

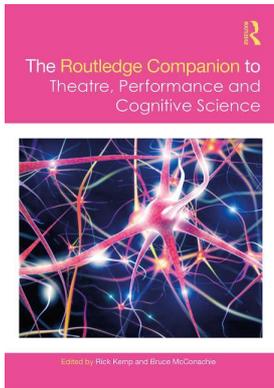
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TOWARDS CONSILIENCE

Integrating performance history with the
co-evolution of our species*Bruce McConachie*

Two phenomena are ‘consilient’ when they ‘jump together.’ Biologist E.O. Wilson chose *Consilience: The Unity of Knowledge* as the title of his 1998 book because he is encouraging scholars to use rigorous empirical methods in order to create ‘a common groundwork of explanation’ that bridges the sciences and humanities (1998, 8). I am investigating potential areas of consilience between history and evolution because of my interest in the politics of climate change and resource depletion. Wilson, also an advocate for radical political reform to alter our increasingly dangerous future, understands that the unity of knowledge he seeks can directly improve democratic citizenship and governance. ‘Most of the issues that vex humanity’ – among which Wilson includes ethnic conflict, endemic poverty and the environment – ‘cannot be solved without integrating knowledge from the natural sciences with that of the social sciences and humanities,’ he states (13).

The chapters in this part of our book aim to ‘translate’ the knowledge learnt through our work in applying cognitive science to theatre and performance into other areas of useful endeavour; my chapter here is no exception. How to take what we know about political performances – both in political arenas and on the stage – and apply that evolutionary and cognitive knowledge to the challenges of global climate change is my ultimate goal. Of course, if we lived in Wilson’s future of epistemological consilience, translation would not be necessary; we could all use the same language, at least at a foundational level, to analyse and describe what we need to understand from the arts, the sciences and the social sciences. In fact, in a consilient world of knowledge, we could eliminate Part IV altogether from this book. Although our various disciplinary epistemologies are still a long way from ‘jumping together,’ history and biology are closer now than they were 20 years ago when Wilson sounded his clarion call.

Behind Wilson’s preference for empirical methodology is the epistemology of naturalism. ‘Naturalism in philosophy,’ states philosopher Peter Godfrey-Smith, ‘requires that we begin our philosophical investigations from the standpoint provided by our best current scientific picture of human beings and their place in the universe.... The questions we try to answer, however, need not be derived from the sciences’ (2003, 154). I will shortly outline the material reasons behind the theory of co-evolution and then use it as a framework to explain significant aspects of political and performance history. Naturalism will also guide my discussion of our ecological problems in the Anthropocene, the recent geological epoch we

earthlings have entered. Following Godfrey-Smith, my essay will be based upon empirical science and then ask questions that require historical and social scientific answers.

First, though, we need to understand why history and science remained so far apart for most of the twentieth century. Carl Hempel's essay, 'The Function of General Laws in History,' was the first modern attempt to model historical causation on scientific, cause-and-effect explanations. Written in 1942, the essay sustained withering fire from several postwar historians in the West, whose chief objection was that historians' chief aim was to shape persuasive and plausible narratives about the past. Whether such narratives 'jumped with' Hempel's (or anybody else's) notion of general scientific laws was not a necessary criterion for their validity, said Hempel's opponents. Most historians accepted their criticisms and endorsed conventional notions of evidence, narrative and rhetoric over scientific explanation. In retrospect, like most of their generation, these historians helped to broaden the gulf between C.P. Snow's 'two cultures' – the sciences and the humanities – in the academy.

Some historians reconsidered the need for cause-and-effect explanations in the 1990s, however, after the excesses of the poststructuralist turn threatened to reduce good historical narratives to little more than subjective tales, garnished with a sprinkling of 'facts' (always in scare quotes) and served with rhetorical flourish. Objecting to the epistemological problems of poststructuralism, historian Thomas Haskell argued in 1998 that 'the time is ripe for second thoughts about causation' (14): 'Whatever else history may be, it cannot but be about the ways things come into being and go out of being, which is to say about cause and effect' (14). For Haskell, there was no necessary contradiction between 'beginning-middle-end' narrative and scientific explanation; narrative was simply 'an especially supple form of causal reasoning' (14). Haskell's insight with regard to historical explanation, now sustained by most cognitive linguists, began to close the gap between the two cultures in historiography.

