Control by All (Us/Scientists): Intersectionality Through Proliferation

Celeste M. Condit

Attentiveness to the kairotic character of verbal action is a long-standing injunction of rhetorical theory. One should speak or write what most needs to be articulated for the place and time in which one finds one's self. Taking the current global dynamics as my rhetorical situation, I believe what most needs to be said is that political virtue is usually to be found in intersections that maximize the incorporation of everyone's interests.[1] In creating and selecting governance policies, the forging or deployment of such intersections usually requires public rhetorical interactions that fuse multiple values as ideographs through narratives, metaphors, maxims, and other concretizing discursive devices.

To forge such intersections is extremely challenging, especially because "interests" should span several time frames and include the whole of the biosphere. Such intersections cannot be static or total; one can only hope to contribute to the more rather than less, for the here and now, and for a longer term that varies in its projected duration by local conditions. Unfortunately, the achievement of public rhetorics that embody and guide such dynamic inclusion is impeded by a powerful driving propensity that arises from the ways in which human emotions and human symbol systems interact. As authors as diverse as Kenneth Burke ("A Dramatistic View"), Jacques Derrida, and Richard Weaver can be taken to show, the foundational structures of human language are binary and absolutist (driving toward perfection, essences, or ideals).[2] The circulation of affect that is necessary to public motivation tends predispositionally to amplify these foundational structures. Consequently, the public rhetorics that are the most successful at presenting themselves as most virtuous are rhetorics of absolutism (i.e., rhetorics of purity and opposition), which are innately exclusionary rather than inclusive, because purity

on one value or interest is usually incompatible with the demands of other values or interests.

In this essay I will illustrate these dynamics by discussing how Naomi Klein frames her narrative in *This Changes Everything*. Klein's rhetoric is worth taking seriously not only because of her relatively high public profile but also because her strategies are common in political activism generally (regardless of ideology and goal), and her rhetoric specifically represents common topics employed by progressives to deal with contemporary global environmental crises. My goal is not to condemn Klein or others who use such rhetorics. My theoretical position is that these are the rhetorics to which all of us are most readily attracted, so it is not surprising or condemnable that people are using such rhetorics in our era. My goal is to point out the dynamics of these rhetorics and their sources, in order to open our minds to alternative ways of speaking that may better serve global ends. I will suggest ways of talking about science-and-society based in an amalgam of "proliferation" and "unification" which together dampen rather than amplify the forceful appeal of binaries.

Klein's Narrative Frame

There is broad consensus that narratives (or "dramas") are important to human worldviews and public rhetoric (Burke, *Grammar*; Fisher; Foss & Foss; White; for an overview of dramatism, see Gronbeck). In public rhetoric, narratives provide the concrete instantiations that materialize the abstractions of the controlling public value terms called "ideographs" (Condit, *Decoding*, 13–14; McGee) in order to specify the actions commanded or recommended by those abstract value terms. The term "control" is Klein's nominee for ideographic status; the positive version is "community control" (e.g., 309: "the fight *for* greater community control"), and the negative versions are "total power and control" (175) or domination by "big" entities including corporations and national governments. Klein dramatizes the negative version of control as "extractivism" (169). But the positive moralized alternative she offers ("regeneration") is still control of nature. Instead of extraction, we are supposed to control nature through narratives modeled as "taking care that regeneration and future life continues" (169). Regenerative narratives nonetheless instantiate the control of nature for human purposes.

Within the theoretical and strategic framework that I am encouraging, this might not be a reason to criticize such a rhetoric. To the

extent that modes of action narrativized as regeneration would actually dampen the aggressiveness of an "extraction" mindset, that would constitute a desirable rhetorical move. If "regeneration" mindsets substantially reduced the amount of damage that humans do to the biosphere and the planet, that would be laudable. The fact that regeneration would not be perfect or absolute in its redress of the problems of extractively-modelled action would be no objection: on the vision of civic virtue I am encouraging,[3] small changes are not to be disdained because they are not large changes. The only grounds for legitimate objection would be based in one's ability to offer a vocabulary that was likely to reduce the extraction even more *if* that also conflicted with Klein's model. Mere critique cannot fill that bill; one would have to engage the task of creating alternative rhetorics. Since all practices fail of absolute perfection (the idea of absolute perfection can appear only in language), a critique that merely points to the failure of a rhetoric to produce a form of perfection tells us nothing of interest. Such a critique could be applied to all rhetoric, it tells us nothing about the value of the particular rhetoric.

Unfortunately, Klein's "regenerative" narratives are—taken as a whole—counterproductive to achieving the goal of reducing human impact across the globe. Although specific stories within her narrative might achieve small, local results, the instances in which such narratives can be enacted will be swamped by key material aspects of the global situation that her rhetoric denies or even forbids considering. Klein's rhetoric refuses to address the economic identities of the "we" she must recruit to the global task, and she forbids address of the domineering growth of the human population in relation to other beings. She instead appeals to an image of perfection (the small, cooperative human tribe) that runs roughshod over the demands of civic virtue (conceived here as intersectionality) for the majority of human beings, who today live in large urban centers, and the majority of nonhuman beings, whose habitats are the victims of both the small and large communities (whether they use "regenerative" or "extractive" models to sustain their ever-increasing being).

Klein's narrative models do not include a broad enough intersection to motivate virtuous action from a global perspective, even though they are emotionally attractive for her readership because they effectively deploy a familiar account of an evil "them" (elites of various sorts, but especially "big" corporations, big environmental groups, and big technologies) against "us" (represented as small, cooperative groups, even specifically "tribal" communes). The story

feels virtuous because our rhetorical predispositions tell us that such purity is a maximal virtue, but these stories lack virtue because they drive us away from the intersections at which any inclusive version of virtue can be found.

To explain, I will first address the way in which Klein's narrative is built on a we/they binary that is emotionally attractive because it places the dramatic tension between one group of humans ("us") and elites (who are misrepresented as "not us") rather than confronting the ways in which the growth of the human population is responsible for human devastation of the environment (even if to different degrees and benefits among human populations). I then show how the agencies in the narrative are defined by their linkage with particular kinds of agents (those in small communities) and therefore covertly cast the majority of human beings as outside the bounds of the good. I close by offering a way to dampen such emotionally compelling binaries through expanding the concept of intersection with proliferation instead of binaries, which is illustrated through an alternative to Klein's depiction of science as a binary against the community.

Elites vs.(are) Us

A fundamental binary driving Klein's narrative throughout her text is the positing of an "elite" minority that is responsible for climate change and therefore opposed to all "our" interests. For example, early on she tells us that the solutions to climate change that would "benefit the vast majority—are extremely threatening to an elite minority that has a stranglehold over our economy, our political process, and most of our major media outlets" (18). This opposition is emotionally powerful, because it identifies a demon and holds us innocent. But it is descriptively unstable in Klein's telling because it does not reflect the real distributions of income.

Klein wavers in her depictions of the elites. Sometimes the elite are scientists (which I will address in the final third of this essay), sometimes they are the 1%, the billionaires, the big corporations, but occasionally one catches the hint that it's actually you and me (her projected North American and perhaps European readers; e.g. "some of us" will have to give up some "luxuries" (28)).

A look at global income indicates that the elites are not only you and me (alas, my dear reader), but also the majority of Americans.

