One moral of the story is that we are also nonhuman and that things, too, are vital players in the world. The hope is that the story will enhance receptivity to the impersonal life that surrounds and infuses us, will generate a more subtle awareness of the complicated web of dissonant connections between bodies, and will enable wiser interventions into that ecology.

Thing-Power I: Debris

On a sunny Tuesday morning on 4 June in the grate over the storm drain to the Chesapeake Bay in front of Sam's Bagels on Cold Spring Lane in Baltimore, there was:

one large men's black plastic work glove
one dense mat of oak pollen
one unblemished dead rat
one white plastic bottle cap
one smooth stick of wood

Glove, pollen, rat, cap, stick. As I encountered these items, they shimmied back and forth between debris and thing—between, on the one hand, stuff to ignore, except insofar as it betokened human activity (the workman's efforts, the litterer's toss, the rat-poisoner's success), and, on the other hand, stuff that commanded attention in its own right, as existents in excess of their association with human meanings, habits, or projects. In the second moment, stuff exhibited its thing-power: it issued a call, even if I did not quite understand what it was saying. At the very least, it provoked affects in me: I was repelled by the dead (or was it merely sleeping?) rat and dismayed by the litter, but I also felt something else: a nameless awareness of the impossible singularity of *that* rat, *that* configuration of pollen, *that* otherwise utterly banal, mass-produced plastic water-bottle cap.

I was struck by what Stephen Jay Gould called the "excruciating complexity and intractability" of nonhuman bodies,[12] but, in being *struck*, I

realized that the capacity of these bodies was not restricted to a passive "intractability" but also included the ability to make things happen, to produce effects. When the materiality of the glove, the rat, the pollen, the bottle cap, and the stick started to shimmer and spark, it was in part because of the contingent tableau that they formed with each other, with the street, with the weather that morning, with me. For had the sun not glinted on the black glove, I might not have seen the rat; had the rat not been there, I might not have noted the bottle cap, and so on. But they *were* all there just as they were, and so I caught a glimpse of an energetic vitality inside each of these things, things that I generally conceived as inert. In this assemblage, *objects* appeared as *things*, that is, as vivid entities not entirely reducible to the contexts in which (human) subjects set them, never entirely exhausted by their semiotics. In my encounter with the gutter on Cold Spring Lane, I glimpsed a culture of things irreducible to the culture of objects.[13] I achieved, for a moment, what Thoreau had made his life's goal: to be able, as Thomas Dumm puts it, "to be surprised by what we see."[14]

This window onto an eccentric out-side was made possible by the fortuity of that particular assemblage, but also by a certain anticipatory readiness on my in-side, by a perceptual style open to the appearance of thing-power. For I came on the glove-pollen-rat-cap-stick with Thoreau in my head, who had encouraged me to practice "the discipline of looking always at what is to be seen"; with Spinoza's claim that all things are "animate, albeit in different degrees"; and with Maurice Merleau-Ponty, whose *Phenomenology of Perception* had disclosed for me "an immanent or incipient significance in the living body [which] extends, . . . to the whole sensible world" and which had shown me how "our gaze, prompted by the experience of our own body, will discover in all other 'objects' the miracle of expression."[15]

As I have already noted, the items on the ground that day were vibratory—at one moment disclosing themselves as dead stuff and at the next as live presence: junk, then claimant; inert matter, then live wire. It hit me then in a visceral way how American materialism, which requires buying ever-increasing numbers of products purchased in ever-shorter cycles, is *anti*materiality.[16] The sheer volume of commodities, and the hyperconsumptive necessity of junking them to make room for new ones, conceals the vitality of matter. In *The Meadowlands*, a late twentieth-century, Thoreauian travelogue of the New Jersey garbage

hills outside Manhattan, Robert Sullivan describes the vitality that persists even in trash:

> The . . . garbage hills are alive. . . . there are billions of microscopic organisms thriving underground in dark, oxygen-free communities. . . . After having ingested the tiniest portion of leftover New Jersey or New York, these cells then exhale huge underground plumes of carbon dioxide and of warm moist methane, giant stillborn tropical winds that seep through the ground to feed the Meadlowlands' fires, or creep up into the atmosphere, where they eat away at the . . . ozone. . . . One afternoon I . . . walked along the edge of a garbage hill, a forty-foot drumlin of compacted trash that owed its topography to the waste of the city of Newark. . . . There had been rain the night before, so it wasn't long before I found a little leachate seep, a black ooze trickling down the slope of the hill, an espresso of refuse. In a few hours, this stream would find its way down into the . . . groundwater of the Meadowlands; it would mingle with toxic streams. . . . But in this moment, here at its birth, . . . this little seep was pure pollution, a pristine stew of oil and grease, of cyanide and arsenic, of cadmium, chromium, copper, lead, nickel, silver, mercury, and zinc. I touched this fluid—my fingertip was a bluish caramel color—and it was warm and fresh. A few yards away, where the stream collected into a benzene-scented pool, a mallard swam alone.[17]

Sullivan reminds us that a vital materiality can never really be thrown "away," for it continues its activities even as a discarded or unwanted commodity. For Sullivan that day, as for me on that June morning, thing-power rose from a pile of trash. Not Flower Power, or Black Power, or Girl Power, but *Thing-Power*: the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle.

Thing-Power II: Odradek's Nonorganic Life

A dead rat, some oak pollen, and a stick of wood stopped me in my tracks. But so did the plastic glove and the bottle cap: thing-power arises from bodies inorganic as well as organic. In support of this contention, Manuel De Landa notes how even inorganic matter can "self-organize":

> Inorganic matter-energy has a wider range of alternatives for the generation of structure than just simple phase transitions. . . . In other words, even the humblest forms of matter and energy have the potential for *self-organization* beyond the relatively simple type involved in the creation of crystals. There are, for instance, those coherent waves called solitons which form in many different types of materials, ranging from ocean waters (where they are called tsunamis) to lasers. Then there are . . . stable states (or attractors), which can sustain coherent cyclic activity. . . . Finally, and unlike the previous examples of nonlinear self-organization where true innovation cannot occur, there [are] . . . the different combinations into which entities derived from the previous processes (crystals, coherent pulses, cyclic patterns) may enter. When put together, these forms of spontaneous structural generation suggest that inorganic matter is much more variable and creative than we ever imagined. And this insight into matter's inherent creativity needs to be fully incorporated into our new materialist philosophies.[18]

I will in chapter 4 try to wrestle philosophically with the idea of impersonal or nonorganic life, but here I would like to draw attention to a literary dramatization of this idea: to Odradek, the protagonist of Franz Kafka's short story "Cares of a Family Man." Odradek is a spool of thread who/that can run and laugh; this animate wood exercises an impersonal form of vitality. De Landa speaks of a "spontaneous structural generation" that happens, for example, when chemical systems at far-from-equilibrium states inexplicably choose one path of development rather than another. Like these systems, the material configuration that is Odradek straddles the line between inert matter and vital life.

