

Radical Mediation

Richard Grusin

On Mediation

The question of mediation has become one of the central intellectual problems in the late twentieth and twenty-first centuries, in part because of the extraordinary acceleration of technology, the rampant proliferation of digital media technologies that sometimes goes under the name of “mediatization.”¹ Despite widespread theorizing about media prompted by the intense mediatization of the past several decades, John Guillory has contended “that the concept of mediation remains undertheorized in the study of culture and only tenuously integrated into the study of media.”² Sarah Kember and Joanna Zylińska similarly “see mediation as the under-

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1. See, for example, *Mediatization: Concept, Changes, Consequences*, ed. Knut Lundby (New York, 2009).

2. John Guillory, “Genesis of the Media Concept,” *Critical Inquiry* 36 (Winter 2010): 354; hereafter abbreviated “G.”

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lying, and underaddressed, problem of the media.”³ Alex Galloway, Eugene Thacker, and McKenzie Wark concur with these assessments, contending that “new kinds of limitations and biases have made it difficult for media scholars to take the ultimate step and consider the basic conditions of mediation.”⁴ All of these authors set out to address mediation’s theoretical absence by explicitly bringing the question of mediation to the fore. In *Excommunication*, Galloway, Thacker, and Wark offer separate but complementary answers to the question of mediation: “Distracted by the tumult of concern around what media do or how media are built,” they write in their collective introduction, “have we not lost the central question: *what is mediation?*”⁵

In this essay I attempt to answer this “central question.” Unlike Galloway, Thacker, and Wark, I do not consider what media do or how they are built to be distractions from the question of mediation but rather part and parcel of it. I do not, however, mean to limit the question of mediation to what media do or how they are built. Nor do I mean to limit mediation to media themselves as they are now conventionally understood. As I argue below, mediation operates not just across communication, representation, or the arts, but is a fundamental process of human and nonhuman existence.

I develop the concept of radical mediation in order to make related but independent arguments about the dualistic character of mediation in Western thought. I argue that although media and media technologies have operated and continue to operate epistemologically as modes of knowledge production, they also function technically, bodily, and materially to generate and modulate individual and collective affective moods or structures of feeling among assemblages of humans and nonhumans.⁶ This

3. Sarah Kember and Joanna Zylińska, introduction to *Life after New Media: Mediation as a Vital Process* (Cambridge, Mass., 2012), p. xviii.

4. Alexander R. Galloway, Eugene Thacker, and McKenzie Wark, *Excommunication: Three Inquiries in Media and Mediation* (Chicago, 2014), p. 7.

5. *Ibid.*, p. 9.

6. Mark Hansen takes up the role of affective modulation in new media art in Mark B. N. Hansen, *New Philosophy for New Media* (Cambridge, Mass., 2004). In the subsequent decade

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affective mediation of collective human and nonhuman assemblages operates independently of (and often more efficaciously than) the production of knowledge.⁷ Like the way media operate affectively, mediation must also be understood ontologically as a process or event prior to and ultimately not reducible to particular media technologies. Mediation operates physically and materially as an object, event, or process in the world, impacting humans and nonhumans alike. Radical mediation participates in recent critiques of the dualism of the Western philosophical tradition, which make up what I have elsewhere called the nonhuman turn in twenty-first-century studies.⁸ Indeed, as I suggest in the essay's final sections, radical mediation might in some sense be understood as nonhuman mediation.

I derive the term *radical mediation* from the concept of radical empiricism set forth by William James in *Essays in Radical Empiricism*, published in 1912, two years after his death.⁹ James's radical empiricism has been redeployed in recent books by Adrian Mackenzie and Anna Munster in order to make sense of the technical and embodied experience of our current media environment, what Mackenzie calls "wirelessness" and Munster characterizes as the "anaesthesia of networks."¹⁰ Both books start from James's paradigmatic definition of radical empiricism in "A World of Pure Experience":

To be radical, an empiricism must neither admit into its constructions any element that is not directly experienced, nor exclude from them any element that is directly experienced. For such a philosophy, *the relations that connect experiences must themselves be experienced relations, and any kind of relation experienced must be accounted as 'real' as anything else in the system.*¹¹

his focus has shifted from affect per se to the cognitive and sensational effects of the "sub-perceptual, 'microscale' experience of worldly sensibility" in what he has begun to refer to as "twenty-first-century media" (Hansen, "Engineering Pre-Individual Potentiality: Technics, Transindividuation, and 21st-Century Media," *SubStance* 41 [2012]: 51).

7. See Richard Grusin, *Premediation: Affect and Mediality After 9/11* (New York, 2010).

8. See *The Nonhuman Turn*, ed. Grusin (Minneapolis, 2015).

9. William James, *Essays in Radical Empiricism* (1912; New York, 1922).

10. See Adrian Mackenzie, *Wirelessness: Radical Empiricism in Network Cultures* (Cambridge, Mass., 2010), and Anna Munster, *An Aesthesia of Networks: Conjunctive Experience in Art and Technology* (Cambridge, Mass., 2013). Brian Massumi has also been thinking about James's radical empiricism for some time now; see Brian Massumi, "Too Blue: Colour Patch for an Expanded Empiricism," *Cultural Studies* 14 (Jan. 2000): 177–226.

11. James, "A World of Pure Experience," *Essays in Radical Empiricism*, p. 42.

In developing the concept of radical empiricism James means to reject both the empiricism or realism that starts with objects or the real in itself and the rationalism or idealism that sees the real as an imperfect manifestation of a universal logos or spirit. In so doing he also means to insist on the affectivity of relations and the reality of affect, in a way that I take as consonant with the famous claim in *The Principles of Psychology* that we do not cry because we are sad but we are sad because we cry.¹² For James “ordinary empiricism,” despite “the fact that conjunctive and disjunctive relations present themselves as being fully co-ordinate parts of experience, has always shown a tendency to do away with the connections of things, and to insist most on the disjunctions.” On the other hand, rationalism, to counter empiricism’s dismissal of relations, has sought “to correct its incoherencies by the addition of trans-experiential agents of unification, substances, intellectual categories and powers, or Selves.”¹³

James’s alternative to the debate between empiricists and rationalists suggests a promising way to move past current debates about objects and relations, or ontology and politics. Object-oriented ontologists like Graham Harman insist on the disjunction between objects, their “withdrawal” from contact with other objects, and thus the separation of ontology from politics.¹⁴ Contemporary and historical Marxists, not unlike rationalists, introduce “trans-experiential agents of unification” like capital or capitalism to hold together disparate and unrelated objects or practices.¹⁵ By starting with experienced relations, and insisting that “any kind of relation experienced must be accounted as ‘real’ as anything else in the system,” James would start in the middle, in what he famously called in the 1890 *Principles of Psychology* “the blooming, buzzing confusion” of the world.¹⁶

With radical mediation I too would start in the middle. By taking James’s radical empiricism as a source for the concept of radical mediation, we just need to substitute *mediation* for “relation” and *immediate* for “real” to retain a sense of James’s meaning in the new term: “the [*mediations*] that connect experiences must themselves be experienced [*mediations*], and any kind of [*mediation*] experienced must be accounted as [*‘immediate’*] as anything else in the system.” Where James is concerned with the empirical reality of relations, my concerns start with the imme-

12. See James, “The Emotions,” *The Principles of Psychology*, 2 vols. (1890; Mineola, N.Y., 1950), 2:442–85.

13. James, “A World of Pure Experience,” pp. 42–43, 43.

14. Graham Harman, *The Quadruple Object* (Winchester, 2011), p. 44.

15. Among the most influential examples, particularly in relation to the concept of mediation, is Fredric Jameson, *The Political Unconscious: Narrative as a Socially Symbolic Act* (Ithaca, N.Y., 1981).