That is, U.S. citizens (and to a near degree Canadians) are the world's elite. The world average purchasing power parity per person (PPP) is barely over $15,000 (International Monetary Fund; World Bank). The PPP in the US is 9th–12th in the World (behind Luxembourg, Singapore, and oil producing states) at about $56,000–57,000 (Central Intelligence Agency; International Monetary Fund; World Bank). Canada is a few places behind at $44,000–46,000. Wherever you are, if your income is more than $15k, you are one of the world's economic elites, and this means that just to even things out, you have to reduce your income (for most of you, substantially; so not "some of us" and not just a few "luxuries"). It is devastating that most of Klein's readers (and, I'll wager, Klein herself) are the elites, but she offers "us" instead a flattering self-portrait as the "little guys" opposing those elites.

The dynamics of equality make the situation even more demanding than those numbers would indicate. Efforts at equalization would reduce the incomes of most people more than that, because the communist states (e.g., China, Cuba) historically and even presently (after shifting to incorporate substantial market-based economies) have PPP below the global average. The communitarian ideals Klein promotes produce lower economic outputs than do market economies, and indeed, such reduction in standard of living would be central to reducing the environmental impacts on the world, especially with continued population growth. Klein alludes at one point to the fact that a large number of U.S. citizens would have to send their resources to those in nations with less fortunate histories, but she is understandably fuzzy on the numbers. While I can't offer precise calculations either (the U.S. Census Bureau reports information by household rather than by individual, and raw income and purchasing power parity are not the same thing), only about 15–20% of U.S. households have income less than $15k per year (U.S. Census, 2015). To achieve equalization of environmental impacts would require most U.S. households to substantially reduce their income (not just to give up a few "luxuries," unless your definition of luxury is quite different from theirs), and this shift wouldn't reduce environmental damage; it would merely shift who benefits from the environmental damage.

Why does a book that claims to want to really change the world employ such a faulty binary? I don't doubt Klein's sincerity, but I suggest that the focus on the elite/us binary substitutes for another bi-

nary that Klein seems unwilling to engage—that between humans and all other living creatures. It would itself be an undesirable absolutizing binary to say that there is no difference between the Heartland Institute advocate who laughs at an extinction event and Klein's depiction of the value of salmon as an entertainment device for her offspring (448), but both portraits place the natural world as the object of the human gaze and interest. In Klein's case, this anthropocentrism is made rhetorically palatable through a more positive emotional stance toward the salmon (wonder, admiration), but also by narrativizing the moral stakes as a battle between the "elite" and "the rest of us" (rather than between "us" and the salmon).

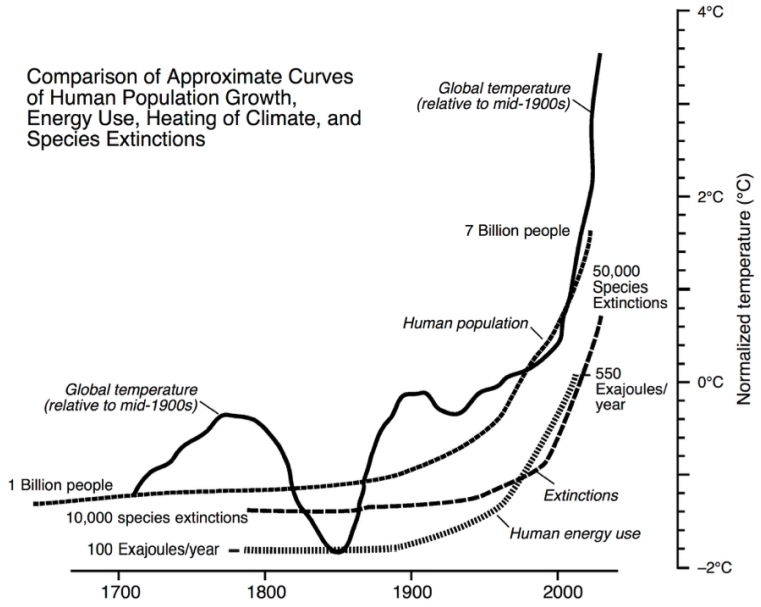
Although Klein's story may be more emotionally comfortable for its academic and activist readers, it isn't going to get us where we need to go. Given the real distribution of incomes and life-styles, a "bottom up" revolution motivated by aspirations for improving the economic position of the global majority by redistributing this from a human minority can't motivate a revolution that happens in the U.S.A. and Canada or that necessarily improves the environment. Although she tells us "we" want a revolution to solve crushing environmental problems, a portrait of what such a revolution would really require of "us" seems too daunting a rhetorical task for her to have undertaken. The rhetorical dynamics instead draw her/us to the comforting story that eliminating an "other" (elites!) will solve the problem.

More of "Us" is More Extraction

In a second crucial move, Klein doubles down on the obfuscation of the material intersections between humans and the biosphere by trying to cut off discussions of the impact of the size of the human population. She says "smallness and shrinking humanity's impact or 'footprint'. . . is just not an option today, not without genocidal implications: *we* are here, *we* are many, and we must use our skills to act" (447). "We who?" said the spotted owls? the rhinos? the leopards? the amphibians?

I will discuss the moral grounds of some progressives' hostility to attending to human population growth shortly, but first it is distressingly necessary to foreground the evidence that if you want a story that positions humans as "regenerators" rather than as "extractors," you have to address the role of human population growth as a key factor that drives extraction. The linkage between human popu-

lation size and energy use, global climate, and species extinction is shown in Figure 1 (derived by tracing curves after normalizing to common time scale from Railsback, "Instrumental" and "Northern"; Scott; Tverberg; United Nations, "World Population Prospects"; Weier).



The graph should not be re-purposed to state precise quantities per year of any of these measurements, as the matching to the time frame necessarily introduces imprecisions, and the start/end dates of various sources used were not precisely the same (as represented approximately by where the different curves on my depiction begin and end). Nonetheless, the graph clearly indicates the shared shape of these curves. *Energy use, extinctions and warming all have increased on an accelerating curve as human population has increased on an accelerating curve, especially pronounced since the early to mid 20th century.*

A common progressive response is to assert that the problems correlated with human population growth are the result of the disproportionate use of resources by the "rich" or "developed" nations, and *so can be resolved by redistribution.* The latter clause is an indefensible, wish-based assertion. If one succeeded in egalitarian redistribution of resources, this might make the benefits of the negative environmental impacts more fairly distributed, but it would not reduce the

total negative impacts of the energy, resource, and land use. Moreover, population growth alone would drive greater resource use by humans, and with regard to some aspects of the environment, it does so to a greater extent than other factors.[4] If population growth does not cease, then the negative impacts will increase whether or not there is any redistribution of the benefits. Population growth represents a constraint on any feasible narrative projection of "regeneration" because population growth is one primary driver of humanity's demand for extraction.

There has been a paucity of academic articles in communication studies addressing issues of population growth.[5] I suggest that Klein's rhetoric illustrates the forces that have forestalled attention to that component of climate change by associating attention to population growth with the term "genocide." Genocide is defined in the United States Holocaust Museum's "Holocaust Encyclopedia" as "a very specific term, referring to violent crimes committed against groups with the intent to destroy the existence of the group." While one can imagine a genocidal approach to reducing population growth, that is hardly the only option. The use of such hyperbole has arisen as a reaction to eugenic and racist versions of population control policy.[6] However, rather than refusing to attend to population growth because the issue has been addressed by others in repugnant ways, a more desirable option is to offer progressive approaches. A road block to that effort is a highly favored narrative among some progressives that dramatizes the agents of all global issues by placing the "white, developed world" as the global antagonists and "developing/traditional/indigenous/colored/Eastern/Southern" as the protagonists.[7] Maintaining such a dramatistic frame requires that everything undertaken or achieved by the antagonists (including population stabilization or decline) is evil and everything occurring within the protagonist world is good (including population growth). Any recommendation that the protagonists become in any way like the antagonists is dramatistically emplotted as sinister.