One implicit claim behind Haskell's assertion was that some historical narratives might be better than others not just because their analysis of the evidence was more astute or because their narratives were more comprehensive. It could also be because the causal reasoning they contained was more attuned to human realities than the reasoning behind other narratives. Were there bedrock human realities that operated below the levels of culture and history? While working on *Cognition, Evolution, and Performance*, published in 2015, I began to suspect that the co-evolution of genetics and culture might provide such an approach to the answers.

Co-evolution and deep history

As it happens, E.O. Wilson was one of the first modern biologists to bring evolution and history closer together by arguing for co-evolution. Darwin had discussed the possibility of group evolution, but the notion fell into disfavour until 1981 when Wilson, with Charles Lumsden, published *Genes, Mind, and Culture*. Other biologists contributed models and ideas for co-evolution, and in 1985, Robert Boyd and Peter J. Richerson published the book that offered the most comprehensive explanation for the process, *Culture and the Evolutionary Process*. Based primarily on mathematical models that demonstrated how cultural processes might have worked with genetic changes to enhance the evolutionary success of some groups in our species, Boyd and Richerson's book provided substantial empirical and theoretical support for the probability of group, as distinct from individual evolution. They capped their success with *Not by Genes Alone: How Culture Transformed Human Evolution* (2005), which applied their theory directly to current knowledge about the evolution of *Homo sapiens*.

The co-evolutionary scenario for our species resulting from our ancestors' ability to pass on survivable traits through both genes and culture is fairly straightforward. By the time of

the early Pleistocene epoch, probably around 2 million years ago, the genetic evolution of the *Homo* genus had outfitted hominins with psychological and behavioural adaptations that enabled them to practice the rudiments of culture and teach them to their children. Cultures of cooperation within some hominid bands began to flourish and played a significant role in their survival. Later, when similar enculturated groups grew numerous enough to begin competing for territory, those hominid bands with a more cooperative culture than other groups had an advantage in this competition. Because they could hunt and gather more effectively, they survived difficult times to produce more children. Over many generations, then, those genes that helped to shape a culture of cooperation in some hominid bands were expressed more often in the band's offspring. At the beginning of our co-evolution, genetics induced our ancestors to invent and propagate cooperative cultures. After several hundred thousand years, however, culture was in the driver's seat; it was putting pressure on our genes to expand our capabilities for learning more culture. The result was a dynamic feedback loop between hominin cultures and genes that substantially improved our intersubjective dynamics to shape what eventually became our ultrasocial species.

As Richerson and Boyd put it in *Not by Genes Alone*:

[C]ulture must have influenced the reproductive success of our ancestors; otherwise, the features of our brain that make culture possible would not have evolved. The operational products of this evolution are innate predispositions and organic constraints that influence the ideas that we find attractive, the skills that we can learn, the emotions that we can experience, and the very way we see the world.

(2005, 13)

Consequently, by the time of *H. heidelbergensis*, the common ancestor of both our species and the Neanderthals that flourished around 600,000 years ago, the confluence of genes, culture and the environment 'favored the evolution of a suite of new social instincts suited to life in such groups, including a psychology which 'expects' to be structured by moral norms...; new emotions such as shame and guilt... and a psychology which 'expects' the social world to be divided into symbolically marked groups' (214). And these attributes of ultrasociality would only increase over time.

Not by Genes Alone turns the usual either-or, nature-or-nurture question about behaviour into a both-and situation. 'To ask whether behavior is determined by genes or environment does not make sense,' say Richerson and Boyd. 'Every bit of the behavior (or physiology or morphology, for that matter) of every single organism living on the face of the earth results from the interaction of genetic information stored in the developing organism and the properties of its environment' (ital. in original) (266–67). In this instance, Richerson and Boyd's 'environment' includes epigenetics (external constraints on genetic expression), foundational intersubjectivity (social behaviour not dependent upon symbolic communication) and symbolic activity (cultural relations dependent on symbols), the 'four dimensions' discussed in Eva Jablonka and M.J. Lamb's *Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life* (2005). Because a significant and important part of the hominin 'environment' during the later stages of our evolution was social and symbolic, it should not be surprising that culture would eventually become a co-equal factor in our evolution.

The validity and persuasiveness of Boyd and Richerson's work in co-evolution has spawned a minor industry of new scholarship. In ethics and philosophy, humanists and scientists are asking new questions about cooperation, altruism and the origins of human

morality. Two economists, Samuel Bowles and Herbert Gintis, explode the myth of *Homo economicus* from an evolutionary point of view in *A Cooperative Species*. Evolutionary anthropologist Joseph Henrich underlines the key role played by prosocial emotions and norms in *The Secret of Our Success*. In his *Ultrasociety: How 10,000 Years of War Made Humans the Greatest Cooperators on Earth*, anthropologist Peter Turchin comes to the surprising conclusion that man-unkind applied the lessons of cooperation to constitute ever larger forms of social organisation primarily to wage war successfully. Peter Richerson teamed up with a cultural psychologist in 2013 to co-edit *Cultural Evolution: Society, Technology, Language, and Religion*, an anthology of 20 essays that ranges broadly among the four areas of its subtitle to determine some of the major results of co-evolution in human cultures.