16. James, *The Principles of Psychology*, 1:488.

diacy of mediation. James describes relations primarily as connecting experiences. I see mediations as generating, refashioning, and transforming experiences as well as connecting them, similar to what Bruno Latour calls “translations” or Karen Barad describes as “intra-actions.”¹⁷ Mediations are always remediations, which change or translate experiences as well as relating or connecting them. I substitute mediation for James’s relation to emphasize that while radical empiricism insists on the reality of experienced relations, radical mediation also insists upon an immediacy that transforms, modulates, or disrupts experienced relations.

Radical mediation challenges what Barad calls representationalism: “the belief in the ontological distinction between representations and that which they purport to represent” (*MU*, p. 46). In these traditional representationalist accounts, mediation is understood to come between, or in the middle of, already preformed, preexistent subjects or objects, actants or entities. The role of mediation in such accounts is precisely to connect, or negotiate between, actants, categories, and events (or subjects and objects), which would otherwise have no way of understanding or interacting with one another. Especially in post-Hegelian, Marxian thought, mediation has been opposed to immediacy, functioning as what might be called an agent of correlation, which filters, limits, constrains, or distorts an immediate perception or knowledge of the world or the real.¹⁸ Mediation has in these accounts been understood both as enabling our knowledge of reality and as preventing or making impossible the direct and immediate relation with the world that Brian Massumi (and others) insist upon as a fundamental component of human and nonhuman experience. In many traditional philosophical accounts we cannot experience the world directly or immediately because we cannot know the world without some form of mediation.

Although Massumi has at times taken issue with the concept of mediation, I want to follow his claim that “philosophical thinking must begin . . . immediately in the middle” by suggesting that we understand mediation itself as

17. Translation is a concept that can be found throughout Latour’s work, although perhaps the most thorough account of it occurs in Bruno Latour, *We Have Never Been Modern* (Cambridge, Mass., 1991). “Intra-action,” too, occurs frequently in Barad’s work; most trenchantly see Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham, N.C., 2007), pp. 97–185; hereafter abbreviated *MU*.

18. For the fullest critique of correlationism, see Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (New York, 2009). But see also *The Speculative Turn: Continental Materialism and Realism*, ed. Levi Bryant et al. (Melbourne, 2011).

a place to begin.¹⁹ As articulated in different ways in the nineteenth- and twentieth-century American tradition by Ralph Waldo Emerson, Henry David Thoreau, Charles Sanders Peirce, or James, or in the twentieth and twenty-first centuries by Alfred North Whitehead, Gilbert Simondon, Gilles Deleuze, Massumi, or Barad, where we begin is immediately in the middle.²⁰ Mediation should be understood not as standing between preformed subjects, objects, actants, or entities but as the process, action, or event that generates or provides the conditions for the emergence of subjects and objects, for the individuation of entities within the world. Mediation is not opposed to immediacy but rather is itself immediate. It names the immediacy of middleness in which we are already living and moving: “Where do we find ourselves?” Emerson asks in the opening of his famous essay “Experience” and then answers: “In a series of which we do not know the extremes, and believe that it has none. We wake and find ourselves on a stair; there are stairs below us, which we seem to have ascended; there are stairs above us, many a one, which go upward and out of sight.”²¹ In asking where we find ourselves, Emerson is asking where the world and its non-human entities find themselves as well. In developing the concept of radical mediation I operate from a sense that where we find ourselves (both at the beginning of the twenty-first century and in human and nonhuman history more generally) is immediately in the middle, in mediation itself.

Remediation

I have been thinking and writing about the history and theory of mediation for twenty years—most notably in my work on the logics of mediation in the late twentieth and early twenty-first centuries. I have also been concerned throughout this work with thinking through in various and partial ways the ontological status of mediation.²² In the nearly twenty

19. Brian Massumi, *Semblance and Event: Activist Philosophy and the Occurrent Arts* (Cambridge, Mass., 2011), p. 1.

20. In a book released as this issue was going to press, Scott Durham Peters also traces an intellectual genealogy for contemporary ideas of the relations among humans and nonhumans, media and nature, that runs from Emerson and Thoreau through Peirce and James up to the present. Curiously, despite his central focus on media, Peters eschews almost entirely any discussion of mediation *per se*. See Scott Durham Peters, *The Marvelous Clouds: Toward a Philosophy of Elemental Media* (Chicago, 2015).

21. Ralph Waldo Emerson, “Experience,” *The Essential Writings of Ralph Waldo Emerson*, ed. Brooks Atkinson (New York, 2000), p. 307.

22. In the essay “Remediation,” which Jay David Bolter and I published in the 1996 volume of *Configurations*, we wrote that media function as objects within the world, that they participate in various systems of exchange: linguistic, cultural, social, and economic. Later in the same part of the essay we further elaborated upon the ontology of mediation, arguing that “Mediations are real not only because the objects produced (photos, videos, films, paintings, CD-ROMS, etc.) circulate in the real world, but also because the act of mediation itself

years since “Remediation,” I have included the ontological and affective reality of mediation among the methodological premises of my work.²³ Building upon Latour’s distinction between intermediaries and mediators, in which mediators are not neutral means of transmission but actively involved in transforming whatever they mediate, I insist that mediation operates not by neutrally reproducing meaning or information but by actively transforming human and nonhuman actants, as well as their conceptual and affective states. Thus, the concept of radical mediation helps make sense of how in the twenty-first century media and mediation operate within the world as objects or events no different from any other and how their contemporary operation lets us see some things about mediation that have often been obscured. This concept of radical mediation departs from the way mediation has been used in Western thought at least since Immanuel Kant and G. W. F. Hegel, but more likely going back to Aristotle—although as a literary critic turned media theorist, I hesitate in making definitive assertions about the history of the Western philosophical tradition. The history of philosophy notwithstanding, I am concerned with interrogating the way in which mediation has been conventionally defined and deployed as a secondary concept or category, as something that enters the scene belatedly, after humans and nonhumans, representation and reality, or culture and nature have already been divided up and parceled out.