Once one recognizes this dramatistic frame in action, it is easier to recognize its insufficiency for guiding human global action and interaction (indeed, when the frame is employed by conservatives with a reversal of the good and evil agents, progressive critics are quick to point out the absurdity of the "Manichean" frame). In terms of the specific issue of human population growth, it should suffice to note that merely providing women with contraceptive services, edu-

cation, and life options has generally proven pivotal to decreasing population growth (United Nations, "Framework of Actions," 209).[8] Does providing women these rights and resources violate the cultural preferences of some powerful men in the name of their "culture"? Perhaps, but if that is *your* story, then "their" cultural norms are designed to increase their hegemony—their CONTROL—of the other beings on the planet. And so, in plotting a narrative that demands that you prefer those "culture's" norms you are choosing the interests of the powerful men who dominate those cultures for dominating the next generations of humans (both within their cultural boundaries, but also by the logics of population growth, this means outside their cultural boundaries as well), which also means their domination and destruction of the other species on the planet. That choice may appear virtuous within the "us" vs. "them" logic that makes the "enemy" (domineering men in non-dominant cultures) of my enemy (domineering men in my culture) "my" friend. As I have been suggesting, the emotional valence of such binaries is difficult to overcome because of the proclivities of language and human emotional sets to drive us toward policy choice based on tribal affiliations experienced in binary terms. Nonetheless, one should strive to find alternative stories, because that binary fails us miserably in any struggle to intersect the relationships of people within cultures and the relationship of all human cultures to other beings in the biosphere (including each other). Indeed, the binaries eschew the value of intersection by either overtly or covertly delegitimating the interests or identities of some agents.

To summarize, Klein's appeal purports to offer her readers a shift in the narrative envisioning of human control from "extraction" to "regeneration," but to make her narratives coherent, she must block both the material reality that "we" would have to reduce our standard of living substantially and that humans could not continue to increase in number. A final key to the rhetorical attractions and the perils for virtue of her narrative is the pervasive deployment of "big" vs. "small" as markers of good and evil. This is evident in what Burke calls the "agencies" that form a key appeal of her stories.

Small Tools vs. Big Cities

Full dramas must not only depict agents, but also envision the tools or means that agents use in their struggles (Burke, *Grammar*).

Klein's rhetoric is particularly rich for its examples of innovative ways of doing particular things: her rhetoric gains its sense of material plausibility through sustained discussion of "building alternatives" to extraction (e.g., 405). Certainly, a compelling set of narratives that showed feasible agencies for "regeneration" would be crucial to any rhetorical vision that will be materializable through human actions. Many of the stories of alternative agencies Klein shares are inspiring, and in their individual pieces, they may form part of a regenerative future. Nonetheless, what unites the tools as part of a single virtuous set (what makes them regenerative in Klein's terms) is that they are the kinds of tools employed by small, local communities.

This definition of what defines a "good" tool is evident in the opening of the section on innovation with "Blockadia"—stories of small groups of people taking vigorous action to resist the dominant extractive energy sources, who are distant, large others. The next section shows "our" ("resisters"") positive emotions by contrast to the motivations of the others. It is called "Love Will Save This Place." A focal issue in this section is the resistance to the Keystone Pipeline. Klein could not have known at the time of the writing of the book either that the resistance would become even larger and more dramatic or that the "symbolic" victory and delay would be circumvented by alternative pipelines, massive lines of oil-carrying railroad cars, and by the election of an American "populist" President with no qualms about shutting down the resistance. The resistance movement "worked" only within an Administration that was partially favorable to the perspective. The success of the resistance, however, contributed to a powerful backlash against it among a substantial group of American citizens (and citizens who don't exactly fit Klein's image of the mythic elite). What kept Klein from understanding that other people—many people—would "love" differently? She falls victim to the rhetorical lure of hiding those people's interests behind an evil demon (the industry, not the people who use the products of the industry). The populist movement's articulation in terms of extraction "for us" instead of extraction "for them" may be disconcerting—even frightening—but it has at least drawn attention to the investment of a large group of Americans in what the "extractive industries" have on offer.

The other stories of innovation that Klein offers are likewise inspiring as models of love and resistance, but are not much more helpful for envisioning the agencies by which 7 ½ billion people might

exercise a "right to regenerate." These stories tell us about small communities being shocked at the power of "the extractive industries" to exercise their extractive rights near their community. The communities band together to resist, and sometimes that resistance includes small scale alternatives (a solar system that cuts dependence on the "extractive" energy industry by 50% in one favorably located community; a community farm in a place with tillable soil and adequate water; a few elite colleges who disinvest their endowments from fossil fuel companies). To be sure, small changes in local communities that are favorably situated are of value. But these ways of acting are not available to the majority of the 7 ½ billion people on the planet. Setting victory gardens and small "indigeneous" rural-living tribal groups as a model of the future—no matter how emotionally appealing this might feel—inappropriately privileges the "loves" and tools of small communities against the majority of the world's people.

Over half the world's population lives in urban areas, and the urban percentage is continuing to increase, with the likelihood that 70% of the world's population will be urban by 2050. There are over 400 cities with over 1 million people and 19 with over 10 million people. These concentrations of people cannot live like small indigeneous tribes. They need food, energy, building materials and other resources, and these resources must come from the locales where the small, culturally homogeneous communities live. The only vast tracts of uninhabited land on the planet are places few people really want to live (e.g., Antarctica and the lava rock desert that spreads across the valley from where I write). The size of the dent that big cities can make in their resource needs from roof-top solar and community gardens—and even from rebuilding with energy efficient designs—as important as these elements might be, will be swamped by their growth in numbers, all the more so if their standard of living is to be increased substantially (i.e., "poverty eliminated"). Klein's narratives thus pit small tribes against the majority of humanity, a move that is disguised by displacing the needs and interests of the rest of humanity onto the "extractive industries" that serve those needs. Even if the industries no longer served those needs with disproportionate greed and profit, those geographical concentrations of people will continue to need to "extract" resources from places where they do not live.

It is good to hope that models of action beholden to small-scale communities will have some role to play in sustainable human futures.

However, because these cannot be general tools for human living at anything near current human population levels, representing the territorial rights of small communities as the key levers against climate crisis pits community against community (your desire to use resources from my geographic area is "extraction"; my desire to use them is "regeneration"). The "egalitarian" and "communitarian" values (59) that Klein promotes do not automatically line up together (fondness for my community has disabled egalitarian spirit toward others) and they do not lead naturally to "regeneration" in a world where a growing population wants "equality" to mean more resource usage for most people.

Klein's deployment of the actions available to the "small tribe" as the image of "good agency" is made palatable by the implication that we all should (i.e., that we all can) live as small tribes. But 7 ½ billion people cannot live hunter-gatherer life styles. Even "agroecology" (134), i.e. tech-augmented small-farming lifestyles (which begs the question: who manufactures the tech, and from what/where?) seems unlikely to serve such vast demands. The biosphere is not that large (the current population of the Americas is 10 times larger than even the highest scholarly estimate of the population on these two continents in 1492, and that estimate already presumes an intense resource utilization rate, even if via small-scale tools). Even if it were possible to support everyone with subsistence farming/hunting/gathering augmented by selected technologies, most people do not want to live at subsistence levels in rural isolation. The isolated mega-farms of mid-western U.S. states such as Kansas and South Dakota feed hundreds of thousands of people. City gardens could not make up for the loss of such "extraction" for city inhabitants. It would be humorous to entertain a vision of millions of urban professionals voluntarily returning to the rough pioneer existence of their great grandparents, sustainably farming a few acres of windswept prairie, if Mao Tse Tung had not already tried a non-voluntary version of that return. Humans can be poor in the country or poor in the city, but the majority of young people seem to be voting with their feet for the city with its many diverse attractions (Saunders).

