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Growth, Maintenance, Control, and Competition

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1 Introduction

Where Chap. 4 reviewed the formation of sociopolitically complex civilizations, this chapter reviews their growth and maintenance. Mature states invariably come to encompass expanding territories and consequently absorb populations distinct in dialect and language, ethnicity and race, and culture and religion. As discussed herein, maintaining integrity at a particular level of group size comes from managing both sources of threat: managing one's own population while defending against rival groups. Populations must be bound by some combination of custom, sanctions, religion, and legal infrastructure. To the extent that this can be accomplished, a state must radiate control stably through time, as indicated by the Roman Empire and contraindicated by the conquests of Alexander the Great. Controls necessary for stable growth can be (1) psychological, as with propaganda; (2) legal, as with incarceration; (3) social, as with

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banishment; (4) martial, as with conscription; or (5) economic, as with taxation. Some controls woo and win elites, ensuring allegiance through shared interest, title, rank, privilege, estates, orders, and garters. With reliable money as a medium of exchange, states ensnare citizens within a tightening cage of mutual interest, trade, dependencies wrought of divided labor, and the attractive ability to solve collective action problems. All such forms of control foster growth and allow for societal maintenance.

Drawing on authors as varied as Wimmer, Vico, Ellul, Tainter, Ferguson, and Padover, we review (1) myth, (2) propaganda, (3) punishment, (4) societal interdependence via systemic differentiation, and (5) mechanisms by which impediments to growth are removed. Each of these five elements of social control is a device by which historical societies have attempted to meet the centripetal and centrifugal forces intrinsic to stable social growth and is fully consistent with the theories of cultural group selection that we have reviewed. With an eye toward future research, by the end of each section, we attempt to specify whether these historically applied mechanisms were efficacious and, if so, whether they are universal or particular with respect to time, group size, or phase of growth. Each section frames its respective device, a mechanism historically expressed to solve the adaptive problem of societal growth.

Regarding this characterization of societal growth as an adaptive problem, it is important to begin with the caveat that some of the authors whose work we review appear to present pro-nationalist or pro-imperialist biases. Our goal in this chapter is neither to promote nation-building or empire-building nor even to advocate for them as particularly worthy (or unworthy) endeavors in human affairs. As evolutionary scientists, we instead seek to specify the conditions that appear conducive to the establishment, preservation, and expansion of such state and imperial-level sociopolitical organizations from the standpoint of their relative advantage in intergroup competition under the shaping forces of multilevel selection. For this purpose, we review the works of authors that were clearly favorable to these goals and adulatory of their achievements, as such authors represented the past scholars that were seemingly most motivated to identify what societal adaptive strategies were most likely to

either lead to success or end in failure. We therefore review their insights for the purpose of examining the efficacy of such strategies descriptively and dispassionately, rather than prescriptively to synthesize a normative manual for empire. We accordingly disavow in advance the various biases evident in these partisan sources, while seeking to employ their pragmatic insights in our evolutionary analysis for the *selection by consequences* of these group-level adaptations, as discussed in our Preface.

2 Of Men and Myths: Heroes, Hero Worship, and National Narratives

Do societies require a collective consciousness in the form of myth and mythic heroes? The writings of Giambattista Vico, an eighteenth-century Italian political philosopher, suggest an affirmative answer (Pompa, 2010).

Epicurus, Hobbes, Machiavelli, Grotius, Selden, and Pufendorf are equally taken to task by Vico for the fault of viewing history from the time of monarchical society, a procedure which emphasizes the *preservation of mankind* (meaning the human species as a whole) to the exclusion of *preservation of nations* (meaning particular biocultural groups). It seems that Vico considers prehistory, or at least the traditions of early civilizations using oral transmission to preserve their culture, a prerequisite to understanding the histories focused on by the aforementioned writers. He specifically argues for the serious consideration of the roles of gods and heroes within those cultural traditions. Organizing myths are "collective phenomena" owing their powers to "collective participation" (Ellul, 1973, pp. 116–117), with roots sunk far down into the subconscious, providing a sense of permanence and place, more felt than thought, and possessing strong motive force. Religion can also be seen as national or supranational myth. Consequently, Vico warns against ignoring religion, understanding it to be the fount of Roman greatness, for instance, but one poorly understood by Polybius, Plutarch, and Machiavelli alike. Religion is considered the source of solemnity in marriage, Patrician patronage of Plebeians, and valor in war, spurring the Romans *to conquer or to die with one's own gods* (Vico, 2002, p. 86).[1]

Cohesive groups require terrestrial as well as celestial fathers, metaphorically speaking. Vico finds several commonalities among "fathers" of populations, families, and cities from which states are thereafter derived:

1. Of imagining deities;
2. Of begetting certain children with certain women through certain divine auspices;
3. Of being, therefore, of heroic or Herculean origin [for the following reasons]:
   (a) Because they possessed the science of the auspices, that is, of divination;
   (b) Because they made sacrifices in their houses;
   (c) Because of their infinite power over their families;
   (d) Because of the strength with which they slew the wild animals, tamed the uncultivated lands, and defended their fields against the impious vagabonds who came to steal their harvests;
   (e) Because of the magnanimity with which they received into their asylums the impious vagabonds who, endangered by the quarrels of Hobbes' violent men in the state of bestial communion, sought refuge in them;
   (f) Because of the height of fame to which their virtue in suppressing the violent and assisting the weak had raised them;
   (g) Because of the sovereign ownership of their fields that they had acquired naturally through such exploits;
   (h) Because, consequently, of their sovereign command of arms, which is always conjoined with sovereign ownership;
   (i) And, finally, because of their sovereign will over the laws, and therefore also punishments, which is conjoined with sovereign command of arms.

In reviewing these features, one finds essential elements of cohesion, identification, altruism, and related aspects of culturally group-selected societies. For the Greeks, Ajax was a colossus, representing their strength, just as Ulysses was a fox, representing their cunning. Roland is submitted as a heroic Gallic composite of valor. Hebrews, Assyrians, Persians,

Egyptians, and Greeks respectively looked to Levites (strong), Chaldeans (sages), magi (diviners), priests, and divinari (diviners). The prince or hero is so often described as holding back hordes, defending a bridge, or turning the tide of war by his single will. The reputations of such heroes are *resplendent*, reflecting their luster across their representative people. Vico understands these as poetic *personae*, emblematic of a house, a coat of arms, or "a kind of genera in which many men are comprehended" (Vico, 2002, p. 205). Continuing this line of reasoning into the Victorian age, Carlyle describes an enduring and inevitable process of transformation through the ages, from the *naïveté* of worshiping man as a divinity to the necessity of at least admiring the heroic individuals among us.

A founding figure, be it Moses or Joseph Smith, communes with a deity. As Chap. 3 illustrates, a deity may serve as a central fault line in group identification and disidentification. Vico's founding father figure descends from on high to beget progeny or is otherwise associated with inaugurating a seminal, exalted, or hybridized godlike lineage, from which comes the heroic founding. The heroic founding imparts powers ranging from divination, to strength, to wisdom. Clemency combines with control to allow the founder to bring others into the fold, suppress dissension, rule with justice, and consequently become sovereign with a monopoly of authority over a unified people. Vico uses the term *father* advisedly for it represents the relationship between founder and followers, which is patterned on father and family in the primitive state. Indeed, such familial language is ubiquitous: Priests and friars are sometimes called fathers and brothers, army units are bands of brothers; this may well amount to a general principle, to wit that kinship is the template of association from which larger aggregations are extrapolated.