For this reason Kafka's narrator has trouble assigning Odradek to an ontological category. Is Odradek a cultural artifact, a tool of some sort? Perhaps, but if so, its purpose is obscure: "It looks like a flat star-shaped spool of thread, and indeed it does seem to have thread wound upon it; to be sure, these are only old, broken-off bits of thread, knotted and tangled together, of the most varied sorts and colors. . . . One is tempted to believe that the creature once had some sort of intelligible shape and is now only a broken-down remnant. Yet this does not seem to be the case; . . . nowhere is there an unfinished or unbroken surface to suggest anything of the kind: the whole thing looks senseless enough, but in its own way perfectly finished."[19]

Or perhaps Odradek is more a subject than an object—an organic

creature, a little person? But if so, his/her/its embodiment seems rather unnatural: from the center of Odradek's star protrudes a small wooden crossbar, and "by means of this latter rod . . . and one of the points of the star . . . , the whole thing can stand upright as if on two legs."[20]

On the one hand, like an active organism, Odradek appears to move deliberately (he is "extraordinarily nimble") and to speak intelligibly: "He lurks by turns in the garret, the stairway, the lobbies, the entrance hall. Often for months on end he is not to be seen; then he has presumably moved into other houses; but he always comes faithfully back to our house again. Many a time when you go out of the door and he happens just to be leaning directly beneath you against the banisters you feel inclined to speak to him. Of course, you put no difficult questions to him, you treat him—he is so diminutive that you cannot help it—rather like a child. 'Well, what's your name?' you ask him. 'Odradek,' he says. 'And where do you live?' 'No fixed abode,' he says and laughs." And yet, on the other hand, like an inanimate object, Odradek produced a so-called laughter that "has no lungs behind it" and "sounds rather like the rustling of fallen leaves. And that is usually the end of the conversation. Even these answers are not always forthcoming; often he stays mute for a long time, as wooden as his appearance."[21]

Wooden yet lively, verbal yet vegetal, alive yet inert, Odradek is ontologically multiple. He/it is a vital materiality and exhibits what Gilles Deleuze has described as the persistent "hint of the animate in plants, and of the vegetable in animals."[22] The late-nineteenth-century Russian scientist Vladimir Ivanovich Vernadsky, who also refused any sharp distinction between life and matter, defined organisms as "special, distributed forms of the common mineral, water. . . . Emphasizing the continuity of watery life and rocks, such as that evident in coal or fossil limestone reefs, Vernadsky noted how these apparently inert strata are 'traces of bygone biospheres.'"[23] Odradek exposes this continuity of watery life and rocks; be/it brings to the fore the becoming of things.

Thing-Power III: Legal Actants

I may have met a relative of Odradek while serving on a jury, again in Baltimore, for a man on trial for attempted homicide. It was a small glass vial with an adhesive-covered metal lid: the Gunpowder Residue

Sampler. This object/witness had been dabbed on the accused's hand hours after the shooting and now offered to the jury its microscopic evidence that the hand had either fired a gun or been within three feet of a gun firing. Expert witnesses showed the sampler to the jury several times, and with each appearance it exercised more force, until it became vital to the verdict. This composite of glass, skin cells, glue, words, laws, metals, and human emotions had become an actant. *Actant*, recall, is Bruno Latour's term for a source of action; an actant can be human or not, or, most likely, a combination of both. Latour defines it as "somethingthat acts or to which activity is granted by others. It implies no special motivation of human individual actors, nor of humans in general."[24] An actant is neither an object nor a subject but an "intervener,"[25] akin to the Deleuzean "quasi-causal operator."[26] An operator is that which, by virtue of its particular location in an assemblage and the fortuity of being in the right place at the right time, makes the difference, makes things happen, becomes the decisive force catalyzing an event.

Actant and *operator* are substitute words for what in a more subject-centered vocabulary are called agents. Agentic capacity is now seen as differentially distributed across a wider range of ontological types. This idea is also expressed in the notion of "deodand," a figure of English law from about 1200 until it was abolished in 1846. In cases of accidental death or injury to a human, the nonhuman actant, for example, the carving knife that fell into human flesh or the carriage that trampled the leg of a pedestrian—became deodand (literally, "that which must be given to God"). In recognition of *its* peculiar efficacy (a power that is less masterful than agency but more active than recalcitrance), the deodand, a materiality "suspended between human and thing,"[27] was surrendered to the crown to be used (or sold) to compensate for the harm done. According to William Pietz, "any culture must establish some procedure of compensation, expiation, or punishment to settle the debt created by unintended human deaths whose direct cause is not a morally accountable person, but a nonhuman material object. This was the issue thematized in public discourse by . . . the law of deodand."[28]

There are of course differences between the knife that impales and the man impaled, between the technician who dabs the sampler and the sampler, between the array of items in the gutter of Cold Spring Lane and me, the narrator of their vitality. But I agree with John Frow that these differences need "to be flattened, read horizontally as a juxtapo-

sition rather than vertically as a hierarchy of being. It's a feature of our world that we can and do distinguish . . . things from persons. But the sort of world we live in makes it constantly possible for these two sets of kinds to exchange properties."[29] And to note this fact explicitly, which is also to begin to *experience* the relationship between persons and other materialities more horizontally, is to take a step toward a more ecological sensibility.

Thing-Power IV: Walking, Talking Minerals

Odradek, a gunpowder residue sampler, and some junk on the street can be fascinating to people and can thus seem to come alive. But is this evanescence a property of the stuff or of people? Was the thing-power of the debris I encountered but a function of the subjective and intersubjective connotations, memories, and affects that had accumulated around my ideas of these items? Was the real agent of my temporary immobilization on the street that day *humanity*, that is, the cultural meanings of "rat," "plastic," and "wood" in conjunction with my own idiosyncratic biography? It could be. But what if the swarming activity inside my head was *itself* an instance of the vital materiality that also constituted the trash?

I have been trying to raise the volume on the vitality of materiality per se, pursuing this task so far by focusing on nonhuman bodies, by, that is, depicting them as actants rather than as objects. But the case for matter as active needs also to readjust the status of human actants: not by denying humanity's awesome, awful powers, but by presenting these powers as evidence of our own constitution as vital materiality. In other words, human power is itself a kind of thing-power. At one level this claim is uncontroversial: it is easy to acknowledge that humans are composed of various material parts (the minerality of our bones, or the metal of our blood, or the electricity of our neurons). But it is more challenging to conceive of these materials as lively and self-organizing, rather than as passive or mechanical means under the direction of something nonmaterial, that is, an active soul or mind.

Perhaps the claim to a vitality intrinsic to matter itself becomes more plausible if one takes a long view of time. If one adopts the perspective

of evolutionary rather than biographical time, for example, a mineral efficacy becomes visible. Here is De Landa's account of the emergence of our bones: "Soft tissue (gels and aerosols, muscle and nerve) reigned supreme until 5000 million years ago. At that point, some of the conglomerations of fleshy matter-energy that made up life underwent a sudden *mineralization*, and a new material for constructing living creatures emerged: bone. It is almost as if the mineral world that had served as a substratum for the emergence of biological creatures was reasserting itself."[30] Mineralization names the creative agency by which bone was produced, and bones then "made new forms of movement control possible among animals, freeing them from many constraints and literally setting them into motion to conquer every available niche in the air, in water, and on land."[31] In the long and slow time of evolution, then, mineral material appears as the mover and shaker, the active power, and the human beings, with their much-lauded capacity for self-directed action, appear as *its* product.[32] Vernadsky seconds this view in his description of humankind as a particularly potent mix of minerals: "What struck [Vernadsky] most was that the material of Earth's crust has been packaged into myriad moving beings whose reproduction and growth build and break down matter on a global scale. People, for example, redistribute and concentrate oxygen . . . and other elements of Earth's crust into two-legged, upright forms that have an amazing propensity to wander across, dig into and in countless other ways alter Earth's surface. *We are walking, talking minerals.*"[33]

Kafka, De Landa, and Vernadsky suggest that human individuals are themselves composed of vital materials, that our powers are thing-power. These vital materialists do not claim that there are no differences between humans and bones, only that there is no necessity to describe these differences in a way that places humans at the ontological center or hierarchical apex. Humanity can be distinguished, instead, as Jean-François Lyotard suggests, as a *particularly rich and complex* collection of materials: "Humankind is taken for a complex material system; consciousness, for an effect of language; and language for a highly complex material system."[34] Richard Rorty similarly defines humans as very complex animals, rather than as animals "with an extra added ingredient called 'intellect' or 'the rational soul.'"[35]

The fear is that in failing to affirm human uniqueness, such views

authorize the treatment of people as mere things; in other words, that a strong distinction between subjects and objects is needed to prevent the instrumentalization of humans. Yes, such critics continue, objects possess a certain power of action (as when bacteria or pharmaceuticals enact hostile or symbiotic projects inside the human body), and yes, some subject-on-subject objectifications are permissible (as when persons consent to use and be used as a means to sexual pleasure), but the *ontological* divide between persons and things must remain lest one have no *moral* grounds for privileging man over germ or for condemning pernicious forms of human-on-human instrumentalization (as when powerful humans exploit illegal, poor, young, or otherwise weaker humans).

