Multiple Bodies, Actants, and a Composition Classroom: Actor-Network Theory in Practice

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James Berlin's pedagogy employs generalized heuristics grounded in human agency and social-epistemic critique to enable political awareness. By contrast, actor-network theory (ANT) does not explain the composition of reality through pre-fixed heuristics but instead seeks to describe the unique composition of political objects through symmetrical accounts of human and nonhuman agency. ANT-as-pedagogy can be productively applied in the classroom to realize students' capacities as moralists who comprehend the rhetorical difference between explanation (Berlin) and description (ANT) with regard to their political agencies as writers.

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James Berlin's *Rhetoric Review* article, "Poststructuralism, Cultural Studies, and the Composition Classroom: Postmodernism in Practice" represents a near universal pedagogical strategy for rhetoric and writing teachers.[1] We select a constellation of familiar or new theories (for example, contact zones, disability studies, feminism) and create analytical *topoi* (commonplaces) or models that encourage students to locate the corresponding rhetorical effects that are prescribed by these theories across a broad range of cultural practices. As a case in point, Berlin's essay described a poststructuralist-infused first-year writing course along with representative assignments and readings designed to enable political activism.

I would like to parallel Berlin's efforts by exploring a more recent theoretical paradigm: actor-network theory (ANT). Writing studies is already familiar with ANT, although related theories such as cultural-historical activity theory (CHAT) and genre-activity theory are more popular. While points of overlap exist, ANT

often perceives attributions of agency in activity theories as asymmetrical. Clay Spinuzzi writes, "Even when implemented in meditational genres (memos, procedures), an activity network foregrounds human activity and ingenuity while nonhuman artifacts are more like crystallizations of human activity" (46). By contrast, the sociologist Bruno Latour famously ponders the agency of a door that yearns to enroll other actors in its network at Walla Walla University's sociology department ("Mixing Humans" 298). ANT operates through symmetrical accounts of reality by employing the same analytical terms to describe human and nonhuman agency.

ANT's specific focus on the nonhuman presents numerous obstacles for conventional understandings of rhetorical agency and pedagogy. Despite many productive challenges to humanist conceptions of rhetorical agency over recent decades, Diane Davis argues, "I don't have to tell you that this phantasm [of the free and willing agent] is alive and well in rhetorical studies . . . and very frequently pegged as the fragile link between rhetorical practice and civic responsibility" (87). Even if we acknowledge the presence of nonhuman actors, the application of ANT still has no clear analogy to Berlin's application of poststructuralism. In *Reassembling the Social*, Latour describes a fictional discussion with a sociology student who struggles to apply ANT to his case study on organizations. He offers a maddeningly unhelpful response: "No wonder! [ANT] isn't applicable to anything! . . . It might be useful, but only if it does not 'apply' to something" (141). David M. Sheridan, Jim Ridolfo, and Anthony J. Michel correctly maintain, "[N]one of these [actor-network] theorists exclude the roles of education, planning, or design" (106). Nevertheless, Latour's elliptical remark indicates that much in ANT defies our pedagogical instincts. ANT will not readily produce a set of generalizable *topoi* to teach students how to interpret texts, arguments, and social practices.

Given these difficulties, it is unsurprising that rhetoric and writing scholars have utilized ANT to describe the various actor-networks that support student, professional, and scholarly writing processes (Bazerman; Gries; Rice; Rickert; Shipka) and have largely avoided exploring ANT directly as a pedagogical method with something to teach students about their political agency as writers.[2] In this essay I want to discuss some of the possibilities and problems of employing ANT as this useful but not applicable theory for teaching rhetoric and writing. Latour eventually concedes to his student that it is possible to apply ANT, but only in certain ways. ANT cannot be used for "explanation" or "interpretation": the application of analytic modes or *topoi* that reflect previously established networks and asymmetrical ontologies (*Reassembling* 142). By contrast, a useful account must describe the singular ways in which human and nonhuman agencies symmetrically emerge by allowing the actors themselves "some room to speak"

(142). ANT is not a "positive" method that produces explanatory frameworks but an anti- or "negative" method that teaches students and scholars "how not to study [things]" (142).

ANT-as-pedagogy would therefore encourage students to unsettle rhetorical *topoi* grounded in human agency and prior explanation while simultaneously enabling students to describe the symmetrical agencies of the objects, networks, and assemblages that they both write within and strive to represent. I call this antimethod "actant-pedagogy." The creation of a conceptual placeholder is necessary because it is impossible to establish a single explanatory pedagogical method for ANT in advance. As a teacher, I can never begin with an application of ANT as a repeatable pedagogical heuristic in the way that Berlin applies poststructuralism. Rather, ANT is a tool that I can only use after the activity of teaching to describe my efforts to employ actant-pedagogy within a contingent set of alliances, mediators, students, technologies, and networks of associations through which my intentional (and unintentional) pedagogical aims unfold. For this reason I suggest that actant-pedagogy is better understood as a strategic pedagogical effort to simulate ANT's descriptive antimethodology to teach them how not to represent rhetorical situations through explanation and heuristic-driven critique alone.