Whether in reality or myth, the right of life and death over subjects and the responsibility of maintaining order and liberty among them may be transferred from a personalized founding figure to an impersonal civil order. To illustrate this in action, we turn to the example of George Washington's role in the founding of the United States. Washington's distance from the present at once renders him sufficiently modern for instructive documentation and sufficiently remote to accrue the organic patina of myth and legend. Tall, grave, and martial in bearing, the alpha status of Washington, reminiscent of many a tribal leader, gave power

and precedent to a nascent nation of abstract laws. Padover (1955/1989) expertly captures this transition from a tribe to a republic, from a nation of men to a nation of offices:

> It was the sheer personality of Washington that was the decisive element in the three crucial events of early America—the Revolutionary War, the Constitutional Convention, and the first national administration. Hardly anything more than his willpower held together the ragged Revolutionary army in times of darkest despair; a weaker man would have given way to hopelessness as the troops deserted, provisions gave out and funds dwindled to near nothingness. The Commander-in-Chief complained with furious bitterness, but stuck to his guns. Similarly, it was his presence that helped to weld the Constitutional Convention in 1787. Chairman of the Convention, he was a silent member, but the fact that he was there was a guarantee of the importance of the meeting and cemented the disparate viewpoints. Washington's immense prestige was a major factor in the adoption of the bitterly assailed Constitution…His exquisite sense of balance and steadying wisdom reconciled clashing interests and opposing sections and gave the new nation the fundamental shape that it has retained to this day. (p. 8)

Padover's writings reflect Washington's genuine greatness, but national myths and heroic adulation demand preternatural greatness, purging flaws and foibles while exaggerating virtues and competencies. "Few other national heroes have ever been greater targets of assiduous idolatry, hagiography, iconolatry, myth-making, and breathless patriotic oratory." "Young America," Padover writes, was "hungry for a hero," and so from history we transition to hagiography. The hagiography of Parson Mason Weems is attributed to *naïveté* by Esmond Wright (1995), author of *A History of the United States of America*. However, Weems was most probably not a naïve historian, but a wise storyteller. He generated myth, purposefully and consciously. Weems was simply the first and worst among the historical myth makers. Others followed in his path, including Jared Sparks who edited and reformulated Washington's literary style making it more felicitous and flowing; also, there was Washington Irving who cited him, contrary to available evidence, as a faithful Sunday worshiper and a man who married for love alone. Wright is aware that "the

process of glorification was quite deliberate…it was even more the work of artists than of writers" (Wright, 1995, p. 164). Indeed, "Washington was made into a graven image for the nation to worship" (Padover, 1955/1989, p. 1). Similarly, at the end of the Civil War, Constantino Brumidi supplied the nation with some much-needed unifying fodder by painting Washington into a Renaissance-like fresco on the rotunda of the United States Capitol Building accompanied by Columbia, Minerva, Mercury, Neptune, Vulcan, and Ceres. Thus, Washington passed from man to myth in writing as well as iconography.

Contemporaries witnessed the beginning of this deification. John Adams raged against it, both from thinly veiled jealousy and because he hated the process by which history was amalgamated with the dross of myth. Another contemporary, Marshal Jean-Baptiste Donatien de Vimeur, comte de Rochambeau, tolerated and acquiesced in the accretion of myth from conscious recognition of its unifying function. Rochambeau commanded France's expeditionary force, dispatched to aid the American bid for independence. He presided over a delicate impasse wherein he repeatedly sought to persuade Washington to assume a southern strategy, while Washington trained tenaciously north, looking for vindication in New York where he was so soundly defeated in the early phases of the American Revolution.[2] The two together would decide exactly how to use French naval power. Washington was the supreme commander of American forces, which were the significant force on land; Rochambeau was the supreme commander of French forces, which were the significant force at sea (Whitlock, 1929). Nevertheless, coordinated action was indispensable.[3] Not only did Washington resist the call to decisive victory at Yorktown in favor of probable defeat at New York, but once the southern campaign was decided upon, he contributed little to its success. According to Ferling, it was the experience of French military engineers with their sapping and mining techniques that was responsible for the siege's quick success. It is true that Washington symbolically struck a spade into the ground and lit the first cannon, but the necessity of his presence at Yorktown seemed not to extend much further. Despite this, the ultimate success of the battle would be, if attributed to anyone, attributed to Washington. As recounted in his memoirs, Rochambeau recognized that the success of the siege was more to his honor than it was to

Washington's. More accurately, it was the honor of the French military engineers who had safely maneuvered the British into inevitable capitulation and the fleet who had made the siege possible in the first place by defeating the British navy and thereby disallowing retreat via the Chesapeake Bay. The older Rochambeau wanted to leave an accurate account for the historical record, but explained why he had written this later and not spoken earlier. He was silent at the time because he and the French generally recognized the need the young America had for a hero like Washington (Ferling, 2010).

One should be aware, however, that in taking the example of the American Revolution, we see just one level at which group selection is operating. Looking at the larger whole, we can see that the American Revolution itself was an internecine conflict, often referred to as a civil war or as a *cousins' war*. Just a generation prior, colonists were fighting alongside Britons against Frenchmen. It was the very success of the Anglo-American alliance that opened the way for the revolution. Having so decisively won, the French ceased to become a threat to the colonists, making the British dispensable. These are the fault lines across which between-group competition cleaves. We should also keep in mind that the American Revolution constitutes an aggregation event from the American perspective but a decline event from the British perspective. We cannot perhaps say that this was the beginning of the end for the British Empire, which only in the nineteenth century achieved its full grandeur with its Victorian jewels in India and Africa. It was nevertheless a prelude to that decline. It can also be considered a budding event wherein, though it became a rival and eventually dominant, the American colonies were analogous to a reproductive propagule of the mother country as depicted in some forms of group selection (MLS2, as introduced in Chap. 2 and detailed in Chap. 8). Such is the fertility of history through the lens of evolution.

In correcting the errors of recent contemporaries, Vico championed to a fault the previously underestimated importance of myth. Notwithstanding Vico's overstatement, his instincts are productive of intuitive claims, supported by the seeming ubiquity of founding myths and mythic heroes, not only in the examples proffered but also in most foundational texts, sacred and secular. Narrative myths may well be most

important during early stages of aggregation, even as they may have an enduring binding force thereafter.

3 Propaganda

Experiments in perception suggest that human eyesight has evolved to exaggerate the border between shapes, a deviation from reality which nonetheless aids in making figure-ground discriminations. Similarly, both the impulse to create and credit propaganda relate to a tribalistic aspect of human nature, productive of exaggerating differences between neighboring groups.

Following the post-World War I usage relating to willful misinformation,[4] propaganda's principal goal is arguably to delineate groups, one from another, making propaganda eminently relevant to cultural group selection. In *Propaganda: The Formation of Men's Attitudes*, Ellul (1973, p. 212) includes a major subsection entitled *Propaganda and Grouping*, which begins by noting that "all propaganda has to set off its group from all the other groups." Propagandized groups allow characterizations to stand in for the reality of rival groups, ceasing "altogether to be open to an exchange of reason, arguments, points of view" (Ellul, 1973, p. 213). Writing without knowledge of multilevel selection theory, Ellul (1973) nonetheless recognizes the various levels of aggregation upon which propaganda can act to bind or divide:

> This partitioning takes place on different levels—a unionist partitioning, a religious partitioning, a partitioning of political parties or classes; beyond that, a partitioning of nations, and, at the summit, a partitioning of blocs of nations. (p. 213)

"The Manichean universe of propaganda" (Ellul, 1973, p. 69) routinely reinforces within-group allegiance, while at the same time devaluing those outside the group, a combination which Ellul (1973, p. 213) refers to as a "double foray on the part of propaganda, proving the excellence of one's own group and the evilness of the others." We review four major uses of propaganda: (1) enhancing intragroup cohesion; (2)

demarcating and vilifying rival groups; (3) welding smaller groups into larger wholes; and (4) severing larger wholes into smaller groups. The former two attempt to maintain the integrity of existing groups, whereas the latter two attempt to increase or decrease group size.