How can the vital materialist respond to this important concern? First, by acknowledging that the framework of subject versus object has indeed at times worked to prevent or ameliorate human suffering and to promote human happiness or well-being. Second, by noting that its successes come at the price of an instrumentalization of nonhuman nature that can itself be unethical and can itself undermine long-term human interests. Third, by pointing out that the Kantian imperative to treat humanity always as an end-in-itself and never merely as a means does not have a stellar record of success in preventing human suffering or promoting human well-being: it is important to raise the question of its actual, historical efficacy in order to open up space for forms of ethical practice that do not rely upon the image of an intrinsically *hierarchical* order of things. Here the materialist speaks of promoting healthy and enabling instrumentalizations, rather than of treating people as ends-in-themselves, because to face up to the compound nature of the human self is to find it difficult even to make sense of the notion of a single end-in-itself. What instead appears is a swarm of competing ends being pursued simultaneously in each individual, some of which are healthy to the whole, some of which are not. Here the vital materialist, taking a cue from Nietzsche's and Spinoza's ethics, favors physiological over moral descriptors because she fears that moralism can itself become a source of unnecessary human suffering.[36]

We are now in a better position to name that other way to promote human health and happiness: *to raise the status of the materiality of which we are composed.* Each human is a heterogeneous compound of wonder-

fully vibrant, dangerously vibrant, matter. If matter itself is lively, then not only is the difference between subjects and objects minimized, but the status of the shared materiality of all things is elevated. All bodies become more than mere objects, as the thing-powers of resistance and protean agency are brought into sharper relief. Vital materialism would thus set up a kind of safety net for those humans who are now, in a world where Kantian morality is the standard, routinely made to suffer because they do not conform to a particular (Euro-American, bourgeois, theocentric, or other) model of personhood. The ethical aim becomes to distribute value more generously, to bodies as such. Such a newfound attentiveness to matter and its powers will not solve the problem of human exploitation or oppression, but it can inspire a greater sense of the extent to which all bodies are kin in the sense of inextricably enmeshed in a dense network of relations. And in a knotted world of vibrant matter, to harm one section of the web may very well be to harm oneself. Such an enlightened or expanded notion of self-interest is *good for humans*. As I will argue further in chapter 8, a vital materialism does not reject self-interest as a motivation for ethical behavior, though it does seek to cultivate a broader definition of self and of interest.

Thing-Power V: Thing-Power and Adorno's Nonidentity

But perhaps the very idea of thing-power or vibrant matter claims too much: to know more than it is possible to know. Or, to put the criticism in Theodor Adorno's terms, does it exemplify the violent hubris of Western philosophy, a tradition that has consistently failed to mind the gap between concept and reality, object and thing? For Adorno this gap is ineradicable, and the most that can be said with confidence about the thing is that it eludes capture by the concept, that there is always a "nonidentity" between it and any representation. And yet, as I shall argue, even Adorno continues to seek a way to access—however darkly, crudely, or fleetingly—this out-side. One can detect a trace of this longing in the following quotation from *Negative Dialectics*: "What we may call the thing itself is not positively and immediately at hand. He who wants to know it must think more, not less."[37] Adorno clearly rejects the possibility of any direct, sensuous apprehension ("the thing itself is not

positively and immediately at hand"), but he does not reject all modes of encounter, for there is one mode, "thinking more, not less," that holds promise. In this section I will explore some of the affinities between Adorno's nonidentity and my thing-power and, more generally, between his "specific materialism" (*ND*, 203) and a vital materialism.

Nonidentity is the name Adorno gives to that which is not subject to knowledge but is instead "heterogeneous" to all concepts. This elusive force is not, however, wholly outside human experience, for Adorno describes nonidentity as a presence that acts upon us: we knowers are haunted, he says, by a painful, nagging feeling that something's being forgotten or left out. This discomfiting sense of the inadequacy of representation remains no matter how refined or analytically precise one's concepts become. "Negative dialectics" is the method Adorno designs to teach us how to *accentuate* this discomforting experience and how to give it a meaning. When practiced correctly, negative dialectics will render the static buzz of nonidentity into a powerful reminder that "objects do not go into their concepts without leaving a remainder" and thus that life will always exceed our knowledge and control. The ethical project par excellence, as Adorno sees it, is to keep remembering this and to learn how to accept it. Only then can we stop raging against a world that refuses to offer us the "reconcilement" that we, according to Adorno, crave (*ND*, 5).[38]

For the vital materialist, however, the starting point of ethics is less the acceptance of the impossibility of "reconcilement" and more the recognition of human participation in a shared, vital materiality. We *are* vital materiality and we are surrounded by it, though we do not always see it that way. The ethical task at hand here is to cultivate the ability to discern nonhuman vitality, to become perceptually open to it. In a parallel manner, Adorno's "specific materialism" also recommends a set of practical techniques for training oneself to better detect and accept nonidentity. Negative dialectics is, in other words, the pedagogy inside Adorno's materialism.

This pedagogy includes intellectual as well as aesthetic exercises. The intellectual practice consists in the attempt to make the very process of conceptualization an explicit object of thought. The goal here is to become more cognizant that conceptualization automatically obscures the inadequacy of its concepts. Adorno believes that critical reflection

can expose this cloaking mechanism and that the exposure will intensify the felt presence of nonidentity. The treatment is homeopathic: we must develop a *concept* of nonidentity to cure the hubris of conceptualization. The treatment can work because, however distorting, concepts still "refer to nonconceptualities." This is "because concepts on their part are moments of the reality that requires their formation" (*ND*, 12). Concepts can never provide a clear view of things in themselves, but the "discriminating man," who "in the matter and its concept can distinguish even the infinitesimal, that which escapes the concept" (*ND*, 45), can do a better job of gesturing toward them. Note that the discriminating man (adept at negative dialectics) both subjects his conceptualizations to second-order reflection and pays close *aesthetic* attention to the object's "qualitative moments" (*ND*, 43), for these open a window onto nonidentity.

A second technique of the pedagogy is to exercise one's utopian imagination. The negative dialectician should imaginatively re-create what has been obscured by the distortion of conceptualization: "The means employed in negative dialectics for the penetration of its hardened objects is possibility—the possibility of which their reality has cheated the objects and which is nonetheless visible in each one" (*ND*, 52). Nonidentity resides in those denied possibilities, in the invisible field that surrounds and infuses the world of objects.

A third technique is to admit a "playful element" into one's thinking and to be willing to play the fool. The negative dialectician "knows how far he remains from" knowing nonidentity, "and yet he must always talk as if he had it entirely. This brings him to the point of clowning. He must not deny his clownish traits, least of all since they alone can give him hope for what is denied him" (*ND*, 14).

The self-criticism of conceptualization, a sensory attentiveness to the qualitative singularities of the object, the exercise of an unrealistic imagination, and the courage of a clown: by means of such practices one might replace the "rage" against nonidentity with a respect for it, a respect that chastens our will to mastery. That rage is for Adorno the driving force behind interhuman acts of cruelty and violence. Adorno goes even further to suggest that negative dialectics can transmute the anguish of nonidentity into a will to ameliorative political action: the thing thwarts our desire for conceptual and practical mastery and this

refusal angers us; but it also offers us an ethical injunction, according to which "suffering ought not to be, . . . things should be different. Woe speaks: 'Go.' Hence the convergence of specific materialism with criticism, with social change in practice" (*ND*, 202–3).[39]

Adorno founds his ethics on an intellectual and aesthetic attentiveness that, though it will always fail to see its object clearly, nevertheless has salutory effects on the bodies straining to see. Adorno willingly plays the fool by questing after what I would call thing-power, but which he calls "the preponderance of the object" (*ND*, 183). Humans encounter a world in which nonhuman materialities have power, a power that the "bourgeois I," with its pretensions to autonomy, denies.[40] It is at this point that Adorno identifies negative dialectics as a materialism: it is only "by passing to the object's preponderance that dialectics is rendered materialistic" (*ND*, 192).

