Mediating Environments

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Introduction

The impetus behind this special issue of the Canadian Journal of Sociology on "Mediating Environments" is to bring together current Canadian scholarship interrogating the relationships among the environment, media, and evolving concepts of mediation. Using "mediation" as a way of conceptualizing the interaction of human and non-human actors – whether environmental, technological, social, political – opens up ways of understanding social relationships to include more-than-human agencies and to reconsider the relations that shape subjects, objects, and identities. Media ecology scholars Sarah Kember and Joanna Zylinska posit in their recent book, *Life After New Media: Mediation as a Vital Process* (2013), that a focus on mediation is a useful heuristic. For Kember and Zylinska:

> Mediation does not serve as a translational or transparent layer or intermediary between independently existing entities (say, between the producer and consumer of a film or TV program). It is a complex and hybrid process that is simultaneously economic, social, cultural, psychological, and technical" (xv).

Kember and Zylinska's intervention in media studies is similar in motivation to our own: to use mediation as a concept to expand beyond representationalist approaches to media by engaging materialist and post-humanist perspectives that emphasize the ways in which human and

non-human relations are complex, co-constitutive, and co-constructive. Mediation as a concept enables us to see the ways in which human and non-human entities not only interact, but also "intra-act" (Barad 2007). That is, they not only relate "between" space but also in a "shared" space as mutually imbricated and co-emergent phenomena (Barad 2007). These co-emergences occur at various scales and across a panoply of spheres including, but not limited to, the discursive, material, ecological, economic, social, and political. When studying the relationships between media technologies, humans, and "natural" ecologies, this perspective allows us to create more complex accounts of the myriad of interactions involving human and non-human actors or "actants" (Latour 2005).

Understanding The Environment Through Media

A large body of research focuses on the ways in which cultural interpretations of the environment are shaped by media communication networks, with an emphasis on the social and political ramifications of these media representations. In an article published in this journal, for example, Wall (1999) examines shifting discourses about the environment communicated by the popular CBC television show, *The Nature of Things*. In the 1960s, the show primarily depicted the environment as a resource pool and defined environmental problems in human-centred, utilitarian terms, requiring scientific innovation to provide solutions. By the 1990s, the show shifted to discourses of the environment that focused on the holism and moral purity of nature. This was positioned against a discourse of nature under siege by human activity, with solutions to environmental problems typically framed in terms of individualized, consumer-oriented action on behalf of nature. Podeschi (2007) similarly examines shifts in cultural images of the environment that circulated through U.S. general-audience magazines from 1945 to 1980. Despite the 1960s emergence of the modern environmental movement, Podeschi argues there is continuity throughout this period. Dominant discourses focus both on "bad nature, " such as natural disasters, and "good nature, " with nature understood as a haven from modern society or under threat by social forces. Elliot also focuses on continuities in the history of mass media representations of nature and argues that mass mediation shapes the way in which we observe "the nature of nature" (2006). While authors like Wall, Podeschi and Elliot focus on historical shifts in mediated understandings of the environment, Shanahan and McComas (1999) posit that the main role of entertainment media is the "symbolic annihilation" of nature, as media representations of the environment make up a small proportion of content overall and are often located in nature-oriented programming.

Other research focuses on the role of media outlets as public spaces for engaging political debate about environmental issues. For example, the sociology of climate change involves several analyses of mass mediated climate change policy debate. Boykoff notes that journalists "consult and quote 'actors' and figures such as political leaders, high-profile scientists, government officials, environmental non-governmental organization (ENGO) figureheads and titans of carbon-based industry in order to find voices and perspectives that authoritatively 'speak for climate'" (Boykoff 2011: 107). The amount and style of media coverage given to climate change policy debate varies significantly across different countries, indicating that social interpretations of climate change are the result of different media and political cultures, as well as responses to ecological transformations (Anderson 2009, Boykoff 2011, Doyle 2011). Analyses of American media coverage describe how journalistic norms of balancing opposed positions results in coverage for climate skeptics disproportionate to their prevalence or standing among climate scientists (Freudenburg and Muselli 2010, Knight and Greenberg 2011). Comparative research suggests that climate skeptics are given more coverage in the United States than in other countries, that American media coverage is more event-driven and cyclical than elsewhere, and that media in countries like India, New Zealand, Finland or Germany reflect the scientific consensus on climate change to a greater degree (Billett 2009, Brossard et al. 2004, Dispensa and Brulle 2003, Grundmann 2007). Within the Canadian context, Young and Dugas (2012) compare French-language and English-language Canadian newspapers, finding that French-language media were more likely to articulate the IPCC scientific consensus and to focus on the ecological dimensions of climate change. They were also more likely to position climate change as an international issue and to link climate change to social justice concerns.