That the early cultures of our genus were important for our evolutionary success may be good news for anthropologists, economists, ethicists and others, but unless historians decide to investigate hominin bands during the Pleistocene epoch, co-evolution opens few obvious doors for them. Several historians, however, are now investigating what Daniel Lord Smail and others have called ‘deep history.’ Smail and Andrew Shryock published a multi-authored book in 2011, entitled *Deep History: The Architecture of Past and Present*, urging the investigation of history before the invention of writing. In this 2011 book, the co-editors laid out their historiographical project and its rationale for fully integrating deep history into conventional, ‘shallow’ history – that is, narratives about the past that rely primarily on written evidence for their factual basis. As the authors of *Deep History* point out, narrowing the purview of history in this way is fairly recent; historians considered the entire past to be grist for their mills until the publication of Darwin’s *On the Origin of Species* in 1859. Traditionally constrained by the *Book of Genesis*, ‘history’ for Jewish, Christian and Muslim writers up to the mid-nineteenth century began with the Creation, and included the stories of human, animal and geological elements from that time to the present. After Darwin’s revelation of deep time, however, the fields of archaeology, geology and physical anthropology developed new techniques for understanding the bones, rocks and tools that were beginning to be uncovered and that required interpretation.

This left Western historians with a choice: they could either join their new colleagues and begin to integrate deep history with the rest of the past or they could stick to what they knew and continue to elaborate historical trends from the civilisation of ancient Sumer forward, when written sources were available. They chose the latter course. According to Shryock and Smail, ‘The decision to truncate history was a deliberate intellectual and epistemological move, bound up with the fate of the discipline itself’ (2011, 7). Eager to display their rigour as a discipline in the new universities that were emerging at the end of the nineteenth century, historians adopted the analysis of written documents as their chief methodology. ‘No documents, no history’ (7), wrote Charles Langlois and Charles Seignobos, in a widely influential handbook on historical study. Despite fitful attempts after that to extend historical investigation into deep time, written documents and shallow history have prevailed until very recently.

Smail and Shryock aim to reverse that fateful decision foolishly made 150 years ago. As they point out, many Victorian historians believed in human exceptionalism, despite Darwin’s insights joining humans to the rest of the animal kingdom. While the notion that past human actions could be studied as a part of evolution slowly gained ground in the biological and anthropological sciences, it rarely penetrated historical investigation. Instead, many historians drew on Hegelian ideas to posit that mankind had to gradually free itself from nature before it could gain political awareness and agency. Hegelian thinking, for example, was behind French historian Jules Michelet’s bogus claim that ‘when the world was

born there began a war that will last until the world's end, and that is the war of man against nature, of the spirit against the flesh, of liberty against determinism. History is nothing but the story of this endless conflict' (9).

When historians and humanists turned to evolution at all, it was usually to embrace Social Darwinism, the doctrine of individual 'survival of the fittest,' which Darwin despised. As Shryock and Smail remark, such attempts to bring 'evolutionary' models into humanistic scholarship 'produced Victorian disasters' that often trumpeted racist and xenophobic conclusions. Consequently, they add, 'the soft social sciences and the humanities have never really come to terms intellectually with human evolution' (12). They also note, however, that contemporary historians, while still turning to written documents, are no longer disciplinarily bound by them. In the 'ongoing merger of history and social science,' they state, 'histories can be written from every type of trace, from the memoir to the bone fragment and the blood type' (13). Smail and Shryock's invitation to explore 'deep history' nicely complements Boyd and Richerson's interest in joining history and co-evolution.

The historical project I am working on involves tracing the origins and consequences of two foundational socio-political dynamics and the performances that regularly accompanied them in deep and shallow history. The first is the tension between domination and prestige as the basis for the exercise of power and authority in human cultures. Alpha male power and the all-male coalitions it facilitated derived from the genetics of previous great apes on our family tree and dominated the early politics of hominin hunter-gatherers. Around a million years ago, however, alpha male domination gave way to what evolutionary biologist Joseph Henrich and others have called the exercise of prestige, a different mode of behaviour and a new source of political legitimacy that could also allow for the authority of women and mixed-sex coalitions within hunter-gatherer bands. This type of governance involved a more egalitarian mode of sharing power among the sexes and deployed strategies of cooperation that enabled the band's survival and success in the context of increasing competition from outsiders. Nonetheless, tensions between the politics of domination and prestige continued during the Pleistocene, changed substantially during the centuries of shallow history and remain a part of human history today.