Adorno dares to affirm something like thing-power, but he does not want to play the fool for *too* long. He is quick—too quick from the point of view of the vital materialist—to remind the reader that objects are always "entwined" with human subjectivity and that he has no desire "to place the object on the orphaned royal throne once occupied by the subject. On that throne the object would be nothing but an idol" (*ND*, 181). Adorno is reluctant to say too much about nonhuman vitality, for the more said, the more it recedes from view. Nevertheless, Adorno does try to attend somehow to this reclusive reality, by means of a negative dialectics. Negative dialectics has an affinity with negative theology: negative dialectics honors nonidentity as one would honor an unknowable god; Adorno's "specific materialism" includes the possibility that there is divinity behind or within the reality that withdraws. Adorno rejects any naive picture of transcendence, such as that of a loving God who designed the world ("metaphysics cannot rise again" [*ND*, 404] after Auschwitz), but the desire for transcendence cannot, he believes, be eliminated: "Nothing could be experienced as truly alive if something that transcends life were not promised also. . . . The transcendent is, and it is not" (*ND*, 375).[41] Adorno honors nonidentity as an *absent* absolute, as a messianic promise.[42]

Adorno struggles to describe a force that is *material* in its resistance to human concepts but *spiritual* insofar as it might be a dark promise of an absolute-to-come. A vital materialism is more thoroughly nontheistic in

presentation: the out-side has no messianic promise.[43] But a philosophy of nonidentity and a vital materialism nevertheless share an urge to cultivate a more careful attentiveness to the out-side.

The Naive Ambition of Vital Materialism

Adorno reminds us that humans can experience the out-side only indirectly, only through vague, aporetic, or unstable images and impressions. But when he says that even distorting concepts still "refer to nonconceptualities, because concepts on their part are moments of the reality that requires their formation" (*ND*, 12), Adorno also acknowledges that human experience nevertheless includes encounters with an out-side that is active, forceful, and (quasi)independent. This out-side can operate at a distance from our bodies or it can operate as a foreign power internal to them, as when we feel the discomfort of nonidentity, hear the naysaying voice of Socrates's demon, or are moved by what Lucretius described as that "something in our breast" capable of fighting and resisting.[44] There is a strong tendency among modern, secular, well-educated humans to refer such signs back to a human agency conceived as its ultimate source. This impulse toward cultural, linguistic, or historical constructivism, which interprets any expression of thing-power as an effect of culture and the play of human powers, politicizes moralistic and oppressive appeals to "nature." And that is a good thing. But the constructivist response to the world also tends to obscure from view whatever thing-power there may be. There is thus something to be said for moments of methodological naiveté, for the postponement of a genealogical critique of objects.[45] This delay might render manifest a subsistent world of nonhuman vitality. To "render manifest" is both to receive and to participate in the shape given to that which is received. What is manifest arrives through humans but not entirely because of them.

Vital materialists will thus try to linger in those moments during which they find themselves fascinated by objects, taking them as clues to the material vitality that they share with them. This sense of a strange and incomplete commonality with the out-side may induce vital materialists to treat nonhumans—animals, plants, earth, even artifacts and

commodities—more carefully, more strategically, more ecologically. But how to develop this capacity for naiveté? One tactic might be to revisit and become temporarily infected by discredited philosophies of nature, risking "the taint of superstition, animism, vitalism, anthropomorphism, and other premodern attitudes."[46] I will venture into vitalism in chapters 5 and 6, but let me here make a brief stop at the ancient atomism of Lucretius, the Roman devotee of Epicurus.

Lucretius tells of bodies falling in a void, bodies that are not lifeless stuff but matter on the go, entering and leaving assemblages, swerving into each other: "*At times quite undetermined and at undetermined spots they push a little from their path*: yet only just so much as you could call a change of trend. [For if they did not] . . . swerve, all things would fall downwards through the deep void like drops of rain, nor could collision come to be, nor a blow brought to pass for the primordia: so nature would never have brought anything into existence."[47] Louis Althusser described this as a "materialism of the encounter," according to which political events are born from chance meetings of atoms.[48] A primordial swerve says that the world is not determined, that an element of chanciness resides at the heart of things, but it also affirms that so-called inanimate things have a life, that deep within is an inexplicable vitality or energy, a moment of independence from and resistance to us and other bodies: a kind of thing-power.

The rhetoric of *De Rerum Natura* is realist, speaking in an authoritative voice, claiming to describe a nature that preexists and outlives us: here are the smallest constituent parts of being ("primordia") and here are the principles of association governing them.[49] It is easy to criticize this realism: Lucretius quests for the thing itself, but there is no there there—or, at least, no way for us to grasp or know it, for the thing is always already humanized; its object status arises at the very instant something comes into our awareness. Adorno levels this charge explicitly against Martin Heidegger's phenomenology, which Adorno interprets as a "realism" that "seeks to breach the walls which thought has built around itself, to pierce the interjected layer of subjective positions that have become a second nature." Heidegger's aim "to philosophize formlessly, so to speak, purely on the ground of things" (*ND*, 78)[50] is for Adorno futile, and it is productive of a violent "rage" against nonidentity.[51]

But Lucretius's poem—like Kafka's stories, Sullivan's travelogue, Vernadsky's speculations, and my account of the gutter of Cold Spring Lane—does offer this potential benefit: it can direct sensory, linguistic, and imaginative attention toward a material vitality. The advantage of such tales, with their ambitious naiveté, is that though they "disavow . . . the tropological work, the psychological work, and the phenomenological work entailed in the human production of materiality," they do so "in the name of *avowing* the force of questions that have been too readily foreclosed by more familiar fetishizations: the fetishization of the subject, the image, the word."[52]

2

The Agency of Assemblages

Thing-power perhaps has the rhetorical advantage of calling to mind a childhood sense of the world as filled with all sorts of animate beings, some human, some not, some organic, some not. It draws attention to an efficacy of objects in excess of the human meanings, designs, or purposes they express or serve. Thing-power may thus be a good starting point for thinking beyond the life-matter binary, the dominant organizational principle of adult experience. The term's disadvantage, however, is that it also tends to overstate the thinginess or fixed stability of materiality, whereas my goal is to theorize a materiality that is as much force as entity, as much energy as matter, as much intensity as extension. Here the term *out-side* may prove more apt. Spinoza's stones, an absolute Wild, the oozing Meadowlands, the nimble Odradek, the moving deodand, a processual minerality, an incalculable nonidentity—none of these are passive objects or stable entities (though neither are they intentional subjects).[1] They allude instead to vibrant materials.

A second, related disadvantage of *thing-power* is its latent individualism, by which I mean the way in which the figure of "thing" lends itself to an atomistic rather than a congregational understanding of agency.

While the smallest or simplest body or bit may indeed express a vital impetus, conatus or *clinamen*, an actant never really acts alone. Its efficacy or agency always depends on the collaboration, cooperation, or interactive interference of many bodies and forces. A lot happens to the concept of agency once nonhuman things are figured less as social constructions and more as actors, and once humans themselves are assessed not as autonoms but as vital materialities.

In this chapter I will try to develop a theory of *distributive* agency by examining a real-life effect: a power blackout that affected 50 million people in North America in 2003. I will offer an analysis of the electrical power grid as an agentic assemblage. How does the agency of assemblages compare to more familiar theories of action, such as those centered around human will or intentionality, or around intersubjectivity, or around (human) social, economic, or discursive structures? And how would an understanding of agency as a confederation of human and nonhuman elements alter established notions of moral responsibility and political accountability?

Two philosophical concepts are important to my response to these questions: Spinoza's "affective" bodies and Gilles Deleuze and Félix Guattari's "assemblage." I will therefore offer a brief exposition of these concepts before I turn to an account of the power blackout that tries to take the out-side seriously and tries to remain faithful to the distributive quality of "agency."

