Rethinking Individualism and Individuality: Part I: From individualism to individuality

GUS DIZEREGA

Abstract: Early liberal thought was rooted in John Locke, whose arguments emphasized individuals as God's creations, and so endowed with equal moral standing vis-à-vis one another. While Locke's arguments for his theory of equal rights have been largely abandoned, his conclusions emphasizing individuals as society's fundamental moral units, possessing equal human rights, remain. Broadly speaking, these individualist, rights-based, deontological, and utilitarian approaches dominate contemporary liberal thinking in the U.S.

David Hume and other Scots challenged Locke's Enlightenment rationalism, arguing societies developed in ways today we would describe as evolutionary. Customs and institutions arose through human actions, but usually not by deliberate design. This line of thought can be traced from the Scots to the Humboldt brothers to Charles Darwin, and has since been powerfully reinforced by modern evolutionary biology and F. A. Hayek. Rooted more in science than theology or philosophy, this evolutionary approach offered an alternative route to liberal principles. Whereas the social sciences often seek to emulate the natural sciences, in this case the influence was the other way around.

From within either broad liberal tradition, equality under the law and freedom of cooperation facilitate the development of customs and practices most conducive to human well-being. However, when examining policies respecting liberal values, the two approaches point in very different directions. Similar tensions exist in biological evolutionary science.

Keywords: conservatism, Darwin, ecosystem, evolution, Hayek, Humboldt, Hume, individualism, individuality, liberalism, Locke

THE INDIVIDUALIST LIBERAL TRADITION

Liberalism is arguably the most successful political ideology of all time. What identifies liberalism is not an intellectual lineage, but a set of conclusions rather than an argument leading to them. For liberalism, no matter how arrived at: individuals are society's basic *moral* unit and in this sense, all individuals are equal. This distinction clearly distinguishes liberalism from competing ideologies such as Marxism, nationalism, racism, or theocracy.

We can trace central elements of liberal thought back at least as far as Thucydides' Funeral Oration and Aristotle's

reference to Greeks who opposed slavery. But as a developed argument, liberalism emerged with John Locke's *Two Treatises on Government*.

John Locke's liberalism was a product of the Enlightenment, sharing its general confidence in the power of reason. Locke's derivation of liberalism's core principles was also theological and individualist, reflecting the society in which he lived. Our most basic rights came from God, as interpreted through Locke's unusually tolerant understanding of Christianity. This equality of rights was fundamental to Locke's criticism of Robert Filmer's case of monarchy rooted in patriarchal values (Locke 1965, pp. 307-8). Men, women, and even children had individual rights by virtue of their common divinely created humanity. Since everyone had equal rights, legitimate government was necessarily rooted in consent.

Locke's liberal Christianity was based less on scripture than on his experience as an exile on the continent. The only European country where genuine toleration of religious denominations outside the state church existed was the Dutch Republic, where he lived for a number of years. Locke had been impressed with the vitality and freedom he found there as well as in Cleves, Germany which enjoyed similar liberties (Simonutti 2006; McCloskey 2016, p. 343). With that all-too-rare tolerance, economic and cultural riches emerged so powerfully in the Netherlands that some historians describe 1609-1713 as the country's "Golden Age."

In his *A Letter concerning Toleration*, Locke argued: "It is not the diversity of opinions (which cannot be avoided), but the refusal of toleration to those that are of different opinions (which might have been granted), that has produced all the bustles and wars that have been in the Christian world, upon account of religion" (Locke 2010). Locke's insight had little to do with political theory, but was firmly rooted in the European experience he encountered. It was later incorporated into political theory in James Madison's *Federalist 51*: "In a free government the security for civil rights must be the same as that for religious rights. It consists in the one case in the multiplicity of interests, and in the other the multiplicity of sects" (Madison 1961, p. 324).

Locke had also been impressed with his friend, Isaac Newton's, scientific work, and considered his own approach in harmony with Newton's (Ansley 2017). Like most scientific research of the time, Newton's ultimate framework was also theologically rooted. Today, many moderns make fun of Archbishop James Usher's calculation that God created the world on Sunday, October 23rd, 4004 BCE. Newton largely agreed with Usher, dating its creation at 4000 BCE (Reynolds 2010).

Newton's theory of gravity depended on a very un-mechanistic action at a distance, however applying it promoted popular mechanistic ways of thinking very compatible with Protestant individualism. A world where otherwise passive objects were acted upon from without, unless they were human, was compatible with a deeply individualist ontology as well as divine creation.

Locke's argument for liberalism combined liberal Protestantism and Newtonian science as foundational:

1. Each individual's autonomy is rooted in their being discrete and equal creations of God. Therefore, they may not be legitimately coerced to do another's bidding.
2. The world is a material storehouse of resources made available to human ingenuity. Matter operates mechanically, is deterministic, and, unlike human beings, is purely objective.
3. A central task is to devise rules whereby individuals can use these resources, subject to the proviso that the human community as a whole does not suffer in the process.

Locke's social contract describes how reason alone could discover the rules needed for maintaining a free and just society. Unlike Hobbes, with whom he is often compared from both the ideological right and left, Locke had a strong sense of human sociability. Describing life without a government was "inconvenient," not "solitary, poor, nasty, brutish, and short." Rather than living in fear, people were biased when weighing their desires against those of others. Unlike Rousseau's image of a state of nature where mostly solitary individuals lived in isolation, for Locke, in the state of nature the complexities of social life already existed.

What was most needed was an umpire, not a constable, let alone a "Leviathan" or general will. For Locke, fairness, not force, came first in making complex societies possible.

Locke's emphasis on individual rational judgement leading to a social contract obscured his tacit appreciation for of our sociability. Society provided the framework within which equal individuals pursued their interests, and, by establishing fair means for settling disputes, legitimate government enhanced it. Rational self-interest enabled people to create and maintain society, and the rule of law addressed the remaining problem of people being unreliable judges in their own case.

THEORY TO PRACTICE

While necessarily focused on specific political communities, early liberals used universal arguments to make their case. English culture was more individualistic than was the case in most of the world, and so universal claims were expressed in individualist terms (Henrich 2020). In doing so, they helped spread liberal principles throughout Europe, and eventually the world. But Locke's argument also reflected the culture in which he lived.

English culture was almost unimaginably different from our own. Hierarchy was all pervasive. Political domination by a hereditary aristocracy was taken for granted, and the only powerful competitor was an even more hierarchical monarchy. Religion was state enforced. Everywhere social stratification was legally mandated. For example, other than a contract mandating it end at a certain point, (if the contractee survived) indentured servitude was common and otherwise resembled slavery. In Scotland, as late as 1775, workers in coal mines and salt works could be bound to their work for life, could not change employment, and could be sold by owners of the property where they worked. They were not considered slaves or indentured because they were paid (Davis 1999, pp. 490-1).

Less than 100 years later, Locke's arguments had penetrated important sectors of English society and its American colonies. Principles considered radical in his time could survive editing by a committee and be approved by the Continental Congress in the Declaration of Independence. In Jefferson's words, the Declaration sought (Jefferson 1825) "not to find out new principles, or new arguments, never before thought of, not merely to say things which had never been said before; but to place before mankind the common sense of the subject, in terms so plain and firm as to command their assent, and to justify ourselves in the independent stand we are compelled to take."

The preamble to the American Declaration of Independence reads like a paraphrase of portions of Locke's *Second Treatise*. So great had his influence become that Thomas Jefferson described Locke as one of the three greatest people to have ever lived, the others being Sir Francis Bacon and Isaac Newton (Jefferson 1789).

Locke's model for creating and establishing a just polity was also reflected in later arguments for the American constitution. *The Federalist* described the proposed constitution as a contract between Americans as individuals, creating a government subordinate to them. Locke's rooting sovereignty in the people as equal individuals and not in a post-contractual government is absent in Hobbes or Rosseau, the other two most important social contract theorists of the time.