As Manuel Castells (2009) argues, social movements must intervene in networks of communication power – including both traditional mass media and newer forms of digital media – in order to engage opponents and governments in the "symbolic politics" of public debate. Another key line of inquiry focuses on the strategies environmental movements use to access the media sphere on behalf of the environment. Environmental movements are often successful at negotiating media access and serving as key news sources in defining environmental issues, while newer digital media tools help mitigate power imbalances between environmental movements and mass media gatekeepers (Andrews and Caren 2010; Cottle 2008; Hansen 2010; Hutchins and Lester 2006; Lester and Hutchins 2009; Stoddart and McDonald 2010). Environmental movements often access media by appealing to media logics that privilege conflict and spectacle by using civil disobedience or dramatic

forms of protest. Greenpeace has been particularly successful at using theatrical protest events to work with media logic to gain coverage for its campaigns (Doyle 2003; Elliot 2004). Celebritization is another key tactic for gaining media access, as celebrity support for environmental movement campaigns plays off the celebrity-focused nature of mass media (Boykoff and Goodman 2009; Brockington 2009; Dauvergne and Neville 2011). At the same time, there are debates about whether these strategies of spectacular protest or celebritization produce sufficiently complex mediated engagements with environmental issues, or whether these tactics produce coverage that focuses on conflict at the expense of conveying movement claims to audiences (Boykoff and Goodman 2009; Cormier and Tindall 2005).

These lines of inquiry run throughout existing scholarship on media and the environment. While this body of work has increased our understanding of media/environment dynamics it generally falls within the bounds of "representationalism, " which is unsettled by Kember and Zylinska's focus on mediation. Representationalism risks solidifying binary approaches to nature-society relationships. The alternative approach to mediation does not position nature outside or against its media representations, but asserts that media "perform" or "enact" social-environmental relations. This focus on mediation, performance and enactment fits well with parallel projects in actor-network theory, technonatures, or nature-cultures that emphasizes co-constructions of humans-technologies-environments (Franklin 2006; Haraway 2008; Latour 2005; White and Wilbert 2009).

Pointing to this difference in theoretical approach is not to suggest that paying attention to forms of representation is not important – in fact, it is quite the opposite. Thinking through what we might call the "thick" lens of relation rather than representation enables us to consider the ways in which our understanding of representation can be complexified. In other words, mediation as a concept invites us to see the even the "lens" of representation itself as a more-than-representational apparatus. This approach moves us beyond representation in a non-dualistic way by expanding our scope to include what Latour calls the "matters of concern" – the processes of meaning-making – within all "matters of fact" of meanings made (Latour 2004: 95). Mediation, then, is a way of conceptualizing the way in which media, environments, and human actors intra-act in a shared space of relation in which materialities and meanings are made and re-made. In what follows, we briefly bring contemporary debates in media studies and environmental studies together as a way of thinking about the concept of mediation.

Media As "Environments"

In their most basic definitions, there are resonances between the concept of media and the concept of environment. Media and communication studies scholar David Morley (2005) sketches out the way in which the definition of a communication medium began to move, in the 18th century, toward a "notion of an environment as a surrounding or enveloping substance through which signals can travel as a means of communication" (211-212). Although this definition presents a spatial view of media, it reproduces a dualism by understanding media environments as neutral "channels" through which content is transmitted rather than as co-constructive of media messages. Canadian media scholar Marshall McLuhan adopts the latter position, when he posits provocatively that the "medium *is* the message" (1995: 233).

Indeed, McLuhan (1995) refers to media technologies as "environment[s] of electric information" (236). This "environmental" characteristic of media, he argues, is what makes them difficult to see. For McLuhan, one's contemporary mediascape is "always invisible" because it "saturates the whole field of attention so overwhelmingly" (1995: 236). He likens our relationship to the media environment to being like "fish in water": we float unaware of our invisible but immersive, all-pervasive, media environment (1995: 235). For McLuhan, though media environments may be invisible, they are anything but neutral; rather, they are so instrumental in shaping messages that he argued emphatically that they "are" the message and also the "the massage" (1995: 233). For McLuhan, "media – in and of themselves and regardless of the messages they communicate – exert a compelling influence on man [sic] and society" (1995: 233).