To develop the idea of actant-pedagogy, I will offer an illustrative comparison with Berlin's classroom in "Poststructuralism" to better highlight the dramatic difference between his human-centered pedagogy of explanation and ANT's pedagogy of description. I then turn to a description of my use of actant-pedagogy in an advanced research writing class at Clemson University (spring 2013) in a unit on the politics of soda taxes and eating bodies. In contrast to Berlin's desired outcome of increased political activism, actant-pedagogy attempted to develop students' rhetorical faculties as moralists who sought to offer better empirical and symmetrical tracings of a given political issue before contemplating political action.

Social-Epistemic Pedagogy

A brief review of Berlin's application of social-epistemic/poststructuralist rhetoric to pedagogy is instructive because he so clearly aligns students' political agency as writers with human activity and language alone. In "Rhetoric and Ideology," Berlin offers a concise summary of social-epistemic rhetoric and critique through a contrast with two prevailing rhetorical paradigms: expressionism and cognitive psychology. Cognitive psychology ignores its complicity with socially produced ideologies by "claiming for itself the transcendent neutrality of science" (478). Expressionism productively refutes scientific neutrality while positing that writing is an innate faculty located in the individual subject. Social

and material realities are never denied, but neither are they considered to be something that the individual could not bend to serve his or her needs: "[A]ll fulfill their true function only when being exploited in the interests of locating the individual's authentic nature" (484). According to Berlin, all aspects of rhetorical interaction—reading, teaching, producing, and consuming—are not neutral, but inflected by social ideologies. If there are no absolutes, universal truths, or natural laws that describe reality (What exists?), virtue (What is good?), and potentiality (What is possible?), then Berlin concludes, "no class or group has privileged access to these matters" (489-90).

In "Poststructuralism" Berlin applies this theoretical framework to the writing classroom through a dialogue with poststructuralism. According to Berlin, theorists like Jacques Derrida similarly criticize the enlightenment liberal subject—a product of a "unified, coherent, autonomous, transcendent subject of liberal humanism"—who can freely write and think at the time and place of his or her own choosing (20). Poststructuralists and many postmodern thinkers view the subject as a constructed entity that relies upon historically contingent social and institutional structures to form meaning and create arguments. What Berlin particularly appreciates about poststructuralism is the idea that humans are always inside of language and that language contains many internal contradictions. The lack of a "center" allows for limitless politically progressive revisions.

Berlin's pedagogical heuristics ("invention strategies") for first-year writers subsequently ask students to negotiate the ideologies that structure their identities and cultural milieus. "We must take as our province," he declares, "the production and reception of semiotic codes broadly conceived, providing students with the heuristics to penetrate these codes and their ideological designs on our formation as the subjects of our experience" (24). He encourages students to situate the composing process within an ideological context while utilizing the semiotic heuristics of poststructuralism in conjunction with the generative poetics of rhetoric. His primary goal of critique—the investigation of how the enabling conditions of discursive and ideological practices are constructed—never alters: "In examining any text, students are asked to locate the key terms in the discourse and to situate these within the structure of meaning of which they form a part" (28).

An early task in his course requires students to tie their personal experiences to various institutional codes, including media, family, school, and the work place. From these four codes, Berlin builds units on "advertising, work, place, education, gender, and equality" (27). Berlin offers an extended example in the work unit of a classroom exercise grounded in a *Wall Street Journal* article on the labor conditions of cowboys. Students are asked to break down internal oppositions in the signifying systems of the text: male/female, author/reader, nature/civilization, and country/city. "Cowboss," for example, corresponds to a binary relational

meaning (it has no essential denominative meaning) in relationship to the other labor positions (for example, cook) within the ranch. Students come to see that meaning is not fixed and instead is established through these binary oppositions where one term is inevitably privileged. In turn, these contingent textual binaries connect to larger narratives about capitalism and the white male middle-class readership of *TWSJ*. Berlin then teaches students to apply these heuristics in their writing: "In enacting the composing process, students are learning that all experience is situated within signifying practices" (31). If reading and writing codes could be seen to have equal importance, then Berlin hopes that students will feel empowered to use writing to intervene in the ideological structures that impact their lives.

