deliberation can, and sometimes does, elicit favourable shifts in the quality of group relationships by unsettling entrenched opinions and giving voice to outside perspectives where social division does not permit sustained and constructive deliberations across group lines" (p. 165). Group members themselves contribute sympathetic discussions of the historical antagonist's perspective, allowing others a different avenue to understanding. Using Desmond Tutu and Nelson Mandela as examples, Vasilev explores the important role of in-group dialogue that, in the case of South Africa, encouraged black audiences to find some sympathy for whites as human beings who might themselves be frightened, even in their positions of power.

The book concludes with a chapter exploring the feasibility and desirability of consensus, while suggesting a new way to think about consensus: as consensus by degrees and distinguished in active and passive forms. The passive form introduced a bit of a chicken/egg problem for me: Vasilev argues that passive consensus could be nurtured by social context, that institutions could be encouraged that pattern "cooperative behavior" and "discourses that break down prejudicial attitudes" (p. 186). This sounds suspiciously like the essentialist, monist accounts of solidarity that form through shared national values, values incarnated in institutions. Of course, he may very well have something in mind much less tied to national identity through shared values and more in line with the practices of deliberation he advocates. The chapter ends with a nod to consensus as a condition of social existence: "[S]ocieties have nowhere else to turn but to a norm of consensus if they wish to understand themselves as *communal* and *cooperative* enterprises" (p. 198). True, in order to survive as a single society, some notion of shared agreement is necessary, but societies divided by ethnic conflict have also used formal and informal borders to coexist for social cooperation without solidarity. The importance of solidarity, then, is that it brings something more to communal and cooperative enterprise. It brings commitment. Consensus, it might be argued, is a form of commitment—or requires a form of commitment—that transforms relationships. Solidarity, or "promoting the moral point of view," is a normative goal that "encompass[es] all who are potentially exposed to the harms and benefits of our actions" (p. 3), not just a practical aim for coexistence.

One strength of the presentation is the consistent and systematic effort to tie theoretical points to concrete examples of ethnic conflict and resolution strategies. The examples used throughout the book brought a richness to the discussion of solidarity in situations of ethnic conflict. Vasilev used these real-world events to punctuate the possibilities suggested in his theoretical account. Of course, there are drawbacks to using real-world examples as well. The nuanced details of any given situation are not always translatable. Leaders with the vision and ability to inspire loyalty and passion in others, like Mandela and Tutu, are generally in short supply. Many ethnic conflicts also have

such detailed histories, deep animosities, and untranslatable disagreements that deliberation, consensus, and, ultimately, solidarity remain distant dreams. As a philosopher, my own desire for more theoretical discussion of democracy and other aspects of the proposal sometimes intervened in my reading, but such are the limitations of any project that makes a good-faith effort to engage theory and real-world examples in a meaningful way.

Solidarity across Divides is a nice contribution to a growing literature on solidarity and conflict resolution studies. There seems to be no shortage of conflicts, and their complexity offers ever-new challenges. Vasilev offers a compelling invitation to continue to look for paths to solidarity.

Beautiful Data: A History of Vision and Reason since 1945. By Orit Halpern. Durham, NC: Duke University Press, 2015. 352p. $99.95 cloth, $27.95 paper.
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— Maurice Meilleur, *Appalachian State University*

In her book, Orit Halpern surveys the central concepts associated with Norbert Wiener's cybernetics and their implications for the way that we think about gathering, processing, and acting upon information about the world, and subsequently, how we think about the Foucaultian concepts of "governmentality" and "biopolitics." Her goal is to explain how much of our contemporary discourse about information depends on metaphors and models of knowing, observation, and communication associated with cybernetics, and why that matters.

During the years immediately after the end of World War II and into the 1970s, Wiener and other prominent engineers, mathematicians, scientists, artists, and designers questioned then-common understandings of knowledge, observation, and analysis. Three broad conceptual shifts emerged from their work. First, gathering data about the world to inform judgment and decision making came to be thought of not as a matter of documentation, memory, and narrative but, rather, as a process of archiving: translating information into fungible, mutually translatable components that can be stored in something like (what we would now call) a relational database that can be searched in multiple and reconfigurable ways. Second, conceiving how people take in information about the world moved away from the terms of perception, which is governed by receptivity, attention, and focus, and toward terms of interactivity and relationship, shaped by "interfaces." Third, the nature of consciousness came to be understood not as a matter of agency and autonomous thought but, instead, as a matter of cognition and circulation—a successful and persistent connection between individuals and currents of information flowing through them. Put another way, the idea of "reason," a property of individuals grounded in memory and experience, became the idea of "rationality," a property of mechanisms and

algorithms that transfer, process, and recirculate information. "Intelligence" became a property of systems, not persons: smart cities, smart networks, and so on.