Although *remediation* has not always been recognized as doing so, from very early on I have understood it to be making a case for the experiential immediacy of mediation. Perhaps this concern has not been evident because remediation’s double logic divides immediacy from hypermediacy in a formal sense, having to do with the visual aesthetics of the screen, its composition and design. As half of the double logic of remediation, the logic of transparent immediacy imagines a form of visual mediation in which the medium erases itself so that there is an immediate subjective encounter with, or apprehension of, the object of mediation, or the real. This visual logic of transparent immediacy can now be seen as a version of

functions as a [Latourian] hybrid and is treated much like a physical object” (Grusin and Jay David Bolter, “Remediation,” *Configurations* 4 [Fall 1996]: 350). Although personal media devices, selfies, and photobombing are among the contemporary media practices that have more recently challenged and weakened the protected space of mediation, the power and reality of acts of mediation have multiplied in the twenty-first century.

23. I argue elsewhere that “mediation operates through what Latour characterizes as ‘translation,’ not by neutrally reproducing meaning or information but by actively transforming conceptual and affective states” (Grusin, *Premediation*, pp. 5–6).

what, following the terminology of speculative realism, we might call media correlationism, in which mediation functions as the necessary intermediary between human agents and the nonhuman world. As half of the double logic of remediation, transparent immediacy holds that the subject's contact with the real depends upon the erasure of the medium, which correlates and thereby obscures the relationship between subject and world. Hypermediacy, on the other hand, refers to the proliferation of media forms and practices. From a media correlationist standpoint, therefore, hypermediacy would seem to block or prevent the erasure of the medium that defines transparent immediacy. From the perspective of radical mediation, however, hypermediacy does not prevent immediacy but rather constitutes it—not through the erasure of an intervening visual medium but through the immediacy of mediation itself. By using *remediation* I emphasize the point that both logics are at play in mediation, that the double logic of remediation entails both the transparency of media correlationism and the obscurity of radical mediation, and that these two different concepts of mediation are just as contradictory as immediacy and hypermediacy are.

But remediation deploys the concept of immediacy in another way as well, which moves toward what I am defining here as radical mediation. In addition to referring to a formal style or logic of visual mediation in which all signs of mediation are erased or concealed, immediacy is also used in remediation to refer to the embodied, affective experience that comes both from the direct encounter with the real provided by transparent mediation and from the immediate encounter with mediation provided by hypermediated modes of mediation. *Remediation* tried to underscore the phenomenal or experiential aspects of mediation by mobilizing Derrida's argument in "Economimesis" that mimesis is not about the resemblance between a representation (or mediation) and its object, but a relation between "two producing subjects."²⁴ With *premediation*, I developed the affective immediacy of mediation further in terms of Maurice Merleau-Ponty's contention that the optic is an extension of the haptic, claiming that because all bodily senses are haptic, mediation is as well (readers of Marshall McLuhan will undoubtedly hear echoes of his claim that print is visual, while electric media are haptic). As Silvan Tomkins and Daniel Stern help us to understand, our interactions with media are always affective, and media themselves can be said to possess affective lives.²⁵ And as I

24. Jacques Derrida, "Economimesis," *Diacritics* 11 (Summer 1981): 9.

25. See Silvan Tomkins, *Shame and Its Sisters: A Silvan Tomkins Reader*, ed. Eve Kosofsky Sedgwick and Adam Frank (Durham, N.C., 1995), and Daniel Stern, *The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology* (New York, 1985).

have argued elsewhere in relation to the 2011 Sendai earthquake and its consequent tsunami and technical catastrophes, the affectivity of media aftershocks caused by the quake must be understood to have the same ontological immediacy as its geotechnical aftershocks.²⁶

To understand radical mediation as affective and experiential rather than strictly visual is to think about our immediate affective experience of mediation as that which is felt, embodied, near—not distant from us, and thus not illuminated or pictured, but experienced by us as living, embodied human and nonhuman creatures. Where remediation focused largely on the visual aspects of mediation, radical mediation would take into account the entire human sensorium. For radical mediation, all bodies (whether human or nonhuman) are fundamentally media and life itself is a form of mediation.²⁷ As Benjamin had similarly noted about mechanical reproduction, the remediation of new digital media has worked to bring our media devices nearer our bodily medium, engaging us directly in what I have elsewhere characterized as the affective life of media.²⁸ The core of radical mediation is its immanence, immediacy itself—not the transparent immediacy that makes up half of remediation’s double logic but the embodied immediacy of the event of mediation. In our affective, bodily interactions with media devices, indeed with the world of humans and nonhumans, there is no distance or perspective from which to see immediacy, from which immediacy could be made into something one could paint or draw or re-present, or something that needed mediation. “Bodies,” writes Barad apropos the invertebrate brittlestar, “are not situated *in* the world; they are part *of* the world” (*MU*, p. 376). Interestingly Emerson makes a similar point in “Nature” when he includes “all other men and my own body” under the category of “NATURE” or the “NOT ME.”²⁹ The

26. See Grusin, “Mediashock,” in *Structures of Feeling: Affectivity and the Study of Culture*, ed. Frederik Tygstrup and Devika Sharma (Berlin, 2015).

27. For a related version of the argument that life itself is mediation, which builds upon my earlier work on *Remediation*, see Kember and Zylinska, *Life after New Media*. In thinking about the vitality of mediation, Kember and Zylinska mostly remain in the realm of art, media and communication. Thus even when they make claims about mediation that come very close to the claim of radical mediation that mediation is originary, not secondary or tertiary, Kember and Zylinska still think of mediation in terms of the realm of communicative media as traditionally understood.

28. Grusin, *Premediation*, chap. 4.

29. Emerson, “Nature,” *The Essential Writings of Ralph Waldo Emerson*, p. 4. A century later Whitehead echoes Emerson’s insistence on including the human body among nature: “We think of ourselves as so intimately entwined in bodily life that a man is a complex unity—body and mind. But the body is part of the external world, continuous with it. In fact, it is just as much part of nature as anything else there—a river, or a mountain, or a cloud. Also, if we are fussily exact, we cannot define where a body begins and where external nature ends” (Alfred North Whitehead. *Modes of Thought* [New York, 1938], pp. 29–30).

same claim, I would aver, can be made for media and mediation as well. In theorizing the affective embodiment of radical mediation, we should attend to the immediate affective experience of mediation itself. But to suggest that mediation is immediate is to swim against a strong popular current running through the history of Western thought, one which would categorically distinguish mediation from immediacy, a distinction that both remediation and premediation set out to challenge and that is further problematized by the concept of radical mediation.