Social-Epistemic Rhetoric and ANT

In Latour's terms Berlin offers a pedagogy of explanation for his students. Explanation proceeds from a prior agreement on an immobile "habit of reference" that fixes or generalizes a set of objects, causal explanations, and agentive relationships (Latour 142). Each time we model a theory like poststructuralism—which is already our particular interpretation of poststructuralism and not Victor J. Vitanza's—and ask our students to locate its predicted effects within a heterogeneous body of cultural texts or practices, we are engaged in explanation. Byron Hawk representatively comments, "Whether the heuristic is [Richard] Young's tagmemics or Berlin's critical heuristic, the application of a pre-set strategy inevitably becomes law when implemented in a first year course" (208). Habits of reference are what sustain any stable network of knowledge. They are undeniably productive as Berlin's habits of reference enable students to engage in practices of critique and to locate cultural phenomena such as neo-Marxism across a variety of cultural texts.

By contrast, Latour and ANT are after a different form of analysis that does not merely explain cultural practices through human agency and discourse alone. Latour is concerned that in a default of explanation, "There [also] will be a strong temptation to include in the world of facts one of the values that one hopes to advance. As these little boosts are given one after another, the reality of what *is* gradually comes to include everything that one would like to see in existence" (*Reassembling* 98). As a case in point, Berlin's students learn that only human agency and social-epistemic explanations of rhetoric are important for critical awareness: "All institutional arrangements are humanly made and so can be unmade, and the core of this productive act is found in democracy and open discussion" ("Poststructuralism" 26). In *Reassembling the Social*, Latour holds that explanation never exactly captures the unique and local configuration of

actors that enables especially new cultural phenomena to emerge because explanation can only reproduce generalizations (habits of reference) about past and different configurations of actors. In Latour's famous comment, a network "is a concept, not a thing out there" (131). A network is not identifiable through a pre-fixed poststructuralist heuristic of cowbosses and ranch owners that students simply locate and identify. Rather, networks have to be composed by writers through a rather laborious and difficult process of determining unique and local configurations of agency, connectivity, affect, influence, and many other factors. Description refers to an empirical tracing of the entire range of mediators—human and nonhuman—that support a particular and localized cultural activity.

Description in Latour's sense works from a dramatically different assumption about the composition of reality than Berlin's social-epistemic rhetoric. Berlin's thinking (and a great deal of composition pedagogy and rhetorical theory as well) reflect the asymmetrical ontological settlement—the "modern constitution"— that Latour identifies in *We Have Never Been Modern*: Cartesian dualism and Kantian a priori synthetic reason. Cartesian *res cogito* and *res extensa* converted the thinking subject into a "brain-in-a-vat": a distinct and autonomous substance from the objects that it encountered (*Pandora's* 4). Following *Kant's Critique of Pure Reason*, philosophers had to start with questions of humans' access to reality prior to thinking about the nature of reality because the limits of cognition established these boundaries. Post-Kantian philosophy generally restricted its epistemological gaze to studying the nature and limits of human experience. One can readily appreciate how this epistemological focus set the historical stage for poststructuralism's eventual rejection of transcendental truth.

With Berlin as a case in point, rhetorical studies had much to gain as a discipline from the privileging of epistemology (see Royer). If all representations of reality were contingent and "humanly made," then even knowledge in the hard sciences is not immune to rhetoric "and so can be unmade." In his attempt to bridge the signifying world with the material world, Berlin directly reflects Cartesian-Kantian dualism that agency per se is not in the material object but in the object's action upon consciousness. Berlin concedes, "This is not to deny the force of the material in human affairs. . . . However, all of these material experiences are mediated through signifying practices. Only through language do we know and act upon the conditions of our experience" ("Poststructuralism" 21; see also *Rhetoric and Reality* 92-93). Ignacio Farias comments, "[If] the construction of reality is mostly understood in epistemological terms, the materials and intermediaries involved in the construction are deprived of any active role" (13).

Latour's famous claim, "we have never been modern," means that we never have reached the point where we can make a Cartesian-Kantian cut between nature (objective) and culture (subjective) to ontologically separate humans from