There was an additional assumption embedded within this way of individualistic thinking. We existed within a world understood in terms compatible with Newtonian mechanism. As Martin Landau put it, "In one form or another, in greater or lesser degree, the Founders' thought rested on the image of a world machine" (Landau 1972, p. 90). The constitution was intended to balance powers while simultaneously preventing minority veto, ensuring an effort to favor policies beneficial to all (diZerega 2000, pp. 57-110).

APPLICATIONS

Applying abstract liberal principles to reform illiberal ways of life turned out to be more difficult than originally anticipated. Chattel slavery was universal in the first nation claiming to base itself on liberal principles. The Founders sought to avoid the issue and also dodged their principles' implications for Native Americans and, to a lesser extent, women. There was a gulf between revolutionary ideals and daily practice. But today too much is often made of this failing.

Ideas are not just window dressing, though they are often that. They are also transformative. In 1788 John Jay, Governor of New York, the country's first Chief Justice, and an early voice for abolition, wrote the President of the English Society for Promoting the Manumission of Slaves:

> Prior to the great revolution, the great majority or rather the great body of our people had been so long accustomed to the practice and convenience of having slaves, that very few among them even doubted the propriety and rectitude of it. Some liberal and conscientious men had . . . drawn the lawfulness of slavery into question, . . . Their doctrines prevailed by almost insensible degrees, and was like the little lump of leaven which was put into three measures of meal: even at this day, the whole mass is far from being leavened, though we have good reason to hope and to believe that if the natural operations of truth are constantly watched and assisted, but not forced and precipitated, that end we all aim at will finally be attained in this country.

Abolition happened more slowly than Jay and many other Founders had hoped, largely due to the invention of the cotton gin (Davis 2006, p. 125). Even with this economic roadblock, for the first time in many thousands of years slavery had to be defended against increasingly popular arguments.

Due to the impact of liberal values, often presented in religious rather than philosophical garb, for the first time in thousands of years, anywhere, slavery was abolished (Davis 1999, pp. 213-54, 523-56). In 1777, while still an independent republic, Vermont abolished slavery. Inspired by the American Revolution's ideals, if not American practice, Haiti abolished slavery in 1804. England abolished slavery in 1833 and most American states had done so peacefully well before the Civil War.

Slavery's abolition marked a decisive change from societies where hierarchy and privilege were taken for granted to one where such distinctions needed to defend themselves. In addition, the arguments against slavery could be applied against other forms of hierarchical domination in societies defined by such domination. If slavery was wrong, all other forms of domination were also open to challenge. For the first time in thousands of years hierarchy had to be defended.

Particularly in the American case, the logic for pursuing liberal reform was embedded within its basic documents, providing an internal standard for criticizing and seeking to end the many ways its society fell short of them. Even if liberalism's full implications were not recognized, liberal values provided the foundations for political equality and equality under the law among larger populations than ever before. As the scope for cooperation among equals expanded, a profound division began to distinguish societies shaped by relatively liberal values from those not so shaped.

TRANSFORMATION

Like so many important insights, Lockean liberalism ultimately led to outcomes unimagined by its creator. His arguments provided feminism's intellectual foundation, as Abigail Adams clearly saw, when she wrote her husband John, then serving on the committee crafting the Declaration: "Remember all Men would be tyrants if they could. If particular care and attention is not paid to the Ladies we are determined to foment a Rebellion and will not hold ourselves bound by any Laws in which we have no voice or Representation" (Adams 1776). It would be a long time before Adams' insights penetrated deeply enough into society to influence relations between the sexes, but her message was embedded in its founding values, and some

Americans realized this. New Jersey went farthest, giving women and free Blacks explicit constitutional recognition as voting citizens, until Jeffersonians eliminated the provision because they had tended to vote Federalist (Brockell 2020).

Other impacts came more quickly and securely. Liberal principles expanded the realm of legal equality, enlarging the breadth and depth within which mutually agreeable cooperation could take place (McCloskey 2016, pp. 227, 263-4, 283). Consequently, information became more accessible and more people were free to make use of it.

These principles' substantial institutionalization in America, England, and later Western Europe transformed life in ways no one could have foreseen. However, overcoming illiberal patterns of thought often proved difficult and was often only partial. During the social transformations made possible by liberal ideas, many dominant views about reality held by early liberals were discarded, most spectacularly in science (Toulmin 1990, pp. 109-19). Locke's original Christian-derived explanation for human rights no longer satisfied many liberals. The view that individuals have ultimate responsibility for their own behavior remained a dominant principle but needed more persuasive foundations. A still ongoing project of individualist liberal political thinkers has been seeking to find arguments for individualism supporting this position but not rooted in theology.

If individuals are society's basic moral unit, and all are equally so, just social policies must be able to win informed rational consent. If individualism is assumed, it follows that, because everyone has needs, and these needs appeared best achieved through instrumental contractual exchanges. Liberalism implied economic principles embedded in the logic of contract. To this day, this way of conceiving social action dominates liberal economics and its ideals of rational calculation. From economics this calculative model then spread into the social sciences more generally (and, as we shall see, even into biology). From this perspective, understanding a reductive linear process rooted in individual choice was the key to creating a free and just society. This view now shapes dominant social science methodologies such as "methodological individualism" and "rational choice" theory.[1]

There is a paradox here. An ideology reflecting an unusually culturally and religiously individualist society made universal claims that, whenever established in law, radically transformed their societies in undreamt of ways. Even most European societies were not individualist in the ways liberal ideology described (Henrich 2020; McCloskey 2016). Liberalism's cultural achievements were revolutionary, but the cultural foundation giving them birth was very narrow.

SCIENCE

The rise of science preceded the rise of liberalism, and arguably helped birth it, given Locke's friendship with Isaac Newton. The scientific mentality has always been with us, but science as a system for enlarging human knowledge is new. Aristotle and similar geniuses had long worked alone, or within small face to face communities. However, sustained growth in specialized fields of knowledge could not be supported within such communities, no matter how individually brilliant their members.

Modern science was largely made possible by the printing press. This invention facilitated widespread communication among people who would never meet physically, and one of the results was the rise of communicative networks exploring various investigations into the nature of physical reality. No matter where they lived, early scientists could inspire and benefit from one another's work.

Michael Polanyi observed "in the free operation of independent scientists we shall find a highly simplified model of a free society" (1969, p. 49). Within the growing scientific community arguments were taken seriously with far less attention than before to a person's status. The result was an explosion in reliable knowledge about the material world (Ziman 1978). However, the liberal principle of equality among equals was largely limited to science in otherwise very illiberal societies. Even so, its impact was transformative.

For example, the discovery of oxygen was almost simultaneously made by a Swede, Carl Wilhelm Scheele, an Englishman, Joseph Priestley, and a Frenchman, Antoine Laurent Lavoisier. Scheele first rec-

ognized the substance. Using a different method, Priestley published first, and is usually credited with the discovery. Lavoisier performed the experiments proving what these men had discovered was an element, rebutting an important competing theory that burning was caused by phlogiston. Based on oxygen's discovery, many scientists were inspired to search for other elements, and chemistry began moving from alchemy to science as we understand it.

In reality the actual gas had been discovered about 100 years earlier, by a Polish alchemist, Michael Sendivogius (1566-1636) and in 1621, a Dutch engineer, Cornelis Jacobszoon Drebbel (1572-1633), had even used it to sustain life in a submarine (Poole 2017). But networks of interconnected scientists did not then exist. These discoveries were not built upon, as were those to come.

What mattered was communication among relative equals. Lockean liberalism established this as an ideal, but the rise of science had already demonstrated its potential, as had the impact of religious toleration in the Netherlands.

AN ALTERNATIVE EMERGES: THE SCOTTISH ENLIGHTENMENT

By Thomas Jefferson's time an alternative liberal perspective was arising, one emphasizing human beings as social as well as equal, and with implications that could, in principle, be derived from within any society, rather than applied to it from outside principles, as Locke had done. Its roots emerged from examining what Locke had taken for granted: the existence of society itself.