This political tension was complemented (and later complicated) by homophily, our species' predisposition to separate 'us' from 'them,' which also has deep roots in the social behaviour of our primate ancestors. Initially a simple matter of distinguishing 'our' band from those 'other' hominins in the area, homophily became more complex as bands grew in size, individuals within them divided into subgroups and the band as a whole made alliances with other groups for marriages and trading. The result was an increasing tension between exclusivity and expansion, which sought friendly relations with outsiders, where possible. These differences within homophily led, over time, to what we can now see as a host of tensions between narrow tribalism (in religion, ethnicity, nationalism, etc.) and cosmopolitanism. My forthcoming book, tentatively entitled *Politics, Performances, and the Anthropocene in Coevolutionary Perspective*, will explore the origins of human authority and homophily and the major historical shifts in these modes of governance and affiliation from the Pleistocene to the present.

Enter the Anthropocene

I am interested in the long history of politics and performances primarily because I want to understand more about our options for corrective political action on climate change and resource depletion in our current geological epoch, now known to many as the Anthropocene.

This term entered general scientific discourse in 2002, when chemist–geologist Paul Crutzen published an announcement in *Nature* advocating that his colleagues adopt it to emphasise the central role of humankind in shaping the earth’s biosphere and geology. Anthropocene derives from the Greek and means, roughly, ‘the human era.’ As I write this essay in 2018, the members of the International Union of Geological Sciences have yet to determine the beginning of the Anthropocene epoch, but many geologists now favour a date during the 1950s. This dating accords with what Crutzen and others have termed the ‘great acceleration’ of carbon emissions into the atmosphere and radioactive Plutonium fallout around the world from the testing of thermonuclear bombs.

For authors Clive Hamilton, Christophe Bonneuil and François Gemenne, writing in the introduction to their anthology, *The Anthropocene and the Global Environmental Crisis*, the realities of the Anthropocene make two compelling claims on our attention. First, the new epoch ‘claims that humans have become a telluric force, changing the functioning of the Earth as much as volcanism, tectonics, the cyclic fluctuations of solar activity, or changes in the Earth’s orbital movements around the sun’ (2015, 3). As a result, natural history and human history are now thoroughly interwoven. This recognition is important because ‘modern humanities and social sciences have pictured society as if they were above material and energy cycles.... Now they must come back down to Earth’ (4). ‘The second claim is that the human inhabitants of our planet will face, in a time lapse of just a few decades, global environmental shifts of an unprecedented scale and speed, not [seen] since the emergence of the genus *Homo* some 2.5 million years ago.... It means inhabiting an impoverished and artificialised biosphere in a hotter world increasingly characterized by catastrophic events and new risks’ (4). The authors add: ‘Reinventing a life of dignity for all humans in a finite and disrupted Earth has become the master issue of our time’ (5).

Significantly, Hamilton, Bonneuil and Gemenne choose the word ‘reinventing’ when considering how all of humanity might live ‘a life of dignity’ in the Anthropocene. Although recognising that statesman and philosophers have invented and tried to practice modes of ecological, political and economic justice in the past, they do not anticipate that we can wipe the slate clean of our past predispositions, which would include past tensions in our orientations towards authority and homophily, and craft new modes of governance and affiliation from scratch. And they point to the calamities that await us if we do not, as a species, once again use our capability to imagine and radically reshape our social and political lives together very soon. Much of what might have worked during the Holocene, the geologic epoch that ended in the 1950s, is no longer tenable as the Anthropocene tightens its grip on our biosphere.

The Anthropocene and the Global Environmental Crisis includes scientist Bruno Latour’s essay, ‘Telling Friends from Foes in the Time of the Anthropocene,’ which calls upon readers to recognise that ‘the old division of labor between science and politics is totally ill-equipped to handle the conflicts we have to navigate’ in our new epoch. The ‘friends’ and ‘foes’ of Latour’s title are not the usual suspects that a progressive citizen of the Holocene would have chosen. To be sure, Latour recognises that climate change deniers and capitalist spoilers of the Earth remain enemies of humankind, which he inventively renames ‘the Earthbound.’ His primary foes, however, are those who wish to perpetuate the modernist division between science and politics. States Latour:

‘There are two sides: those who stick to a traditional science-versus-politics version and those who have understood that this older political epistemology (to give it the more accurate label)... is what renders both politics and science weak when the issues at stake are too large for too many interested people directly affected by their decisions.