nonhumans. In particular, ANT as a whole abides by Michel Callon's principle of general symmetry, in which each realm—human and nonhuman, or culture and nature—mutually constitutes the other through their material relations. Sociologist John Law specifically argues that technologies, tools, texts, institutions, and cultural practices cannot be separated into distinct and incommensurable semiotic realms. In *The Pasteurization of France*, Latour offers an illustration of ANT through a detailed description of Louis Pasteur's scientific laboratories and practices. One can readily imagine Berlin creating a rhetorical analysis for Pasteur's example that asks students to locate and critique hidden economic labor relations or ideological contexts that sustained and conditioned the latter's efforts. Yet Latour maintains that Pasteur's cognition and social and discursive production were never entirely responsible for the discovery of the hidden truth of germs and disease. He drew from established networks, such as nineteenth-century hygiene movements, tissue samples, scientific equipment (beakers, flasks, and glass tubes), factory owners' frustration with disease-ridden workers, and institutional documents by the scientific community (personal correspondence, journals). Pasteur both had to set actors in motion while forming complicated relations among them. He underwent what Latour calls "trials of strength" by testing certain visible aspects of elements that confirmed a hypothesis. Yet germs were not socially constructed in his mind. The agency of actual germs made actual children sick. Actual scientists resisted Pasteur's conclusions through instrumental rhetorical acts—another trial of strength that occurred at the level of discourse. All "actants"—a term that refers to the equal attribution of agency for both humans and nonhumans—have "entelechy" and strive to maintain their place in the world by enrolling actors, the process through which a network gains "power" (*Pasteurization* 165-66).

Explanations that reflect asymmetrical accounts of reality will never allow researchers to trace the singular configuration of human and nonhuman actors that supported Pasteur's efforts. In answer to the question, "What can I do with ANT?" Latour claims, "I answered it: no structuralist explanation. . . . Don't try to shift from description to explanation: simply go on with the description" (155). In rhetorical terms description means avoiding the reproduction of conventional *topoi* and discourse to explain a particular rhetorical situation. To offer an example more relevant to the teaching of writing, Jeff Rice employs ANT in the context of WPA assessment to demonstrate the shortcomings of an exclusive reliance on explanation. Across its various discourses, WPA assessment privileges *topoi* such as "regular," "systematic," and "coherent" for assessment (Yancey and Huot 11). Applying these *topoi* to a set of actor networks, such as Rice's localized assemblage at the University of Kentucky, will not generate anything new in terms of description but instead produce (or fail to produce) the effects that the explanation

presupposes. In analyzing texts such as a student YouTube composition, Rice recommends avoiding reiterating *topoi* such as, "YouTube writers address multiple audiences from friends to accidental readers" (6). He instead urges researchers to compose networks by describing the various empirical and nonconforming items and nonhuman actors that are connected or unconnected to a student's specific rhetorical effects. "Extend. Remix. Juxtapose. Trace. Account. These are not," Rice maintains, "the terms normally associated with writing assessment" (6).

Actant-Pedagogy

From the previous discussion, one direct pedagogical goal of applying ANT in the writing classroom would seem to lie in teaching students description as an empirical form of rhetorical invention. Where Berlin's students initially located themselves within cultural and textual mythology to affirm human symbolic action, we might follow Jody Shipka in *Toward a Composition Made Whole* by asking our students to highlight the role that nonhuman actors play in their writing processes: laptop displays, flip-flops, notebooks, chairs, iPods, ambient noise, books, air conditioning, Internet search engines, Wikipedia, and myriad hardware and software processes. Description in this sense can help students understand Paul Prior and Shipka's discussions of how environment-selecting and -structuring practices, such as a laundry dryer's timer buzzer, function as conscious and unconscious inventional strategies for writers.

However, if our goal is to apply ANT in the service of inculcating some sort of political agency to parallel Berlin's application of poststructuralism, then additional translation is still necessary. ANT-as-pedagogy should also include an explicit attempt to highlight the difference between explanations and descriptions of political situations. Latour illustrates the process of description—writing a network—by differentiating the act of drawing with a pencil from drawing the shape of a pencil (*Reassembling* 142). He means that we cannot confuse the object of description (the pencil) with the method of explanation (the drawing of the shape of the pencil). Much in writing pedagogy seeks to explain and interpret or, in Latour's terms, to offer one drawing of the shape of a pencil (poststructuralism) to classify the singular networks constructed by many different actual pencils (cultural texts) across time and space. Simply stated, it is one thing to provide students with a drawing of a pencil (for example, an assignment prompt directing them to document nonhuman actors in a certain fashion) that becomes their own pencil (descriptive tool). It is a different point of emphasis entirely to help them understand the difference between the pencil and the drawing of the pencil, and negotiating this gap even at a basic level is a necessary and crucial step if we are to think of applying ANT as a way to raise students' political consciousness.