I don't seek to deny the desirability of any of these particular programs ("agencies") for those who are situated (or want to be situated) to employ them. Taken individually each could form part of a more regenerative future. Many might even be in our collective interests to finance for those who *are* willing to live rurally. The objec-

tionable element is the framing of the virtuous agency of "regeneration" in terms of small tribal action and the beguiling displacement of the interests of the rest of the world through the agent of "extractive industries," suborned global environmental groups, and mammoth geo-engineering groups. Given that my focus is on improving our rhetorical options, I offer in the final section an alternative to amping up binaries (I'll illustrate with Klein's binary treatments of science, but the form would apply to elites vs. us and other binary temptations as well). I hope I've at least made it reasonable for you to consider the possibility that amping up binaries might be emotionally compelling, but it doesn't sufficiently illuminate the work that is required to make materially tenable narratives for how 7 ½ billion people living with millions of other species should proceed toward better goals.

Who are "Science"?

Science is an ambiguous agent in Klein's narrative. On the one hand, science is the source of our knowledge that global warming must be dealt with, and science serves as the underlying legitimator of the need for action: "science forces us to choose how we want to respond" (58). Science also legitimates the shift to solar/wind energy rather than fossil fuels (127). On the other hand, Klein aligns the scientific worldview or approach with extractavism (170–171). The scientific revolution "provided the tools and the logic that created the crisis that geoengineering is attempting to resolve" (266). Science is guilty of embodying the faulty ideology at the root of all our problems "that essential, corrosive separation between mind and body—and between body and earth—from which both the Scientific Revolution and Industrial Revolution sprang" (177). She rejects technology by snide castigation—"Bill Gates and his gang of supergeniuses" (289)—, even while endorsing novel technologies (solar panels and breeding of new plants, 439).

Rhetorics driven by binaries have two routes open to them. They can double-down on the "enemy" vs. "us" portrait and be consistent about which category any given agent is placed in, but this typically reduces almost everyone to "them." Or, like Klein, they can be inconsistent (which may or may not undermine their rhetorical effectiveness, depending on the skill of the rhetor in papering over the inconsistencies and the audience's sensitivity to the particular varia-

tions). One cannot eliminate binaries from one's language—they are innate to the form of language. However, one can dampen language's tendency toward reducing everything toward oppositional binaries. One way of doing so is to favor multiple representations of diversity in rhetorical figures of proliferation. Such proliferations, when well drawn, may provide images of intersections—policies and issues that serve multiple groups in different ways.

This model of proliferation-in-conversation extends upon existing models of "intersectionality." The term intersectionality has become so widely used in so many contexts that it is not possible to assert that it has a single meaning (Gopaides; Chavez and Griffin). However, the concept grew from the recognition that attending to a particular issue based on a singular set of identity categories (e.g., male/female *or* white/black) ignored the way in which some people lived not within single categories, but at intersections of two categories. Notably, Kimberle Crenshaw argued in 1991 that Black women's experience of employment discrimination and of violence was not captured solely by either racism or sexism, but by the distinctive way in which the two forces combined in Black women's lives. Advocates of intersectionality understood on this identity-based model argue that attending to such intersections is required for coalition-building (e.g., de Onis, 2012; Kearl, 2015).

Since the early work, many theorists and critics deploying intersectional thinking have made a major move toward proliferation; articles employing intersectional perspectives today often tend to provide fairly lengthy lists of positionalities, rather than simply offering only two categories of identity elements that need to be considered or incorporated (e.g. Jackson, 376). However, intersectional works still tend to place these long lists of identity components (Blacks, women, queers, disabled, etc.) that "intersect" in a given person or sub-group against a binary opposite such as "mainstream" or "White" or "men" or "straight." This limited frame is evident in Crenshaw herself. It continues in recent works by scholars such as Chavez and McFarlane.[9] It is even relatively central in Jackson's (377) critique of the Black political community, where she pits the "middle-class, churchgoing, Black elite" against her own projected affiliates of young black activists (among other "them vs. us" divisions).

As my analysis of Klein's rhetoric illustrates, such categories tend to (mis)project an enemy who is "not us" and to present a limited group of "us" as though we were an overwhelming majority. But such

projections tend to entail contradictions. If "we" are "labor", then some of us are also "white" and "mainstream" and even "middle class" (the labor movement kept many manual laborers in the "middle class" defined financially for many years, and a not inconsiderable portion of these were black men, in the auto industry, for example). Moreover, if "men" and "whites" and the "mainstream" are our enemy, then how can our coalition possibly be large enough to have political victories *in a democratic society*?

It is only if the overwhelming majority of us actually do not fit the vision of "male" or "mainstream" that is being (mis)projected as an enemy that an intersectional framework can be a democratic framework. Perhaps, and fortunately so, that is the case. The majority of males are not white, professional class, "abled", straights. But that means that the use of the word "male" for our enemy projects a falsity of its own (see Hayden and O'Brien Hallstein). That framing misrepresents the minority of males as though they were the majority every bit as much as does the film industry that we critique.

I thus suggest that "intersections" built on binaries (white/black, 1%/99%, straight/?, Hispanic/?) that supposedly capture "identities" equivalent to shared lived experiences are also always standing on shifting sands of the proliferative nature of being (Kearl, 2015). The alternative to the "us-against-them" set of binaries is the "and, and, and…." of proliferation. Not women vs. men, but women and men. Not black trans women vs white women, but black trans women and white straight women and Latina queers and, and, and. The basic argument about the need to include the voices, perspectives, interests, or needs of all people is sound and crucial. Overt recognition of identity elements that have been suppressed can remake falsely homogenized unities into diversities that take account of the interests or needs that have been ignored when everything was *only* white and male. This is what Chavez and McFarlane and others offer as their defensible end-goal. But re-arranging systems of power doesn't require demonizing the other, even if some portion of that other has been too powerful. In a democratic system, totalized mis-description may likely even block such re-arrangements.

Feminists and others have long insisted that when they use terms such as "patriarchy" or "men" or "whites" they are not talking about individuals, but rather about "systems of oppression." But one can't claim that one's labels for one's self are identities grounded in lived experiences that must be taken seriously, but other people—"men"

"whites" "heterosexuals"—should not understand themselves as personally implicated in the terms associated with *their* identities. Attacking the identity labels of broad swathes of "others" is no route to coalitions broad enough to remake our worlds.

Even at the level of system-thinking, those kinds of divisions drive us toward problematic rhetorics. One of the most destructive recent moves of such binary thought is the assortment of whatever "we" experience as "oppression" against whatever "they" have as "privilege", as when Chavez and Griffin lament the erasure of "the many privileges that such women held on account of race, class, and sexual orientation" (7). Just what "privileges" do most straight white women have? Should one talk about being harassed less frequently or on different grounds as a "privilege"? Is access to a job that pays a "median" wage instead of a "poverty wage" a "privilege"? If what we used to call "rights" become remade as only "privileges" because our version of intersectionality still requires a binary antagonist, then why should the majority care that "the marginalized" don't have "privileges"?

The dynamics of binary rhetoric encourage the reduction of basic conditions of decency in life or basic rights to "privileges" because of the dynamics of narratives based in such binary oppositions. The demotion of the "rights" of others to "privileges" is the result of the demand of binary thinking to demean the enemy and whatever is associated with them. That is unworthy on its own, but also particularly problematic in the political arena because it bolsters conservative ideologies that hold that there are no basic rights or conditions of decency that everyone should have. I believe that this is not what intersectionalists have really meant to imply. But this is how binarism drives discourse.