This is where there is a real distinction to be made between a Holocene and an Anthropocene settlement. What might have been good for humans [in the past]... has lost any sense for the Earthbound.'

(2015, 148)

Latour urges us to recognise that there is currently a 'war' going on between the modernists stuck in Holocene assumptions and those who understand the new realities of the Anthropocene. Consequently, his foes include scientists who refuse to climb off their pedestal of apolitical objectivity and small 'd' democrats who so cherish the institutions of the Holocene that they would continue to allow ignorant politicians to make policy decisions. Presumably, one way to reach Latour's new 'settlement' and to preserve a significant measure of democratic government would be to guarantee all Earth-bound citizens clean air, water, sufficient food and other necessities and to enforce these universal rights with a world state that empowered scientific policy-makers. Even without planetary-wide laws, however, it is clear that more governance, not less, will be necessary for all humans to attain a 'life of dignity' in the new epoch. But, of course, we are a long way from such a political solution.

Latour recognises that such a transformation of global politics will not occur in the immediate future and may never occur at all. From my co-evolutionary perspective, Latour's hope for building workable political institutions that bring together scientists and politicians rests upon possible alliances across the world among those who favour a politics of prestige over domination and those who embrace social affiliations that move the Earth's cultures away from tribalist loyalties and towards a version of cosmopolitanism. Such alliances, however, always difficult at any time, now seem out of reach for most of the Earthbound. Fears of terrorism, starvation, political oppression and warfare – much of it caused or exacerbated by climate change and resource depletion – stalk many populations, and most nation-states remain preoccupied with economic growth as the cure-all for their problems. These conditions have led to the rise of strong-man rule and an increase in us-vs-them policies around the world. Even in better times, few politicians in democratic countries would willingly hand over part of their power to scientists they cannot control. While it almost goes without saying that a consilient approach to the truths of politics and biology would be an enormous benefit to the future inhabitants of the Anthropocene, such a radical shift in practice and epistemology is presently beyond reach.

All the more reason, then, for those of us concerned about the coming devastations to write wake-up calls for action to the Earthbound. Although the dominant economic institutions of the last 500 years are largely responsible for the present and coming disasters of our epoch, our fate as a species has primarily to do with the politics of the next 80 years. The tradition of alpha male domination – evident in the many dictators, political bosses, presidential bullies, religious terrorists and other strong men who stir up tribalistic animosities for their own benefit – has already led to situations in which populations have been ravaged by climate change and resource depletion. Think, for example, of Russia, Nigeria and Puerto Rico. Nurturing and supporting coalitions of prestige that seek to open borders rather than close them cannot guarantee the necessary global effort to protect a diverse biosphere, but at least they have the potential to shape very different institutions than those that now imprison many of the Earthbound institutions with norms and goals that can respond to genuine human needs in the fierce ecology of the Anthropocene.

Performing our predispositions

I expect that my narrative for *Politics, Performances, and the Anthropocene in Coevolutionary Perspective* will emphasise the twists and turns that our predilections for modes of authority

and group affiliation have taken in the last 2 million years. My two foundational dichotomies, domination-prestige and tribalism-cosmopolitanism, are best thought of as spectrums of practice and belief, which began as clear choices in hunter-gatherer times, but became muddled and multiple after our species turned to agriculture and invented more complex societies. In modern cultures today, some fields of activity swing towards the domination and tribalism ends of both spectrums, while others generally work as modes of prestige and cosmopolitanism. These alignments of authority and homophily are far from inevitable, however. In the field of politics, parliamentary democracies (such as the UK) often function primarily in terms of prestige, but may also embrace tribalism. And some authoritarian regimes (e.g., China) favour domination at home, but practice a guarded cosmopolitanism abroad.

With the caveat of complexity in mind, I will summarise what I presently take to be the first major turning point in my historical narrative. It occurred around a million years ago during *Homo erectus* times when, according to several anthropologists, our female ancestors, probably aligned with some males in a few hunter-gatherer bands, asserted the right to control their own sexuality and overthrew the domination of the reigning alpha males and their allies to establish a governing coalition for their band that claimed authority on the basis of prestige.