In entertaining this line of thought, however, the major problem ANT poses for pedagogy is that an attempt to teach ANT can never begin with ANT (the actual pencil). It is not an analytic method that can be generalized like an explanatory heuristic. As a teacher, I must invariably begin with my prior explanation of ANT-as-pedagogy (a drawing of the shape of a pencil), which I would then mobilize in the process of teaching (using this prior explanation as a new pencil) to compose new actor-networks with my students. In my mind, this inevitable compromise presents the opportunity to clarify and extend our goals in teaching the description of mediators and nonhuman actors in the writing classroom. The term for me that best expresses the negotiation of this tension is called *actant-pedagogy*: the temporary stabilization of my explanation of ANT-as-pedagogy in the service of simulating ANT's descriptive antimethods, much in the same way that a videogame models real-life processes.

In this sense, actant-pedagogy must simulate the absence of methods for explanation of a given political situation in order to encourage description without explanation. This compromise in fact echoes Latour's pedagogical explanation of ANT in *Reassembling*. As the student's continual frustration testifies ("But I [still] can't imagine one single topic to which ANT would apply!"), Latour's explanation of ANT to his student does not actually teach explanation as an end goal but simulates its absence in order to encourage his student to engage in description of the network that he is trying (in vain) to learn how to describe (156). This gesture is in part why Marilyn R. Cooper retitled this dialogue "Bruno Latour Teaches Writing" in her 2012 CCCC's talk. The benefit of engaging actant-pedagogy, as I will argue below, lies in increasing students' moral awareness of how better (descriptions) or worse (explanations) maps of political issues correspond to ontological assumptions about how reality is composed.

The best (or only) way to illustrate actant-pedagogy is to describe my own attempt to employ actant-pedagogy in my spring 2013 advanced writing classroom. In order to simulate the absence of stable conceptual categories, I chose a series of specific and concrete actors for my course units to emphasize the bottom-up process of discovery and description. Berlin's course organization reflected conceptual categories that were secondary to the primary goal: Learn a heuristic that can interpret the formation of meaning within each of these different categories. My particular syllabus organization was designed to strike my students as a random list of objects that could not clearly fit into any organized list or disciplinary methodology: a specific campus monument of university founder and slavery proponent Thomas Green Clemson, soda taxes, walking, the color "white," and the website PostSecret. To reiterate my point, this list is already a tacit explanation of ANT. Placing objects on a list in my syllabus created particular ontological enactments than those that would have been created through a

different arrangement of objects. My goal was simply to offer students a different drawing of a shape of a pencil that was designed for a strategic pedagogical aim in comparison to the other drawings of pencils (for example, syllabi) to which they had been exposed.

Due to considerations of space, I will go into detail only about my soda tax unit. Again in the spirit of simulating a lack of explanation, I initially assigned no definitions, readings, or other materials in this unit. I divided students into groups and asked them to locate and report on some basic empirical facts about soda taxes via Internet searches or other research sources. Together, we brainstormed a set of open-ended questions: Who and what organizations promoted the idea of this tax? Which sodas (nondiet) were subject to the taxes? What was the range of opinions for and against and by which organizations? How was the "obesity" debate defined by the different actors (soda/sugar industry, national health organizations)? Which states had passed legislation? Which research studies were being cited? Students generated vast empirical assemblages of actors and networks: Kelly D. Brownell, Director of Rudd Center for Food Policy and Obesity at Yale, who introduced the idea of the soda tax; the State of New York; the American Beverage Association; American Heart Association; domestic and international locations of Coca-Cola and Pepsi Manufacturing sites; Term Life Insurance infographics that detailed the poorly publicized range of health consequences (asthma and higher risk of osteoporosis from phosphoric acid); and, finally, a fairly wide range of opinions on the topic expressed in a variety of print, social, digital, and networked media with varying levels of evidentiary support. I encouraged students to draw visualizations of these maps, using TheyRule.net—a progressive website that demonstrates close degrees of corporate connectivity—as a model. We discussed how the networks that they draw inflect and reflect certain assumptions of the different actors, and we raised questions about the impossibility of capturing all of the actors involved in this process.

The initial ad hoc attempt at tracing relations actually proved to be successful at making students more aware of when critique and explanation were being mustered. After the mapping exercise, we had an in-class discussion that resembled Berlin's goal of ideological demystification or critique. I mention this component to emphasize again that ANT does not foreclose the importance of social-epistemic critique. Alongside the data students uncovered, I brought in artifacts such as Coca-Cola's *Coming Together* (2013) promotional video as a text to be read for its internal narrative contradictions. This video is one of Coca-Cola's responses to events such as the New York State soda tax on two-liter bottles. By even my politically conservative students' admission, *Coming Together* was an unconvincing and transparent attempt to redirect public opinion through adopting a false pretense of corporate responsibility. Coca-Cola attempted to signal their

awareness of obesity and their commitment to promoting public health while trying to mitigate the causal links to their product. Among typical platitudes that emphasized the company's commitment to public health, Coca-Cola appealed to facts (180 out of 650 products are low- or no-calorie beverages). They offered smaller portions; they generously "added calorie counts" to a prominent and clearly visible part of the can; they "voluntarily" sold only water and juice in elementary and junior high school beverage dispensers, reducing beverage calories offered to adolescent students by ninety percent; and they sponsored the Beverage Institute for Health and Wellness's research to investigate obesity.