Enhancing intragroup cohesion is perhaps the best-known function of propaganda, as is reflected in Ellul's (1973) definition of propaganda, which refers to mass collective action, as denoted by the terms *participation*, *mass*, *unification*, and *organization*:

> Propaganda is a set of methods employed by an organized group that wants to bring about the active or passive participation in its actions of a mass of individuals, psychologically unified through psychological manipulations and incorporated in an organization. (p. 61)

Effective propaganda mobilizes action and opinion by tapping a group's preexisting threads of commonality, its values, myths, and thoughts, as Ellul (1973) explains:

> Propaganda must not only attach itself to what already exists in the individual, but also express the fundamental currents of the society it seeks to influence. Propaganda must be familiar with collective sociological presuppositions, spontaneous myths, and broad ideologies. By this we do not mean political currents or temporary opinions that will change in a few months, but the fundamental psycho-sociological bases on which a whole society rests, the presuppositions and myths not just of individuals or of particular groups but those shared by all individuals in a society, including men of opposite political inclinations and class loyalties. (pp. 38–39)

Containing no actionable message, political or otherwise, *sociological preconditioning* directly enhances cohesion while preparing the populace to be actively propagandized by building those shared myths, suppositions, and broad ideologies discussed above (Auerbach & Castronovo, 2013). Sociological preconditioning is compared to plowing by Ellul; the ground is prepared for seeding by more pointed propagandistic aims. American civic education is understood by Ellul (1973) to be a form of sociological preconditioning, with state-sponsored education generally apt to inculcate societal principles, ideologies, and myths. Thus,

education, often understood as a "prophylactic against propaganda," can be co-opted by the state and thereby amount to *pre-propaganda* that distributes disparate facts with the end of preparing a mind to receive state-sponsored narratives (Ellul, 1973, p. vi). Intragroup cohesion can also be enhanced simply by suppressing dissent, as when the Bolsheviks sabotaged and suppressed communications, both means and content, by shutting down some newspapers and co-opting others (Werth, 1999). Long-term investments in sociological preconditioning can then be leveraged by the state during war, transforming "normal feelings of patriotism into a raging nationalism." Binding myths are "sharpened" and invested with "the power of shock and action" (Ellul, 1973, p. 41). To impulses to protect home and hearth, the modern state must add additional motivations to suffer the strain of the trench, the forced march, shot and shell, disease, death, and desperation. Propaganda then supplements self-preservation, inducing a man to make "super-sacrifices" when "pushed to the very limit of his nervous and mental endurance, and in a sort of constant preparation for ultimate sacrifice" (Ellul, 1973, pp. 142–143). To induce a mass of individuals to temporarily transform into something of a superorganism in which the good of the part is subordinated to the good of the whole, modern states propagandize their populations, manufacturing patriotic sentiments, ideological screeds, heuristic glosses, and doctrinal explanations (Ellul, 1973). The individual then becomes a "cell organized into the social unit" in the "anatomy of society, with its interlocking group formations and loyalties" (Bernays, 2005, p. 55).

Propaganda channels the human capacity for enmity and division as much as it does fraternity and solidarity. The demarcation and vilification of rival groups are the complementary inverse of creating internal cohesion and the corollary of maintaining distinct groups. Emotions such as rage and actions such as murder, which are prohibited within the group, are encouraged when applied outside the group in the context of war:

> propaganda will permit what so far was prohibited, such as hatred, which is a dangerous and destructive feeling and fought by society … Propaganda offers him an object of hatred, for all propaganda is aimed at an enemy. And the hatred it offers him is not shameful, evil hatred that he must hide, but a legitimate hatred, which he can justly feel. Moreover, propaganda

> points out enemies that must be slain, transforming crime into a praiseworthy act. Almost every man feels a desire to kill his neighbor, but this is forbidden, and in most cases the individual will refrain from it for fear of the consequences. But propaganda opens the door and allows him to kill the Jews, the bourgeois, the Communists, and so on, and such murder even becomes an achievement. (p. 152)

Whereas group cohesion is bolstered by framing collectives as *bands of brothers*, *founding fathers*, and related terms meant to activate kin-selected psychology, the time-worn method of contrasting self and other is to strip the other of their humanness and humanity. For instance, in an English engraving, freedom and peace can be seen to look across the channel at devils and skeletons representing the universal destruction of revolutionary France. Such representations served as iconographic analogues to literary pleas, such as Edmund Burke's *Reflections on the Revolution in France*, which was meant to forestall Jacobin sympathies on the home front for France's radical revolution (Ben-Israel, 2002; Verhoeven, 2013).

In addition to keeping extant groups distinct, propaganda can weld smaller groups into larger wholes. History has examples of protean diplomatic marvels like Franklin weaving people together at all levels of organization. Franklin's political career was heavily marked by propagandistic and persuasive attempts to augment group size, creating alliances among previously unallied smaller powers to combat rivals: he did this at the local level by organizing community groups against criminal elements; he did this at the colonial level through his *join or die* motif, which was meant to unite the colonies against Franco-Amerindian incursions; and he did this at the national level through his diplomatic efforts to solicit alliances with European powers. Franklin enlisted multiple methods, such as private whisperings, leaks of information, published writings, as well as state struck medals, the latter being part of what Olson (2004) deems *rhetorical iconography*, as when Franklin designed the *Libertas Americana* to solidify and perpetuate the Franco-American alliance during his attempts to solicit ever more aid (Olson, 2004).

Indeed, Franklin's rebellion was actually his one great deviation, though it serves as an example of the ways in which propaganda, opposite the welding aims described above, can be used to sever one group from

another. Consequently, there is *integration propaganda*, described as a "complex tool to weld individuals to the collective body of the state" (Castronovo, 2014, p. 90), and *agitation propaganda*, which "unleashes an 'explosive moment' that seems too volatile to suit the purposes of a durable nationalism" (Castronovo, 2014, p. 91). Successful revolutions are begun with agitation propaganda and ended with integration propaganda (Ellul, 1973):

> the transition from one type of propaganda to the other is extremely delicate and difficult. After one has, over the years, excited the masses, flung them into adventures, fed their hopes and their hatreds, opened the gates of action to them, and assured them that all their actions were justified, it is difficult to make them re-enter the ranks, to integrate them into the normal framework of politics and economics. What has been unleashed cannot be brought under control so easily, particularly habits of violence or of taking the law into one's own hands. (p. 77)

Franklin, and other colonial revolutionaries, illustrates both the tension between levels of selection and its reflection in the literature on propaganda as they became American statesmen. Through a group selectionist lens, former colonists fractured themselves off from the larger group of which they were tied by bonds of kinship, language, and history (Phillips, 2000), only to then tug hard at the reins of the revolutionary forces they unleashed, which tended toward perpetuating democratic freedoms and individualistic impulses. Better at tearing down than building up, Thomas Paine's *Common Sense* was such an instance of agitation propaganda, which would not brook the growth of a viable state if not later countered by a different vision. The 1790s witnessed Washington and Hamilton subduing fellow colonists rebelling under the duress and discontent that prompted rebellion against British rule in the 1770s. Similarly, from Samuel Adams in the 1770s to John Adams in the 1790s, the colonials turned Americans reversed course, from spreading propaganda to suppressing it.