Like earlier Enlightenment thinkers, men such as David Hume, (1711-1776) Adam Ferguson (1723-1816), and Adam Smith (1723-1790) distrusted ideas based on authority. However, they were also skeptical reason alone could create a society better than the one preceding it. Consequently, they also rejected constructionist social contract arguments, whether rooted in Hobbes, Rousseau, or Locke. To make their case, they had to explain how complex cultures could arise independently from either divine direction or rational construction. To do so they had to explain the unintended growth of human institutions. Adam Smith's memorable observation describes this foundational insight (Smith 1776, IV, II, 9, 349):

> Every individual … neither intends to promote the public interest, nor knows how much he is promoting it … he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.

Smith was primarily focused on what we narrowly call economics. However, his observation "as in many other cases" suggests he had more in mind (McCloskey 2016, p. 203). As Adam Ferguson (1980) put the matter, society as a whole was, "the result of human action, but not the execution of any human design". Smith, Ferguson, and others sought to show how complex social orders could arise independently of the intentions of those whose actions created them. This explanation became the basis for their case for liberty.

The "invisible hand" applied whenever freely chosen individual actions operated within a system of rules generating feedback signaling how their actions could have a greater chance of success, while having a beneficial effect on the larger community. Societies were sustained by complex networks that sustained common customs facilitating cooperation among strangers, while modifying them through processes of mutual adjustment. No one could grasp such complexity or deliberately create such an advantageous situation. Instead, desirable changes in the overall order were often best achieved through piece- meal evolution and independent adaptation. Customs that ceased being useful were gradually weeded out while those proving advantageous to society as a whole flourished.

In political terms the implications were both liberal and conservative, but leaned strongly liberal. Edmund Burke, the conservative thinker most closely associated with insights from the Scottish Enlightenment, shared their rejection of individualist liberalism's abstract defense of liberty and appreciation for evolutionary processes shaping society. Burke (1920) observed:

> Civil freedom . . . is a blessing and a benefit, not an abstract speculation . . . social and civil freedom, like all other things in common life, are variously mixed and modified, enjoyed in very different degrees, and shaped into an infinite diversity of forms, according to the temper and circumstances of every community.

Burke was not alone. Lord Acton combined liberal sympathies with a conservative's confidence that hierarchy stood between peace and disorder. During the American Civil War he wrote Europe's institutions survived because, having stood the test of time, they proved either "necessary or conducive to the general advantage" and had America's success persisted, it would "destroy the validity of that defense [and] then the only inducement by which the masses of mankind will be made to tolerate the evils and injustice incident to our system of society will be the short-lived argument of force." But it had not succeeded. The Civil War had proved "these judgments were premature." Acton argued "The North has used the doctrines of democracy to destroy self-government. The South applied the principle of constitutional federation to cure the evils and to correct the errors of a false interpretation of democracy" (Acton, 2010).

Acton completely missed what had happened before, during, and after the Civil War. The violations of freedom he sometimes correctly saw in Northern prosecution of the war were due to the fact that it was at war. Once peace returned those abuses rapidly diminished. Because the North was largely liberal culturally, the principles of democracy as a spontaneous order rapidly replaced those of democracy as an instrumental organization (diZerega 2011). The Bill of Rights survived and were strengthened (Amar 1998, pp. 137-294). There was no weakening of privacy or the right to hold property. Rarely has a major thinker gotten a prediction more wrong.

The Scots' theory described how change could happen in societies of many kinds. However, as Leslie Marsh emphasized, this approach served liberal values because it criticized what elites could deliberately accomplish, compared to independent networks of voluntary cooperation shaped by past successes and failures (Marsh 2018, p. 168). The Scottish approach distrusted hierarchy *because* it appreciated invisible hand processes and was skeptical of hierarchy as its own justification. The case for legal and moral equality arose from acknowledging universal ignorance, dethroning claims for top-down guidance by either elites, or abstract reason. The more utopian ideal of a society perfectly respecting abstract rights was abandoned, preserving conservative insight within a liberal context. Better if people started with where they were and then tinkered, but always privileging facilitating equal relations of cooperation.

The average person's capacities were not so much elevated as elites' capacities were demoted. Such a perspective was harmonious with Lockean arguments for individual moral and legal equality, but arrived at differently. The case against hierarchy was rooted in acknowledging everyone's limitations, rather than asserting everyone's rights. Hierarchy needed to be subordinated to liberal values, but not necessarily abolished by them.

This framework did not oppose deliberately chosen changes, but viewed such proposals within more complex contexts. The larger the chosen change the less its chances of success due to the impact of unanticipated factors. However, this caution was itself embedded within a distrust of hierarchies of status and power.

Looking ahead: the Scots were developing an ecological and evolutionary model where complex relations ordered by procedural rules such as contract among equals generated complex patterns assisting participants to make effective use of information they themselves did not possess. Since reason and planning could not account for the complexities of social life, a time-honored distinction between human beings and other life forms was demoted. As the gap between human and other biological life narrowed, evolutionary concepts able to explain both emerged as possibilities.

ALEXANDER AND WILHELM VON HUMBOLDT

The next major development shaping a post-Enlightenment "evolutionary liberalism" originated in the work of the brothers Wilhelm and Alexander von Humboldt. Wilhelm (1767-1835) was a leading German liberal who applied similar insights as the Scots to analyzing language, which he identified as a rule-governed system, enabling an infinite number of sentences to be created from a finite number of grammatical rules. Humboldt contrasted this perspective with views of language as a collection of words and phrases paired with meanings. Language was another realm of invisible hand phenomena.

While Humboldt initially shared the deeply individualist ethic characterizing rights-based liberalism, he emphasized people's universal social embeddedness rather than their status as individual right holders. People were immersed in complex linguistic and other social relationships shaping who they were, rather than existing as self-contained individuals. Every individual perceived the world through the medium of language. Context mattered. Humboldt's perspective led to a conception of the good society as not simply protecting individual rights, but facilitating "the absolute and essential importance of human development in its richest diversity" (W. Humboldt 1969, p. 51).[2] Language's open-ended richness invited human beings to explore and develop the insights it made possible, and no individual or single group could possibly explore the whole. As he observed, "the very variety arising from the union of numbers of individuals is the highest good which social life can confer . . ." (1969, pp. 22-3). Humboldt's focus on contexts within which people lived contrasted with the Lockean emphasis on abstract rights existing independently of context.

Dissatisfied with rights-based arguments, many liberals found this approach attractive. John Stuart Mill (1975, pp. 179-80) wrote Humboldt was a major influence on him while writing *On Liberty*. F. A. Hayek agreed with Mill about the value of Humboldt's insight (Hayek 1960, p. 394). For Hayek, Humboldt, along with his friend Friedrich Schiller, were two of the greatest German liberals (Hayek 1967, p. 108). Hayek also applied similar reasoning as Humboldt's to evaluate a society's quality: "the best society would be [where] we would prefer to place our own children if we knew their position would be determined by lot" (Hayek 1976, p. 132).

Unlike many forms of individualist liberalism, Humboldt's framework did not define the acceptable specifics of liberal policy in advance. Initially, Humboldt himself advocated a minimal state, a view popular with libertarians today. Mill advocated an activist state based on the same principles. In comparing the two, Andrew Vails wrote "Mill's more substantive view of self-development means that more specific conditions are necessary to foster it, while Humboldt's more open-ended view implies no particular conditions, but rather requires only the proper attitude toward the conditions in which one finds oneself" (Vails 1999). Hayek's own thinking about public policy fell somewhere between Mill and Humboldt. While Humboldt was originally very sympathetic to individualist perspectives, their differences were ultimately empirical rather than philosophical: what conditions were necessary for optimum individual development? Without changing his approach, over time Humboldt came to have a more favorable view of state assistance in education, as his work in Prussia led him to more concrete interpretations of his core insight (Vails 1999).