Affective Bodies

Spinoza's conative bodies are also *associative* or (one could even say) *social* bodies, in the sense that each is, by its very nature as a body, continuously affecting and being affected by other bodies. Deleuze explicates this point: the power of a body to affect other bodies includes a "corresponding and inseparable" capacity to be affected; "there are two equally actual powers, that of acting, and that of suffering action, which vary inversely one to the other, but whose sum is both constant and constantly effective."[2] Spinoza's conative, encounter-prone body arises in the context of an ontological vision according to which all things are "modes" of a common "substance."[3] Any specific thing—"a shoe, a ship, a cabbage, a king" (to use Martin Lin's list)[4] or a glove, a rat, a cap, and

the human narrator of their vitality (to use my list)—is neither subject nor object but a "mode" of what Spinoza calls "*Deus sive Natura*" (God or Nature).[5]

Spinoza also says that every mode is itself a mosaic or assemblage of many simple bodies, or, as Deleuze describes it, there are for Spinoza no "existing modes that are not actually composed of a very great number of extensive parts," parts that "come to it from elsewhere."[6] It is interesting that Lucretius, too, saw mosaicism as the way things essentially are: "It is right to have this truth . . . surely sealed and to keep it stored in your remembering mind, that there is not one of all the things, whose nature is seen before our face, which is built of one kind of primordia, nor anything which is not created of well-mingled seed." Lucretius links the degree of internal diversity to the degree of *power* possessed by the thing: "And whatever possesses within it more forces and powers, it thus shows that there are in it most kinds of primordia and diverse shapes."[7] Spinoza, as we shall see, makes a similar point.

For Spinoza, both simple bodies (which are perhaps better termed *protobodies*) and the complex or mosaicized modes they form are conative. In the case of the former, conatus is expressed as a stubbornness or inertial tendency to persist; in the case of a complex body or mode, conatus refers to the effort required to maintain the specific relation of "movement and rest" that obtains between its parts, a relation that defines the mode as what it is.[8] This maintenance is not a process of mere repetition of the same, for it entails continual invention: because each mode suffers the actions on it by other modes, actions that disrupt the relation of movement and rest characterizing each mode, every mode, if it is to persist, must seek new encounters to creatively compensate for the alterations or affections it suffers. What it means to be a "mode," then, is to form alliances and enter assemblages: it is to mod(e)ify and be modified by others. The process of modification is not under the control of anyone mode—no mode is an agent in the hierarchical sense. Neither is the process without tension, for each mode vies with and against the (changing) affections of (a changing set of) other modes, all the while being subject to the element of chance or contingency intrinsic to any encounter.[9]

Conative substance turns itself into confederate bodies, that is, complex bodies that in turn congregate with each other in the pursuit of the enhancement of their power. Spinoza believes, for example, that the

more kinds of bodies with which a body can affiliate, the better: "As the body is more capable of being affected in many ways and of affecting external bodies . . . so the mind is more capable of thinking."[10]

The key idea I want to take from Spinoza's rich and contestable philosophy, an idea I will put to work for a vital materialism, is this: bodies enhance their power *in* or *as a heterogeneous assemblage*. What this suggests for the concept of *agency* is that the efficacy or effectivity to which that term has traditionally referred becomes distributed across an ontologically heterogeneous field, rather than being a capacity localized in a human body or in a collective produced (only) by human efforts. The sentences of this book also emerged from the confederate agency of many striving macro- and microactants: from "my" memories, intentions, contentions, intestinal bacteria, eyeglasses, and blood sugar, as well as from the plastic computer keyboard, the bird song from the open window, or the air or particulates in the room, to name only a few of the participants. What is at work here on the page is an animal-vegetable-mineral-sonority cluster with a particular degree and duration of power. What is at work here is what Deleuze and Guattari call an assemblage.

What Is an Assemblage?

At the end of the twentieth century, the arena in which stuff happens—what the military calls the "theater of operations"—seemed to many people to have expanded dramatically. "Globalization" had occurred and the earth itself had become a space of events. The parts of this giant whole were both intimately interconnected and highly conflictual. This fact—of the coexistence of mutual dependency with friction and violence between parts—called for new conceptualizations of the part-whole relation. Organicist models, in which each member obediently serves the whole, were clearly out. A host of new ways to name the kind of relation obtaining between the parts of a volatile but somehow functioning whole were offered: network, meshwork, Empire.[11] My term of choice to describe this event-space and its style of structuration is, following Deleuze and Guattari, *assemblage*.

Assemblages are ad hoc groupings of diverse elements, of vibrant materials of all sorts. Assemblages are living, throbbing confederations that are able to function despite the persistent presence of energies that

confound them from within. They have uneven topographies, because some of the points at which the various affects and bodies cross paths are more heavily trafficked than others, and so power is not distributed equally across its surface. Assemblages are not governed by any central head: no one materiality or type of material has sufficient competence to determine consistently the trajectory or impact of the group. The effects generated by an assemblage are, rather, emergent properties, emergent in that their ability to make something happen (a newly inflected materialism, a blackout, a hurricane, a war on terror) is distinct from the sum of the vital force of each materiality considered alone. Each member and proto-member of the assemblage has a certain vital force, but there is also an effectivity proper to the grouping as such: an agency *of* the assemblage. And precisely because each member-actant maintains an energetic pulse slightly "off" from that of the assemblage, an assemblage is never a stolid block but an open-ended collective, a "non-totalizable sum."[12] An assemblage thus not only has a distinctive history of formation but a finite life span.[13]

The electrical power grid offers a good example of an assemblage. It is a material cluster of charged parts that have indeed affiliated, remaining in sufficient proximity and coordination to produce distinctive effects. The elements of the assemblage work together, although their coordination does not rise to the level of an organism. Rather, its jelling endures alongside energies and factions that fly out from it and disturb it from within. And, most important for my purposes, the elements of this assemblage, while they include humans and their (social, legal, linguistic) constructions, also include some very active and powerful nonhumans: electrons, trees, wind, fire, electromagnetic fields.

The image of affective bodies forming assemblages will enable me to highlight some of the limitations in human-centered theories of action and to investigate some of the practical implications, for social-science inquiry and for public culture, of a theory of action and responsibility that crosses the human-nonhuman divide.

The Blackout

The *International Herald Tribune*, on the day after the blackout, reported that "the vast but shadowy web of transmission lines, power generat-

ing plants and substations known as the grid is the biggest gizmo ever built. . . . on Thursday [14 August 2003], the grid's heart fluttered. . . . complicated beyond full understanding, even by experts—[the grid] lives and occasionally dies by its own mysterious rules."[14] To say that the grid's "heart fluttered" or that it "lives and dies by its own rules" is to anthropomorphize. But anthropomorphizing has, as I shall argue in chapter 8, its virtues. Here it works to gesture toward the inadequacy of understanding the grid simply as a machine or a tool, as, that is, a series of fixed parts organized from without that serves an external purpose.

To the vital materialist, the electrical grid is better understood as a volatile mix of coal, sweat, electromagnetic fields, computer programs, electron streams, profit motives, heat, lifestyles, nuclear fuel, plastic, fantasies of mastery, static, legislation, water, economic theory, wire, and wood—to name just some of the actants. There is always some friction among the parts, but for several days in August 2003 in the United States and Canada the dissonance was so great that cooperation became impossible. The North American blackout was the end point of a cascade—of voltage collapses, self-protective withdrawals from the grid, and human decisions and omissions. The grid includes various valves and circuit breakers that disconnect parts from the assemblage whenever they are threatened by excessive heat. Generating plants, for example, shut down just before they are about to go into "full excitation,"[15] and they do the same when the "system voltage has become too low to provide power to the generator's own auxiliary equipment, such as fans, coal pulverizers, and pumps."[16] What seems to have happened on that August day was that several initially unrelated generator withdrawals in Ohio and Michigan caused the electron flow pattern to change over the transmission lines, which led, after a series of events including one brush fire that burnt a transmission line and then several wire-tree encounters, to a successive overloading of other lines and a vortex of disconnects. One generating plant after another separated from the grid, placing more and more stress on the remaining participants. In a one-minute period, "twenty generators (loaded to 2174 MW) tripped off line along Lake Erie."[17]

Investigators still do not understand why the cascade ever stopped itself, after affecting 50 million people over approximately twenty-four thousand square kilometers and shutting down over one hundred power plants, including twenty-two nuclear reactors.[18] The U.S.-Canada Power

Outage Task Force report was more confident about how the cascade began, insisting on a variety of agential loci.[19] These included *electricity*, with its internal differentiation into "active" and "reactive" power (more on this later); the *power plants*, understaffed by humans but overprotective in their mechanisms; *transmission wires*, which tolerate only so much heat before they refuse to transmit the electron flow; a *brush fire* in Ohio; Enron *FirstEnergy* and other energy-trading corporations, who, by legal and illegal means, had been milking the grid without maintaining its infrastructure; *consumers*, whose demand for electricity grows and is encouraged to grow by the government without concern for consequences; and the *Federal Energy Regulatory Commission*, whose Energy Policy Act of 1992 deregulated the grid, separated the generation of electricity from its transmission and distribution, and advanced the privatization of electricity. Let me say a bit more about the first and the last of these conative bodies in the assemblage.