I will discuss this turning point more thoroughly than the others because, without it, our co-evolution as a species could not have moved our genus (and, later, our species) much beyond the sociality and politics of our primate cousins. The genus *Homo* began to flourish on the plains of Africa primarily because of their ability to cooperate with each other. The proto-chimpanzees from whom our genus descended could also cooperate in small ways, but lacked a sense of fairness and group collaboration, according to evolutionary anthropologist Michael Tomasello. Chimps and other great apes were (and are) primarily built for competition, not for the cooperation of reciprocity or for acts of altruism that go beyond great ape mother-child bonding. Hominins of both sexes in the mid-Pleistocene could use empathy, sympathy and other social emotions to share parenting and improvise communication for many collaborative tasks that benefitted their hunter-gatherer band. Given the difficulties of survival for *H. erectus* bands in the middle Pleistocene, these small groups needed leaders who could make or guide decisions about where to hunt, how to protect the band from predators and when to move camp – leadership roles never played by great ape males. Some alpha males probably exercised more command and control than others, but those who could encourage cooperation through empathy and example might be rewarded with gratitude and loyalty, social emotions absent among great apes. Most alpha male hominins probably earned their right to political leadership through hunting, a cooperative part of group survival. Certainly alpha male violence continued as a last resort, but the importance of group collaboration in child care and hunting would have worked against its constant deployment.

Did the dominance of alpha males in hominin groups also allow them sexual access to all of the fertile women of the band, however, as was the case with bands of proto-chimps and gorillas? Most evolutionary biologists believe that it did. According to anthropologist Terence Deacon, sometime during the middle years of the Pleistocene, the *Homo* genus experienced an evolutionary bottleneck in the growth of their cooperative sociality. Without the ability to legitimate the social rights and obligations of long-term sex partners, he believes, the unstable cohesion of these *H. erectus* bands could easily fragment through male rivalries and sexual jealousy.

There is evidence, however, that, over time, relations between the sexes became more egalitarian. Although the sexual division of labour likely changed very little – women did most of the gathering and child-caring while men did the hunting – Pleistocene women

gained increasingly equal power within their bands. Some reasons for this shift likely included the growing importance and control of fire for cooking, environmental factors limiting the success of male hunting and innovations in hominin weaponry, which meant that, for the first time, groups of women could potentially gang up on an abusive alpha male in the band and kill him. Whether such gender revolts occurred often cannot be known, but most adults in every band probably understood that they were possible; by itself, this knowledge likely helped to level the field of power relations between the sexes. The first victory of female adults, whether achieved violently or peacefully, probably had to do with restraining male physical threats in order to gain greater control over their sexuality. This 'reverse-dominance coalition,' as anthropologist Camilla Power and others have termed it, allowed a female collective to deter and dominate individual males who sought to dominate them. Hominin rituals of proto-marriage probably provided another restraint on the sexual appetites of adult males, alpha or not.

Perhaps the best evidence for governance by coalitions organised according to prestige rather than dominance comes from ethnographers and anthropologists who have studied contemporary hunter-gatherer bands over the last 60 years. For his *Moral Origins: The Evolution of Virtue, Altruism, and Shame* (2011), evolutionary anthropologist Chris Boehm collated 150 ethnographic studies of surviving hunter-gatherer societies. Boehm calls these groups 'Late Pleistocene Appropriates' (LPAs) because he believes that many of their cultural practices date from the time of *H. heidelbergensis*, about 600,000 years ago. In their essay 'Zoon Politicon' in *Cultural Evolution*, Herbert Gintis and Carel van Schaik underline the dislike of coercion central to the politics of these LPA bands: 'Hunter-gatherers share with other primates the striving for hierarchical power, but social dominance aspirations are successfully countered because individuals do not accept being controlled by an alpha male and are extremely sensitive to attempts of group members to accumulate power through coercion' (2013, 36). Arrogant bullies and scheming Machiavels will be warned, punished and occasionally ostracised from the band. If these strategies are unsuccessful, note Gintis and van Schaik, 'the group will delegate one or more members, usually including one close relative of the offender, to kill him' (36). In the absence of traditional forms of hierarchy, these small bands generally govern themselves through persuasion and coalition building. Building and governing through mixed-sex coalitions remained the predominant form of politics among our species for perhaps half a million years, until several thousand years into the Holocene epoch.