All of these claims are obviously misleading and fraught with internal contradictions. Coca-Cola's actions are not altruistic (as their continued funding of the prosugar American Corn Refiner's lobbying group makes clear) but motivated by negative research findings and public outrage. Furthermore, their decision to remove or limit the size of their products tacitly admits that their product is complicit in the problem that they claim to be solving. Students readily located the purpose of *Coming Together* within a well-established ideological binary on the soda tax issue: individual choice (freedom) and state control (management). Obesity has nothing to do with the product itself and everything to do with establishing a "good" and "bad" consumer of Coca-Cola. A good consumer consumes the product in moderation with informed awareness for his or her health; a bad consumer is either willfully misinformed or has deliberately suspended knowledge of healthy ways to consume Coca-Cola. Coca-Cola's claim of public responsibility is undermined by their effort to pin the problem on the consumer's individual rational faculties. Furthermore, despite its lack of impact on our class, students appreciated how its claims might extend the durability (the power) of Coca-Cola's network of associations for certain audiences around the globe.

ANTS like Sugar

Actant-pedagogy, however, cannot rest at social-epistemic critique as an explanatory framework. From ANT's perspective, most opinions on the soda tax—individual freedom/state management—often failed to represent critical nonhuman relations that are capable of dramatically reshaping how students might rhetorically respond to the soda tax debate—the ANT analogy to Berlin's goal of political awareness. Actant-pedagogy as description requires students to become aware of multiple empirical and material heuristics that reframe these binaries entirely. I pointed students to a single claim toward the end of *Coming Together* that is the culmination of Coca-Cola's pro-individual argument: "all calories count, no matter where they come from, including Coca-Cola and everything else

with calories. If you eat and drink more calories than you burn off, you will gain weight" (n.pag). Students easily located expert counterevidence in examples such as Rob Lustig, a pediatric endocrinologist at UC-San Francisco: "A calorie is not a calorie. Different calories have different metabolic rates in the body. Those from fructose overwhelm the liver, forcing the pancreas to make more insulin and driving more energy into fat cells. And soda is nothing but a fructose delivery system" (qtd. in Bittman para. 3). At this point, students readily conceded that a more detailed account of the material role of the body and the soda-in-itself was necessary before deciding what to conclude about soda taxes.

In order to offer a model for this discussion, I assigned Annemarie Mol's nontheoretical essay "Moderation or Satisfaction?" Mol shifts obesity away from the freedom/management binary. This binary is the result of a settled ontological argument: who eaters are and what food is. Obesity is often discussed through the *topoi* of "greed" and self-denial, an ontological belief in moderation that requires man's rational faculties, cognition, and will to take control (1). Mol links this phenomenon to the foundations of nutrition science in ascetic Christianity's emphasis on frugality and economy, thereby historically linking obesity to moral failure. Pleasure was figured as a dangerous excess to be avoided. Furthermore, although the discourses shift over time, with prewar and war years focusing on terms like *enoughness* or *adequacy* and postwar on *abundance* and *excess*, moderation in nutrition science remained wedded to a utilitarian maintenance of the body's functional energy (4).

As an example, Mol traces the empirical practices of the Dutch dietician Tessa de Groot. Paradoxically, within de Groot's instructions to several of her patients, Mol locates the warrant that undergirds Coca-Cola's claim—a calorie is just a calorie—in only a slightly more expansive form. De Groot's dietary *topoi* require dieters to restrict their calories through the tried-and-true "counting calories" method, presupposing that it is the brain and not the body that should be in control. Mol notes a surprising fact: "Information to do with pleasure [and motivation and taste] is left out. . . . Restraint, therefore, has to be imposed on pleasure-seeking bodies from the outside" (13). Reducing dieting and obesity to a cognitive matter of counting and moderation frames the body in negative terms. Deny what your body says, "It tricks you, it seeks pleasure" (4). It is true, of course, that the body becomes obese if it eats more energy than it expends. However, students tacitly understand that Coca-Cola and de Groot's respective claims could not be "neutral" or divorced from ontological—and not just epistemic—assumptions about moderation and pleasure. Furthermore, students contemplated how ontological claims about eating bodies consequently authorized certain modes of behavioral conduct and certain institutions to act on individuals diagnosed as obese.