First, the nonhuman: electricity. Electricity is a stream of electrons moving in a current, which is measured in amperes; the force of that current (the pressure pushing it through the wires) is measured in volts. In a system like the North American grid, electrical current and voltage are constantly oscillating like a pair of waves.[20] When the two waves are in phase with each other (rising and falling at exactly the same time), one has so-called active power, or the type of power used most heavily by lamps, blow-dryers, and other appliances. But some devices (such as the electric motors in refrigerators and air conditioners) rely also on so-called reactive power, where the waves are not in sync. Reactive power, though it lends no help in physically rotating a motor, is vital to the active power that accompanies it, for reactive power maintains the voltage (electricity pressure) needed to sustain the electromagnetic field required by the system as a whole. If too many devices demand reactive power, then a deficit is created. One of the causes of the blackout was a deficit of reactive power. To understand how the deficit occurred, we need to consider the other actants, including the Federal Energy Regulatory Commission.

In 1992 the commission gained U.S. congressional approval for legislation that separated the production of electricity from its distribution: companies could now buy electricity from a power plant in one part of the country and sell it to utilities in geographically distant locations.

This greatly increased the long-distance trading of electric power—and greatly increased the load on transmission wires. But here is the rub: "As transmission lines become more heavily loaded, they consume more of the reactive power needed to maintain proper transmission voltage."[21] Reactive power does not travel well, dissipating over distance, so it is best if generated close to where it will be used.[22] Power plants are technically quite capable of producing extra amounts of reactive power, but they lack the financial incentive to do so, for reactive-power production *reduces* the amount of salable power produced. What is more, under the new regulations, transmission companies cannot compel generating plants to produce the necessary amounts of reactive power.[23]

Reactive power, vital to the whole grid, proved a commodity without profit and thus came in short supply. Here emerged what Garrett Hardin has called a tragedy of the commons. Though rational for each user of reactive power to increase its demand for the free commodity, the aggregate effect is irrational in that it destroys the wellspring: in a world of finite resources, "freedom in a commons brings ruin to all."[24] The reactive power deficit was an effect unanticipated by human advocates of the regulations that created a huge, continent-wide market in energy trading. Their actions produced unintended consequences; or, to put the point in a vital materialist vocabulary, they were subject to the "slight surprise of action." The phrase is Bruno Latour's, and it refers to an effectivity proper to the action itself, arising only in the doing and thus in principle independent of any aim, tendency, or characteristic of the actants: "There is no object, no subject. . . . But there are events. I never *act*; I am always slightly surprised by what I do."[25]

Neither, says Latour, is the slight surprise of action confined to human action: "That which acts through me is also surprised by what I do, by the chance to mutate, to change, . . . to bifurcate."[26] In the case at hand, electricity was also an actant, and its strivings also produced aleatory effects. For example, "in the case of a power shipment from the Pacific Northwest to Utah, 33% of the shipment flows through Southern California and 30% flows through Arizona—far from any conceivable contract path."[27] And in August of 2003, after "the transmission lines along the southern shore of Lake Erie disconnected, the power that had been flowing along that path" dramatically and surprisingly changed its behavior: it "*immediately reversed direction and began flowing in a giant*

loop counterclockwise from Pennsylvania to New York to Ontario and into Michigan."[28] Seeking to minimize the company's role in the blackout, a spokesman for FirstEnergy, the Ohio-based company whose Eastlake power plant was an early actant in the cascade and an early target of blame, said that any analysis needed to "take into account large unplanned south-to-north power movements that were part of a phenomenon known as loop flows, which occur when power takes a route from producer to buyer different from the intended path."[29] Electricity, or the stream of vital materialities called electrons, is always on the move, always going somewhere, though where this will be is not entirely predictable. Electricity sometimes goes where we send it, and sometimes it chooses its path on the spot, in response to the other bodies it encounters and the surprising opportunities for actions and interactions that they afford.

In this selective account of the blackout, agency, conceived now as something distributed along a continuum, extrudes from multiple sites or many loci—from a quirky electron flow and a spontaneous fire to members of Congress who have a neoliberal faith in market self-regulation. How does this view compare to other conceptions of what an agent is and can do?

The Willing Subject and the Intersubjective Field

I have been suggesting that there is not so much a doer (an agent) behind the deed (the blackout) as a doing and an effecting by a human-nonhuman assemblage. This federation of actants is a creature that the concept of moral responsibility fits only loosely and to which the charge of blame will not quite stick. A certain looseness and slipperiness, often unnoticed, also characterizes more human-centered notions of agency. Augustine, for example, linked moral agency to free will, but the human will is, as Augustine reveals in his *Confessions*, divided against itself after the Fall: the will wills even as another part of the will fights that willing. Moreover, willing agents can act freely only in support of evil: never are they able by themselves to enact the good, for that always requires the intervention of divine grace, a force beyond human control. Agency, then, is not such a clear idea or a self-sufficient power in Augustine.[30]

Neither is it in Immanuel Kant. He aspired to define agency in terms of the autonomous will of the person who submits to the moral law (whose form is inscribed in human reason). But, as William Connolly has explored, Kant, too, eventually found the will to be divided against itself, this time by an innate "propensity" for evil, wherein the will obeys maxims that derive from the inclinations.[31] It is not merely that the will fights against the pressure of an unwilled "sensibility": the propensity for evil lives inside the will itself. Human agency again appears as a vexed concept, though its snarls and dilemmas are easy to skate over when the alternatives are reduced to either a free human agency or passive, deterministic matter.

Some neo-Kantian accounts of agency emphasize intentionality (the power to formulate and enact aims) more than the moral will, but here the question is whether other forces in the world approximate some of the characteristics of intentional or purposive behavior on the part of humans.[32] An acknowledgment of something like this, of a kind of thing-power, may be at work in the "agency-versus-structure" debate in the social sciences, according to which structures are described as powerful entities that work with and against human purposes. But the category of "structure" is ultimately unable to give the force of things its due: a structure can act only negatively, as a constraint on human agency, or passively, as an enabling background or context for it. Active action or agency belongs to humans alone: "All agree that agency refers to the intentional choices made by men and women as they take action to realize their goals," even though "these actors are socially constituted beings embedded in sociocultural and ecological surroundings that both define their goals and constrain their actions."[33] Actors are "socially constituted," but the "constitutive" or productive power of structures derives from the human wills or intentions within them. There is no agency proper to assemblages, only the effervescence of the agency of individuals acting alone or in concert with each other. Structures, surroundings, and contexts make a difference to outcomes, but they are not quite vibrant matter.

The same point applies, I think, to the phenomenological theory of agency set forth by Maurice Merleau-Ponty. His *Phenomenology of Perception* was designed to avoid placing too much weight on human will, intentionality, or reason. It focused instead on the embodied charac-

ter of human action, through its concept of motor intentionality,[34] and on the agentic contributions made by an intersubjective field.[35] Diana Coole, taking up Merleau-Ponty's task, replaces the discrete agent and its "residual individualism" with a "spectrum" of "agentic capacities" housed sometimes in individual persons, sometimes in human physiological processes or motor intentionality, and sometimes in human social structures or the "interworld": "At one pole [of the spectrum of agentic capacities] I envisage pre-personal, non-cognitive bodily processes; at the other, transpersonal, intersubjective processes that instantiate an interworld. Between them are singularities: phenomena with a relatively individual or collective identity."[36]

Coole's attempt to dislodge agency from its exclusive mooring in the individual, rational subject provides an important touchstone for my attempt to extend the spectrum even further—beyond human bodies and intersubjective fields to vital materialities and the human-nonhuman assemblages they form. For though Coole's spectrum gives no special privilege to the human individual, it recognizes only *human* powers: human biological and neurological processes, human personalities, human social practices and institutions. Coole limits the spectrum in this way because she is interested in a specifically political kind of agency, and for her politics is an exclusively human affair. Here I disagree, and as I will argue in chapter 7, a case can be made for including nonhumans in the demos. The prevention of future blackouts, for example, will depend on a host of cooperative efforts: Congress will have to summon the courage to fight industry demands at odds with a more common good, but reactive power will also have to do its part, on condition that it is not asked to travel too far. A vital materialism attempts a more radical displacement of the human subject than phenomenology has done, though Merleau-Ponty himself seemed to be moving in this direction in his unfinished *Visible and Unvisible*.