Samuel Adams seemed to have conspired with Paul Revere, a goldsmith and engraver, to produce an iconic image of the *Boston Massacre*, part of the propaganda that framed a "motley rabble of saucy boys,

Negroes and mulattoes, Irish teagues and outlandish jacktars"[5] as unalloyed victims of British aggression. The Federalist and Arch-Federalist elites holding the reins of power through the 1790s acted thereafter to suppress propaganda, most notably through the *Alien and Sedition Acts*,[6] which were then attacked by the internal dissidents they were meant to control (Rosenfeld, 1997). The Alien and Sedition Acts were leveled also against emerging political rivals later embodied in the first instantiation of the Republican Party (Miller, 1953).

Our reading of Lippmann, Bernays, Davidson, Castronovo, Kidder, and Ellul suggests that propaganda serves an analogous function to national myth, with both propaganda and myth contrasting the ingroup with the outgroup. Beyond systematically or quantitatively studying propaganda's relationship to group cohesion, future research can perhaps support or negate our supposition that propaganda, as compared with myth: (1) emerges in the late phases of aggregation; (2) uniquely vilifies outgroups; (3) comes of conscious top-down creation; (4) confines to complex sociopolitical societies; and (5) often represents elite manipulation of non-elites, be it to exploit them or to promote the survival of the state.

4 Compelling Compliance: Punishment from the Bottom-Up and the Top-Down

Cooperation and conformity within groups are ensured through punishment (Chen & Szolnoki, 2018; Deakin, Taylor, & Kupchik, 2018; Gottschalk, 2006) meted out from the top-down and the bottom-up. Even as no large society neglects either mechanism, freer, decentralized governments are more reliant on locally administered punishment from the bottom-up, whereas tightly caged monarchical and authoritarian regimes are more reliant on centrally administered punishment from the top-down.

Readers of Alexandre Dumas' *Count of Monte Cristo*, in identifying with protagonist *Edmond Dantès* as he plots a long-deferred revenge against three unjust men, will be learning something about their intrinsic

disposition toward moralistic punishment. Punishment from the bottom-up comes from values of fairness, justice, righteous anger, and outrage, which are derived of innate emotion (Haidt & Joseph, 2007), even as the parameters past which these emotions are triggered, like the behavioral response to norm violations, are culturally specific (Haidt, 2003). *Contempt*, *anger*, and *disgust* (Hutcherson & Gross, 2011) are among the moral emotions elicited in a social context that have corresponding *action tendencies* redounding to the regulation of others within the group. These action tendencies predict the punishment of rule breakers, norm violators, cheats, and dissidents even at personal expense (Ostrom, 2000), as Hoffman and Goldsmith (2003) describe at length:

> Punishment by the group addresses a central problem: the free rider. The individual who does not participate in the hunt or who otherwise shirks group responsibility can become a social parasite, using resources obtained by the sweat of others' brows and consequently sowing discord among the rest of the group. The individual who shirks his social duties annoys and angers us. We feel motivated to punish because the miscreant's behavior has violated some intrinsic sense of fairness that is latent in each of us, and which helps protect our self-interest in social exchanges.

Punishment confers *competitive superiority* within societies facing direct competition from rival societies, "creating circumstances that are highly favorable for the evolution of accompanying group-functional behaviour" (Boyd, Gintis, & Bowles, 2010; Sääksvuori, Mappes, & Puurtinen, 2011).

Murder is among the multitudinous mechanisms of punishment. For instance, there is some suggestion that group members developing psychopathic personality structures, notorious for exploitation, self-serving cunning, and feckless dealings during iterative interactions, are killed within Inuit tribes (Hoebel, 1964). Intragroup lethal forces are known among the Hadza, and !Kung, albeit after a manner that does not always rigorously delineate murder and capital punishment (Knauft et al., 1987). And of course, lethal injection, electrocution, and hanging are mainstays of ultimate punishment in some modern societies. Short of murder, and often after first restricting access to vital resources (Gat, 2010), comes

ostracism (Liddell & Krusch, 2014), a penultimate solution used by groups against noncooperative individual members. The *Pathan Hill* tribes, for instance, ostracize those group members putting their individual freedoms above "the necessity of tribal unity" (Mahdi, 1986). An ostracized group member may fall prey to predators, rival groups, exposure, and starvation but also may become subject to murder by agnates absolved from the traditional sanctions against intragroup killings by the victim's newfound otherness (Boehm, 1985). Indeed, ostracism is understood as a cross-cultural method of punishing burdensome or nonconforming individuals meant to induce behavioral change to the ultimate end of protecting group integrity (Wesselmann, Williams, & Wirth, 2014). Having precedents among social animal species, ostracism marks the historical record across a range of social complexity (Williams, 2009).[7] Ostracism, as it operated in extended kinship bands and tribal societies, should nevertheless be contrasted with ostracism as practiced in ancient Greek poleis, which entailed exodus from Attica, within ten days and for a period of ten years, as decided by formal vote (Forsdyke, 2009; Mattingly, 1991). This should then be differentiated from similar cultural institutions such as *banishment* as practiced by the Romans, which was more severe in that it imposed an indefinite exile along with the loss of status and property.[8] Excommunication is then the religious counterpart to political exile.

Methods of social control multiplied within Medieval Europe, with their use extending into early modernity. Norm violators were apt to be pilloried, having their head and limbs caged between wooden boards in public spaces, simultaneously punishing and humiliating; such was the fate of Daniel Defoe, convicted of seditious libel in 1703, fined and pilloried on three separate occasions (Richetti, 2015). The *pranger* and *stocks* served similar functions. The *rack* and the *strappado*, or *corda*, stretched their victims into agonizing contortions. Perhaps most interesting from a multilevel selectionist perspective are the cropping of ears (Hatfield, 1990), the slitting of noses (Kollmann, 2006), and the branding of skin (Jones, 1987)—all ways in which deviants and dissidents were marked, allowing them to remain within the group, but burdened by a lasting representation of their transgression. Montgomery and Kilroy, two British privates convicted of manslaughter for their part in the Boston

Massacre, were branded with the letter *M* on their thumbs, marking their conviction of manslaughter and disallowing future clemency using the benefit of clergy by way of an indelible cutaneous sign forever recalling their deed.