I had hoped that tracing networks and modifying critique would lead students to be more receptive to a different ontological view, but they were not—likely a product of many of the students coming from a strongly pro-individualism red state. The entire class was largely incredulous about the pervasiveness of an ontology of moderation. Rather than making uninformed guesses guided by preformed cultural narratives, I instructed students to search American national health organizations to see if they could locate the ontology of moderation. Amazingly, they found that the results were nearly identical. Several students found the FDA's "Spot the Block" campaign that primarily encouraged middle-school students to "spot" nutritional information (Coca-Cola must have scored well with the FDA, numerous students have sarcastically observed). Little effort was given to complex discussion of calories, and the campaign is saturated with the rhetoric of self-denial and restriction. In the USDA's "Choose My Plate" (2011) campaign, the goal of dieting is also to negate the pleasure-driven self with the typical advice of "choosing foods and beverages with little or no solid fats and added sugars." Students engaged these mediators and, as a partial result, our network of associations began to offer a more receptive space to have a dialogue about the ontology of bodies. Students were surprised to learn that this pervasive dieting *topoi* also avoided addressing the specific ways in which eating bodies were unique. Research studies have noted that the rise in obesity paradoxically corresponded to the massive decline in percentages of energy consumed from fats (Willet 47).

To reiterate my point, the use of Mol's essay provided a model through which to simulate ANT's antimethodology of description that students could then attempt to import elsewhere—but not in the service of explanation—while simultaneously constructing new and different actor-networks through their various embodied responses to my efforts at simulating ANT. Mol's essay urged students to adopt a means of thinking of critique differently by refusing narrow binaries that are the result of an impoverished ontology of eating bodies. My goal was to inculcate this attitude toward the composition of rhetorical objects as a way to create a simulation of the act of describing and not interpreting political situations. As a result, several students did begin to realize that eating and obesity could be reconceived from an ontology based upon pleasure or satisfaction as a material negotiation among mind-body-environment. Students examined additional research by Zijlstra et al., who asked participants to drink three different textures of chocolate—thickened milk, pudding, and milk—that all had the same calories per milliliter. Volunteers invariably drank less of the viscous fluid than the more liquid. The solid pudding fared the best in terms of encouraging the body to

self-regulate: "*When a product stays in the mouth for a longer time, the exposure time to sensory receptors in the oral cavity is longer and there is more opportunity for more exposure to taste, smell, texture and so on*" (1). Interestingly, the individual's desire to consume chocolate diminished in relationship to the emergent assemblage through which calories are bound, suggesting the very radical consequence that "bodies may stop eating and drinking, all by themselves, when their senses are satisfied" (Mol 4). Students made the connection that our feelings of satisfaction were actually divorced from a linear relationship with calories—the overriding factor in whether "pleasure" obtains from any given activity of eating. Mol reframes obesity beyond rhetorical solutions grounded in Berlin's neo-Kantian dualism: "Under what circumstances might granting our bodies more pleasure be a better way to avoid overfeeding them than imposing restrictions and taking pleasure away? Maybe it is wise to eat crunchy stuff that stays in the mouth for a long time" (5). A rhetorical response to obesity would involve the realization of a material/sensual/rhetorical *technê*: a set of practices, techniques, or repertories for bodily conduct that reflect complex mind-body-environment interactions in order to inculcate or cultivate certain dietary practices.

Simply put, students implicitly realized that the presupposition of a normative pleasure-seeking body overlooked the fact that fatty foods are heterogeneous and that they perform different activities as they interact with elements of our bodies. To offer an additional example that we discussed, certain fats actually sate the body more than carbohydrates of similar caloric backgrounds. As essential fatty acids necessary for metabolization, omega-3 fatty acids differ greatly from saturated fats. The former are not nutritional and therefore stimulate the physiological drive for eating—an empirical confirmation of Lay's famous slogan: "Betcha Can't Eat Just One." When consumed in Lay's potato chips, omega-3 fatty acids add fat to our bodies, stunt our memories, and also improve human moods that affect humans' susceptibility to symbolic arguments (Bennett 52). If eaten in wild fish, omega-3 fatty acids produce affirmative mental and dietary effects. Given these material and agentive contexts, students found it difficult to condemn Coca-Cola or defend individual freedom entirely but instead were encouraged to examine the material factors within the body that was mobilized in existing explanations about eating-bodies. The political theorist Jane Bennett concludes via Latour, "Food is an actant in an agentic assemblage that includes among its members my metabolism, cognition, and moral sensibility. Human intentionality is surely an important element of the public that is emerging around the idea of diet, obesity, and food security, but it is not the only actor or necessarily the key operator in it" (51).