Marxian Mediation

In “Genesis of the Media Concept,” Guillory helps to articulate how our contemporary conceptions of media and mediation have emerged in Western thought. He traces out the genealogy of the concept of media as used in relation to communication, arguing that “the concept of a medium of communication was absent but *wanted* for the several centuries prior to its appearance” (“G,” p. 321). Guillory masterfully traces this genealogy back to Aristotle, then moves through a series of detailed discussions of the concept of the medium in Condorcet; Francis Bacon and Thomas Hobbes; John Locke and John Wilkins; and George Campbell, John Stuart Mill, and Stéphane Mallarmé. After contending in relation to the invention of print that remediation highlights the medium itself (see “G,” p. 324), Guillory amplifies his discussion with more relatively recent theorists of the media concept, ranging from Hegel to Peirce, Ferdinand Saussure, Roman Jakobson, Walter Benjamin, Theodor W. Adorno, and Raymond Williams. In the process he includes other media as well as print, noting:

The proliferation of remediation by the later nineteenth century demanded nothing less than a new philosophical framework for understanding media as such in contradistinction to the work of art conceived within the dominant frame of mimesis. This new framework was provided by the idea of communication, which encloses all forms of media now, whether defined as art (painting) or nonart (informational genres, newspapers, and so on) or something in between (photography). The system of the fine arts yielded to a new system, the media. [“G,” pp. 346–47]

Although I cannot rehearse Guillory’s entire argument in this essay, I want to underscore his point that the process of remediation demanded a new philosophical framework to distinguish media from works of art, the framework of communication that he sees as subsuming all media in the twenty-first century. In this section I take Guillory’s discussions of how media and mediation have been understood in the Marxian tradition as a

way into Williams's theorization of mediation and his contention that Adorno, through his reading of Hegel, manages to avoid the dualism at the heart of conventional understandings of mediation. I return to Guillory's argument about media and mediation near the end of the essay.

It is hardly news to note that Hegel is a key figure for the development of Marxian accounts of mediation. For Guillory, however, Hegel is an especially interesting philosophical case because he makes mediation central to his thought without any particular role for media, especially communication media. What interests Guillory about this "mutual nonrecognition of mediation and media" in Hegel is that in the twenty-first century the two seem so closely connected ("G," p. 342). One reason Hegel is unable to think media and mediation together is that the concept of media—particularly as developed in the twentieth century by Benjamin, McLuhan, and others—fundamentally challenges the Hegelian conception of mediation by calling attention to its technical materiality. For Hegel, Guillory writes,

mediation belongs to a dialectic of relations, by which concepts such as subject and object, or mind and world, are assigned roles in a system. . . . The concept of mediation expresses an evolving understanding of the world (or human society) as too complex to be grasped or perceived whole (that is immediately), even if such a totality is theoretically conceivable. ["G," p. 343]

The problem of totality, Guillory contends, is one that Williams addresses throughout his work, especially in his treatment of mediation in *Keywords*.³⁰ Guillory follows Williams in claiming that Hegel conceived of mediation in terms of "the totality of things" and that "the base-superstructure model of classical Marxism functioned as an early theory of mediation." To be sure, it was indebted to Hegel, but all the same it carried forward "a revisionist version of his dialectic" ("G," p. 355). The base-superstructure model, Guillory suggests, perpetuates, as a theory of mediation, the dualism of Western thought that Williams would challenge.

Guillory is right to focus on Williams, who takes up the role of Hegel as a theorist of mediation in the aforementioned *Keywords* and in *Marxism and Literature*. Williams reads Hegel through Adorno, whom he sees as a crucial figure in escaping dualistic understandings of mediation. In his insightful discussions of media and mediation, Williams sees Adorno's negative dialectics as offering the most radical revision of Hegelian Marxist concepts of mediation. Adorno reads Hegel's metaphysics as a critique of

30. See Raymond Williams, "Mediation," *Keywords: A Vocabulary of Culture and Society* (New York, 1976), pp. 204–207.

immediacy, by which he means the denial that there is anything that isn't already mediated and the insistence that there is no such thing as immediacy. Adorno contrasts his reading of Hegel with those philosophers of experience (like Edmund Husserl or Henri Bergson or Martin Heidegger) for whom immediacy, not mediation, is the criterion of experience. Adorno concludes: "According to Hegel, there is nothing between heaven and earth that is not '*vermittelt*' [mediated], nothing, therefore, that does not contain, merely by being defined as something that exists, the reflection of its mere existence, a spiritual moment: 'Immediacy itself is essentially mediated.'"³¹

Although Adorno's first point—there is nothing that isn't mediated—might sound like what I am calling radical mediation, I want to revise this formulation slightly in order ultimately to reverse it. Instead of saying there is nothing that isn't *mediated* I would say instead that there is nothing that isn't *mediation*, and that mediation is immediate. That is, where Hegel insists that nothing is immediate, that "immediacy itself is essentially mediated," for radical mediation immediacy itself is essentially *mediation* and mediation is itself immediate. In Hegel's formulation (and Adorno's interpretation of Hegel) "immediacy itself" is essentially mediated by some nonimmediate element like thought or knowledge. In my reformulation of radical mediation "immediacy itself" is mediation or, in its more active form, mediating. Because immediacy is always already mediating, there is no need—indeed, no possibility—for immediacy to be mediated by some other term, process, or concept that was not *eo ipso* already immediate. Perhaps counterintuitively, then, radical mediation is not mediated but immediate. But because Hegel starts from a radical antinomy between immediacy and mediation, he is unable to consider mediation as immediate. Thus where Adorno cites Hegel as arguing that there is nothing ("between heaven and earth") that is not *mediated*, that does not "reflect" its "spiritual moment," I argue that there is nothing that is not *mediation* and that *mediation itself is immediate*.³² In saying this I want to resist both the experiential philosophers who claim that experience is independent of mediation and the ideal philosophers who insist that experience must always be mediated. Each of these positions would offer a foundational con-

31. Adorno, *Hegel: Three Studies*, trans. Shierry Weber Nicholson (Cambridge, Mass., 1999), p. 57.

32. As an epigraph to "Remediation," I chose a passage from Hegel that seems to suggest something like the double logic of remediation, the copresence of mediation and its abrogation: "Immediacy is, however, a one-sided determination; thought does not contain it alone, but also the determination to mediate itself with itself, and thereby the mediation being at the same time the abrogation of mediation—it is immediacy" (Quoted in Grusin and Bolter, "Remediation," p. 311).

cept that can overcome the dualism between the ideal and the real. Hegel's idealism holds out for something like spirit that can transcend mediation through the operation of the dialectic, while experiential philosophers argue for the reality of immediate experience that somehow underlies or grounds mediation. Nonetheless both realism and idealism agree in accepting dualism as the place to begin, as a problem that needs to be overcome or resolved, rather than as the outcome of a mediating process that begins in the middle. But as an outcome of mediation, dualism is one philosophical problem among many, not the necessary condition of mediation itself.