These many methods of social control appearing in medieval and early modern societies are intermediate methods of social control, short of outright ostracism, or capital punishment. These and other punishments were sanctioned by increasingly powerful and legitimate rulers and ruling bodies laboring to maintain order in the face of demographic growth. With demographic growth and the anonymity of urban living, providing punishment from the bottom-up becomes a less effectual form of social control, for it was at once harder to detect and recall dissident acts, track reputation, and ensure efficacy. *Diffusion of responsibility* operates to diminish the motivation of the altruistic punisher among large groups, wherein an ever increasingly diffuse societal benefit is enjoyed by the group at large. Meting out punishment then becomes a collective action problem of unsolvable proportions without layering top-down controls on preexisting bottom-up controls, as Boyd and Richerson (2005) imply:

> as group size increases, the average frequency of cooperative strategies typically declines to a quite low level…groups in which cooperation occurs over the long run, can remain at substantial levels even when groups are large. One must keep in mind, however, that this conclusion presupposes that individual punishers can afford to punish every noncooperator in the group. (p. 176)

Boyd and Richerson assure us that cooperation among large groups is possible if only punishers "can afford to punish every noncooperator in the group." Lone altruists cannot afford to do this. Therefore, we collectively bear the burden of enforcing cooperation by funding punishers. Modern societies levy a small tax borne by individuals, then concentrate its power within agencies that mete out justice and punishment. We pay prosecutors, judges, and police officers salaries so that they can afford to punish. Concentrated power, delegation of authority, and monetary capital are required if punishment is to continue efficacious with the growth of group size. Punishing nonconforming behavior within a large society

becomes a massive undertaking beyond the capacity of individuals at the local level. It must be sustained, consistent, and omnipresent. Altruistic punishment, inspired by moral emotion, is quite the opposite; it is inconsistent, particular, passionate, and diffuse. Similar trends are observable in generalized forms of altruism, such as alms giving, which, as societies grew, were undertaken by church organizations, private benevolent associations, and finally bureaucratized state apparatuses.

The French *gendarmerie* leveraged developed military authority, pointing it inward toward the social control of the national population, and so France was comparatively law abiding. Rudimentary police forces likewise arose in thirteenth-century Italian city states (Roberts, 2019). In contrast, the English, ever jealous of their liberties, slowly rationalized internal controls. Aside from Oliver Cromwell's miscarried plans for a districted military police force in the 1650s, professional rigor was instituted by 1753, but with continued reliance on nonprofessional constables, a medieval institution of amateur rank. It was only in 1829 that the *Metropolitan Police Force* was established (Lyman, 1964). England belatedly followed the European trend of police force professionalization, progressing from civic, to municipal, to state policing (Denys, 2010), which then extended to international policing as early as the nineteenth century (Deflem, 1996). Fully federalized and centralized agencies, using data-driven tracking technologies, lavishly funded and having de facto global reach, were the twentieth-century's logical extension of early international policing. *Roman*, *canon*, *common*, *customary*, and *feudal* law (Karras, Kaye, & Matter, 2013) likewise evolved to meet the demands of social control arising from societal growth. Comparative to mores, norms, and customs, law was less parochial and capricious, as seen from the Norman conquest in English common law, which "was 'common' to the entire kingdom of England, superseding purely local laws and customs" (Neal & Cameron, 2016).

In sum, whether administered from the bottom-up or top-down, punishment suppresses selfish individualists threatening to undermine cohesion and collective action. Evidence abounds. We feel the moral emotions within ourselves and recognize them in others; we sense the consequences of violating sacrosanct norms and are told the punishments for intragroup harm and unfairness. Buttressing the aforementioned historical

instances, laboratory findings on so-called *ultimatum games* furnish examples of subjects for going the offer of an unfair share of some resource for the pleasure of punishing a stingy partner (De Quervain, Fischbacher, Treyer, & Schellhammer, 2004; Gowdy, 2008; Hardy-Vallée, 2007). Such experiments show that, despite personal costs, some are motivated to engage in altruistic punishment (Boyd, Gintis, Bowles, & Richerson, 2003; Fowler, 2005), a phenomenon inexplicable through the lens of *kin selection*, *signaling theory*, or *reciprocal altruism* (Fehr & Gächter, 2002). Contrariwise, far from having trouble explaining its existence, multilevel selection in humans is believed to require altruistic punishment. Recall that critics of multilevel selection often state that group selection is possible, but remains exceedingly improbable because of the relative strength of individual selection. The salience and efficacy of altruistic punishment, actuated by moral emotions, mechanistically explain the ubiquity of multilevel selection in small-scale societies; thereafter, cultural institutions evolved in concert with expanding group size and ensured the scaling of culturally group-selected cooperation. Together, punishment from the bottom-up and the top-down imposed a strong selective pressure amounting to a process of anthropogenic selection or self-domestication wherein some percentage of selfish individualists were culled each successive generation, culminating in highly group-selected societies.

5 Societal Interdependence via Systemic Differentiation

Here we discuss the augmentation of interdependence, economically, socially, and militarily. Within the declinist literature, societies are said to *senesce*, being compared to the aging process afflicting most life forms. We submit that this analogy is equally applicable to growth. Bacteria and protozoa represent a wide variety of diminutive organisms, the size and volume of which allow for direct exchange with the external environment. Aquatic salamanders, as well as certain species of frogs and fish, are among a small segment of vertebrates relying fully or partially on cutaneous gas exchange for respiration, with increasing needs being met through flat morphologies, capillary formation, and expanded surface area using

specialized skin folds (Feder & Burggren, 1985). Augmenting volume renders this impracticable and then impossible. With the evolution of large vertebrates, one sees complex branching lungs with gas-exchanging alveoli, along with circulatory systems that, in humans, total 60,000 miles end to end (Cabin & Henry, 1992), intestinal length in pinnipeds stretching hundreds of yards, and giant squid axons measured in feet (Young, 1977). By way of analogy, as societies grow, simple, parochial structures must give way to differentiated systems. While mindful that this is merely a suggestive analogy, we review: (1) military expansion, which is comparable to immune system evolution; (2) economic diversification, which is comparable to cellular differentiation; and (3) infrastructure, which is comparable to innervation.

If space afforded, we could dedicate a full chapter to considering military growth from a multilevel selectionist perspective. It is interesting to think about the kin-selected metaphors for military units, as in a *band of brothers*. Military drill could be dilated on for its ability to form a rabble into a functional mass capable of coordinated action, with the most conspicuous transformation from one to the other deriving from Baron von Steuben's[9] drill of the green troops of the American Revolutionary Army wintering in Valley Forge. Yet, we confine ourselves here to a few observations as guided by our aforementioned analogy. Immune systems are physiologically costly and gained only through bioenergetic trade-offs with growth and other important properties (Kubinak, Nelson, Ruff, & Potts, 2012). The same is true of armies, which require immense capital to field and maintain. It is said that the army in late imperial Rome had *eaten up* the fruit of thrift, which would not come again in such abundance for centuries (Tainter, 1988, p. 71). More concretely, one can view the share of central government expenditures dedicated to military defense, which ranged between 35 and 80% in Germany from 1875 to 1913 (Castillo, Lowell, Tellis, Munoz, & Zycher, 2001). This is an extreme example from one of the most embattled states of the long nineteenth century, though these levels have been approached in the recent past during phases of active war.

