CQ:VID-19

and the Futility of Control in the Modern World

mid the very real devastations of already-vulnerable lives and livelihoods caused by the COVID-19 pandemic, there has been a tsunami of commentary. Academic and policy experts of every stripe are already asserting the lessons and proposing competing agendas that the crisis seems to dictate.

But in fact, there really seems only one clear truth so far. Incongruously neglected in the many confident pronouncements and predictions, this truth is that *nobody knows* the historic implications of this moment. A radical diversity of futures is possible. In each of these futures, a diversity of competing views will likely clash as much as they do now.

For whatever happens next, what is already evident is that expert advisers and scientific institutions found themselves so wrong, commentators and policy-makers so short-sighted, affluent societies so poorly resourced, macho demagogues and plutocrats so indecisive, and democracies and autocracies so ill-prepared.

What the pandemic seems to show is that all our tools for acting in the face of massive uncertainties—the dispassionately assured experts, the precise scientific metrics, the rigorous technical models, the all-seeing, intrusive monitoring—have added up to much less than the promised quality of control. It has become clear, indeed, that in the face of this well-foreseen challenge to our well-being, human capacities to steer our world based on our understanding of it exist largely in our imaginations.

After all, what else can reasonably be concluded when even the most powerful, respected, and self-confident authorities manifestly failed so badly not only to control but also to predict even a single parameter of one specific disease? With this understood, how much harder is it to believe other hubristic aspirations to anticipate, let alone heroically control, a path toward entire collective futures? Simply because the ends are so laudable does not make complex and ambiguous goals such as a "global energy transition" or "worldwide transformations to sustainability" any more controllable.

It is these kinds of fault lines exposed by the pandemic that are explored in our new book, The Politics of Uncertainty: Challenges for Transformation. Across chapters covering such diverse topics as finance and banking, climate change and energy infrastructures, migration and crime, and security and religion-as well as pandemics-we address uncertainties not as knowledge gaps to be reduced through more research, but as ubiquitous manifestations of the diversity of human thought, action, and interaction. How could deep and pervasive uncertainties not result from our manifold different styles of knowledge, patterns of experience, modes of organizing institutions and infrastructures, expressions of practice and power? We argue that embracing uncertainties means challenging the notion that increasingly precise predictive knowledge can form the foundation for controlling a singular pathway for collective human progress.

Ideas of development and sustainability are very often associated with a linear perspective on progress, dominated by narrow views of science and economics, where more knowledge contributed by the former and more growth from the latter automatically lead to a better world for all. Such linear perspectives often rely on simplistic notions of innovation, focusing on those "lagging behind," who must "catch up" or "leapfrog" to where others have reached. Too often, the more important political questions about how innovation should be pursued, in what direction, and for whose benefit, are ignored. And here, issues of uncertainty are central. Given diverse uncertainties—whether in a pandemic or any other situation there can be no single assumed endpoint, no one version of modernity and progress. So directions chosen in the pursuit of sustainability and development fundamentally depend on the politics of social choice and democratic struggle.

From controlling to caring

The inevitability of a global pandemic had been confidently asserted for decades by experts from various relevant fields. Yet here we are, ignorant and unprepared. So (however things pan out) at least one ambition shared across modern, technological cultures has been devastatingly undermined: the general credibility of any confident performance of predictive control. Surely, in the midst of this global crisis—when the gyres of history are widening most tumultuously—the world's unruly open-ended indeterminacy must be recognized? Responses to COVID-19 have repeatedly revealed that there is sufficient evidence to support diametrically contrasting policies—case in point, consider Sweden versus Norway.

Take, for example, the repeated mantras of "evidence-based policy" and "science-based decisions." Though these tropes may promise the comfort of certainty and effective action, what we are seeing is that appeals to science and evidence are not how the world is controlled. Instead, stories of control help those in power maintain their status in a world that remains defiantly uncontrollable.

What the pandemic shows, then, is that in the wider, longrun, real world of human affairs, control does not exist. This is not a criticism; it is simply a fact. To criticize for lack of control is to be as misguided as to claim it.

But doesn't this fly in the face of common sense? Isn't our daily world a testimony to our ability to predict and control? Even outside affluent settings, everyday experience is created from what it means to control a bicycle, a light switch, a mobile phone, or a water pump. We know very well what control feels like: fully achieving the particular intended result, and only this. This is how control is imagined in the core cherished paradigm of "modernity."

What COVID-19 reminds us is that this experience does not hold outside relations with working machines. Whatever instruments of control are directed at the pandemic, things are manifestly not playing out as intended. In country after country, initial reactions—whether of authoritarian suppression or complacent exceptionalism—have proven either highly ineffective or problematic in other ways. For many, the side effects of control may prove even more dangerous than the disease. What will be the effects of economic disturbances on health? What other presently unknown factors may yet become evident? Will the economy recover, and when? How will the virus itself bite back? With so much already going wrong, falling short, happening by mistake, or yet to emerge, we're far from the familiar experiences of "control" that current failing efforts are supposed to achieve. Stories of control that seem to be such a part of our modern identity may obscure more fruitful approaches to acting in a radically uncertain world. We believe that one promising alternative will be to emphasize alternative actions built around care, more than control. In agriculture, for instance, various ecological farming practices can work in more caring ways with complex and diverse organisms, agronomies, and landscapes than do monocultures based on controlling industrial inputs and genetic control. Likewise, distributed renewable energy engages more caringly with natural resource flows and challenges of climate disruption than do massively more concentrated and controlling technologies such as nuclear power or carbon capture and storage.