Williams recognizes that Hegel's dualistic concept of mediation plays a key role in Marxist thought, but he credits Adorno with finding a way out of this philosophical dualism. In *Keywords*, Williams delineates three conflicting *senses* of mediation:

- (1) the *political sense* of intermediary action designed to bring about reconciliation or agreement; (2) the *dualist sense*, of an activity which expresses, either indirectly or deviously and misleadingly (and thus often in a falsely reconciling way), a relationship between otherwise separated facts and actions and experiences; (3) the *formalist sense*, of an activity which directly expresses otherwise unexpressed relations.³³

The political sense of mediation refers most influentially to the role of Jesus as an intermediary between God and man. The dualist sense, derived from Hegel, is used most often in relation to ideology critique or psychoanalysis, serving in each case as an agent of epistemological correlation that prevents a true understanding of reality or the unconscious, respectively. Williams takes these first two senses of mediation as accelerating a philosophical dualism that runs from Aristotelian to Christian to Hegelian metaphysics. But he suggests that this third, formalist sense of mediation, which he traces chiefly to Adorno, is able to get past the philosophical problem of dualism.

In both *Keywords* and *Marxism and Literature*, Williams credits Adorno with overcoming Hegelian dualism, citing in each work Adorno's claim that "mediation is in the object itself, not something between the object and that to which it is brought."³⁴ In the latter text Williams distinguishes mediation from reflection, the Marxian idea that the superstructure directly reflects the ideological structure of the economic base. By appealing to mediation as "an activity which directly expresses otherwise unex-

33. Williams, *Keywords*, p. 206; my emphasis.

34. Williams, *Marxism and Literature* (New York, 1977), p. 98 and *Keywords*, p. 206.

pressed relations,” Williams tries to move past the first two senses of mediation as intermediary or dualistic. I am deeply sympathetic with Williams’s desire to find an understanding of mediation that provides an alternative to the dualism with which much Western philosophy begins. But I am not persuaded that Adorno’s contention that mediation is “in the object” successfully does so. For in defining the reality of mediation, Williams follows the Marxian tradition in understanding “material *social* processes” as constitutive of that which is real (emphasis added). Doing so, however, builds in a conceptual opposition between the material and the social and thus prevents him from escaping the duality built into the correlationist or representationalist traditions, even as he wants to argue that the social is more than a direct, straightforward reflection of the material. Thus, although Williams seeks to escape the problematic dualism of the Western philosophical tradition, the furthest he can get from this dualism is to say that mediation is a “positive and substantial” “process of signification and communication” in “the making of meanings and values.”³⁵ But what Williams seemingly cannot bring himself to accept is that language and signification are not just social but are themselves natural processes as well. Thus in the end mediation remains for Williams an intermediary to the understanding of the nonhuman world, not a property of the nonhuman world itself. Despite repeated invocations of Adorno’s claim that “mediation is in the object,” Williams (like Adorno) still maintains a dualism between mediation and the object, rather than, as someone like Peirce might maintain in talking about mediation and semiosis as natural processes, understanding mediation not simply as in the object but as the object itself.³⁶

Radical Mediation

Hegel’s influential critique of immediacy (and Adorno’s and Williams’s attempts to get beyond this critique) to the contrary, radical mediation does not take mediation as standing between already actualized subjects, objects, actants, or entities (or even as being within objects) but rather treats mediation as the process, action, or event that generates or provides the conditions for the emergence of subjects and objects, for the individ-

35. Williams, *Marxism and Literature*, p. 100.

36. In discussing mediation as something like a natural process, which I do below, I want to be careful to distinguish radical mediation from such concepts as biosemiotics, zoosemiotics, or ecosemiotics, all of which remain focused on communication, signification, and meaning and thus continue to understand mediation (or ultimately semiosis) in relation to representationalism, not individuation, transduction, or intra-action. Such expanded forms of semiotics are of great interest but are not to be misunderstood as varieties of radical mediation.

uation of entities within the world. In this sense radical mediation has affinities with Simondon's concepts of transindividuation, transduction, and ontogenesis. The process of individuation, whose true principle Simondon identifies as mediation, "must be considered primordial, for it is this process that at once brings the individual into being and determines all the distinguishing characteristics of its development, organization and modalities."³⁷ And although Simondon considers individuation "*to form only one part of an ontogenetic process*," he also maintains that "in a certain sense, ontogenetic development [*devenir*] itself can be considered as mediation," or what I have been trying to define as radical mediation ("GI," pp. 300, 317 n. 2).

In radical mediation all connections involve modulation, translation, or transformation, not just linking. I insist upon this distinction because connection could be taken to imply experiences (or experienced relations) that preexist their mediation, whereas I understand mediation as fundamentally what Simondon calls "transductive" or "ontogenetic," part and parcel of, yet not reducible to, experience (see "GI"). For Simondon a relation is "a way of being and not a simple connection between two terms that could be adequately comprehended using concepts because they both enjoy what amounts to an independent existence" ("GI," p. 312). Following James, I refuse to separate mediation from other experienced relations. Mediation does not stand between a preexistent subject and object, or prevent immediate experience or relations, but rather transduces or generates immediate experiences and relations. Not only is mediation immediate, but it is also individuating in Simondon's sense, operating through a process of becoming to generate individual subjects and objects through what James might have meant to understand as experienced relations, subjects and objects which are themselves remediations.³⁸

37. Gilbert Simondon, "The Genesis of the Individual," trans. Mark Cohen and Sanford Kwinter, in *Incorporations*, ed. Jonathan Crary and Kwinter (Cambridge, Mass., 1992), p. 300; hereafter abbreviated "GI."

38. In reading Simondon as presenting a version of radical mediation, I depart from Mark B. N. Hansen's assiduous treatment of Simondon over the past decade. Because Hansen consistently exhibits what Massumi characterizes as a widespread "tendency to concentrate on Simondon's theory of the technical object to the exclusion of the other aspects of this thought—physical individuation, vital individuation and psychic individuation (synonymous for him with collective individuation)," he thinks of the technical object in terms of the conventional account of mediation which I contend, following Massumi, Simondon resists (Massumi, "'Technical Mentality' Revisited: Brian Massumi on Gilbert Simondon," interview by Arne De Boever et al., in *Gilbert Simondon: Being and Technology*, ed. De Boever et al. [Edinburgh, 2012], p. 20). For Massumi, Simondon's concept of mediation "has nothing to do with the meaning of that term in Communication Studies, Media Studies, or Cultural Studies. In Simondon, the term carries ontogenetic force, referring to a snapping into relation effecting a self-inventive passing to a new level of existence" (p. 43). For Hansen, however, rather than

In a short essay translated as “Mediators” (*Les intercesseurs*), Deleuze uses the concept of “mediators” to talk about this ontogenetic operation of radical mediation, the creative, not the correlative, aspect of mediation. What Deleuze says of mediators, I would contend, is true of mediation as well: “Mediators are fundamental. Creation’s all about mediators. Without them nothing happens. They can be people—for a philosopher, artists or scientists; for a scientist, philosophers or artists—but things too, even plants or animals, as in [Carlos] Castaneda.”³⁹ Or, as I would insist, Charles Sanders Peirce. Without mediation nothing happens. Creation, I would restate, is all about mediation. And because all mediation is remediation, creation never occurs *ex nihilo*, nor does it happen hylomorphically by the imposition of an abstract form on inert matter. Rather, creation always finds itself in the middle, amidst mediations and remediations of people and things, humans and nonhumans.