The gender-based politics of prestige and coalition-building are evident in some of the rituals practised by contemporary hunter-gatherer bands and tribes. We can see one example of this in the contemporary rituals of the BaYaka Pygmy tribes in Central Africa. Deep historical conflicts between the genders are on display and open for resolution in the initiation ceremonies of the Mbendjele tribe. Based in tribal creation myths that narrate the initial separation and eventual synthesis of male and female tribes, these playful rituals feature performances of war-like battles of the sexes that are resolved in the end. They begin with the Mbendjele men pretending to ambush the women using pig-hunting techniques, which is then countered by a female 'Ngoku charge,' as the women lock arms and rampage through the camp, threatening to trample the men. The reign of 'Ngoku,' meant to embody a primordial time when women ruled over men, then encourages the women (often led by the grandmothers) to mock male sexual prowess and to openly flaunt their own sexual desires. Such teasing occasionally angers some of the men, but most accept it. As anthropologists Chris Knight and Jerome Lewis explain, 'They usually join in good-humoredly, eventually laughing at their wives hilarious impersonations of themselves. These reenactments are displayed with such exaggeration and parody as to provoke helpless laughter' (Knight and Lewis 2014, 308).

This playful resolution parallels the narrative ending of the origin myth of the Mbendjele. In the story, the mythic battle of the sexes culminates in play fights that are alternately won and lost by both genders, until husbands and wives relax into lovemaking. Knight and Lewis remark that 'ritualized play pervades the very arena which, in other primates – chimpanzees, for example – leads recurrently to sexual violence' (2014, 309). They speculate that these initiation rituals may echo and comically resolve actual, painful events in the Pleistocene past of the tribe, when the women overthrew the rule of an alpha male and established governance by a reverse-dominance coalition, a polity that mostly remains in place among the BaYaka today.

Although prestige and cooperation, reinforced psychologically and socially, had provided the basis of our species' success in the Pleistocene, our ancestors mostly squandered this advantage for much of the Holocene. As most hunter-gatherers gradually transformed themselves into farmers and herders to seek survival, the size of their language-based cultures grew through warfare from bands into tribes and eventually into archaic states, which tightened the us-them bonds of homophily. Egalitarian politics mostly disappeared from these increasingly complex societies, however; dominating despots with superior weapons eager to pursue wars of conquest for land and slaves took over the archaic states. The first major break in the dynamics of warring tribalism occurred in China at the end of the Period of Warring States (433–221 BCE), when successive emperors began to incorporate and enculturate all of their subjects as Han Chinese, using culture to achieve political stability. The second was the advent of universalistic religious cultures, such as Buddhism, Christianity and Islam, across much of the Eurasian land mass. Mass conversions to the same religion facilitated trust, commerce and cosmopolitanism among those cultures that shared the same god and, for the first time, placed religious limits on political rule. The Islamic Caliphate in northern Africa and Spain, for example, practised religious tolerance and encouraged trade among different religious groups for much of the early medieval period. I will discuss Chinese emperor worship during the Han period and Islamic rituals in northern Africa and Spain to explore relevant aspects of authority and homophily in those cultures.

The universalistic religions had established laws that were separate from the power of dominating kings and emperors, but it took the Enlightenment of the eighteenth century to begin cross-cultural conversations that would seek to free the individual from traditional forms of religious loyalty as well as from the power of the modernising state. Dramatic theatre and opera played an important political role during the eighteenth century, as the works of Voltaire, Lessing, Diderot, Mozart and others led many Europeans to imagine the possibility of equal rights for all humans, regardless of state or religion. I will look closely at the politics of authority, especially the shift towards more egalitarian social relations, in three of Mozart's late operas, *The Marriage of Figaro*, *Don Giovanni* and *The Magic Flute*.

Partly because of the wars of the next 200 years, aspirations for individual rights emerged as a significant expectation for most of the world's populations after World War II and were affirmed by the United Nations in 1948. The Universal Declaration of Human Rights celebrated human rights for all *H. sapiens*, barred discrimination on the basis of race and other identifications based in tribalistic homophily, and elevated the protection of these rights above the sovereignty of any nation. As the heirs of Enlightenment humanism, the theatres of Bertolt Brecht, Arthur Miller, Jean Giraudoux and several other late modernist playwrights helped to embody these commitments during the postwar era. In particular, I will probe Brecht's *Mother Courage and Her Children* and *Life of Galileo* for their interest in advancing egalitarian and cosmopolitan values.