A more fully proliferative sense of interectionality offers an alternative to both homogeneous unity and to an anarchy of interests that pits each against all (whether the all is individual or group-based). As a process of provisional issue-based *unification*, it constitutes a dynamic commonality that takes shape through situated negotiations or recognitions of overlaps in interests. Like the proponents of anarchy, a proliferative intersectional view values the particular and the diverse, but unlike anarchists (including libertarians), it admits that overlaps in both positive and aversive interests necessarily exist and are more productively dealt with by discursive negotiation above the level of the individual or singular pair of groups. This admission is

required partly because there are typically multiple groups affected and partly because public deliberation at least puts appeals to justice and care visibly on the table in a way that individualized maneuvering does not. Like the proponents of unity (which I distinguish from dynamic *unifications*), democratic proliferative intersectionalists will recognize that some interests among living beings are shared more-or-less durably and some are shared among most or all living beings. However, unlike "color blind" and other proponents who use homogeneity-based rhetorics, the intersectionalists recognize that questions of "who benefits?", "how much?", and "who pays?" matter, and that the answers to these questions change through space/time. So, even durably shared interests must be negotiated in the context of other interests that are in sustained flux and even conflict.

I will illustrate the strategy of proliferation—with its utility in pointing toward dynamic intersections—with what might be said about "science." Instead of merely adopting one of the binary choices—i.e., we should appropriate "science" (e.g., its truths about global warming) or "we" should oppose "science"—we should begin to talk in ways that highlight that we are each somewhat scientific about some things, but no one is scientific about everything. Thus, all of us/none of us are Scientists.

"Scientists" are constantly placed in a binary relationship with "lay people" or "the public." But all scientists are members of the public or "laypersons" in relationship to most science. Equally, many people, maybe most or all people, have knowledge epistemically equivalent to scientific knowledge of some areas. Careful investigations of the demarcation of science have shown the impossibility of clearly drawing lines between science or scientists and other agents and rigorous, empirical means of knowing. Rhetoricians such as Charles Taylor and philosophers such as Paul Feyerabend have shown that, whether employing discursive criteria, or other criteria offered as defining features of "science", science does not form a distinct human set of activities: "The events, procedures and results that constitute the sciences have no common structure; there are no elements that occur in every scientific investigation but are missing elsewhere" (Feyerabend, xvix; Bauer). For example, James Watson and Francis Crick did no experiments and collected no data for their Nobel Prize winning work on the structure of DNA. They took existing fragments of information and played around with a tinker-toy like model

and a bit of creative thinking to happen upon the model (that was well-prepared by other people's data and by happenstance, but not based in the quantitative predictive experimentation based verificationism that is so often mistaken as Science). Likewise, Latour and Woolgar have shown how laboratory equipment can be subsumed under the label "inscription" machines. Historians trying to write a "history of science" have run into the same problem: they can't identify what counts as "the beginning" of science, given that people all over the globe have been systematic observers of the natural world (and of humans) throughout recorded time (Fara).

There is social utility in noting that different people work on different terrains and have greater or lesser familiarity with some issues and factors than do other people. Perhaps in 1500, the term "science" served to demarcate that familiarity, as well as an empirical orientation, but today the term obscures more than it reveals. A physicist specializing in supernova or string theory knows no more about global warming (perhaps less) than does a gardener. Calling the former a "scientist" and the latter a "layperson" is worse than useless; it is a distorting lie. Even when farmers and experts in radioactivity come together to address issues of nuclear fallout, the farmers know things of relevance that the experts do not (Wynn). Most people have expertise on some things, and no-one has the equivalent of scientifically garnered knowledge of anything but a tiny slice of available human knowledge.

The alternative is to use the strategy of proliferation. Instead of using the labels "scientist" vs. "lay" or "scientist" vs. "public", a strategy of proliferation encourages us to deploy more particular labels demarcating expertise that one might contribute to a discussion in which others are contributing other sets of expertise: climate modeler, apiary specialist, geochemist specializing in cave deposits, organizational psychologist, dye expert, brick specialist, automotive technician, scholar of contemporary technical discourse, etc. No person holds the trump card of "science" in this deployment because most participants will bring some knowledge grounded in rigorous observation to the discussion. Recognizing the range of available expertise enables us to hold everyone accountable for not representing their expertise as the "whole story" and perhaps even to recognize the part of their contributions that arise from their expertise and the part that might arise from other factors. Note that this approach would keep "meteorologists" and "economists" from defining them-

selves as "scientists" and therefore equivalent to climate modelers in their ability to project future climate.

Talking about many kinds of specialties instead of some magic elixir such as "science" has many positive implications for public discourse. On the one hand, it tends to dampen elitism by foregrounding that having specialized knowledge about some of the facts of any case doesn't provide anyone special status for *deciding* about a case; most public decisions require multiple kinds of knowledge, not merely "a scientific approach." On the other hand, unlike oppositional binaries (which disable "science" by making it "evil") or monotonic uniformitarianism (egalitarianism built on the assumption of "no difference"), proliferative labelling retains the ability of social groups to draw on the resources made available by specialization. By basing our labelling on the narrow areas of expertise that different groups and individuals hold we identify and accept the value of their extra experience in a given area. We should listen to the climate modeler about climate change more than we listen to the dyer, but we also should listen to the dyer about fashion design more than we listen to the climate modeler. As non-specialists in an area, we should concede that items accepted as factual by a majority of a group of specialists might not be "certain" *but they have met the current burden of proof qua factual statements* (Ceccarelli). The facts, of course, don't tell us what policies we should undertake, but they do require that we address the consequences of our policies in light of the facts rather than hoping that different facts more in accord with our wishes might come along. Thus, specialists in climate trends can tell us that it will probably get hotter on the planet; merely offering a "critique" that shows their analyses aren't "perfect" does not qualify as refutation. The burden of proof requires us to have better evidence than they do (Whately), and if our evidence isn't *better*, then we are required to defend the policies we propose in terms of their effects given the state of facts as they currently stand. That doesn't tell us what our policies should be (we might still prefer inaction over action; we just can't legitimately deny that our inaction will have consequences).

In social policy and other shared venues, talking in ways that proliferate rather than rigidify binaries foregrounds the multi-level intersections that may be relevant to the contexts at hand. Multiple people, with multiple experiences, pool their bit of the factual puzzle, and then we must all engage to shape an action plan in light of the bits of the puzzle we have (and the much larger piece we fill in with our

own interests and values). Those who have dedicated their lives to thinking of power in binaries (oppressor/oppressed) may be tempted to insist that such proliferation "loses the critical edge" or obfuscates power relations. That is to say, they will try to reduce proliferative intersections to *their* unities. Such a reduction can be a strategic move fitting for some circumstances, but it is not an ontological truth that disqualifies proliferative thinking. *Any* theory of intersectionality must assume some commonality or there is no means to negotiate the interactions that go on at intersections—there is only brute force (and even brute force presumes that one is operating in a common plane of space/energy/time!). One can and should point out the inequities built into social systems, including into deliberative modes (and try to redress them to the available extent, as I try to do in Condit, "Insufficient Fear"), but any theory that wishes to stake its ground on something other than "might makes right" must entertain both commonality and difference. The discursive negotiation among all humans requires both that we have differences (or we wouldn't need to negotiate), and that we have commonalities (so it is feasible to hear each other to some degree). It is not appropriate to posit a requirement for perfection in the negotiation process, because there is no shareable standard for such perfection.