For each of these men, a policy was evaluated more on its practical results than on independent abstract principles. This post-Enlightenment approach to liberalism emphasized evaluating a policy, wherever the conclusions might lead, rather than the individualist approach delimiting the scope of morally legitimate activity in advance.

Wilhelm's brother, Alexander, (1769-1859), developed similar insights, although largely focused on different questions. Arguably the most famous scientist of his time, Alexander Humboldt's studies covered many fields, some of which remain foundational for scientific work even today. Once science had developed enough to grasp their significance, insights that were ignored at the time, such as the evidence he found for an ancient connection between South America and Africa, proved prescient. Most importantly for my purposes, Humboldt transformed the way scientists looked at nature, from a narrow focus on classifying organisms taxonomically to investigating their relationships with climate, elevation, and geographical location. Humboldt was the first to understand climate was created by the interactions of the atmosphere with

oceans, vegetation, and elevation, rather than just collecting data on temperature and weather and founded the field of biogeography (Wulf 2016, pp. 66, 291).

During his research in South America Humboldt was perhaps the first to observe how human actions could influence climate for the worse, expanding on an insight of Plato's that had been largely ignored for 2000 years (Hughes 1994, p. 73; Plato *Critias*). Humboldt's studies in South America, particularly of Lake Valencia and its immediate environment in what is now Venezuela, emphasized how short-sighted actions, focused only on production for profit, destroyed the foundations of long-term prosperity (Wulf 2016, pp. 63-7). A society serving human well- being over the long term needed to adapt its actions to harmonizing with even more fundamental natural processes. Although writing before the discovery of biological evolution, his ecological approach proved implicit within the later discovery (Lekan 2004, pp. 53-4).

Alexander Humboldt shifted biological focus from examining how individual organisms differed from or resembled others (a kind of individualist approach) to examining their relationships with other organisms and their larger environment, both in space and in time.

Wilhelm focused on complexity within the human world, while his brother emphasized the larger context of the natural world, which included the human societies existing within it. Arguably, Alexander Humboldt was the first thinker in what became the environmental sciences.

Like his brother, Alexander was a liberal. He was also a friend and adviser to Thomas Jefferson and deeply admired the new United States, while remaining strongly critical of slavery, its treatment of Indians, and its aggression against Mexico. Humboldt had also been an opponent of Spanish rule in South America, and his outspoken dislike of colonialism prevented him from getting permission to visit India, then dominated by the East India Company, a private corporation backed by English power (Wulf 2016, pp. 193-6, 216).

Like his brother, for Alexander the case for liberty ultimately resided in the nature of societies, and some were more conducive to incorporating the blessings of liberty than were others. Again, context mattered more than abstractions. Although close friends with Simon Bolivar, who eventually freed South America from Spanish control, Humboldt never thought the result would be a society as free as the new United States. To maintain control, Spain had deliberately encouraged hostile divisions among the population. Humboldt thought these divisions would prevent a truly free society from arising even if freedom from Spain was achieved (Wulf 2016, p. 179). Apparently influenced by his conversations with Humboldt, Jefferson ultimately shared this outlook (Jefferson 1813). They were proven right.

Both Humboldt and Jefferson emphasized history and internal social relationships as more important than abstract principles in shaping an independent Latin America. They agreed Latin America's revolt against the Spanish was a good thing, but in the short run, at least, the outcome would be decisively shaped by pre-existing institutions and attitudes.

As with the Scots' pioneering ecological and evolutionary approach, the Humboldt's developed not so much a political theory as a way of thinking about what today we call complex adaptive systems.

FREEDOM IS IN SOCIETY, NOT FROM IT

The Scottish and Humboldtian ecological approaches recognized while individuals certainly existed, the whole was not reducible to its parts. In The Limits of State Action Wilhelm von Humboldt (1969, p. 131) explained a proper understanding of society required:

> For the State constitution and the national community, however closely they may be interwoven, should not be confused. While the State constitution . . . sets the citizens in a specific relationship to each other, there is another which is wholly distinct from this—chosen by their own free will, infinitely various, and its nature ever-changing. And it is strictly speaking the latter—the free cooperation of the citizens of the nation—which secures all those benefits for which men longed when they formed themselves into a society.

Wilhelm Humboldt focused on relations between people rather than individuals possessing abstract rights as essential for creating and maintaining a free society. The State established law, but the relationships arising within its enabling framework were what was most important. If government tried to do too much, it interfered with, and retarded, the beneficial effects of relationships arising from other social agencies. On the other hand, law could facilitate greater cooperation than would otherwise arise.

At a time when many scientists were focusing narrowly on specific questions, Alexander Humboldt was also looking for universal patterns, but largely in the natural world. Nature was a web of relationships where, he wrote, "Everything is interaction and reciprocal" (Wulf 2016, p. 103). For him, in the natural world "Nothing appears isolated; the chemical principles, that were believed to be peculiar to animals, are found in plants; a common chain links together all organic nature" (Richards 2016 p. 194; Humboldt and Bonpland 1814 p. 217). In her study of Humboldt, Andrea Wulf elaborated "nature's balance was created by diversity which might in turn be taken as a blueprint for political and moral truth." For Alexander Humboldt, nature provided an image of freedom's value because of the diversity and richness that can arise from it when each organism is free to seek its survival. As he put it, "Nature is the domain of liberty" (Wulf 2016, p. 125).

These comments reflect both the ecological sensibility so important to modern science and the Romantic sensibility that everything is attached to everything else. Much later, the most unromantic Garret Hardin observed: "You cannot do only one thing" (Hardin 1986). John Muir's "When we try to pick out anything by itself, we find it hitched to everything else in the Universe" makes the same point from a romantic perspective (Muir 1911).While individualist liberalism drew a hard and fast distinction between both individuals and society and individuals and nature, evolutionary liberalism provided a common framework for understanding and linking them all.

Secondly, both brothers envisioned society as a complex network unable to be reduced to any law or principle because it arose out of independent and freely chosen cooperation. In the extended quote above, Wilhelm Humboldt described civil society, not the market. Consisting of many invisible hand phenomena, civil society constituted a complex ecology, but one that is social rather than biological (diZerega 2011). This is the society Locke took for granted as already existing in his discussion of the social contract. This is also a description of the invisible hand processes taken as a whole, initially explored within the Scottish Enlightenment. In Hume's words (1985, p. 271):

> The more these refined arts advance, the more sociable men become . . . They flock into cities; love to receive and communicate knowledge; to show their wit or their breeding; their taste in conversation or living, in clothes or furniture. Curiosity allures the wise; vanity the foolish; and pleasure both. Particular clubs and societies are every where formed: Both sexes meet in an easy and sociable manner; and the tempers of men, as well as their behaviour, refine apace.

In his later study of the new American democracy, Alexis de Tocqueville observed "In no country in the world has the principle of association been more successfully used, or more unsparingly applied to a multitude of different objects, than in America" (1961, p. 216). Compared to Europe, Tocqueville observed "The appearance of disorder which prevails on the surface, lead [Europeans] at first to imagine that society is in a state of anarchy; nor does he perceive this mistake till he has gone deeper into the subject" (1961, p. 90) Creative economic energy was but one of the outcomes of a deeper freedom that made it, and much more, possible.

THE DARWINIAN DIMENSION

Intellectual currents flowing from the Scottish Enlightenment and the Humboldt brothers came together powerfully in the person and genius of Charles Darwin (1809-1882). As a young man, Darwin had been inspired by Alexander Humboldt's work, and continued to read him all his life. Humboldt, in turn, told

Darwin he had read and been influenced by his grandfather, Erasmus Darwin's, poem depicting an evolutionary perspective on how all complex life, including people, ultimately arose from simpler beginnings. For his part, the elder Darwin had been in close contact with figures in the Scottish Enlightenment (Richards 2016, pp. 154, 191-3; Hayek 1973, p. 152; 1979, p. 154).