In *Beautiful Data*, Halpern's broad and detailed account of these changes relies on a (thankfully) judicious application of the ideas of Roland Barthes, Gilles DeLeuze and Felix Guattari, Jacques Derrida, and especially Michel Foucault, whose genealogical method and concept of biopolitics probably most informs her approach and argument, to define and explore their significance. She is particularly concerned to show how the new ideas she describes came to inform approaches to organizational thinking, design (especially communications media and architecture), and governance (especially urban and infrastructural planning). In these and related fields, the goal of practitioners and policymakers became to gain access to and arrange channels of circulating information, and developing interfaces to facilitate that circulation, in order to redefine, organize, and finally control territory, resources, and people. On the cybernetically inspired and informed approach to knowledge and social behavior that Halpern's protagonists helped to create, citizens are not agents who survey the world to engage it, changing and being changed by it in turn, confronting facts and power and pursuing interests and goals, exercising independent judgment with or against other citizens. They are instead conduits, connected in networks to each other and to organs of information inputs and archives through interfaces designed and provided to facilitate the efficient and ongoing transfer of information.

Even thinkers inclined to find democratic potential in decentralized and distributed networks of communication were and are enthralled by the possibilities of connectivity, visualization, and feedback. "Freedom" for both the command-and-control and the "netizen" crowds alike becomes a property of information, and the circulation of information itself becomes the goal of the systems they create. Information is not supposed to transform people as they encounter it; it is to be received and passed along frictionlessly. The end of the process is a process without an end.

Halpern is interested primarily in the "possibilities"—a better word might be "affordances"—presented by these shifts and the technological, infrastructural, and organizational proposals that they underwrite. The political implications of her story are perhaps obvious: those who accepted these new ways of thinking about vision and reason sought to configure systems of information in all contexts to maximize flow, feedback, and control. Thus, for example, political communication, formerly understood to mean crafting discrete messages and events, with specific imagery and predefined messages and meanings in order to lead people to desired conclusions, becomes more concerned with potential and flexibility and ambiguity, about allowing unstructured access and various lines of relationships to develop with and through them and their audiences. Politics itself, rather than the process of

gathering and building on information and experience to imagine and project new ways the world could be, in dialogue and contests of power with others who have their own visions and values, becomes instead the art of gaining and maintaining control of open information channels to keep data flowing through them—the management, in short, of access and attention.

Halpern notes, however, that efforts to realize these new metaphors and models of knowing, observation, and communication in actual technology, policy, and governance are "haunted" by the older ways of thinking about them, which they supplanted but did not extinguish. Even if, as she tells the story, active contestation between the old and new metaphors and their proponents ended in the 1970s, scientists, engineers, designers, and public officials today are still negotiating these conflicting approaches in practice, as the stumbling and ambiguous courses of new tech development and regulatory structures show. Gaps, failed initiatives, and points of misalignment and friction suggest to Halpern where it is still possible to revive or intervene in these debates, where it can make a difference to tell the stories of how the new models of thinking became ascendant, to remind ourselves that they were chosen, contingent outcomes of decisions and choices that were and are neither obvious nor natural nor inevitable. The places where the technological and political projects inspired by cybernetics fall short leave space and hope for more genuinely emancipatory projects.

This book joins a number of recent, forceful critiques of the emancipatory and democratic potential of networked citizens, big data, and the culture of free exchange of information, like Jaron Lanier's *You are Not a Gadget* (2010), Sherry Turkle's *Alone Together* (2011), Evgeny Morozov's *To Save Everything, Click Here* (2013), and Nicholas Carr's *The Glass Cage* (2014) (to pick just a handful). Where other critics focus on the contemporary applications of these ideas, however, Halpern attends to their conceptual and philosophical genealogy and foundations.

The book is at its strongest when the author considers her themes in the context of specific thinkers and projects. Her discussion of the example of the Songdo International Business District in Korea—a model "smart city," one logical outgrowth of the ideas whose genealogy Halpern traces—opens *Beautiful Data* and is one of its highlights. Her description illustrates clearly many of the technological, architectural, and policy implications of the outcomes of the shifts she describes, including the ways in which the new metaphors fall short of their promise and run afoul of people and practices informed by other ways of conceiving information and autonomy. Her discussion of Isamu Noguchi's sculpture gardens as embodiments of the same currents of visualization and flow, which falls at the end of the book in an epilogue, is similarly engaging, although the connections she draws between Noguchi's designs and some of her themes are less clear—and thus

more gestural and associative, less immediate or (as she writes) "terrifying"—than her treatment of them leads her to conclude.