Specifically with regard to the issues that Klein is raising, a proliferative strategy asks us to step aside from the narrative that pits "indigenous groups" and "the poor" against "elites" and "population control." As Kathleen M. de Onis (2012) has suggested, an intersectional view should allow us to "look both ways" (or better, "look many ways") to ask how and why we want both women's reproductive freedom and to redress climate change. It requires us to emphasize "what's in it," not only for the "marginalized" and the "indigeneous" rural groups, but also for the global elites—that is, the overwhelming majority of the citizens of Canada and the United States—and for the denizens of the cities of the world, rather than just painting vivid and distorted portraits of evil minorities. As de Onis suggests, such an "and" activates people with both sets of interests. Klein sometimes makes such moves in limited ways. When she recounts the successes of indigenous people in fighting poverty by implementing solar power, she points to a nexus (technology *and* rural life). That intersection could gain additional levels by pointing to ways that reducing poverty (in this case, by solar power) is entwined with women's access to assistance for health, including reproductive health.

Note how different that is from the deprecatory rhetoric Klein uses with large environmental organizations, chastising them for their lack of purity, because as a "large" entity inhabited largely by "elites" they are the "enemy." Klein asks us to engage with/like indigenous groups, but to separate ourselves from the environmental organizations. But engaging with the large environmental groups to expand their horizons seems as likely to contribute to the redress of climate change as engaging with/as indigeneous groups. The proliferative "and" suggests that we can't really redress climate change and poverty and health unless we can incorporate all three, and more (and some large environmental groups such as the Nature Conservancy may fail Klein's purity tests, but they have made substantial global efforts to engage environmental protection through the means of protecting indigenous rights and life styles). To some extent, Klein's purity tests arise because of their use of absolutely proscribed technologies (an environmental group allows fossil fuel extraction on some of its land).

Dealing with technology as proliferation is not the same as dealing with proliferative intersections of identities. (Almost?) all human identities have great, perhaps something like "sacred" value. But technologies are not sacred. Nonetheless, humans—all of us—are technological animals (e.g., Haraway; which is indeed a root of the threat we represent to other species). Before "modern humans," hominids were creating and deploying tools. There is no adult human that has not done so. The key questions we, as technologists, should focus on are not "should we or should we not use technologies to solve the problems we make for ourselves and others." (Note how that rhetorical dynamic makes "smaller" technologies better than "larger" ones). Rather, we should face material questions: what are the costs, benefits, and constraints on different technological deployments (and how are these costs and benefits differently distributed). Klein's book is at its most useful when she is raising these questions.

The problem of "magical thinking" referred to by Klein and echoed by the conference organizers lies not in thinking that "science" can solve problems. The problem arises when we posit that any technology could produce the outcomes "we" (with a proliferation of intersecting identities) want without causing problems "we" (same and other identities) don't. The Newtonian doctrine that every action has an equal and opposite reaction is not a truism directly applicable to policy, but a rough approximation of it should be kept in

mind (the reactions to policies are rarely equal in any one dimension or merely opposite; but then Newton's dictum was a simplification, too). The consequentiality of action is neither a reason to accept or reject technologies. The criteria of choice should be intensely focused on what the range of consequences are and where they are distributed. To return to the central thesis of this essay, this is to say in yet another way that the emotional drive of narrative depictions of evil opponents are insufficient guides to the judgment of where virtue lies. Such narratives make us feel more virtuous than our enemies, but civic virtue requires more particular questions: what are the impacts of my recommended actions and how are they distributed?

In the case of global warming, if you want a stopper card, it is not to be found in a binary presentation of science/technology vs. "indigenous thinking" or (or any other magical "us" to be created). For all proposed solutions, the stopper cards are to be found in the material limits that arise from the size of the problem: the scale and dispersal of the problems underlying global warming and other environmental crises must be taken into account by both those proposing geo-engineering solutions and those providing community-based actions.

Wind-Down

Human beings have in common both technological and discursive abilities. Perhaps somewhat ironically, these abilities are also the resources by which we become so very different from each other, and very differently situated. Nonetheless, to date we share a finite planet with each other, and our growth to 7 ½ billion people means that our differences now force us to live with the consequences of each others' actions. We can do so in a manner that sets the narrative proclivities of Us *vs.* Them as the default grounds of a self-righteous emotive experience of virtue, but the more intensely we do that, the more likely we are to exclude the interests of many of us.

I have suggested that we should resist the emotional rewards of self-righteousness. Instead of the story that "we" should stop "them", our story might be more successful if it was told as the quest to proliferate our recognition of the "we's" who make up "all of us." Like the binary version of intersectionality, the "and" strategy aspires to enable the "voices" of those who have not been adequately heard and also to value the experiences of beings different from ourselves

because those differences make us (metaphorically) rich. However, the "and" strategy makes for a broader range of potential coalitions because it does not include those previously less heard by demanding the silencing or even excommunication of those who have been overheard.

Such a proliferative expansion also points up another recurrent error in progressive narratives of our era. Klein begins her account with a castigation of "the fetish of centrism—of reasonableness, seriousness, splitting the difference, and generally not getting overly excited about anything" (22). Like many successful public intellectuals who must play to a saturated media market, Klein's rhetoric declares that "centrism" is a sign of inadequate devotion to "radical" ideals: "half measures won't cut it," she warns (22). On her account, centrism is bad because it is about being willing to compromise one's ideals. Essentializing absolutism—"posing climate change as a battle between capitalism and the planet" (22)—is how we "need to think differently, radically differently." The account I have offered, however, suggests that radicalism defined as the opposite of centrism does not offer us virtue (or if you prefer, the warrant to be righteously "worked up," 22). Because people's interests and needs and situations are so diverse, an inclusive definition of public virtue requires a proliferation of values, not the reduction to singulars than can be expressed as the totalities that pass as "radical." "Compromise" is not the sell-out of sacred values; it is the recognition of the multiplicity of values that must be shared in a complex world. "Intersections" are necessarily centers of interests. Any theory that recognizes "values" as grounded in interests should be inherently suspicious of the claim that one should not "compromise one's values," because such theories will recognize that "one's values" are never "all the important values fully represented." If one finds one's self in the "center of things" rather than at one of the radical fringes (left, right, or other), perhaps that is because one is doing one's best to listen to and to care for multiplicities rather than singularities.

The rhetorical appeal of binaries explains why most social change narratives are narratives "against" something more than they are narratives "for" interests: it is much easier to articulate hostility to an "elite" dominating a "majority" than it is to articulate multiple interests as positive goals in concrete ways. None-the-less, the real diversity of humans, their dispersal around multiple distributions of multiple dimensions of being-on-the-planet, makes such reductive absolutisms

unlikely to bring about the just global future they use as their normative warrant because such binary stories are unlikely to appeal to substantial majorities. If "whites" are "the oppressor" and you are against the oppressor, then it takes an odd "white" to ally with you. And for those who think the demographic revolution will solve that problem, I offer a billboard in Myanmar, which sells a traditional facial makeup with the slogan "Be White Like the Chinese." The specific shape/language/color of the bodies that currently fill the binaries may go away, but unless we get better at proliferation, the binary dynamics and their hierarchicalizations will not go away.

If any person's interests are always intersectional—multiple, not reducible to a single value (freedom from fear and want, equality, justice, opportunity, wonder, peace, care, clean air and water, amae, etc.), then what a folly to try to reduce "the majority" of 7 ½ billion people to a pair of nouns. How appealing, and how misbegotten, to portray "intersections" of peoples' interests as tepid "centrism" guilty for having given up on a pure, singular value. Perhaps it is not possible to find dynamic time/spaces where we all share consequences in ways we negotiate together, but if not, we have only a brute battle of all against all. *That* narrative offers little hope for the future of humanity, and we are likely to continue to take down most other living things with us.