Darwin's Journal describing his voyage on the Beagle, was influenced by Humboldt's writings. By moving beyond classifications to relationships, Alexander Humboldt's insights apparently facilitated Darwin integrating Scottish evolutionary traditions into an even larger scientific context. His interest in the distribution of plants and animals and the altitude where he found his specimens, echoed themes central to Humboldt's work. Humboldt in turn was impressed by Darwin's Journal, writing him:

You told me that, when you were young, the manner in which I studied and depicted nature in the torrid zones contributed toward exciting in you the ardour and desire to travel in distant lands. Considering the importance of your work, Sir, this may be the greatest success that my humble work could bring. Works are of value only if they give rise to better ones (Sponsel 2009, pp. 13; Wulf 2016, p. 271).

Today, scholars debate whether the Scottish or Humboldtian influences were most important in Darwin's thinking, but to my knowledge none deny both played a role in his thinking (Richards 2016). If the Scots pioneered how we understand social institutions as arising in an evolutionary fashion, the Humboldts and those influenced by them extended these insights to encompass individuals and our embeddedness in nature, providing additional foundations to an evolutionary approach to liberalism. Both contributed to Darwin's grasp of evolution, and both offered an alternative to individualistic liberalism while preserving liberalism's core values.

Humboldt died in 1859, six months before Darwin's *Origin of Species* was published, so we cannot tell what his reaction to Darwin's argument would have been. But given his own work and respect for Darwin, it would likely have been positive (Wulf 2016, p. 273). Ernst Haeckel (1834- 1919), the most important German scientist influenced by Humboldt, later became Darwin's primary advocate in Germany. Haeckel also founded the complementary discipline of ecology, defining it in very Humboldtian terms as the "science of relationships of an organism with its environment" (quoted in Wulf 2016, p. 363). The theory of evolution and ecology share a common focus on complex patterns, but from complementary directions. In Aldo Leopold's words, ecology required us to "think at right angles to evolution and examine the collective behavior of biotic materials" (Leopold 1966, p. 189). Evolutionary and ecological thinking imply one another, and in their social form, can be traced to the Scottish Enlightenment's social thought.

DARWINIAN AND WALLACEAN EVOLUTION

While evolution's major inspiration can be traced through traditions rooted in the Scottish Enlightenment, within evolutionary theory a remarkably similar distinction developed as between individualist and evolutionary liberal theory. The roots of this split emerged from the theory's two major discoverers, Charles Darwin and Alfred Wallace.

Charles Darwin and Alfred Russell Wallace are the two men who first made a powerful scientific case for evolution as the source for life's diversity. Darwin was the first to develop the theory, but Wallace's independent development of it led Darwin to quickly put his work on the public record. The two men justly shared recognition for their discovery of one of science's most important discoveries, but when the details of each's work are examined, important distinctions arise.

It is no accident that, for many social scientists, alarm bells ring whenever someone seeks to integrate evolutionary insights into their fields. Much of this unease and opposition arises from the enormous ethical gap between an ethic of 'survival of the fittest' largely believed to be the underlying principle behind evolution, and human ways of relating to one another. The term 'humane' captures the ethical gulf here.

Probably no phrase has been more used to justify these interpretations of Darwin's argument than "survival of the fittest." It's actual origin in this context was with neither Darwin or Wallace, but with Herbert Spencer. In his *Principles of Biology* Spencer described parallels between his economic and Darwin's evo-

lutionary theories : "This survival of the fittest, which I have here sought to express in mechanical terms, is that which Mr. Darwin has called 'natural selection', or the preservation of favored races in the struggle for life" (Spencer 1910; also 1960, p. 110).

Spencer believed competition within a human population would result in the survival of the best competitors, resulting in continuing improvement in the population. If, however, inferior competitors were overly protected, the ability of the race to improve would be hindered, perhaps even reversed: "If . . . multiplication of the inferior were furthered, and multiplication of the superior hindered, progressive degradation would result; and eventually the degenerate species would fail to hold its ground in presence of antagonistic species and competing species" (Spencer 1960, p. 109). Evolutionary theory claiming a Darwinian foundation had been used the buttress what became known as "social Darwinism."

In *Social Statics* Spencer (1995, pp. 339-40) went further:

> Nature demands that every being shall be self- sufficing. He on whom his own stupidity, or vice, or idleness, entails loss of life, must, in the generalizations of philosophy, be classed with the victims of weak viscera or malformed limbs … If they are sufficiently complete to live, they do live, and it is well they should live. If they are not sufficiently complete to live, they die, and it is best they should die.

From this perspective, relations of organisms between and within species and 'races' were competitive, with perpetual struggle weeding out the less fit. Interfering with unrestricted competition would weaken this power of evolutionary improvement. What is called Social Darwinism (Spencer himself did not use the term, his critics did) is supposedly the application of Darwin's theory to social life. In addition, Spencer's terminology is deeply individualist. While the tradition to which he contributed also brought forth collectivist racist versions, especially in Nazi thought, the failings of a race were the failings of individual groups in competition with superior groups. In both cases the game was ultimately zero sum and winning was all that ultimately mattered.

The appalling history of eugenics in the United States, let alone its terrible application in Nazi Germany, raises understandable warnings as to where this kind of evolutionary thinking can lead (Black 2003). From the 1890s and 1940s, biologist Richard Prum (2017, p. 528) observed:

> every professional geneticist and evolutionary biologist in the United States and Europe was either an ardent proponent of eugenics, a dedicated participant in eugenic social programs, or a happy fellow traveler.

It was during this time, Prum observed, "that much of the intellectual framework of contemporary evolutionary biology was developed …" But eugenics' roots were earlier, having emerged out of certain interpretations of evolutionary principles originally explored in debates between Darwin and Wallace. There is a sad irony here for whereas in many minds evolution, survival of the fittest, and therefore arguments for eugenics are inextricably linked, Darwin himself did not agree.

Born into a family of committed abolitionists, Darwin strongly opposed slavery. How strongly? As he wrote Asa Gray during the Civil War (Darwin 1861):

> Some few, & I am one, even wish to God, though at the loss of millions of lives, that the North would proclaim a crusade against Slavery. In the long run, a million horrid deaths would be amply repaid in the cause of humanity. . . . Great God how I should like to see that greatest curse on Earth Slavery abolished.

No eugenicist who has ever lived would advocate such a policy to free an 'inferior' race. But then, how did Darwin become associated with views he rejected with far more than normal vigor?

Evolution's co-discoverer, Alfred Russell Wallace, urged Darwin to adopt Herbert Spencer's term "survival of the fittest" in preference to Darwin's own "natural selection," because, Wallace argued, the latter term was "metaphorical." Nature did not so much select the winners as "exterminate the unfavorable ones." Initially Darwin agreed this term was less prone to being misunderstood than his own "natural selection" (Howerth 1917, p. 253).

Darwin's major scientific ally, Thomas Huxley, was unconvinced disliking it because "of the ambiguity of 'fittest' which many take to mean 'best' or 'highest' whereas natural selection may work towards degradation …" (Howerth 1917, p. 254). Huxley's charge of ambiguity was well chosen as passages in Spencer could support both views (Spencer 1960, p. 108; 1873, p. 340). But "degradation" was alien to evolution as Spencer understood it. He believed he could tell where it would ultimately lead if its logic was not short circuited (Spencer 1995, p. 51). "Degradation" was alien to evolution as Spencer understood it. By contrast, Darwin claimed all biological life could be explained through a broadly defined process of natural selection, and need not have any direction to it.

Darwin must have been bothered by Huxley's criticism. In his later *Descent of Man*, David Loye observed he only used the term twice over many hundred pages, and critically in both cases. Darwin wrote "… it hardly seems probable, that the number of men gifted with such virtues, or that the standard of their excellence, could be increased through natural selection, that is, by survival of the fittest." In the second edition of *Descent* he wrote "… in the earlier editions of my *Origin of Species* I perhaps attributed too much to the action of natural selection or the survival of the fittest" (*Descent*, chapter II. quoted in Loye 2007, p. 53).