Composing Morality Networks

With respect to Berlin's goal of the realization of political agency, actant-pedagogy helped to inculcate not political agency achieved through heuristics but moral awareness about the gap between explanation and description. According to Latour, Kant's categorical imperative consists of the obligation "not to treat human beings simply as means but always also as ends" (qtd. in *Politics of Nature* 155). Kant's answer (which is also Berlin's answer) for any political issue would be to turn away from practical and material confines toward our own mental a priori faculty in order to make judgments with the human means/ends restriction to formulate universal rules. Actant-pedagogy rejects the great ethical tradition since Kant of excluding the body (and materiality) from ethics. Actant-pedagogy tries to perceive political objects as ends in themselves and, in this particular case study, attempted to decenter the "natural" normative body that seeks pleasure against the wishes of the *res cogito*. Mol writes, "But if bodies learn, they do not passively respond to triggers from the outside as if these were causal factors, determining their effects all by themselves. Instead of being caused by their surroundings, cultured bodies *interact* with their surroundings" (8). She concludes by stating what I understand to be an affirmation of the purpose of actant-pedagogy for any unit in a writing course: "[O]ne thing is hopefully clear by now: we should not stay stuck in the question whether to restrict food pleasure or to indulge in it" (10).

By simulating ANT as description (actant-pedagogy), students were encouraged to keep suspending explanation on the political question of soda tax in favor of providing better descriptions. In *Politics of Nature*, Latour identifies several professions (science, politics, economics, morality) that are necessary for the "human-nonhuman collective" to "carry out the search for the common world" (162). The professions are akin to functions that a variety of different social actors occupy within different actor-networks. For example, scientists should create instruments and laboratories in order to detect and make visible objects' complex unfoldings. Politicians are those who accept that action within the collective is necessarily hierarchical and that some actors—human and nonhuman—will be invariably excluded by any given political settlement manufactured in order to weaken or strengthen certain social-material arrangements. Yet, where closure in political action must occur, Latour writes that the moralist "offers a right of appeal to excluded parties" (162). Our students are not (always) scientists or politicians, but they can learn to become moralists who refuse to reduce any object to a means.

In contrast to pedagogies of critique and explanation, actant-pedagogy simulated the ways in which representations never fully represent a given state of affairs while nevertheless calling on students to bear moral witness to the empirical presence of excluded actors that may eventually aid others in establishing

political settlements. At the end of the soda tax unit, I asked students to respond to the assemblage of soda taxes by communicating a description of an aspect of this issue to a specific political actor. Instead of switching from decoding to encoding through the same explanatory heuristic, students had to construct or assemble their own networks of association through research and other media. They were asked to consider the morality of how the inclusion and exclusion of different actors related to assumptions about eating bodies. Latour declares, "rhetoric, textual strategies, writing, staging, semiotics—all these are really at stake, but in a new form that has a simultaneous impact on the nature of things and on the social context, while it is not reducible to the one or the other" (*We Have Never Been Modern* 5).

To conclude this essay, I could continue offering more descriptions of the various networks that my class traced and created. There are also countlessly more creative routes that something like actant-pedagogy can take, as Nathaniel Rivers's recent essay, "Tracing the Missing Masses," makes clear. However, by documenting these strategies, any effort at describing actant-pedagogy will inevitably tend toward explanation. In truth, *actant-pedagogy* is not even a term that I hope that the field will solidify as a habit of reference in as far as "solidify" means that actant-pedagogy would be converted to an explanation to guide a repeatable set of ANT-infused pedagogical practices. My description of actant-pedagogy in my advanced writing course in this essay traces only a single drawing of a pencil of one of my attempts to create a pencil through actant-pedagogy.

I believe that this map faithfully traces the contours of an antimethod that enabled some of my students to become aware of description as a method for thinking of themselves as embodied and situated writers who can realize their moral capacities to draw different maps of political objects. Actant-pedagogy can only ever be this imperfect but (hopefully) useful means of signifying a pedagogical need to experiment with simulating ANT's antimethods. My goal for this essay in many ways echoes what I take to be the aim of Latour's office hour dialogue. In offering yet another method of simulating actant-pedagogy for a different audience, I simply hope to further extend the network of ANT within rhetoric and writing pedagogy

Notes

[1] Many thanks to *Rhetoric Review*'s reviewers Don Bialostosky and Julie Jung for their generous feedback on this essay as well as to Scot Barnett who commented on an early draft.

[2] Nathaniel Rivers's call for "a [public rhetoric] pedagogy that asks students to trace how nonhumans compose publics" (para. 5) is a notable exception. Unfortunately, his essay was published during my final editing stages, and I am unable to offer his work the substantive engagement that it merits.

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