Though his work can be criticized for its nostalgic view of previous epochs, orientalism, elitism, androcentrism, anthropocentrism, idealism, and technological determinism, McLuhan attempted to offer an intra-active way of understanding the co-constructive agency of media. That is, he acknowledged that media were both "extensions of human abilities and senses" and that, once created, "they inexorably [reshape] the society that created that technology" (1995: 234). Although, McLuhan does not succeed in thinking beyond the oppositional notion that we either control the media or media control us, he does "thicken" the lens through which we view media. For him, media are not empty channels for content, but also active shapers of content. Thus, though his work advocates a technologically determinist stance, we can also read it as an attempt to re-engage our "human abilities and senses" in order to remind us that we as humans have an active role in the ongoing processes of the media

environment and that we can (and do) shape and re-shape the technologies that shape society.

McLuhan's oeuvre – also known as medium theory – troubles ways viewing media as simply carriers of messages and broadened the horizon of media studies beyond style critiques based on representationalist accounts of content and related discussions of media "accuracy, " journalistic "bias, " "spectacle"-style critiques of power in society, audience effects, or institutional structures and ownership. His work opens up media studies to a "media ecology" approach that thinks of media as environmental and also conceptualizes media *itself* as a mediation of intra-acting agencies that include, but are not limited to, the aforementioned forces. That is, media ecology approaches create space to consider the intra-actions among non-human agencies, such as media, technologies, and other agencies, actors, or "actants" (Latour 2005). Indeed, media ecology approaches often take inspiration from the natural world for ways of understanding media metaphors and materialities (Fuller 2005, Parikka 2010) and also consider the impacts of media technologies on the environment (Maxwell and Miller 2012). By approaching media through a materialist and post-humanist lens, we account for nonhuman agencies, but also the ways in which "we" as humans have, as Kember and Zylinska point out, "never [ourselves] been separate from mediation" (2012: xv).

Environments As "Media"

Environments or ecologies have a similar history of being thought of as a kind of "mediation." Barry Commoner posits for example, as a "First Law of Ecology" that "everything is connected to everything else, " indicating an understanding of the "natural" environment as including but also exceeding humans as part its networks of relations (1971). Ecologists, biologists, and cellular and molecular biologists also think beyond anthropocentric notion of "communication" by broadening this concept to include non-human interactions such as animal, plant, fungal, microbial, and cell-to-cell signaling whether in regular ecosystem functioning (von Uexküll 2010) or in the spread of viruses and pathogens (Demuth and Lamont 2006). Mediated communication occurs among and between species through modalities including calls, pigmentation, scent, taste, touch and various other acoustic, visual, olfactory, gustatory, tactile, or even electro-magnetic signs. Examples of intra- and interspecies communications include those occurring between: microbe-plant (Nautiyal and Dion 2008); plant-plant (Ohgushi, Craig, and Price 2007, Baluska and Ninkovic 2010); plant-animal (Schaefer and Ruxton

2011); plant-soil (Crespi 2012), and animal-animal (Searcy and Nowicki 2005, Bradbury and Vehrencamp 2011, Stegmann 2013). Canadian sociologist Myra J. Hird's work on bacteria and microbial communication as well as her emphasis on "symbiogenesis" among bacteria and humans in *The Origins of Sociable Life: Evolution After Science Studies* similarly argues for post-anthropocentric approaches to notions of not only communication but also "communities" and indeed, what constitutes the "social" (2009).

What we might call "mediated" approaches to understanding ecological and evolutionary human-nonhuman intra-action are also evident in popular titles ranging from Tompkins and Bird's 1989 New York Times bestselling book, *The Secret Life of Plants: A Fascinating Account of the Physical, Emotional, and Spiritual Relations Between Plants and Man* to USA Today science writer Tim Friend's *Animal Talk: Breaking the Codes of Animal Language* (2005). Among popular documentaries, Michael Pollan's 2002 bestselling book-turned-feature length PBS film *Botany of Desire: A Plant's Eye View of the World* focuses on the ways we as humans shape plants and how plants shape us (Pollan 2002, Schwarz 2009) and PBS's *Nature: What Plants Talk About* (2013) details the role of communication among plants in their competition, co-operation, and plant sociality.

Indeed, we can even think beyond the reciprocal relations among living entities and consider also the ways in which non-living entities – the mineral and geological elements of the earth, flows of fuel, fire, and energy, water, oxygen and carbon dioxide, and other organic and inorganic matter – mediate life on earth and constitute and construct the environment that surrounds and sustains all social activity. All relationships in social-ecological systems are a kind of mediated relation. Ecology as a study of flows of matter and energy exchange attunes us to the ways in which the material environment is a form of mediation.