Huxley had a valid point. But there was a still deeper problem.

In his 1917 essay discussing how "survival of the fittest" entered Darwinian theory along with the earlier "natural selection," I. W. Howerth emphasized the two terms were not identical. 'Survival of the fittest' was "a universal law." It was always true, and described nothing about what made for this fitness. What survived was fit, by definition. It could as easily be applied to animals selectively raised by farmers for specific traits as for the development of traits independent of human intent. "Natural selection," by contrast, described "phenomena of selection independent of conscious choice." 'Survival of the fittest' exists independently of 'natural selection,' and natural selection can refer to many different principles influencing what biological form arises through phenomena independent of human choice (Howeth 1917, p. 256).

THE COMPLEXITY OF NATURAL SELECTION

Soon after publishing *Origin of Species* in 1860 Darwin famously wrote Asa Gray "The sight of a feather in a peacock's tail, whenever I gaze at it, makes me sick" (Darwin 1860). There was no observable evolutionary advantage to the peacock's beauty, quite the contrary. So how could natural selection have applied to it? In 1871 Darwin published the solution, for he uncovered several more factors beyond simple competition for understanding organisms' evolutionary success.

In *The Descent of Man, and Selection in Relation to Sex*, he argued evolution proceeded at least through the interplay of both natural selection and sexual selection, and the two could operate independently. According to Darwin, animals could choose mates based on aesthetic values one sex applied to the other. Without the peahen's choice of a mate she found attractive, there would be no spectacular tail. On the other hand, without natural selection, tails might have become so ornate the male could not fly. A male peacock's tail, accompanied by the bird's awkwardness in flying, did not simply reflect natural selection, but rather the sweet point between its editing power and the peahen's attraction to the tail's beauty. Any existing species could reflect a 'happy medium' combining these causes rather than optimizing either of them. That sweet spot might not be optimal from the standpoint of either selection criterion alone (Prum 2017, p. 82). As Darwin explained in *Descent* (1871, Vol. I, chap. II):

> I did not formerly consider sufficiently the existence of structures, which, as far as we can at present judge, are neither beneficial nor injurious; and this I believe to be one of the greatest oversights

> as yet detected in my work […] It is, as I can now see, probable that all organic beings, including man, possess peculiarities of structure, which neither are now, nor were formerly of any service to them, and which, therefore, are of no physiological importance.

At the time, most biologists rejected Darwin's argument, preferring Wallace's claim all biological evolution could be explained by natural selection in the narrow sense.

The peacock's tail supposedly demonstrated the male's physical fitness to a prospective mate because it took considerable fitness to survive with such a handicap. The tail advertised the male's biological capital to impress those around him. In addition, there was the dominant conceit that animals were incapable of aesthetic perceptions, and many also found it problematic to think females in particular could play such a powerful evolutionary role. From this perspective, the peacock's tail demonstrated the male's genetic superiority to the female because he managed to survive with it. The tail's beauty was our subjective impression, not the female's.

This simple model fit the dominant sexist and individualist culture of Darwin's time, and of Darwin's own beliefs about women. Wallace himself was an early advocate for women's education (Richards 2017). Wallace's hostility to sexual selection as a significant evolutionary factor was based on his theology. Wallace also believed in areas of the biological world could not be accounted for by natural selection alone. Wallace believed people were spiritually distinct from the rest of life, and that beauty was an example of this other-than-natural dimension. (Flannery 2011; Prum 2017, p. 54). To add to the irony, during his life Wallace actively supported women's rights.

If progressive with respect to slavery, regarding women, Darwin was a man of his time, and yet he was able to appreciate female preferences sexual selection's role in evolution (Richards 2017). Darwin (1871, chapter XXI, pp. 616-7):

> Everyone who admits the principle of evolution, and yet feels great difficulty in admitting that female mammals, birds, reptiles, and fish, could have acquired the high taste implied by the beauty of the males, and which generally coincides with our own standard, should reflect that the nerve-cells of the brain in the highest as well as in the lowest members of the Vertebrate series, are derived from those of the common progenitor of this great Kingdom.

Darwin's words fell largely on deaf ears. With its narrow emphasis on competition between organisms, the Wallacean view he argued against came to dominate most subsequent thinking about evolution.

There are ironies aplenty here. Contemporary evolutionary theory is called "NeoDarwinism" the 'neo' referring to its incorporating Mendelian genetics into an evolutionary framework. But it might more accurately be termed "Neo-Wallacean," for Wallace insisted that "natural selection acts perpetually and on an enormous scale" (quoted in Prum 2017, p. 71, see also pp. 53-4). The NeoDarwinian attempt to reduce sexual selection to natural selection in the narrow sense depended on what we considered beautiful, females perceived as evidence for superiority as a mate. While less infected by the patriarchal views of his time, Wallace thought beauty had spiritual origins distinct from nature. Wallace and Darwin never agreed on this issue.

Recent research indicates Darwin was correct and Wallace was not. Richard Prum and others' work on the role of beauty in evolution confirms Darwin's insights that evolutionary processes cannot be reduced to natural selection. Sexual selection can matter strongly, and is rooted in the partners' subjective reactions to one another. As scientists from Darwin to Prum have argued, sexual beauty sometimes manifests at cross purposes with natural selection.

SEXUAL SELECTION

The argument natural selection in the narrow sense fully explains evolution has an ironical dimension. Today, NeoDarwinism is dominated by scientists who reject religion, with men such as Dawkins, Dennett,

and Pinker being outspoken atheists. However, Wallace's hostility to sexual selection was based on his theology. Wallace believed the higher parts of the biological world could not be accounted for by natural selection alone.

As with the individualist liberal tradition, Wallacean evolution ultimately divorced humanity from nature and the biological world. Ethics either came from the outside, from God or Spirit or Reason, or it did not exist in any objective sense.

By contrast, Darwin made no assumptions about a special exalted human status and accepted the insight, rooted in Hume at least, that (Darwin 1871, chap. 5):

> As man advances in civilisation, and small tribes are united into larger communities, the simplest reason would tell each individual that he ought to extend his social instincts and sympathies to all the members of the same nation, though personally unknown to him. This point being once reached, there is only an artificial barrier to prevent his sympathies extending to the men of all nations and races. If, indeed, such men are separated from him by great differences in appearance or habits, experience unfortunately shews us how long it is, before we look at them as our fellow-creatures.

NeoDarwinism accepted Wallace's argument reducing sexual selection to natural selection in the narrow sense. It depended on females perceiving attractive traits as evidence for genetic superiority, not beauty. For this to be true, any handicap beauty provided, such as greater visibility to potential predators, or inhibitions to flight, had to apply to the male, but not the female.

Using manakin birds, which had also caught Darwin's attention, Richard Prum demonstrated this is not necessarily true. Structural features in male club manakin wings allow them to make sounds females find attractive. They also interfere with their ability to fly. A male manakin with normal wings would be more fit.

What makes the manakin example so important regarding this dispute is that these structures also exist in female manakin wings. The genetic changes from ordinary birds' wings that lead to the male's unusual musical skills also manifest in the female, though less extremely. This evolutionary disability does not serve reproduction in any sense. Manakins are rare, and would arguably do better had females found some other factor attractive. That these structures persist is due to female choice, otherwise natural selection would weed them out from both sexes because they could not be isolated just among males (Prum 2017, pp. 132-5).

Manakins are not alone.

Michael Ryan describes additional experiments with other birds. Among zebra finches the color of a leg band put around a leg influences mate selection. Females like red-banded males and males prefer females with black and pink bands. Nancy Burley, who conducted this experiment, also put different kinds of "party hats" on male birds' heads to make their crests look silly (to us).