Immune systems and armies impose costs, but they also impose risks, compounding the issue. Rheumatoid arthritis (Oelzner et al., 1998), lupus (Huisman et al., 2001), type I diabetes (Hyppönen, Läärä,

Reunanen, Järvelin, & Virtanen, 2001), Graves' disease (Yamashita et al., 2001), psoriasis (Staberg, Oxholm, Klemp, & Christiansen, 1986), Crohn's disease, and multiple sclerosis are but a few well-known representatives of a large class of autoimmune disorders wherein a system designed to manage parasitical invasion, attacks the host it was evolved to protect. The same risks pertain to armies designed to meet foreign threats, which can become the engines of rebellion and revolution. Allegiance of course was always at issue among armed forces where functional cooperation is so crucial, and so we see attempts to suppress individually selected selfishness through courts martial and summary execution. These are paired with oaths of allegiance and basic training, the use of promotion, epaulettes, stars, decorations, and other military baubles manufactured to induce group cohesion and commitment. Continued growth exacerbated the problem. The warrior king in the mold of Charles XII of Sweden, ruling from the saddle instead of the throne, had to watch for court intrigue but worried less about military coups. As states expanded, specialization ensued, with attributes beyond martial valor becoming increasingly important for state administration, while manifold demands on monarchs increasingly precluded direct intervention in distant adventures. This resulted in a division of labor between military and civil authority, another complexity necessitated by growth. For a society dividing labor along these lines, its continued growth, even its stable existence, sometimes hinged upon subordinating the military to the civil arm of government. This was done ably by Justinian and Belisarius of the Eastern Roman Empire, resulting in the reconquest of a portion of the Western Roman Empire. History furnishes examples of quite the opposite kind. Recall the juvenile Peter the Great of Russia witnessing the Streltsy Rebellion of 1698. Then there was the 1806 revolt of the Janissaries in the Ottoman Empiree; also, one can observe the effective civil power the late imperial Roman Army assumed after having been thoroughly interpolated with Germanic peoples. Indeed, subordination of military to civil power is a hallmark of stability within an emerging state or empire, as exemplified by Washington, who, when the American Revolutionary War was won, presented himself before Congress to formally tender his resignation and surrender his sword. This action purportedly inspired King George III to remark, "If he does that, he will be the greatest man

in the world." This earned Washington comparisons to Cincinnatus and Cato the Younger (Whitney, 2007), reminding us that Washington acted in accord with acute consciousness of the Roman tradition, which strictly subordinated military power to civil authority, at least as in the great days of the Republic. Having won battles and restored order, this is what Napoleon Bonaparte failed to do for the French Republic.

Moving on, one can see parallels between economic diversification (Cameron, 1993) and cellular differentiation, both of which are necessitated by augmented size. Complex, multicellular bodies are federations of cells combining into tissues, tissues to organs, and organs to systems. Rather than having the powers of procreation, motility, digestion, and defense within a single cell, large, multicellular life has evolved gametes, limbs, intestines, and scales, all differentiated parts. Like an eye without a brain or a foot without a leg, a single neuron or nephron serves no evolutionarily relevant function—it can neither survive nor procreate. The same is true of many specialized roles and functions within complex societies. The number of people dedicated to farming and husbandry has steadily fallen within the developed world. Surplus manpower, also gained through tapping fossil fuels, can then be invested in research, technological development, engineering, and a myriad other specializations. Persons then dedicate years in higher education to training and acquiring specialized knowledge, while correspondingly forgoing opportunities to acquire generalized knowledge relating to raising crops, managing herds, shelter construction, hunting, and all such activities occupying the time of persons living within less-differentiated societies.[10] As discussed by Adam Smith, differentiated production processes could yield much greater efficiency and output for society, though at the cost of denying a diverse skill set to individuals. This process continued with the rationalization of assembly line production, as practiced to such good effect by Henry Ford. The responsibility of the laborer is reduced to a single specialized skill, acquired at the expense of broad mechanical learning, and having no application outside the overarching production process. The roles of individual persons within such an advanced industrial society are analogous to those of the specialized castes seen among eusocial insects within their superorganismic colonies.

Rationalized, liquid money has been crucial to the advent of these circumstances. Money can lubricate the friction that would otherwise prevent fluent exchange among individual societal entities. Money can then be amassed as capital, which can be deployed to achieve otherwise impossible feats of collectivization, such as fielding the armies discussed above and building the infrastructure discussed below. Thereafter, it was the joint stock company that allowed further growth, representing "a response to the growing needs of a developing economy for a more flexible and efficient way of organising business activity" (Johnson, 2010, p. 108). Another important innovation was the *sinking fund*, a form of standing government debt capable of, at once, opening the purses of elite investors and aligning their interests with those of the state. Hamilton's Assumption Bill, passed into law over the suspicions of Jefferson and Madison, assumed state-accrued Revolutionary War debt within a sinking fund capitalized by elite investors who consequently found their interests allied with that of the federal government (Schachner, 1946). The modern financial market generally and the joint stock company and sinking fund specifically promote successful intergroup competition because it takes a cacophony of unrelated individuals, aligns their interests, and concentrates their power in the form of capital, as can be seen in the ascendency of Britain over France in the latter part of the eighteenth century. France retained higher land mass and population size, but still lost out to Britain in the race for empire, as can be seen in the outcome of the *Seven Years' War*. Though France under Jean-Baptiste Colbert progressed along this trajectory, Britain led the way with the *British East India Company* and other joint stock companies inaugurating a modernized economy, which allowed Britain to militarily punch beyond its weight a century later.

Lastly, one can see parallels between infrastructure and innervation. As eyes, ears, and the distal tips of fingers, to confer any functional advantage, must be wired with brains, so individuals, districts, and distant frontiers must be connected with capitals. Infrastructure enables penetration, allowing centralized rulers and agencies to administer regions directly, decreasing their reliance on local power brokers (Wimmer, 2013). The Roman example is again illustrative. The *Appian Way* is emblematic of approximately 100,000 kilometers of roads, which

facilitated the movement of legions, wheeled transportation, communications, commerce, tax collection, and migration, collectively forging "an imagined body politic that transcended the purely local, creating in the process an empire which bore all the hallmarks of an early and sustained globalization" (Hitchner, 2012). Navigable rivers similarly facilitate transport and trade within regions and empires, less often serving as boundaries than is customarily thought (Turchin, 2006). Rome was also reliant on water transport, pound for pound more economical than overland. Indeed, maps of Rome clearly show the Empire to be organized around the Mediterranean, connecting Europe, Southwest Asia, and North Africa into a coherent organization. David Livingstone's hopes of a profitable and prosperous colonization scheme were dashed when Africa's Zambezi River proved utterly unnavigable due to shallows and falls (Ferguson, 2008). As seen in the great age of canal building, however, successful penetration sometimes required the alteration of natural waterways or their wholesale creation. New York earned the cognomen, the *Empire State*, after its creation of the Erie Canal (Shaw, 1966), stretching from Lake Erie to the Atlantic Ocean via the Hudson River. As Neal and Cameron (2016) explain, this project was one among a sustained effort to tie the original thirteen colonies to those territories and new states further west:

> Another advantage of the size of the United States was its potential for a large domestic market, virtually free of artificial trade barriers. But to realize that potential required a vast transportation network. At the beginning of the nineteenth century the sparse population was scattered along the Atlantic seacoast; communication was maintained by coastal shipping supplemented by a few post roads. Rivers provided the only practical access to the interior, and that was severely limited by falls and rapids. To remedy this deficiency the states and municipalities, in cooperation with private interests (the federal government was scarcely involved), engaged in an extensive program of "internal improvements," meaning primarily the construction of turnpikes and canals. By 1830 more than 11,000 miles of turnpikes had been built, mainly in southern New England and the mid-Atlantic states. Canal construction got seriously underway after 1815 and reached a peak in the 1820s and 1830s. By 1844 more than 3,000 miles of canals had been constructed and more than 4,000 by 1860. (p. 257)