I have suggested that proliferation is a useful rhetorical tool for building expansions that enable or honor diversity but that also enable the possibility of temporary unifications to achieve objectives where our mutual impacts overlap. This may be hard, because it runs against rhetorical proclivities. Perhaps a relatively easy place to start is by replacing talk of "science" vs. "us" with talk of multiple, diverse but specific expertise. Academics have multiple places to practice such talk: with each other, with the press, and in our articles. In such spaces we should stop talking about "lay people" and the "public." Instead, we should demand that "all people with relevant expertise" be interviewed or otherwise included. Instead of "public engagement with science" we should have "science policy from all bases of expertise." In our own language and through gentle offering of alternative phrasings, we should insist on naming specialties, rather than granting anyone the status of "Scientist."

This is a risky endeavor. With regard to climate change, it asks us to give up the claim that the authority of "Science" is the uncontestable agent that tells us that the planet is warming at a rate that

threatens both our lifestyles and those of tens of thousands of beings on the planet. Instead, we have to be more precise about exactly which specialties have what kind of data to share with us. We have to trust that, when most people are told that they can't hand the issue off to be decided by a battle between Scientists and Pastors or Businessmen, that most people will engage the issues fully enough to recognize that things they care about will be lost if they continue to live as they have. We have to trust that so motivated, people will invent and engage in new ways of living that fit their varied circumstances, *because they can no longer simply blame someone else for the damage.* That is a risk, and the odds don't seem that good to me. But we've had enough of a run of the binary approach that we can say with confidence that the odds that the rhetoric of "SCIENCE" vs. "PASTOR" or "SCIENCE" vs. "BUSINESS/(jobs)" will turn out in "our" favor (in either the binary or proliferative sense) are at least equally low.

Learning to speak about technical matters in a proliferative rather than binary fashion would thus be a worthy undertaking for technical purposes. But the hope is also that getting good at replacing binary discourse with that kind of proliferative speaking could become a more general habit and teach us techniques of proliferative talking so that we can take on the hard tasks of addressing public issues relating to the intersecting forces of identity. Questions of race/class/gender/sexuality/and/and/and may be harder to de-binarize because identity labels are integral to the dramatistic form of language in ways that technological discourse is not for most of us. It will not be easy to develop ways of speaking that maintain the critical edge and attention to power, but without isolating and alienating those who are "not like us." Such ways of talking might offer rewards of a practical nature by highlighting intersections that are good for most of us, even if they don't offer us the emotional zing of perfection. If such an option seems a tiny bit enticing, I hope you will correct my own binary tendencies and seek to expand this narrative.

Acknowledgements

The author thanks the organizers of the conference on "Capitalism, Climate, and Public Discourse" for their first-rate work stimulating the interactions that enabled this essay and the editors for their able and kindly work on it. She thanks the two anonymous reviewers for their generous and open-minded reading and their thoughtful and helpful suggestions.

Notes

[1] I use the term "everyone" to include all humans but also, to an indeterminate and variable degree, other living beings as well.

[2] Perfection is Burke's term; Derridean literature utilizes "essentialist" and notes the tendency toward emphasizing "origins." Weaver's focus in on "god terms" and idealized definition (in a less critical voice than either Burke or Derrida). All of these terms point to different forms in which the drive of public language-in-use is toward a kind of absolute.

[3] I use the term "civic virtue" in an Aristotelian sense informed by postmodern insights. As beings whose actions impact others, and who have the capacity to be aware of those impacts, I suggest our symbolic capacities impose upon us the requirement of taking into account others. An even partially full defense of this concept would require a separate essay. If you believe that no one owes other beings anything, then this concept of civic virtue will be unacceptable to you. Otherwise, there are several notions of "good", "ethics", "morals" that would be compatible with how I use this concept in this essay, although they might different in ontology or epistemology or otherwise.

[4] On the impact of population on energy usage, Mazur shows that after 1970 in the US, "the cumulative effect of population came to equal or exceed the influence of nonpopulation causes on TPES" (Total Primary Energy Supply), 50.

[5] A search of abstracts for either "population growth" or "demographic panic" in Communication and Mass Media Complete, produced 31 hits, but only eight (8) of them refer to human population growth (several are about marketing "populations"), and only four (4) are of any direct relevance.

[6] See, e.g. Cover. For a precise (not overblown) history of part of this movement in the US, see Ziegler.

[7] See, e.g. Urry, or Greene, 1999. Greene does not use the term "genocide" but instead uses "demographic panic" or "population panic" to imply that references to the impact of population growth should not be taken at face value, but rather are part of a "Malthusian" governing apparatus. His argument depends on theoretical assumptions that this article disputes in the last section, but also upon the claim that environmental rhetorics opposing population growth do so on grounds that treat the environment solely as an economic resource for humans. I am here contesting such treatments of the other beings on the planet as merely for our use. Greene may well be correct that such rationales were common or even dominant in the 1970s but they are not essential to all critiques of human population growth, e.g., Greene, pp. 6, 14, 25.

[8] Greene (1999) seems to suggest that such a "feminist modernism" has the potential to reframe what he portrays as a persistent Malthusian/biopolitics, though his use of the Foucauldian frame and the negatively weighted vo-

cabularies such as "governing apparatus," and his suspicion of modernist ideologies tend to obscure the valuation of that move.

[9] For example, statements like Chavez's emphasis on the fact that blacks are proportionality more likely to be public sector workers than are whites are likely to appear to many whites as a claim that attacks on public sector jobs are (only) problematic because they hurt blacks (more). That rhetoric encourages whites to dis-invest from the public sector because it identifies the problem as "not ours." This is reinforced by Chavez's idealization of the cure for social problems as dialogue "where those most marginalized have a primary voice, and those with privilege" listen (30). Although Chavez claims to be against "purity" logics, this statement uses such a logic, with "marginalization" being the purity criteria. Such statements privileging "the most marginalized" not only reinforce contests for "most marginalized" status among different minority groups (instead of encouraging coalition)—an outcome she warns against—but they also require everyone who is not "most marginalized" to give up their voice. Who gets to determine who is in which group? Democracy requires everyone to listen and to allow everyone to speak, because almost everyone has some kind of power and some kinds of privilege, and there is no external authority to appeal to with regard to who is most privileged and who is most marginalized.

Works Cited

Bauer, Henry H. *Scientific Literacy and the Myth of the Scientific Method*. Urbana and Chicago, IL: U of Illinois P, 1992.

Burke, Kenneth. *A Grammar of Motives*. Berkeley: U of California P, 1945/1969.

Burke, Kenneth. "A Dramatistic View of the Origins of Language." *Quarterly Journal of Speech* 38.3 (1982): 251–264.

Burke, Kenneth. *Permanence and Change*. Los Altos, CA: Hermes Publications, 1954.

Ceccarelli, Leah. "Manufactured Scientific Controversy: Science, Rhetoric, and Public Debate." *Rhetoric and Public Affairs* 14 (2011): 195–228.

Central Intelligence Agency. (updated 2016). World Factbook. Available at https://www.cia.gov/library/publications/the-world-factbook/rankorder/2004rank.html (accessed 23 March 2017).

Chavez, Karma R. "Doing Intersectionality: Power, Privilege, and Identities in Political Activist Communities," in *Identity Research and Communication: Intercultural Reflections and Future Directions*, eds. Nilanjana Bardhan and Mark Orbe, pp. 22–30 (Lexington Books, New York, 2012).

Chavez, Karma R. and Cindy L. Griffin. *Standing in the Intersection: Feminist Voices, Feminist Practices in Communication Studies* (New York: SUNY P, 2012).