Females preferred them to normal males (Ryan 2018, p. 158). Jim Gould altered the appearance of male mosquito fish in many different ways. Females preferred the weird looking males, pretty much no matter how weird, to normal ones. Ryan concluded "The real males might be conservative in their approach to sexual beauty, but deep down, below the radar, their females are yearning for anything but conservative . . ." (Ryan 2018, p. 159). Prum and Ryan describe many such cases.

Selecting for beauty creates no utilitarian advantage for the organism. It does not indicate physical or mental fitness.

Male Túngara frogs in Panama attract female with their call, and particularly by adding a series of chucks after an initial whine. The more chucks, the more the females like it. But there's a hitch. Frog-eating bats have evolved to zero in on a frog's chucks. Consequently, males are resistant to providing chucks, even though doing so increases their likelihood of mating. It also increases their likelihood of providing bats with a meal. But the females want chucks. Ed Yong writes "The chucks are so desirable that if a male is re-

luctant to make them, a female will sometimes body-slam him until he does (Yong 2022, p. 221). Luck more than fitness determines who among those who chuck survive to mate.

As I write these words I am reminded of a sight I saw from my kitchen window when I lived in rural Sonoma County, California.

Wild turkeys have been successfully introduced to California, and have become (too) abundant. A small group of hens and toms lived in my area. So also did a lone male peacock. One morning I saw the neighborhood peacock, whom we called "Hank," running down the dirt road by my window, pursued by at least four hen turkeys. Behind them, displaying their feathers as best they could, and totally ignored, came several toms. Hank did not display. He didn't need to, and apparently didn't want to. "Those hens like bling." I thought.

Darwin argued female preferences played an important role in how evolution worked, but still more was going on. Natural selection, broadly defined, could take many forms. As Prum observed, "To deal with the diversity of phenomena he observed in nature, Darwin proposed additional biological theories of phylogeny, sexual selection, ecology, pollination biology, even ecosystem services … Each theory was subtly different, requiring new arguments, types of thinking, and data" (Prum 2017, p. 524).

Anne Sauka observed that beauty contributing to natural selection in organisms demonstrates the plausibility that culture is primordially inherent and present in evolutionary processes (Sauka 2020). Evolution depends on organisms' subjectivity as well as on more impersonal processes that can be modeled with mathematical formulas or purely abstract categories. Subjectivity makes questions about the quality of life more than purely objective data, whether applied to birds, frogs, or humans.

When considered along with his rich appreciation for the number of other independent factors entering into natural selection, Darwin's emphasis on mate selection bring us back to the Scottish Enlightenment. They had emphasized the complexity of social development and the inability of individuals to understand this complexity well enough to build new societies based on reason and science.

The long dominant argument society is based on individual self-interest and purely instrumental reasoning had roots extending back at least to Hume's time (if not to Thrasymachus). Bernard Mandeville's (1670-1733) *Fable of the Bees* is a famous example. Hume was apparently deeply influenced by Mandeville's argument that "private vices" could lead to public goods, a key step towards recognizing how order arose in evolutionary ways (Hayek 1978, pp. 653-4). However, he argued against reducing human motives to the selfish or its idea as rational selfishness. Reason alone could not lead to action, rather 'Reason is, and ought only to be the slave of the passions …" (Hume 1948, p. 25). The passions were more basic than reason, which served an instrumental role in responding to them more effectively. Further, Hume emphasized, sympathy "extends itself beyond our own species" (1948, p. 52).

J. Baird Callicott (1989; 1999, p. 64) has been an important voice in demonstrating the close connection between Hume's and Darwin's thinking about sympathy. The third chapter of Darwin's *Descent of Man* is titled "The Moral Sense" and, Callicott observed, since social contract theory, deontological ethics, and utilitarianism depended on reason to wield influence, they could not possibly form the foundation for an evolutionary account of ethics which, necessarily, preceded human reason. Darwin instead turned to the "sentiment based moral philosophers of the Scottish Enlightenment, citing Hume's *Inquiry Concerning the Principles of Morals* and Smith's *Theory of Moral Sentiments* in *The Descent of Man*." Demonstrating the close connection between Hume and Darwin, Callicott (1999, p. 65) described they mirrored one another as to how sympathy leads to the gradual expansion of social relations through an evolutionary process.

CONCLUSION

This paper has argued two basic approaches to liberalism exist, one individualist, the other privileging individuality. Rooted in the culture of his time, Lockean individualism and the many approaches rooted in it fundamentally distinguish human beings from the world, and apply a moral standard for liberal values that is absent in the physical world. No agreement has arisen as to what those arguments might be.

By contrast, the liberal tradition rooted in the Scottish Enlightenment argues liberal values are implicit in the process of cultural evolution. These insights also supported Darwin's in his epochal discovery of biological evolution. Both cultural and biological evolution depend on networks shaped and preserved by negative and positive feedback and a subjective dimension plays an important role in both.

The Scottish/Darwinian approach identifies the principle underlying liberalism as scientific not ethical discoveries. When cooperation is enabled among equals, more complex patterns emerge, more niches arise specialized to their environment, and more cooperative species do better than less cooperative ones (Wilson 2012). Insights foundational to liberalism are embedded not in ideology or theology, but in the basic nature of the living world.

NOTES

1 I subject this approach to the social sciences to extensive critique in diZerega 2021.

2 Compare with Hume's (1985, p. 271) almost identical description of civil society.

REFERENCES

Acton, Lord. 2010. American Federalism and the Civil War. *Mises Daily Articles*. 3/29/2010.

Adams, Abigail. 1776. Letter to John Adams. March 31, 1776. https://www.washoeschools.net/cms/lib08/NV01912265/Centricity/Domain/253/Social%20Studies/grade_7_letters_from_abigail_adams_and_john_adams.pdf

Amar, Akhil Reed. 1998. *The Bill of Rights*. New Haven. Yale University Press.

Ansley, Peter R. 2017. Newton and Locke. *The Oxford Handbook of Newton*. Eric Schliesser and Chris Smeenk, eds. Oxford Handbooks Online. Oxford: Oxford University Press.

Ardetti, J., Elliott, J., Kitching, I. J. and Wasserthal, L. T. 2012. Good Heavens what insect can suck it—Charles Darwin, *Angraecum sesquipedale* and *Xanthopan morganii praedicta*. *British Journal of the Linnean Society*. 169, 403-432.

Black, Edwin. 2003. *War Against the Weak: Eugenics and America's Campaign to Create a Master Race*. New York: Thundermouth Press.

Brockell, Gillian. 2020. More than a century before the 19th Amendment, women were voting in New Jersey. *Washington Post*, August 4, 2020.

Burke, Edmund. 1920. A Letter to the Sheriffs of Bristol. James Hugh Moffat, ed. Hinds. New York: Nole & Eldredge.

Callicott, J. Baird. 1999. *Beyond the Land Ethic*. Albany: SUNY.

_____. 1989. *In Defense of the Land Ethic: Essays in Environmental Philosophy*. Albany: SUNY.

Darwin, Charles. 1871. *The Descent of Man*, On the Manner of Development of Man from some Lower Form. vol. I, chapter II. https://www.online-literature.com/darwin/descent_man/2/

_____. 1861. To Asa Gray. *Darwin Correspondance Project*. Cambridge: University of Cambridge. https://www.darwinproject.ac.uk/letter/?docId=letters/DCP-LETT-3176.xml&query=asa%20gray%2C%20june%205%2C%201861

_____. 1860. To Asa Gray 3 April. *Darwin Correspondance Project*. Cambridge, University of Cambridge. https://www.darwinproject.ac.uk/letter/DCP-LETT-2743.xml

diZerega, Gus. 2000. *Persuasion, Power and Polity: a theory of democratic self-organization*. Cresskill: Hampton Press.