Public works projects like the Erie Canal inaugurated more than an explosion of commerce and industrialization: They assuaged fears that the continental interior to the west of the Appalachians would be dissevered from America's Eastern Seaboard (Bernstein, 2005). Eclipsing canal building, rail eventually connected the commercial activities of the original thirteen colonies with Western territories and newly minted states. Rail revolutionized Europe, having both economic and military implications, especially as it related to colonial possessions. Rail construction facilitated penetration, control, and resource extraction within colonized regions as seen in Japanese Korea (Duus, 1998), British West Africa (Dumett, 1975), and Germany's East African possessions (Henderson, 2012). Indeed, Wimmer (2018) demonstrated a correlation between rail length and per capita voluntary associations, linguistic homogeneity, and political representation. Moving information was just as important as moving people and goods. Consider the importance of the *Postmaster General*, which was instated prior to American independence and which held the status of a cabinet position for more than a century (Gallagher, 2016). Then came the telegraph, which was in use in British India by the 1850s and helped suppress later mutiny, with one mutineer identifying the telegraph cable as *that accursed string that strangles me* (Ferguson, 2008, p. 141). By 1880, nearly 100,000 miles of telegraph cable stretched over sea and land alike, connecting Britain with her colonies, past and present. Collectively inaugurating the Victorian revolution in global communications (Ferguson, 2008, p. 142), all in a concentrated space of industrialization, the telegraph, when combined with the steamship and rail system, presided over a shrinking world that was easier to integrate and control. Thus, we find the image of Cecil Rhodes as depicted in the *Rhodes Colossus*: astride the continent, draped in a telegraph line, with one foot in North Africa and the other in South Africa. All electronic messaging simply improved the speed, ease, and efficiency of communications throughout the telecommunications revolution. Never again would generals fight on in the field long after their civil authorities had sued for peace, as happened in the Battle of New Orleans.

In concluding this review of military, economic, and social interdependence, evolutionary comparisons seem ever more apt. As with the structures derived of *convergent evolution* wherein selective pressures evoke

similar adaptive solutions across time, space, and phylogeny, these cultural innovations have considerable manifest variation, even as they conserve fundamental latent similarities. Thus, even as their evolutionary histories and underlying mechanics are differently developed, the bat's and bird's wings enable flight in the same way that the semaphore and telegraph enable communication. As with the adaptive solutions of evolution, cultural evolution will produce more or less capable adaptive variations which will be culled through a selective process as groups compete with one another. Finally, just as the human brain and the giraffe neck meet with upper bound limitations, so too will interdependencies experience a point of diminishing returns as they tend toward the baroque in the service of unwieldy growth.

6 Removing Impediments to Growth: Ethnic Closure, Chosen Peoples, and Mortal Men

This final section considers the final phase of growth, that of empire. Confining our review to the example of the British Empire, we consider whether it is necessary to ethnically and religiously absorb subjects to progress from nation-state to empire and whether it is also necessary to socialize subjects via transcendent institutions radiating out from the center.

With island holdings from the South Pacific to Canada, added to India and the British Isles themselves, amounting to a 1909 peak territory of 12.7 million square miles (Ferguson, 2008), the British created the largest empire in history, on which the sun truly never set. Collectively, the foregoing facts deserve explanation. Why was the British Empire, and the Roman Empire before, so astonishingly successful? Any answer might occupy an entire volume or even ten, though, before even outlining an answer to this question, we should explain and operationalize *success*. Commonly endorsed social desiderata such as *democratization*, *liberalism*, or *benevolence* might be understood as inherently laudable signs of success. Yet, if so defined, the British Empire was only successful with respect

to those subjects sharing in a full measure of citizenship. Colonial subjects, in contrast, often experienced semipermeable social hierarchies and inequitable, insalubrious, or iniquitous vocational roles and, in many other ways, were subject to exploitation. We approach the subject from a more staid, biological, and quantifiable view, understanding success as akin to power and stability; and the ability to subordinate a mass into a functional whole, to keep internal order, to act beyond one's numerical influence in competition with other societies as borders are defended and national integrity is upheld. This includes stability through time in a country's institutions, cultural continuity, and the like. This operationalization then follows from an understanding of group selection and is grounded in the historical competition taking place between groups. In short, by success, we mean successful aggregation. Needless to say, it has nothing whatsoever to do with ethics of goodness, human flourishing, or social desirability, all value-laden terms applicable to applied political science but inapplicable to understanding group aggregation.

Most obviously, without industrialization and advances in infrastructure technology, the vastness of the British Empire could not have been. More than this, Victorian Britons had an unusual mixture of temperament, at once entrepreneurial and pious, which they shared with some of their Puritanical forebears. Thus, at least a moiety of Britons seemed to believe that the act of colonization was not unambiguously exploitative, even as objective metrics demonstrate the realities of resource extraction, abuses of power, and lethal skirmishes. The whitewashed perception of colonization is seen in Rudyard Kipling's assumption of the *white man's burden*, which represents a sense of paternalistic responsibility. The missionary zeal expressed in Lachlan Macquarie's government of Australia and David Livingstone's proselytizing efforts in sub-Saharan Africa are among the many examples of mixed motives governing British colonization (Ferguson, 2008). In these efforts, one can read the spirit of a group-selected society, confident in its righteous might, which was exporting its people and culture to distant lands. Overall, innumerable examples of slaughter, confiscation, and oppression belie these professions and protestations; however, in some persons and places, their expression may well have been genuine, a potential fact relevant insofar as it served to soften resistance to colonization.

Like Rome in the vigor of its youth, Victorian Britain was demographically fecund, shipping her sons forth to subdue, administer, and populate distant possessions. Like Rome, Britain also exported order. Good governance was ensured by meritocratic advancement on tests, as had so long bolstered Confucian China. Yet, the essence of good government relates to the stance taken toward conquered peoples, where empires are concerned. Though it did not show the same wisdom with respect to sub-Saharan Africa, and notwithstanding the recalcitrant pique exhibited during the war for American independence, Britons could show respect, or make a show of respect, for a peoples' cultural heritage that palliated the pain of colonization, as they did with India. Furthermore, Britons showed themselves capable of conscious progress along these lines. In the wake of the *Sepoy Mutiny*, Queen Victoria issued an 1858 proclamation, assuring the peoples, princes, and chiefs of India that the crown had assumed the reins of governance from the *East India Company* and would henceforth ensure freedom of worship and equal protection under law (Ferguson, 2008). Britain had realigned its policies to keep India in the fold. This allowed a profitable British-Indian Empire to endure through the nineteenth century and even elicited an outpouring of support for the "mother country" as she was pressed by the German World War I offensive. More than this, in the half century before World War I, Britain had enlisted Indian troops in more than a dozen campaigns (Ferguson, 2008). During World War II, five million troops were raised throughout the empire, matching those raised in the United Kingdom itself. All this was gained on the cheap. Looking at the year 1898, we see military expenditure at 2.5% of gross national product and more Indian soldiers in the field than those of ethnically British stock (Ferguson, 2008). This is not to depict the British Empire as a positive good, it is only to say that the British strategy of colonization, like the Roman, was less onerous than it might have been. Where the British were best able to keep the Empire together, the yoke was light, the benefits obvious, and the reprisals for resistance extreme. Under such a regime, cost-benefit analyses of sticks and carrots routinely militated against resistance. Such concrete factors could be debated, and also multiplied, but we forbear. The strength of its institutions, extensive military power, and the ability to enlist local elites within a durable bureaucracy were among many centripetal forces

counterbalancing the centrifugal forces created by exploitative arrangements, the incapacity to mount viable rebellion, and the inability to present a united front against the colonizing outgroup.