That text begins to undo the conceit that humanity is the sole or ultimate wellspring of agency. So does Latour's *Aramis*, which shows how the cars, electricity, and magnets of an experimental Parisian mass transit system acted positively (and not just as a constraint) alongside the activities of human and intersubjective bodies, words, and regulations.[37] Latour's later work continues to call for people to imagine other roles for things besides that of carriers of necessity, or "plastic" vehicles for

"human ingenuity," or "a simple white screen to support the differentiation of society."[38]

The vital materialist must admit that different materialities, composed of different sets of protobodies, will express different powers. Humans, for example, can experience themselves as forming intentions and as standing apart from their actions to reflect on the latter. But even here it may be relevant to note the extent to which intentional reflexivity is also a product of the interplay of human and nonhuman forces. Bernard Stiegler does just this in his study of how tool-use engendered a being with an inside, with, that is, a psychological landscape of interiority. Stiegler contends that conscious reflection in (proto)humans first emerged with the use of stone tools because the materiality of the tool acted as an external marker of a past need, as an "archive" of its function. The stone tool (its texture, color, weight), in calling attention to its projected and recollected use, produced the first hollow of reflection.[39] Humanity and nonhumanity have always performed an intricate dance with each other. There was never a time when human agency was anything other than an interfolding network of humanity and nonhumanity; today this mingling has become harder to ignore.

Efficacy, Trajectory, Causality

Theodor Adorno claimed that it was not possible to "unseal" or parse a concept into its constituent parts: one could only "circle" around a concept, perhaps until one gets dizzy or arrives at the point at which nonidentity with the real can no longer be ignored. What also happens as one circles around a concept is that a set of related terms comes into view, as a swarm of affiliates. In the case of agency, these include (among others) efficacy, trajectory, and causality.[40]

Efficacy points to the creativity of agency, to a capacity to make something new appear or occur. In the tradition that defines agency as *moral* capacity, such new effects are understood as having arisen in the wake of an advance plan or an intention, for agency "involves not mere motion, but willed or intended motion, where motion can only be willed or intended by a *subject*."[41] A theory of distributive agency, in contrast, does not posit a subject as the root cause of an effect. There

are instead always a swarm of vitalities at play. The task becomes to identify the contours of the swarm and the kind of relations that obtain between its bits. To figure the generative source of effects as a swarm is to see human intentions as always in competition and confederation with many other strivings, for an intention is like a pebble thrown into a pond, or an electrical current sent through a wire or neural network: it vibrates and merges with other currents, to affect and be affected. This understanding of agency does not deny the existence of that thrust called intentionality, but it does see it as less definitive of outcomes. It loosens the connections between efficacy and the moral subject, bringing efficacy closer to the idea of the power to make a difference that calls for response. And this power, I contend along with Spinoza and others, is a power possessed by nonhuman bodies too.

In addition to being tied to the idea of efficacy, agency is also bound up with the idea of a trajectory, a directionality or movement *away* from somewhere even if the toward-which it moves is obscure or even absent. Moral philosophy has figured this trajection as a purposiveness or a goal-directedness linked to a (human or divine) mind capable of choice and intention, but Jacques Derrida offers an alternative to this consciousness-centered thinking by figuring trajectory as "messianicity." Messianicity is the open-ended *promissory* quality of a claim, image, or entity. This unspecified promise is for Derrida the very condition of possibility of phenomenality: things in the world appear to us at all only because they tantalize and hold us in suspense, alluding to a fullness that is elsewhere, to a future that, apparently, is on its way. For Derrida this promissory note is never and can never be redeemed: the "straining forward toward the event" never finds relief. To be alive is to be waiting "for someone or something that, in order to happen . . . must exceed and surprise every determinate anticipation."[42] In naming the unfulfillable promise as the condition of the appearance of anything, Derrida provides a way for the vital materialist to affirm the existence of a certain trajectory or drive to assemblages without insinuating intentionality or purposiveness.

A third element in the agentic swarm is perhaps the most vague of all: causality. If agency is distributive or confederate, then instances of efficient causality, with its chain of simple bodies acting as the sole impetus for the next effect, will be impossibly rare. Is George W. Bush the efficient cause of the American invasion of Iraq? Is Osama bin Laden?

If one extends the time frame of the action beyond that of even an instant, billiard-ball causality falters. Alongside and inside singular human agents there exists a heterogenous series of actants with partial, overlapping, and conflicting degrees of power and effectivity.

Here causality is more emergent than efficient, more fractal than linear. Instead of an effect obedient to a determinant, one finds circuits in which effect and cause alternate position and redound on each other. If efficient causality seeks to rank the actants involved, treating some as external causes and others as dependent effects, emergent causality places the focus on the process as itself an actant, as itself in possession of degrees of agentic capacity. According to Connolly,

> emergent causality is causal . . . in that a movement at [one] . . . level has effects at another level. But it is emergent in that, first, the character of the . . . activity is not knowable in . . . detail prior to effects that emerge at the second level. [Moreover,] . . . the new effects become *infused* into the very . . . organization of the second level . . . such . . . that the cause cannot be said to be fully different from the effect engendered. . . . [Third,] . . . a series of . . . feedback loops operate between first and second levels to generate the stabilized result. The new emergent is shaped not only by external forces that become infused into it but *also by its own previously under-tapped capacities for reception and self-organization.*[43]

This sense of a melting of cause and effect is also expressed in the ordinary usage of the term *agent*, which can refer both to a human subject who is the sole and original author of an effect (as in "moral agent") and also to someone or something that is the mere vehicle or passive conduit for the will of another (as in "literary agent" or "insurance agent").

If ordinary language intuits the existence of a nonlinear, nonhierarchical, non–subject-centered mode of agency, Hannah Arendt makes the point explicitly by distinguishing between "cause" and "origin" in her discussion of totalitarianism. A cause is a singular, stable, and masterful initiator of effects, while an origin is a complex, mobile, and heteronomous enjoiner of forces: "The elements of totalitarianism form its origins if by origins we do not understand 'causes.' Causality, i.e., the factor of determination of a process of events in which always one event causes and can be explained by another, is probably an altogether alien and falsifying category in the realm of the historical and political sciences. Elements by themselves probably never cause anything. They

become origins of events if and when they crystallize into fixed and definite forms. Then, and only then, can we trace their history backwards. The event illuminates its own past, but it can never be deduced from it."[44]

For Arendt, it is impossible to discern in advance the cause of totalitarianism. Instead, like all political phenomena, its sources can only be revealed retroactively. These sources are necessarily multiple, made up of elements unaffiliated before the "crystallization" process began. In fact, what makes the event happen is precisely the contingent coming together of a set of elements. Here Arendt's view is consonant with a distributive notion of agency. But if we look at what spurs such crystallizations for her, we see her revert to a more traditional, subject-centered notion. Whereas the theorist of distributive agency would answer that anything could touch off the crystallization process (a sound, a last straw, a shoe, a blackout, a human intention), Arendt concludes that while the "significance" of an event can exceed "the intentions which eventually cause the crystallization," intentions are nevertheless the key to the event. Once again, human intentionality is positioned as the most important of all agential factors, the bearer of an exceptional kind of power.[45]

Shi

Why speak of the *agency* of assemblages, and not, more modestly, of their capacity to form a "culture," or to "self-organize," or to "participate" in effects? Because the rubric of material agency is likely to be a stronger counter to human exceptionalism, to, that is, the human tendency to understate the degree to which people, animals, artifacts, technologies, and elemental forces share powers and operate in dissonant conjunction with each other. No one really knows what human agency is, or what humans are doing when they are said to perform as agents. In the face of every analysis, human agency remains something of a mystery. If we do not know just how it is that human agency operates, how can we be so sure that the processes through which nonhumans make their mark are qualitatively different?