_____. 2011. Spontaneous Order and Liberalism's Complex Relation to Democracy, *Independent Review*, 16:2: 173-93. https://www.independent.org/pdf/tir/tir_16_02_2_dizerega.pdf

Ferguson, Adam. 1980 [1767]. *An Essay on the History of Civil Society*, New Brunswick: Transaction.http://oll.libertyfund.org/titles/ferguson-an-essay-on-the-history-of-civil-society

Flannery, Michael. 2011. *Alfred Russel Wallace: A Rediscovered Life*. Seattle: Discovery Institute Press. https://alfredwallace.org/intelligent-evolution/

Hardin, Garret. 1986. *Filters Against Folly,* New York: Penguin.

Hayek, F. A. 1979. *Law, Legislation and Liberty vol. III: The Political Order of a Free People*. Chicago: University of Chicago Press.

_____. 1978. Dr. Bernard Mandeville. *New Studies in Philosophy, Politics, Economics, and the History of Ideas*, pp. 249-66. Chicago: University of Chicago Press.

_____. 1976. *Law, Legislation and Liberty vol. II: The Mirage of Social Justice*. Chicago: University of Chicago Press.

_____. 1969. The Theory of Complex Phenomena. *Studies in Philosophy, Politics and Economics,* Chicago: University of Chicago Press.

_____. 1967. The Legal and Political Philosophy of David Hume, *Studies in Philosophy, Politics and Economics*. New York: Simon and Schuster.
_____. 1960. *The Constitution of Liberty.* Chicago: Regnery.
Henrich, Joseph. 2020. *The WEIRDest People in the World.* New York: Farrer, Straus and Giroux. Hone, David. 2013. Moth tongues, orchids, and Darwin—the predictive power of evolution, *The Guardian*, Oct. 2. https://www.theguardian.com/science/lost-worlds/2013/oct/02/moth-tongues-orchids-darwin-evolution
Howerth, I. W. 1917. Natural Selection and the Survival of the Fittest. *The Scientific Monthly.* 5(3): 253-7. https://www.jstor.org/stable/22572?seq=4
Hughes, Richard. 1994. *Pan's Travail: Environmental Problems of the Ancient Greeks and Romans*. Baltimore: Johns Hopkins University Press.
Humboldt Alexander von and Aime Bonpland. 1814. *Personal Narrative of Travels to the Equinoctial Regions of the New Continent, During the Years 1799-1804, trans. Helen Maria Williams,* 7 vols, 4:217. London: Longman, Hurst, Rees, Orme & Brown.
Humboldt, Wilhelm von. 1969. *The Limits of State Action*, W. Burrow, ed. Cambridge: Cambridge University Press.
Hume, David. 1948. *Moral and political Philosophy.* Henry D. Aiken, ed., New York: Hafner.
Jay, John. 1788. To the President of the (English) Society for Promoting the Manumission of Slaves. June. https://press-pubs.uchicago.edu/founders/documents/v1ch15s39.html
Jefferson, Thomas 1825. Letter to Henry Lee, May 8. https://founders.archives.gov/documents/Jefferson/98-01-02-5212
_____. 1813. Letter to Humboldt, Dec 6. https://founders.archives.gov/documents/Jefferson/03-07-02-0011
_____. 1789. Letter to John Trumbull, Feb.15. https://founders.archives.gov/documents/Jefferson/01-14-02-0321
Landau, Martin. 1972. On the Use of Metaphor in Political Analysis, *Political Theory and Political Analysis*. New York: Macillan.
Lekan, Thomas M. 2004. *Imagining the Nation in Nature: Landscape Preservation and German Identity, 1885-1945.* Cambridge: Harvard University Press.
Leopold, Aldo. 1966. *A Sand County Almanac*. New York: Ballentine.
Locke, John. 2010. *A Letter concerning Toleration and Other Writings*, Mark Goldie, ed. Indianapolis: Liberty Fund.
_____. 1965. *Two Treatise of Government.* Peter Laslett, ed. New York: Mentor.
Loye, David. 2007. *Darwin's Lost Theory.* Carmel, CO: Benjamin Franklin Press.
Madison, James, A. A. Hamilton, J. Jay.1961. *The Federalist* Papers. Clinton Rossiter, ed., New York: Mentor.
Marsh, Leslie. 2018. Pathologizing Ideology, Epistemic Modesty and Instrumental Rationality. *The Mystery of Rationality.* G. Bronner and F. Di Liorio (eds.). Cham: Springer International Publishing.
McCloskey, Deidre Nansen. 2016. *Bourgeois Equality: How Ideas. Not Capital or Institutions Enriched the World*. Chicago: University of Chicago Press.
Mill, John Stuart. 1975. *Autobiography of John Stuart Mill*. Oxford: Oxford University Press.
Muir, John. 1911. My First Summer in the Sierra. Boston: Houghton Mifflin.
Plato. *Critias Translated by Benjamin Jowett;* http://classics.mit.edu/Plato/critias.html
Polanyi, Michael. 1969. *Knowing and Being*, Marjorie Grene, ed. Chicago: University of Chicago Press.
Poole, David C., Michael J. White and Brian J. Whipp. 2017. The Discovery of Oxygen. *Hektoen International: A Journal of Medical Humanities*. https://hekint.org/2017/01/22/the-discovery-of-oxygen/
Prum, Richard. 2017. *The Evolution of* Beauty. New York: Doubleday.
Reynolds, Neil. 2010. The Man Who Dates Creation at Oct. 23, 4004BC. *Globe and Mail*. Dec. 28. https://www.theglobeandmail.com/opinion/the-man-who-dated-creation-at-oct-23-4004-bc/article4084451/
Richards, Evelleen. 2017. *Darwin and the making of Sexual selection.* Chicago: University of Chicago.
Richards, Robert J. and Michael Ruse, 2016. *Debating Darwin*. Chicago: University of Chicago.
Ryan, Michael J. 2018. *A Taste for the Beautiful*. Princeton:Princeton University Press.
Sauka, Anne. 2020. The Nature of Our becoming: Genealogical Perspectives. *Le foucauldian*.6:1. https://www.genealogy-critique.net/article/id/7077/
Simonutti, Luisa. 2006. Political Society and religious liberty. Locke at Cleves and in Holland. *British Journal for The History of Philosophy.* 14:3: 413-436. https://www.academia.edu/10028356/Political_society_and_religious_liberty_Locke_at_Cleves_and_in_Holland
Smith, Adam. 1776. *The Wealth of Nations*. https://www.ibiblio.org/ml/libri/s/SmithA_WealthNations_p.pdf
Spencer, Herbert. 1995. *Social Statics.* New York: Robert Schalkenbach Foundation.
_____. 1960. *The Man Versus the State*. Caxton: The Caxton Printers.
_____. 1910. *Principles of Biology, Vol. I.* New York: D. Appleton and Co. https://www.gutenberg.org/files/54612/54
_____. 1873. Mr. Martineau on Evolution. Spencer, ed.. *Recent Discussions in Science, Philosophy and Morals.* New York. D. Appleton and Co.
Sponsel, Alistair, Darwin and Humboldt. 2009. Alison M. Pearn ed., *A voyage round the world*. Cambridge: Cambridge University Press.
Tocqueville, Alexis. 1961. *Democracy in America*, I. New York: Shocken.
Toulmin, Stephen. 1990. *Cosmopolis*. Chicago: University of Chicago Press.

Vails, Andrew. 1999. Self development and the liberal state: the case of John Stuart Mill and Alexander von Humboldt. *Review of Politics*. May 22.
Wilson, E. O. 2012. *The Social Conquest of the Earth*. New York: W. W. Norton.
Wulf, Andrea. 2016. *The Invention of Nature: Alexander von Humboldt's New World*. New York: Vintage.
Yong, Ed. 2022. *An Immense World*. New York. Random House.
Ziman, John. 1978. *Reliable Knowledge*. Cambridge: Cambridge University Press.
Zwolinski, Matt. 2016. Social Darwinism and Social Justice: Herbert Spencer and the Poor. *Distributive Justice Debates in Political and Social Thought*. Camilla Boisen and Matthew Murray, eds., pp. 57-76. New York: Routledge.