The substitution of mediation for relation can also be understood through Peirce’s thinking about mediation in the later part of his life, particularly his conviction that “Mediation is more than the conjunction of two dyadic relations,” but a form of thirdness “operative in Nature.”⁴⁰ Although James has been remembered as telling Peirce that he could not understand a word of what Peirce was writing, the two men are both associated with the late-nineteenth-century creation of philosophical pragmatism (“FR,” pp. 475–77). Furthermore James dedicated *The Will to Believe* “To My Old Friend, Charles Sanders Peirce, To whose philosophic comradeship in old times and to whose writings in more recent years I owe more incitement and help than I can express or repay.”⁴¹ In their later years both worked towards different but not entirely incompatible metaphysical understandings of what Barad has characterized as “agential realism,” in which relations or mediations are seen to be more real for what they do or how they act than for what they mean or represent (*MU*, p. 157). (I will

carrying ontogenetic force, “the associated milieu of the technical object is a mediator between the technical realm and the natural world” and points the way to understanding the “microsensibility” of “twenty-first-century media” (Hansen, “Engineering Pre-Individual Potentiality,” pp. 38, 57).

39. Gilles Deleuze, “Mediators,” *Negotiations: 1972–1990* (New York, 1995), p. 125. Although Deleuze does not use the French word *médiateur*, what he says about mediators (or intercessors) is consistent with the concept of radical mediation I am setting forth here.

40. Winfried Nöth, “From Representation to Thirdness and Representamen to Medium: Evolution of Peircean Key Terms and Topics,” *Transactions of the Charles S. Peirce Society* 47 (Fall 2011): 471, 472; hereafter abbreviated “FR.”

41. James, *The Will to Believe and Other Essays in Popular Philosophy* (1896; New York, 1919), p. v.

return to Barad in the next section.) Indeed despite being primarily associated with language and linguistics, Peirce in his later theories of biosemiosis moved even more radically than did James towards an ontological understanding of mediation, particularly in relation to non-human nature, as nonrepresentational.⁴² Thus for Peirce a sunflower, for example, can be understood as a mediation, or “Representamen of the sun”:

“If a sunflower, in turning towards the sun, becomes by that very act fully capable, without further condition, of reproducing a sunflower which turns in precisely corresponding ways toward the sun, and of doing so with the same reproductive power, the sunflower would become a Representamen of the sun.” [“FR,” p. 464]

What Peirce here calls “Representamen” he elsewhere, and increasingly in his later work, comes to understand as mediation. But in either case each is a category of what he calls “thirdness.” The latter is a form of thought whose most radical formulation is operative in nonhuman nature, as for example when he claims that “thought is not necessarily connected with a brain. It appears in the work of bees, of crystals, and throughout the purely physical world” (“FR,” p. 465).⁴³ As thirdness, mediation for Peirce does not, as it does for Hegel, come between preformed subjects and objects, but operates more like that natural process or activity that generates honeycombs, crystalline structures, sunflowers, or language, as that from which human and nonhuman signification emerges, with or without what we conventionally understand as thought. In linking radical mediation to Peirce’s category of thirdness I mean to underscore the notion that all activity is mediation, and that for radical mediation there is no discontinuity between human and nonhuman agency, or semiosis. Although Peirce is notorious for his terminological inconsistency, he associates mediation with thirdness as early as 1875. As Winfried Nöth points out, from 1890 on he applies mediation fairly consistently “to phenomena from logic to metaphysics and natural philosophy. In evolutionary terms, thirdness is the ‘tendency to take habits.’ . . . Thirdness manifests itself in ‘generality, infinity, continuity, diffusion, growth, and intelligence.’” In his

42. What interests me about Peirce’s understanding of biosemiosis, or nature as mediation, are not the communicative or representational aspects of his understanding, which is what concerns contemporary scholars of biosemiosis, zoosemiosis, and ecosemiosis, but the way in which Peirce calls attention to the non-representationalist character of semiotics or mediation.

43. Peirce here is very close to what Steven Shaviro describes as “panpsychism”; see Steven Shaviro, “Consequences of Panpsychism,” *The Nonhuman Turn*, pp. 19–44.

later writings, Nöth explains, Peirce regularly treats thirdness as a metaphysical category which “is operative in Nature” (“FR,” p. 472).

This is not the place to work through Peirce’s complex and often protean definitions of firstness, secondness, and thirdness in semiosis. I introduce the concept of thirdness here, instead, to suggest that Peirce provides an account of mediation that breaks with the tradition from Hegel to Adorno and Williams, in which mediation is secondary to *ontos* or being. Peirce’s understanding of mediation as thirdness operates in some sense as the ontogenetic proper, as that which works through human and nonhuman entities, through thought and matter and society, through subjects and objects, by means of exactly the same processes of evolution, or the tendency to take habits, as that of a plant, a bee, a crystal, or a poet. In some sense, then, radical mediation is also a form of thirdness.

In *How Forests Think*, anthropologist Eduardo Kohn follows Peirce in practicing what Kohn calls “an anthropology beyond the human.”⁴⁴ Kohn contends that it is not just humans who have what cultural anthropologists would understand as “points of view” or semiosis but also nonhuman beings like jaguars and dogs, organic entities like trees or forests, and physical or geological nonhuman activities like erosion, eruption, crystallization, liquefaction, and so forth. For Kohn, Peircean semiosis is not only a process of human signification but a process of the natural and physical world as well. Key to Peirce as well as to Kohn’s deployment of him is the understanding that thirdness, whether described as representamen, mediation, or interpretant, always entails movement into the future. Conventional forms of mediation work to reconcile or bring together disparate or competing actants or entities, subjects or objects, which are understood as already existing within the present and having already come into being in the past. Radical mediation as thirdness or semiosis, on the other hand, is always about the future as well—with the radical mediation of life itself always being about the proliferation of possible futures that have real impacts on the present, what I elsewhere characterize as premediation. As thirdness radical mediation is always about the continuation of semiosis, the moving into the future of semiosis by a sign interpreting something to a third, an interpretant, which then initiates the process again. Peirce’s explanations are often more linear than the process of semiosis he describes. If radical mediation, like semiosis, is about the ways in which mediation produces, generates, or creates selves and others, subjects and objects, then radical mediation is always a form of premediation, of gen-

44. See Eduardo Kohn, *How Forests Think: Toward an Anthropology Beyond the Human* (Berkeley, 2013).

erating a multiplicity of potential but never fully formed futures which will have real impacts on life or action in the present whether those futures actualize themselves or not.⁴⁵