An assemblage owes its agentic capacity to the vitality of the materialities that constitute it. Something like this congregational agency

is called *shi* in the Chinese tradition. *Shi* helps to "illuminate something that is usually difficult to capture in discourse: namely, the kind of potential that originates not in human initiative but instead results from the very disposition of things."[46] *Shi* is the style, energy, propensity, trajectory, or élan inherent to a specific arrangement of things. Originally a word used in military strategy, *shi* emerged in the description of a good general who must be able to read and then ride the *shi* of a configuration of moods, winds, historical trends, and armaments: *shi* names the dynamic force emanating from a spatio-temporal configuration rather than from any particular element within it.

Again, the *shi* of an assemblage is vibratory; it is the mood or style of an open whole in which both the membership changes over time and the members themselves undergo internal alteration. Each member "possesses autonomous emergent properties which are thus capable of independent variation and therefore of being out of phase with one another in time."[47] When a member-actant, in the midst of a process of self-alteration, becomes out of sync with its (previous) self, when, if you like, it is in a reactive-power state,[48] it can form new sets of relations in the assemblage and be drawn toward a different set of allies. The members of an open whole never melt into a collective body, but instead maintain an energy potentially at odds with the *shi*. Deleuze invented the notion of "adsorbsion" to describe this kind of part-whole relationship: adsorbsion is a gathering of elements in a way that both forms a coalition and yet preserves something of the agential impetus of each element.[49] It is because of the creative activity *within* actants that the agency of assemblages is not best described in terms of social structures, a locution that designates a stolid whole whose efficacy resides only in its conditioning recalcitrance or capacity to obstruct.

The *shi* of a milieu can be obvious or subtle. It can operate at the very threshold of human perception or more violently. A coffee house or a school house is a mobile configuration of people, insects, odors, ink, electrical flows, air currents, caffeine, tables, chairs, fluids, and sounds. Their *shi* might at one time consist in the mild and ephemeral effluence of good vibes, and at another in a more dramatic force capable of engendering a philosophical or political movement, as it did in the cafés of Jean-Paul Sartre's and Simone de Beauvoir's Paris and in the Islamist schools in Pakistan in the late twentieth century.

Political Responsibility and the Agency of Assemblages

The electrical grid, by blacking out, lit up quite a lot: the shabby condition of the public-utilities infrastructure, the law-abidingness of New York City residents living in the dark, the disproportionate and accelerating consumption of energy by North Americans, and the element of unpredictability marking assemblages composed of intersecting and resonating elements. Thus spoke the grid. One might even say that it exhibited a communicative interest. It will be objected that such communication is possible only through the intermediary of humans. But is this really an objection, given that even linguistic communication necessarily entails intermediaries? My speech, for example, depends on the graphite in my pencil, millions of persons, dead and alive, in my Indo-European language group, not to mention the electricity in my brain and my laptop. (The human brain, properly wired, can light up a fifteen-watt bulb.) Humans and nonhumans alike depend on a "fabulously complex" set of speech prostheses.[50]

Noortje Marres rightly notes that "it is often hard to grasp just what the sources of agency are that make a particular event happen" and that this "ungraspability may be an [essential] aspect of agency."[51] But it is a safe bet to begin with the presumption that the locus of political responsibility is a human-nonhuman assemblage. On close-enough inspection, the productive power that has engendered an effect will turn out to be a confederacy, and the human actants within it will themselves turn out to be confederations of tools, microbes, minerals, sounds, and other "foreign" materialities. Human intentionality can emerge as agentic only by way of such a distribution. The agency of assemblages is not the strong, autonomous kind of agency to which Augustine and Kant (or an omnipotent God) aspired; this is because the relationship between tendencies and outcomes or between trajectories and effects is imagined as more porous, tenuous, and thus indirect.

Coole's account of a spectrum of agentic capacities, like the kind of agency that is subjected to structural constraints, does not recognize the agency of human-nonhuman assemblages. And this is in part because of the difficulty of theorizing agency apart from the belief that humans are *special* in the sense of existing, at least in part, outside of

the order of material nature. To affirm a vitality distributed along a continuum of ontological types and to identify the human-nonhuman assemblage as a locus of agency is to unsettle this belief. But must a distributive, composite notion of agency thereby abandon the attempt to hold individuals responsible for their actions or hold officials accountable to the public? The directors of the FirstEnergy corporation were all too eager to reach this conclusion in the task force report: no one really is to blame. Though it is unlikely that the energy traders shared my vital materialism, I, too, find it hard to assign the strongest or most punitive version of moral responsibility to them. Autonomy and strong responsibility seem to me to be empirically false, and thus their invocation seems tinged with injustice. In emphasizing the ensemble nature of action and the interconnections between persons and things, a theory of vibrant matter presents individuals as simply incapable of bearing *full* responsibility for their effects.

The notion of a confederate agency does attenuate the blame game, but it does not thereby abandon the project of identifying (what Arendt called) the sources of harmful effects. To the contrary, such a notion broadens the range of places to look for sources. Look to long-term strings of events: to selfish intentions, to energy policy offering lucrative opportunities for energy trading while generating a tragedy of the commons, and to a psychic resistance to acknowledging a link between American energy use, American imperialism, and anti-Americanism; but look also to the stubborn directionality of a high-consumption social infrastructure, to unstable electron flows, to conative wildfires, to exurban housing pressures, and to the assemblages they form. In each item on the list, humans and their intentions participate, but they are not the sole or always the most profound actant in the assemblage.

Though it would give me pleasure to assert that deregulation and corporate greed are the real culprits in the blackout, the most I can honestly affirm is that corporations are one of the sites at which human efforts at reform can be applied, that corporate regulation is one place where intentions might initiate a cascade of effects. Perhaps the ethical responsibility of an individual human now resides in one's response to the assemblages in which one finds oneself participating: Do I attempt to extricate myself from assemblages whose trajectory is likely to do harm? Do I enter into the proximity of assemblages whose conglom-

erate effectivity tends toward the enactment of nobler ends? Agency is, I believe, distributed across a mosaic, but it is also possible to say something about the kind of striving that may be exercised by a human within the assemblage. This exertion is perhaps best understood on the model of riding a bicycle on a gravel road. One can throw one's weight this way or that, inflect the bike in one direction or toward one trajectory of motion. But the rider is but one actant operative in the moving whole.

In a world of distributed agency, a hesitant attitude toward assigning singular blame becomes a presumptive virtue. Of course, sometimes moral outrage, akin to what Plato called *thumos*, is indispensable to a democratic and just politics. In the years leading up to the publication of this book, these were some of the things that called me to outrage: the doctrine of preemptive war, the violation of human rights and of the Geneva Accords at Guantánamo Bay, the torture of prisoners in Iraq and in accordance with a policy of so-called extraordinary rendition, the restriction of protesters at President Bush's public appearances to a "free speech zone" out of the view of television cameras, the U.S. military's policy of not keeping a count of Iraqi civilian deaths. Outrage will not and should not disappear, but a politics devoted too exclusively to moral condemnation and not enough to a cultivated discernment of the web of agentic capacities can do little good. A moralized politics of good and evil, of singular agents who must be made to pay for their sins (be they bin Laden, Saddam Hussein, or Bush) becomes unethical to the degree that it legitimates vengeance and elevates violence to the tool of first resort. An understanding of agency as distributive and confederate thus reinvokes the need to detach ethics from moralism and to produce guides to action appropriate to a world of vital, crosscutting forces.

These claims are contestable, and other actants, enmeshed in other assemblages, will offer different diagnoses of the political and its problems. It is ultimately a matter of political judgment what is more needed today: should we acknowledge the distributive quality of agency to address the power of human-nonhuman assemblages and to resist a politics of blame? Or should we persist with a strategic understatement of material agency in the hopes of enhancing the accountability of specific humans?