Although many of the cultures in Africa and Asia gained national freedom and a measure of democracy in the mid-1950s near the beginning of the Anthropocene, the capitalist revolution and its expansion into colonialism and imperialism begun during the previous epoch had already ensnared them in webs of exploitation that soon made a mockery of many of their hopes for democracy and a politics based in prestige instead of domination. As Immanuel Wallerstein and others have made clear, pre-1945 world systems had been dominated by European city-states and nations, but the United States, preeminent following two world wars mostly on European soil, quickly established itself as the global hegemonic power after World War II. Through banking, trade and defense agreements, plus infusions of development aid, the United States quickly solidified its leadership in western Europe and around the world. Motivated to ‘develop’ Third World countries to ‘save’ them from communism, the United States encouraged its corporations to drain them of mineral and renewable resources in the name of free trade in exchange for U.S. oil and agricultural products. Even with competition from the so-called Communist Bloc, the U.S. world system – reliant on the ‘soft power’ of Hollywood and other image makers as much as on its corporate clout and outsized military – imposed its cultural hegemony on the rest of the globe from 1945 to 2005. For this reason, the chapter on the Anthropocene will focus on the culture of the United States and its relations with the rest of the Earth during these years.

American hegemony and its struggle with the Soviet Union opened a space for expanding individual rights throughout the world, which began to break the hold of traditional religious loyalties and opened up cosmopolitan orientations to many more of the Earthbound than ever before. Simultaneously, the lust for territorial gain through warfare that had animated our species for most of the Holocene subsided, quelled partly by the reality of UN peacekeeping and the possibility of nuclear warfare. Stanley Kubrick parodied Cold War fears and desires in *Dr. Strangelove: Or How I Learned to Stop Worrying and Love the Bomb* (1964), a film that revealed that both sides had largely abdicated leadership in the race for technological superiority. A similar hollowness at the core of national resolve haunted Francis Ford Coppola’s *Apocalypse Now* and other films about the U.S. war in Vietnam. The United States ‘won’ the Cold War when the USSR fell apart in 1989, but Hollywood had shown that few Americans believed that our democratic values had triumphed. In part, this was also because racism and inequality continued to fester, after most of the (white) population turned against full equality for black citizens at the end of the 1960s. The implicit demands for equality in the stand-up and filmic career of Richard Pryor in the 1970s stand in sharp contrast to the domesticated performances of Bill Cosby – ‘America’s favorite Dad’ – on stage and TV in the 1980s and early 1990s.

The Great Acceleration of postwar petrocultures continued to speed up, however, as world capitalism, in its neoliberal phase after 1990, kept its foot on the gas. Western neoliberal oligarchs increased trade with the Chinese communists, whose politics of domination was transforming China into a new world power. Meanwhile what international political historian Francis Fukuyama calls ‘political decay’ (2014, 455) – the erosion of accountability and legislative paralysis in nominally democratic nation-states – had allowed the oligarchs to gain excessive power in the European Union and the United States. The crash of 2008 might have been a wake-up call for the elites that dominated world capitalism and government, but shallow economic recovery, bureaucratic straightjackets, political fragmentation, widening inequality and continuing racism distracted them and most Americans from the decay of their national political culture. I will end the book chapter with brief analyses of Steven Sondheim’s *Lincoln* (2012) and Lin Manuel Miranda’s *Hamilton* (2015), two performances set in American history that both celebrated an expansive vision of U.S. democracy and revealed some of its chronic difficulties with regard to authority and affiliation.

I will focus on what the Trump presidency reveals (so far) about the likely future of democratic governance in the United States in the context of the continuing bad news about climate change and resource depletion. I expect I will end my narrative with suggestions for future performative actions that may help us to deal more equitably and justly with the disasters to come. Not surprisingly, my prognosis for the future will be pessimistic.

Looking toward the next 80 years, as the Anthropocene tightens its grip, two things are certain: the co-evolution of our predispositions for organising politics around domination or prestige and affiliating socially in tribal or cosmopolitan ways will continue to play a significant role in our actions; they are not going away and should not be ignored. The notion that we can somehow escape our co-evolutionary predilections and reinvent human nature through old religions or new technologies has always been a utopian fantasy. Nor will my history endorse notions of apocalypse or complete despair; such fears are not only unrealistic, they empower the narcissists and myth-makers. Humanity will not perish. Although many of us will certainly die in greater numbers from climate- and resource-related problems, our species will survive. Moving to consilient discourse and effective governance in the Anthropocene will be difficult, but it is not impossible. Our co-evolutionary past matters because it can help us to understand and navigate the parameters of our possible futures. But the good news here is that humanity has the potential to energise its evolutionary political capabilities to enable us to ride out the ravages of climate change and depleted resources and to begin to manage a fairer life for the survivors in the epoch of the Anthropocene. Political performances – both those that comment on the exercise of governmental power and those that directly embody and practise versions of authority and solidarity to shape our norms, laws and institutions – can help us to reach that potential.

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