"Mediating" Environments: An Introduction To The Articles In The Special Issue

Let us turn now to the articles in this special issue, which demonstrate ways of thinking media-environment relations through the "thick" lens of "mediation." Stephanie Sodero's work in "Greenhouse Gas Emissions, Pine Beetles and Humans: The Ecologically Mediated Development of British Columbia's Carbon Tax" mobilizes Actor Network Theory (ANT) to follow the intra-acting flows of human and non-human actors in the development of British Columbia's carbon tax policy. In her article, Sodero sets the stage for what Raymond Murphy calls the

"dance" of intra-action to unfold among an ensemble cast of characters including: prices, pine beetles, policy publications, political climates, public relations strategies, CO2 pollutants, and people. Telling the story of the implementation of the carbon tax from the perspective of the various motivations and actions of the human and nonhuman "dancers" draws our attention to the dramatic complexity of the unfolding of these events. Focusing on six pivotal phases of climate tax development, Sodero's analysis troubles "traditional anthropocentric approaches to policy development" by foregrounding the "role of the non-human environment in shaping, rather than being shaped by, policy". Sodero's article demonstrates how ANT enriches our understanding of "British Columbia's carbon tax specifically" and "the mediated character of the natural environment generally.".

Raymond Murphy's work in "The Media Construction of Climate Change Quiescence: Veiling the Visibility of a Super Emitter" unveils the way in which the framing of media discourses about Canadian bituminous oil sands extraction are instruments of the perpetuation of extraction. That is, Murphy's article demonstrates the way in which the struggle over meaning is deeply entangled with material consequences. He shows how "concern about emissions is dampened and quiescence socially constructed" and explores the "mediation between scientific warnings of danger and social practices by media communication power." Murphy's attention to media framing connects to current discourses on communication power in media and communication studies as well as to contemporary debates in STS research that focuses on the way in which the lenses through which phenomena are viewed are always co-constructing the phenomena they observe. Murphy's work underscores that although frames, lenses, and representations may be difficult to see they are never neutral in their construction of meanings or their material impacts. In the particular case of the Canadian oil sands industry, he demonstrates the way in which the "invisibility" of these emissions is constructed through mass media discourses despite the fact that these emissions appear as scientifically documented changes to the composition of the atmosphere and effects on global climate.

Using a Bourdieusian methodological approach, Howard Ramos maps the social field of environmental movement organizations, with a focus on Greenpeace International, Greenpeace Canada, the Sierra Club U.S. and Sierra Club Canada, which are large, well-established organizations that play a central role in eco-politics. While Sodero and Murphy take an issue-centred approach, Ramos takes environmental organization press releases about a range of issues as data, providing an analysis based on 2, 236 press releases issued from 2006 to 2010. Building upon Nancy Fraser's typology of social movement orientations towards eco-

nomic redistribution, cultural recognition, and political representation, this field analysis illustrates the heterogeneity of these environmental organizations in terms of their campaigns, the political scale of their interventions, and the repertoire of tactics they use. While many studies of environmental movements and media focus on the ways in which mass media represent environmental movement claims, Ramos' analysis of the environmental movement field provides insight into the ways in which environmental organizations work as key mediators of the environment as they attempt to represent non-human nature and articulate the meanings of environmental problems within mass media and political spheres.

Conclusion

The three papers in this special issue capture different facets of the environment, media, and notions of mediation. Interestingly, but perhaps not surprisingly, two of the articles in this issue deal directly with climate change, and focus on carbon as a mediating materiality, whether in the earth as bituminous oil, in us as living organisms, and in the atmosphere as emissions from the burning of fossil fuels, while the third addresses climate change alongside other the complex environmental issues of the 21st century, including "depletion of natural resources, and the endangerment of ecosystems and biodiversity" (Ramos 2015). Following the flows of carbon through these articles, and indeed, through the carbon ecology and economy, demonstrates the intra-active and reciprocal nature of relationality. This approach moves analysis of mediating environments beyond representationalism towards thinking of how social-ecological relationships are enacted and co-constituted by media.

We will conclude by returning to Kember and Zylinska's *Life After New Media*, where the authors argue that the concept of "mediation" can do important theoretical work as

> a "key trope for understanding and articulating our being in, and becoming with, the technological world, our emergence and ways of intra-acting with it, as well as the acts and processes of temporarily stabilizing the world into media, agents, relations, and networks" (Kember and Zylinska, 2012: xv).

This reconceptualization of mediating environments suggests new analytical and political questions, including: How can we – and how can various media technologies – best participate in ongoing efforts to mediate well with the environment? The three papers in this special issue demonstrate a few of the possibilities for moving this project forward.

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