To be sure, the readings of specific thinkers and their ideas that Halpern offers are strongly inflected by the themes of her book, to the point where her treatments can feel very one-sided. But while partial, her accounts are not unfair, and they are useful to consult alongside the more superficial and often hagiographic biographies and histories that some of her subjects (like Charles and Ray Eames) seem to attract. More generally, the book gains a good deal of rhetorical force by attending mainly to what we could call (following Peter Gay's distinction in Enlightenment thought) the "architectonic" aspects of these modernists' work, and less to their more open-ended "critical" aspects. If the book were a history of modernism as such, this would be a flaw, but in the context of Halpern's actual project, a selective focus is easier to defend.

This book is a useful contribution: informed, insightful, and worth reading, but not without keeping two critical points in mind, one substantive, one more related to form and style.

On the first point, in general—and this may be because her book is a history of ideas, not a survey of contemporary practice—Halpern avoids directly addressing the effects on people of the ideas she is describing via the technology informed or inspired by those ideas. This is fortunate because as the media theorist Denis McQuail pointed out regarding communications media research at least some 30 years ago, while inquiry into media and technology effects has an easier time establishing and demonstrating causal relationships when it focuses on local and short-term phenomena, those patterns tend to be short-lived and easier to reverse. By contrast, at larger and longer-term scales, patterns of phenomena are more stable and durable, but it can be hard to distinguish the effects of media and other technologies from other factors, or even to establish directions of causality in the first place. Insofar as the cybernetic ideas that she is dealing with are translated into technological artifacts (networks, buildings, graphic interfaces, and so on), Halpern is right to frame the significance of her research in terms of the possibilities or affordances of those artifacts—the ways they could enable or constrain certain kinds of behavior, the metaphors they reinforce or discourage.

The relevance of her interpretations, however, depends on demonstrating that these technologies are in widespread application and manifest those possibilities or affordances in practice. And here the book leaves the reader with many questions unanswered. I would have liked to see her bring the same depth of insight she brought to Songdo to examples of how people actually use social media, how companies actually design their data-gathering and mining projects, how designers actually build interfaces, how researchers actually code artificial intelligence algorithms. Even if their absence

is intentional, without them it can be easy to forget that technological change never happens purely according to the internal logics and values of the technologies in question, or to the intentions of their inventors and promoters. As the late Neil Postman pointed out in the context of media theory, it is precisely the arrays of social, cultural, political, and economic forces, and the needs and goals of companies and governments and users, around a communication technology that make it a "medium" in the first place. Without a finer-grained account of contemporary practice, a history of ideas can easily drift into technological determinism.

On the second critical point, *Beautiful Data* is a challenging book to read. Its chapters, as Halpern herself says, are constellations of ideas around the themes of the shifts she describes. Her approach is, to use her term, "rhizomatic": She gathers multiple strands of more or less confluent observations and examples and studies into loose groups around the main ideas of her story; she visits and revisits these elements, combining and juxtaposing them in various ways from different directions, repeating details and connecting them with new ones to fill in the narrative. This leads to a certain amount of repetitiveness—in some places, Halpern repeats passages verbatim, or nearly so, in a few instances within the span of just a couple pages. Even short of such explicit redundancy, readers will often feel as though they are rereading the book as they move through its pages, and its organization will at times feel arbitrary or notional. Moreover, as she recirculates her material, she changes her phrasing, her terminology, her points of emphasis and priority of exposition. A reader can probably find at least a half-dozen different ways that Halpern reprises the main themes of the book, for example.

Some, unfortunately, will find this form and style insufferable; it certainly made summarizing and reviewing the book a challenge. But it does reflect Halpern's stated approach to her project. So I suggest reading *Beautiful Data* not as a monograph written along a single linear argument but in pieces, like a series of long entries on an academic blog that explore multiple themes and ideas in Halpern's voice and interests—gathered, explored, developed, revisited, and reworked over many iterations, approached from many related but all slightly different directions, joined by a set of concerns for the implications of changing metaphors of knowledge and reason and choice.

Damn Great Empires! William James and the Politics of Pragmatism. By Alexander Livingston. New York: Oxford University Press, 2016. 264p. $99.00 cloth, $24.95 paper.

— Matthew Festenstein, *University of York*

William James has been a congenial, irritating, and elusive subject for political theorists. In a famous essay,