Condit, Celeste Michelle. *Decoding Abortion Rhetoric: Communicating Social Change*. Urbana and Chicago: U of Illinois P, 1990.

Condit, Celeste M. "Insufficient Fear of the'Super-flu'?: The World Health Organization's Global Decision-making for Health," *POROI* 10 (2014) 10.13008/2151-2957.1149.

Cover, Rob, "Biopolitics and the Baby Bonus: Australia's National Identity, Fertility, and Global Overpopulation," *Continuum: Journal of Media & Cultural Studies* 25 (2011): 439–451.

Crenshaw, Kimberle, "Mapping the Margins: Intersectionality, Identity Politics, and Violence Against Women of Color." *Stanford Law Review* 43 (1991): 1241–1299.

de Onis, Kathryn. "'Looking Both Ways': Metaphor and the Rhetorical Alignment of Intersectional Climate Justice and Reproductive Justice Concerns." *Environmental Communication* 6 (2012): 308–327.

Derrida, Jacques. *Of Grammatology*, trans. Gayatri Chakravorty Spivak. Baltimore: Johns Hopkins UP, 1976.

Fara, Patricia. *Science: A Four Thousand Year History*. Oxford, UK: Oxford UP, 2009.

Feyerabend, Paul. *Against Method: Outline of an Anarchistic Theory of Knowledge* (4th ed.). London, UK: Verso, 1975/2010.

Fisher, Walter R. "Narration as a Human Communication Paradigm: The Case of Public Moral Argument." *Communications Monographs* 51.1 (1984): 1–22.

Foss, Karen A. and Sonja K. Foss. "Personal Experience as Evidence in Feminist Scholarship." *Western Journal of Communication* 58.1 (1994): 39–43.

Gopaides, Ahir. "Intersectionality 101." *Journal of Public Policy & Marketing* 32 (2013): 90–94.

Greene, Ronald Walter. *Malthusian Worlds: U.S. Leadership and the Governing of the Population Crisis*. Boulder, CO: Westview P, 1999.

Gronbeck, Bruce E. "Dramaturgical Theory and Criticism: The State of the Art (or Science?)." *Western Journal of Speech Communication* 44 (1980): 315–330.

Haraway, Donna. *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 1991.

Hayden, Sara and D.Lynn O'Brien Hallstein, "Placing Sex/Gender at the Forefront: Feminisms, Intersectionality, and Communication Studies," in *Standing in the Intersection: Feminist Voices, Feminist Practices in Communication Studies, eds.* Karma R. Chavez and Cindy L. Griffin (New York: SUNY Press, 2012).

International Monetary Fund, World Economic Database: 5 Report for Selected Countries and Subjects. Available at http://www.imf.org/external/pubs/ft/weo/2016/02/weodata/index.aspx (accessed 23 March 2017).

Jackson, Sarah J. "(Re)Imagining Intersectional Democracy from Black Feminism to Hashtag Activism." *Women's Studies in Communication* 39 (2016): 375-379.

Kearl, Michelle Kelsey. "'Is Gay the New Black?': An Intersectional Perspective on Social Movement Rhetoric in California's Proposition 8 Debate." *Communication and Critical/Cultural Studies* 12 (2015): 63–82.

Latour, Bruno, and Steven Woolgar. *Laboratory Life: The Social Construction of Scientific Facts*. Beverly Hills, CA: Sage, 1979.

Mann, Charles C. *1491: The Americas Before Columbus*. London, Granta Books, 2005.

Mazur, Allen. "Was Rising Energy and Electricity Usage in Industrial Nations (since 1960) Due More to Population Growth or to Other Causes?" *Human Ecology Review* 19 (2012): 50–57.

McFarlane, Megan D. "Anti-racist White hero, the Sequel: Intersections of Race(ism), Gender, and Social Justice." *Critical Studies in Media Communication* 32 (2015): 81–95.

McGee, Michael Calvin. "The Ideograph: A Link Between Rhetoric and Ideology." *Quarterly Journal of Speech* 66 (1980): 1–16.

Population Reference Bureau. Human Population: Urbanization. N.D. Accessible at http://www.prb.org/Publications/LessonPlans/HumanPopulation/Urbanization.aspx

Railsback, L. Bruce. "Instrumental Record of Earth's Average Temperature," from Fundamentals of Quaternary Science (1/2016), http://www.gly.uga.edu/railsback/FQS/FQSAnnualTemperature1880-01.jpg

Railsback, L. Bruce. "Northern Hemisphere Climate Over the Past 2000 Years," from Fundamentals of Quaternary Science (3/2015), http://www.gly.uga.edu/railsback/FQS/SFMGLast2kyrCombo02.jpg

Saunders, Doug. *Arrival City: How the Largest Migration in History is Reshaping our World.* New York: Pantheon, 2011.

Scott, J.M. Threats to Biological Diversity: Global, Continental, Local. U.S. Geological Survey, Idaho Cooperative Fish and Wildlife, Research Unit, University of Idaho accessed at http://scholar.law.colorado.edu/water-resources-and-transformation-of-American-West/15/

Singer, Ross. "Neoliberal Style, the American Re-Generation, and Ecological Jeremiad in Thomas Friedman's 'Green Code'." *Environmental Communication* 4 (2010): 135–141.

Taylor, Charles A. *Defining Science: A Rhetoric of Demarcation*. Madison, WI: U of Wisconsin P, 1996.

Tverberg, Gail. (March 12, 2012). "World Energy Consumption Since 1820 in Charts," Our Finite World, https://ourfiniteworld.com/2012/03/12/world-energy-consumption-since-1820-in-charts/

United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, Highlights and Advance Tables*. Working Paper No.ESA/P/WP.228. Available at https://esa.un.org/unpd/wpp/Publications/Files/WPP2012_HIGHLIGHTS.pdf

United Nations (12 February 2014). Framework of Actions for the Follow-Up to the Programme of Action of the International Conference on

Population and Development Beyond 2014: Report of the Secretary-General. Available at http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf

United States Census Bureau. Household Income in 2015. Available at https://census.gov/data/tables/time-series/demo/income-poverty/cps-hinc/hinc-06.html.

United States Holocaust Memorial Museum, Holocaust Encyclopedia. Available at https://www.ushmm.org/wlc/en/article.php?ModuleId=10007043 (accessed 17 March 2017).

Urry, John. "Consuming the Planet to Excess," *Theory, Culture & Society* 27 (2010): 191–212.

Weaver, Richard. *The Ethics of Rhetoric*. Chicago: Henry Regnery Company, 1953.

Weier, John. (November 1, 2000) "Reaping What We Sow: Mapping the Urbanization of Farmland Using Satellites and City Lights," (subsection: Biting the Hand That Feeds Us," (figure by Robert Simmon, from UN Data), https://earthobservatory.nasa.gov/Features/Lights2/lights_soil2.php

Whately, Richard. *Elements of Rhetoric: Comprising an Analysis of the Laws of Moral Evidence and of Persuasion with Rules for Argumentative Composition and Elocution*. Southern Illinois UP, Carbondale, 1963.

White, Hayden. "The Value of Narrativity in the Representation of Reality." *On Narrative*. In Ed. W.J.T. Mitchell. Chicago: U of Chicago P, 1981. 1–25.

World Bank. (2016). "GDP Per Capita, PPP (current international $). Available at http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?year_high_desc=true. Accessed 23 March 2017.

Wynne, Brian. "Misunderstood Misunderstandings: Social Identities and Public Uptake of Science." *Public Understanding of Science*, *1* (1992): 281–304.

Ziegler, Mary. "The Framing of a Right to Choose: *Roe v. Wade* and the Changing Debate on Abortion Law." *Law and History Review* 27 (2009): 281–330.