Put differently, we might say that radical mediation is always about mediating. In this sense, radical mediation can be taken as another way to talk about what Whitehead calls occasions of experience, or the fact that life or nature always involves duration and persistence and movement.⁴⁶ Whitehead criticizes conventional understandings of science and philosophy for trying to think about nature, thought, or mind as fixed at a particular instant. He contends that the notion of an instant of time makes no sense, as time always moves, has an aim, and that in every moment the world is being created anew.⁴⁷ In developing the concepts of remediation and premediation I have tried to articulate the way in which this is also true of mediation as an activity or process of mediating and remediating. By claiming that all mediation is remediation I have meant to emphasize that all mediation entails an appropriation of prior acts, processes, or experiences of mediation and that mediation cannot be understood in a fixed, lifeless, static sense but can only be understood dynamically or relationally as it appropriates prior media formations and events. Premediation thus makes up the forward-moving side of this process, what following Whitehead we might call the prehension of mediation, as all acts or events of mediation both remediate prior mediations and premediate future ones. Indeed, my stronger claim is that these activities of radical mediation (remediation and premediation) constitute the ontological character of the world, what the world is made of, similar to how Whitehead uses occasions of experience, process, or event to characterize the world as in a constant state of creation and re-creation. To play off of Whitehead's terminology, radical mediation would not entail re-presentation but rather pre-presentation, and is not derivative of but co-present with creation. Not only does radical mediation start in the middle, but it is always already mediating.

What's So Radical About Mediation?

By now it should be clear that the concept of mediation, as developed in the history of Western thought, depends upon stable dichotomies like

45. See Grusin, *Premediation*.

46. Neglected for much of the latter half of the twentieth century, Whitehead has in the past two decades become an increasingly important, and sometimes contested, figure for continental philosophy, science studies, and media studies. My understanding of Whitehead is informed largely by the work of Shaviro, Erin Manning, Massumi, and Isabelle Stengers.

47. See Whitehead, *Adventures of Ideas* (New York, 1967), pp. 172–208.

those between subject and object, representation and reality, or human and nonhuman, as a starting point. I contend, however, that such dichotomies are instead outcomes of mediation, not its source, and that we need therefore to start in the middle, with radical mediation. But if mediation has historically been tied to representationalism and dualism, why insist upon retaining the concept rather than simply deploy as needed, for example, Whitehead's ideas of prehension or occasions of experience, Simondon's notions of individuation or transduction, or Barad's concepts of agential realism and intra-action? By highlighting the ontological aspects of mediation I have tried to sketch out a counterunderstanding of mediation as creative or ontogenetic. In contrast to Barad's dismissal of mediation, I emphasize radical mediation as a way to maintain a different understanding of the concept of mediation as a process, object, or event, which challenges the dualistic premises of representationalism.

In Barad's account of Western epistemology, however, as in most others, mediation and representation go hand in hand. The problem Barad finds with representationalism is the ways it privileges vision as the highest form of knowing the world. (In this context we do well to remember McLuhan's key insight that reading, too, is a visual act.) She also finds representationalism problematic because, by separating humans from the nonhuman world, it rules out an immediate relation with the world, what Emerson calls in "Nature" "an original relation to the universe."⁴⁸ For Barad,

as long as representation is the name of the game, the notion of mediation—whether through the lens of consciousness, language, culture, technology, or labor—holds nature at bay, beyond our grasp, generating and regenerating the philosophical problem of the possibility of human knowledge out of this metaphysical quarantining of the object world. [*MU*, pp. 375]

This powerful and concise formulation of the critique of representation in Western thought leads Barad to jettison mediation as a useful concept, identifying it (as has most often been the practice) with representation or correlating it to an epistemological as distinct from an ontological process.

Similar to radical mediation, agential realism would replace the traditional concept of mediation in Western thought that I have been unfolding here. Mobilizing a detailed reading of Niels Bohr's theory of "quantum entanglement," Barad understands reality as being continuously generated through "agential cuts" made by the "intra-action" of the world with an

48. Emerson, "Nature," p. 3.

“apparatus,” which could take the form, for example, of an experiment, a microscope, a human or nonhuman body, a river, or a tree (see *MU*). Like James, she rejects both traditional empiricism and idealism:

Agential realism’s conceptualization of materiality makes it possible to take account of material constraints and conditions once again without reinscribing traditional empiricist assumptions concerning the transparent or immediate givenness of the world and without falling into the analytical stalemate that simply calls for recognition of our mediated access to the world and rests its case. [*MU*, p. 157]

Consequently, Barad challenges the ubiquitous claim that experience and the material world are unavoidably mediated because such pronouncements actually provide “precious little guidance about how to proceed.” Instead, she contends that “the notion of mediation has for too long stood in the way of a more thoroughgoing accounting of the empirical world” (*MU*, p. 152).

If, as Barad suggests, the notion of mediation has prevented more thoroughgoing accounts of nature or the world, why retain it under the flag of radical mediation? Why not do away with mediation altogether? Because to do so, I fear, would risk losing sight of the immediacy of mediation. I want instead to use the concept of radical mediation to approach agential realism from a different direction and urge us to think about the Baradian apparatus as something akin to a medium and intra-action as analogous to the process of radical mediation. Because, as I have argued, mediation has been such a powerful concept in Western thought, Barad and other critics of representationalism have failed to recognize an alternative account running in the shadow of the dominant account of mediation in the Western tradition. I point to a countertradition in which mediation is understood precisely as that which can—and in fact always has and already does—transform ontology into epistemology. Or perhaps more accurately, we find a countertradition that lets us recognize that epistemology is already ontological and the reverse. Sometimes, particularly in the case of Peirce, McLuhan, or Latour, this counterconcept is named mediation. Perhaps more often—as with James, Simondon, Massumi, or Barad—it is called something else. In these cases mediation is seen as that which holds nature at bay by enforcing “a geometry of absolute exteriority between ontologically and epistemologically distinct kinds,” even while mediation is replaced with something not unlike what I have been calling radical mediation (*MU*, p. 374).

But why is this radical, you may still be wondering?⁴⁹ In asserting the radical nature of mediation I am not referring only to the way that media theorists talk about the ubiquitous and quotidian nature of our media everyday—phones, tablets, TVs, laptops, and gaming platforms; Facebook, Twitter, email, Tumblr, Reddit, and Tinder; securitization, finance, surveillance, and transaction data. Rather I am referring as well to the ubiquitous nature of mediation itself—flowers, trees, rivers, lakes, and deserts; microbes, insects, fish, mammals, and birds; digestion, respiration, sensation, reproduction, circulation, and cognition; planes, trains, and automobiles; factories, schools, and malls; nation-states, NGOs, indigenous communities, or religious organizations; rising sea levels, increased atmospheric concentrations of CO₂, melting icecaps, intensified droughts, violent storms. Radical mediation also insists upon taking account of the multiple materialities of our communication media, their dependence upon destructive extractive industries for the minerals and other materials from which media devices are built, their extravagant use of electrical power with all of its attendant environmental costs, and their proliferation and persistence as technical waste, whose ecological consequences remain largely unknown.⁵⁰ But in calling attention to the costs, destruction, and waste of the materialities of mediation I do not mean to understand these materialities simply as economic or industrial supports or infrastructure for media and mediation, but as mediations themselves no different from the texts, photos, sounds, videos, or transaction data that circulate on our media devices and that provide the data for corporate, technical, and governmental surveillance.