Andreas Wimmer's models and historical analyses are supportive of several conclusions above. First, weakly voluntary associations are enabled by the provision of public goods and some manner of political participation. Both Britain and Rome provided this. Additionally, both Britain and Rome transitioned from nation-state to empire by avoiding rigid extremes of *ethnic closure*. Wimmer (2013) contrasts how ethnic nationalism restricts imperial growth:

> Imperial elites thus had incentives to conquer other states and to permanently incorporate their territories into their domain. Nation-states, however, cannot legitimately rule over vast numbers of ethnic others, given that they are built on national self-rule as their legitimizing principle. (p. 27)

Ethnic exclusivity can create strong cohesion but creates upper bounds to the inclusion rate, thus, limiting growth and group size. The British, like the Romans, were able to incorporate peripheries into the core, sewing on appendages to the body politic, because many British possessions ultimately identified with the mother country on some level. This is true of America before and after the revolution; it was also true of India, Australia, and Canada. Britons exported Britishness, a commodity not to be lightly spurned. This was a cultural ethos pregnant with durable institutions, an inspired religion, and patriotic sentiment capable of extrapolation and importation. The value of these features is highlighted by contrast: opposite the stable system of governance radiating across the British Empire was the autocracy of Napoleonic France, with its cult of the emperor; opposite the insularity of Judaism, there is the universalist propensity of Christianity; and opposite the ethnic nationalism of twentieth-century Germany, there was the patriotism of Britishness. Take pause at this subtle point. We would judge that Napoleonic France, Jews, and nationalist socialist Germany were all comparatively more group selected. The point, however, in this chapter on growth, is that their transience in the first instance and insularity in the latter two, while serving as pillars of group-selected cohesion, created a closed loop difficult for outsiders to penetrate.

Colonized peoples would never be Britons, but some were allowed to be British. This afforded the right balance between inclusion and exclusion, which Moffett (2019) finds to underlie enduring political arrangements. Colonizing peoples do not then feel diluted, and colonized peoples do not feel utterly absorbed. In the language of multilevel selection theory, one would say that this allows colonized peoples to layer a level of superordinate group affiliation over and above preexisting subordinate group affiliations. Additionally, it is clear that colonized elites must be co-opted rather than defied if the colonizing country is to avoid the repressive costs of a police state, with subjects ready to rebel when the opportunity presents. Wimmer explains that, with a multi-ethnic region or state, and certainly within an empire, peace is fostered by inclusionary power sharing, tying elites to other segments of society. These many factors discussed by Wimmer, and applicable to the case of the British Empire, are generalized by Gat (2006) in a passage that merits extended quotation:

> Furthermore, whatever other mechanisms—economic, social, or religious—contributed to the formation of state authority in relatively small and close-knit communities, military power and war were predominant in the formation of larger states, which welded together distinct and different communities, and, indeed, separate societies, ethnicities, cultures, and polities. In such expansions, the state was all the more an instrument of power, ruling through conquest, subjugation, and coercion, at least until other bonds of cohesion evolved. For, in due course, spreading state power had a unifying effect on its realm, as contact and integration increased through the binding effect of the state's apparatus, state's religion and language, improved communications, cultural diffusion, elite integration, population movement, larger-scale economy, and military service. The expansion of the state thus had the effect of gradually diminishing tribal and local boundaries within the same ethnos, and of reducing the differences between separate ethnies in multi-ethnic states and empires, subsuming them within supra-ethnic identities, even to the point of creating new, transformed, and larger ethnic identities. (p. 358)

As trade-offs, bioenergetic and otherwise, are ubiquitous in biology, we surmise that trade-offs will become evident when systematizing these

inquiries into empire building. Extrapolating for now from the British model, there appears to be a trade-off between *group size* and *group cohesion*. While the British Empire avoided ethnic closure, insularity, and cults of personality, all of which facilitate imperialism, it could temporarily cobble together subordinate group allegiances, but not efface them. Bankrupt and hobbled after the world wars, Britannia could no longer project power over its subject peoples. What took three centuries to create took three decades to dismantle (Ferguson, 2008). Britain itself did not disappear, but retracted to its isles, becoming a nation-state, more internally cohesive, if less grand.

7 Conclusions

Feudal networks eventually formed the local nodes upon which many nation-states were mapped, with founding myths and national heroes serving as a sort of psychological substrate of the nation-state. Aggregated against an enemy, sewn together by myths and legends, led by heroes, a mass of people can form into a nation, or bud from an existing nation, with the aid of propaganda and punishment. At the behest of moral emotions, nonconformists are punished from the bottom-up, and thereafter, with the growth of the group, from the top-down. Dissent and defection are suppressed through punishment, or otherwise its source is eradicated through exile or execution (e.g., Wilson, 2002). With these engines of group cohesion in place, further growth is facilitated by and requires economic, social, and martial interdependence via systemic differentiation. As has been illustrated with the British model, the final phases of growth into enduring empires proceed from the removal of impediments to growth. A cultural ethos must be preferred to strict ethnic closure; ecumenical proselytization must be preferred to an insular body of chosen people; and enduring institutions must be preferred to mortal men. Even when all these barriers have been transcended, as happened in the British Empire and to some extent the Roman Empire, the strength of the whole derives from its mass more than its density; that is to say, even in the most successful empires, there will be hierarchically nested groups based on closer ethnic ties and regional commonalities, which can be the object of

reversion and disaggregation when the projection of empire weakens. Lower levels of organization, such as ethno-states, can be more highly group selected and thereby committed, zealous, and competitive; but these, in turn, will have to compete with the vast weight of empire.

Notes

1. Religion only competes with language in its ability to propagate across national boundaries, capturing large swaths of diverse persons across populations as illustrated by the definition of Catholic as inclusive, or through ecumenical efforts aimed at reconciling Christian sects, or by virtue of the great traditions of missionary proselytization taking place from biblical times to the European colonization of Africa and the Americas. Religion may well have mapped more directly onto lower levels of social organization, such as tribes, regions, and states, but the great religions have long transcended these confines. Analogous to supranational organizations, federated unions, and vast empires, religions play a crucial role in human evolution, allowing conflict and competition to play out at higher levels of organization, as seen in the crusades waged between Christians and Muslims.
2. Rochambeau understood the difficulties that New York presented. New York sometimes swelled with loyal opposition, but, more than this, it was heavily fortified by British forces, a process that had commenced after Washington's defeat and had proceeded conscientiously for five years.
3. This particular phase in the annals of the Franco-American alliance can be productively studied from a multilevel selection lens, though we focus here on Rochambeau's later reflections and their significance specifically to men and myths.
4. Presently, we distinguish between rhetoric and propaganda; the former persuades, the latter persuades by deception. Eloquence, argument, and marshaled facts change men's minds, and this can surely shade into sophistry; but propaganda crosses a line into misinformation. Of note, this usage is traced back to World War I, where the term first firmly acquired its association with "the transmission of fraudulent information."
5. This is a quote of John Adams, speaking about the Americans that confronted British soldiers during the Boston Massacre.

6. We should note that we have focused only on the sedition portion of the Alien and Sedition Acts. This legislation's focus on limiting alien dissidents is likewise significant for group selection.
7. Ostracism is sometimes referred to as *shunning* among modern insular, genetically homogeneous groups, such as the Amish (Gruter & Masters, 1986).
8. https://www.britannica.com/topic/ostracism
9. A purported ranking member in the Prussian Army.
10. The process is gradual, with gentlemen scientists of the nineteenth century like Darwin exposed to much more generalized knowledge than a modern geneticist, while an eighteenth-century statesman like John Adams still managed a farm.

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