In the controlling vein

These lessons from the COVID-19 crisis echo those from a multitude of earlier ones, where assumptions of control were asserted, but found seriously wanting. The assumption persists. Indeed, once you start looking for it, the imagination of control drives every aspect variously recognized to define modernity itself: control by individuals of their lives, by governments of nations, by "the people" of politics, by bureaucracy of organizations, by science of reason, by industry of production, by capital of labor, by colonialism of empires, and by the fledgling Anthropocene era of an entire world. This is why the idea of "taking back control" resonated in the debate on Brexit in the United Kingdom.

Just as a hammer can condition its holder to see every problem as a nail, so unfolding forms of modernity around the world are ironically enslaved by their perennial aspirations to control. This is perhaps why the massive challenge of climate disruption is currently addressed in terms of "stabilizing global climate" by controlling the average temperature of the entire planet, an extraordinary conceit. Why not a more direct focus on action to cease massively polluting emissions whose effects are actually far less known than is claimed on a climate that is naturally changing?

Likewise, a similar momentum is growing behind controlling visions of "planetary management" in a world facing multiple challenges of environmental sustainability. But when action on supposed planetary "control variables" is asserted to be dictated by "nonnegotiable" imperatives based on claims of "absolutely no uncertainty" that can brook "no compromise," then watch out. Under this control fantasy, democracy becomes an "enemy of nature" to be "put on hold," and governance addressed instead as a matter for experts and technology to "take control of Nature's realm."

Across a host of fields, then, control has not only failed to live up to expectations, but yielded many perverse, counterproductive backlashes. What is distinctive about this global pandemic is not its novelty, but its intensity. A familiar cycle of disappointment has unfolded over weeks rather than centuries. The spectacle is too acute to ignore.

However it plays out, what this pandemic already shows is the ubiquitously inconvenient complexity, diversity, dynamism, and uncertainty of the world. Events appear orderly for a while. Impacts can surely be exerted, unfolding events may be influenced. But what history teaches us, the pandemic is now reteaching. For a while our familiar infrastructures and institutions function comfortingly predictably, as they should. Challenges of transport, information, food, energy, and public health, to list but a few areas, seem tolerably under control. Until they are not. Ironically, then, it is those domesticated interludes that create a misleading and superficial sense of control, that keep us from acknowledging the deeply nonlinear underlying mess. All the while, what we call reality is always floating on that mess, on the eternal jockeying between cause and contingency, intention and accident, influence and reaction, association and surprise-all alongside collateral effects, feedbacks, and shocks.

An emancipatory politics

So what conclusions to draw from this diagnosis? Is it a counsel of despair? Despite the present cacophony of overconfident prescriptions about what COVID-19 means and what must therefore be done—the imposition of yet tighter regimes of navirus pandemic might mean is not a matter to be diagnosed in advance, but to be struggled for in its aftermath—and beyond. This is why the challenge is not to blind ourselves with conflicting, evidence-based certainties, but to open ourselves up to a much broader set of imagined futures. To allow ourselves to be driven by values of peace, equality, or the environment. To recognize that poverty and oppression, inequality and injustice, climate change, ecological destruction, toxic pollution, nuclear risks, and all the obscenity and waste of war are not expressions of certainty and control, but of their futile pursuit.

Our book explores how, by rethinking and redirecting their actions, scientists, regulators, business people, and members of the public can all help open up indeterminacies in a range of areas as different as genetically modified crop technologies and self-driving "smart" cars. Such possibilities emphasize the importance of everyday practice and network-building in generating reliability in complex critical infrastructures, such as energy systems; and they illustrate how more effective responses to diverse uncertainties can be nurtured through creating "experimental spaces" for innovation in urban governance.

Whatever futures may struggle into being, the present pandemic suggests that they will likely turn out better if shaped to resist this failing reflex of control. We wonder if the struggles

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control—might this brief moment, with the controlling emperor's clothes revealed as imaginary, be a pivotal moment of opportunity? If so, then now is a time for greater realism about the uncertainties and politics underpinning the agenda dictated by the pursuit of control.

Consider the key implementing ideal of evidence-based policy: if we know, then we can act, and control. The main problem is that knowledge and action are not entirely separate. Nor can, or should, knowledge always precede action. Some of the most useful kinds of knowledge are actually both dependent on, and constituted in, action of particular kinds. Robust knowledge often relies, for instance, on deliberate experimentation, careful observation, and precautionary trial and error. The knowledge of wise statecraft, good cooking, patient-centric medical care, farming, mountain-climbing, child-rearing, and house-building, all embody the melding of knowing and doing. All are based on action.

Recognizing doing and knowing to be more symmetrical and interrelated overturns the supposedly determining status of technical expertise and risk assessment in conventional technology governance. So perhaps now is a time for a more emancipating politics of hope and care—when knowing is doing, and doing makes the knowing. Because what the corotoday on display in the United States over racial and economic justice are an instance of this resistance. In the process, can democracy be imagined not as a codified managerial procedure, but as multiple continual struggles for access by the least powerful to capacities for challenging power whose legitimacy depends on the promise of control? We argue that what is needed now is more humility (not hubris) about what is known, more hope (not fear) about what is possible, more diversity (not singularity) in what is held to count, more mutualism (not hierarchy) as ways to organize, more equality (not superiority) as driving values, more precaution (not calculation) to protect the vulnerable, more flourishing (not growth) as guiding aims, and more care (not control) as the means by which so many kinds of better—but preciously unknown and uncontrollable futures may yet be realized.

As codirectors of the Economic & Social Research Council's STEPS Centre at the University of Sussex in the United Kingdom, Andy Stirling is at the Science Policy Research Unit and Ian Scoones at the Institute for Development Studies. The article draws on arguments further elaborated in their edited book, The Politics of Uncertainty: Challenges of Transformation (Routledge, 2020), available in July 2020 as paperback or Open Access download.