Radical mediation does not take mediation as a unifying or totalizing epistemological concept that holds together disparate and heterogeneous practices, events, and entities. Nor does it maintain ontologically that there are only disparate and heterogeneous objects and things that do not relate to each other. Rather, radical mediation takes everything as a form of mediation. Because mediation is always transformative, one of the things

49. One answer that this essay does not give is the one that presumably motivated a conference in Zagreb, Croatia, in June 2013, called “The Idea of Radical Media,” that new forms of digital mediation can be deployed in a politically radical fashion to contest and even to overthrow predominant forms of hegemonic capitalism. In refusing this answer I do not by any means throw my lot in with the forces of global capitalism in the twenty-first century. Rather I take the tack that this essay has followed from the beginning, that what is radical about mediation is its ubiquity, the way it functions in a radically generative sense. The proceedings of this conference have recently been published in a bilingual edition; see *The Idea of Radical Media / Ideja radikalnih medija*, ed. Tomislav Medak and Petar Milat (Zagreb, 2013).

50. For an important example of work that takes up these issues, see Jussi Parikka, *A Geology of Media* (Minneapolis, 2015).

that is radical about mediation is its ability dramatically to change scale, moving among smaller and larger, simpler and more complex, briefer and more extended assemblages or entities. Radical mediation insists that it is mediation all the way down. Even the smallest or most basic components are mediations, which by scaling up can be remediated into larger entities, just as by scaling down, larger or more complex entities and events can be remediated into smaller or less complex ones. Such a multiscale approach to mediation is essential to making sense of phenomena like climate change or the new paradigm of the anthropocene, which names the human as the dominant influence on climate since industrialism began. In its recognition that humans must now be understood as climatological or geological forces on the planet that operate just as nonhumans would, the concept of the anthropocene demands a form of mediation that can operate on multiple scales, independent of human will, belief, or desires. One of the most striking legacies of the 2011 Sendai earthquake, for example, and its dramatic impact on the Fukushima nuclear power plant (as with the 1986 Chernobyl disaster some twenty-five years earlier) was the reminder that the nuclear reactions produced in damaged fuel rods operate according to their own timescale having more to do with the half-life of uranium than with the periodicity of the mediatic system.⁵¹ Such reactions might be minimized, modulated, or redirected, not by acting upon them directly as if they were inert, passive matter, or nonhuman physical processes, but rather by accepting the fact that their agency, trajectory, and development operate according to their own laws, their own temporality, their own scale, and that their remediation (both in the environmental and in the mediological sense) must take these radically different scales into account.

Put most simply, radical mediation returns me to my starting point: the explosion of new forms of technical media, including biological and organic media, in the wake of what has been called variously the digital revolution, information capitalism, or the surveillance society. What has become increasingly apparent in the first decades of the twenty-first century is that these new technical media are not secondary concepts, agents, or apparatuses that come between or connect extant subjects and objects, cultures and natures, bodies and environments, or humans and nonhumans. Rather, like radical mediation itself, these new formations of technical media produce the mediations through which such oppositions, and more radically such multiplicities, are generated in continuous, but by no means seamless, feedback loops. And because *you* and *I* and *it* and *we* and *they* are all transformed, generated, or created by the ubiquitous processes

51. See Grusin, "Mediashock."

of radical mediation, they are not simply brought together, connected, related, or linked by them. Hence, the question of mediation—as raised at the beginning of this essay with reference to Guillory, Kember and Zylin-ska, and Galloway, Thacker, and Wark—remains among the most pressing questions of our time.

In treating the problem of mediation, however, these authors to different degrees retain the conception of mediation that I have been challenging throughout this essay. Where Guillory is surely right to claim that media as “communication” was the framework or concept needed to make sense of the explosion of new forms of remediation in the nineteenth and twentieth centuries, what is radical about mediation in the twenty-first century is that mediation can no longer be confined to communication and related forms of media but needs to be extended to all human and nonhuman activity. Guillory’s trenchant analysis of the genesis of the media concept is historically specific, detailing an interruption of an earlier concept of media or mediation that may now be nearing the end of its usefulness without further modification. Radical mediation sets mediation loose from its predominant twentieth-century reference to communication, a reference that my own earlier work on mediation has both emerged from within and contested. As transaction and other data are now gathered, mined, and analyzed on almost everything humans and nonhumans do, data mediation shapes all sorts of institutional action (for example, health care, commerce, finance, climate, surveillance, traffic, or education).⁵² And as proponents of the internet of things work towards a world in which all humans and nonhumans are networked and mediated, the linking of mediation with communication, so essential in the nineteenth and twentieth centuries and still in major force today, needs to be undone or opened up so that mediation can be seen as a more fundamental process than either media or communication could ever suggest or intend.

If radical mediation marks an end to the special relationship between communication, media, and mediation that Guillory so persuasively describes, then mediation must also embrace technoscientific forms of mediation in order to be able to account for a wide range of organic and inorganic entities and forms of existence. In an anthropocenic era of climate change and mass extinction, radical mediation extends mediation to science and to the physical world, and insists that technoscience, like literature, culture, arts, or humanities, be taken seriously as a form of medi-

52. Davide Panagia calls the radical mediation of data “datapolitik”; see Davide Panagia, “On Datapolitik,” unpublished paper presented for a conference of the Western Political Science Association, 2014.

ation. This is not only because science operates within complex technologies of mediation and remediation and because scientific forms of knowledge and representation are of a piece with humanistic forms of knowledge and representation but also and more importantly because the natural and physical sciences account for many more (particularly non-human) objects and processes than traditionally fall under the purview of the human or social sciences. In other words, radical mediation should be understood as nonhuman mediation, mediation under (or after) the non-human turn. The human can never be separated from the nonhuman, not only in the coevolution of humans and *techne*, but also more radically in the way that we now understand humans to be symbiotic or consubstantive with millions of bacteria and other microbiotic creatures. Nor can human bodies be separated from the remediations of microbiomes, not only crucially in the gut, but also on the skin of the face, the respiratory system, and elsewhere. The human body itself is a radically nonhuman mediation among other radical nonhuman mediations. And to think the human body in terms of radical mediation is to insist that in our anthropocenic age mediation must be theorized as fundamental to the generation and reproduction (or alternatively the devastation and destruction) of what James calls the “pluralistic universe”⁵³ or “pluriverse”⁵⁴ of which we find ourselves inescapably and unavoidably in the middle.

53. See James, *A Pluralistic Universe: Hibbert Lectures at Manchester College on the Present Situation in Philosophy* (New York, 1916).

54. For one discussion of how politics operates in a Jamesian pluriverse, see Kennan Ferguson, *William James: Politics in the Pluriverse* (Lanham, Md., 2007).