From Buffon to Coleridge: Sociability and Humanity in Eighteenth-and Nineteenth-Century Comparative Anatomy

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Introduction

Although physician Edward Tyson was the pioneer of comparative anatomy in England in the late seventeenth century, the discipline really thrived with the 'Linnaean watershed',[1] becoming a key methodological feature of Enlightenment anthropological investigation. It aimed at understanding empirically the adaptation of living organisms, human beings included, to their natural environment, by comparing the morphology and body structure of different species. What in Descartes's system had pulled man apart from the rest of the creation – that is, rationality – became, with Linnaeus's classificatory system, only one attribute among others to define human nature. For the Comte de Buffon and other comparative anatomists, human beings as products of nature became subjected, like other natural organisms, to a degenerative process that created different varieties and races. Comparative anatomists rapidly became much concerned with what they saw as the 'in-betweens' of creation: hybrids, mulattoes, and 'wild' children, for instance. Although the science put forth an empirical method to investigate the natural history of men and animals, comparative anatomy was more often than not used to argue for man's superiority in the scale of nature, and justify his subjection of other creatures.[2]

Linnaeus's classification, along with comparative anatomy, questioned and redrew the frontiers of humanity. Anthropological discursive practices did not settle the question: rather, these discourses, and their circulation in Europe and the colonial worlds through translation and hack-writing, raised new debates on

what makes a being human, who or what is entitled to humanity, what corrupts humanity, and why some beings degenerate. Enlightenment anthropology, as a new science accommodating itself to philosophical inquiry, became an ideological battleground on which two representations of man's degeneracy were fought out. Was human depravity the consequence of consumption, luxury, and social needs that increasingly characterised European cultures in the eighteenth century, or was it to be understood as a result of physical degeneration, that is, alienation from the civilised world?

The natural man, whether as an imaginary state or as embodied in 'wild' creatures, crystallised the anxiety about degeneration and natural forces acting upon bodies and organisms. To ring-fence humanity and distinguish it from the lower orders of nature, typically human attributes were constructed in comparative anatomy discourses. Reason, language and sociality came to characterise human behaviours while animals were deprived of any 'social' faculties. Through analogy, the human social attitude was often compared to insect communities or animal herds, clusters or shoals, yet these animal or insect groups were systematically studied from an anthropocentric perspective.

This article thus investigates the redefinition of human and animal sociabilities in the light of comparative anatomy. Since sociability was a human attribute, how were animal aggregations characterised? What effect did such a sharp distinction between men and animals have in the designation of animal social activity and intelligence? How did it, in turn, affect the perception of human solitude? In what way was sociability correlated to humanity? The article will trace the concepts of sociability, humanity, and solitude from the Enlightenment to Romanticism, in the writings of the Comte de Buffon, Jean-Jacques Rousseau, Lord Monboddo, Johann Friedrich Blumenbach, William Lawrence, and Samuel Taylor Coleridge. It weaves into a dialogue and debate seemingly disparate discourses that decisively defined the nature of human and animal sociabilities. The defining process is to be understood in this dialogic relationship at a time when anthropology was in the making. These theories were thus forged as much by empirical science as by controversies caused by speculation on man's relationship to the natural and animal realms. The article concludes by bringing Coleridge's later philosophical writings into a fruitful dialogue with Enlightenment natural history to illuminate his troubled relationship with nature and to show how anthropological discourses spilled out from specialised institutions to fuel Romantic reflections on human and animal natures.

Human and Animal Sociabilities in Buffon's Comparative Anatomy

Linnaeus's classificatory system published in *Systema Naturae* in 1735 was a watershed in man's conception of himself in relation to other living organisms. In the first editions, humans shared the order 'anthropomorpha' with apes and

sloths, and were subdivided into four varieties, depending upon the climate and the environment, and corresponding to the four continents: Europe, America, Asia, and Africa. However, in the tenth edition (1758), Linnaeus radically altered his taxonomic organisation by introducing the order of *Primates* with four genera (*Homo*, *Simia*, *Lemur*, and *Vespertilio*). He modified the criteria of human varieties, adding moral, cultural, and political attributes to the geographical ones, and enlarged the human group with two other varieties – the *Ferus* ('wild' children) and *Monstrosus* (abnormal humans) – that questioned the limits of humanity and led to speculations on the porosity of the frontiers between some human varieties and non-human groups, such as apes.

In *Histoire Naturelle* (36 vols, 1749–88), Georges-Louis Leclerc de Buffon defended analogical investigation as a 'science' for the knowledge of human nature and mankind. However, he was eager to offset any ambiguity that could be incurred by Linnaeus's classification of man with other primates.[3] The superiority of human nature was reinstated at the beginning of both essays on the 'Natural History of Man' and 'Natural History of Animals'.[4]

Before embarking upon the study of man's body as product of nature, Buffon insisted upon the irreducible difference between men and animals, and thus clarified the object of his work. Comparative anatomy could only be concerned with the 'outer' man (*l'homme extérieur*) – the material body – since animals and other creatures were deprived of what humans alone possessed: a soul and inner sensations. Not only then did Buffon dissociate the 'inner' man from the 'outer' man to submit humans to a 'natural history', he also denied animals any sentient and communicative faculties on the ground that they were unable to think and therefore to communicate: 'Man, by outward signs, indicates what passes within him; he communicates his sentiments by speech […] No other animal is endowed with this expression of thought'.[5]

In a few pages, he settled the fate of the animals' inner life by declaring them purely mechanical creatures, incapable of thought. Animal creations or achievements in nature offered no evidence of variation or perfectibility; if beavers were equipped with intelligence or reason, they would have improved their dam through time, in art and solidity. Reacting to René-Antoine Ferchault de Réaumur's *Mémoires pour servir à l'histoire des insects* (1734), which lauded the perfection of the organisational structure of a beehive, the intelligence of bees and their dedication to the common good, Buffon insisted on the mechanical nature of bees' operations guided by 'physical necessity' alone:

> Thus the labours of the bee, which in a given place, such as a hive, or the hollow of an old tree, forms its own cell […] are labours purely mechanical, and suppose no intelligence, no concerted project, no general views […] It is not society but numbers that operate in this case; it is a blind power which cannot be compared to that light by which all society is directed.[6]

Thus comparative anatomy developed hand in hand with an imperious claim to man's superiority over the natural kingdom and its vegetable and animal creatures. By making human beings part of nature, yet by positing at the same time an unbridgeable gap between species, comparative anatomy, as the main epistemological tool of the Enlightenment era for the study of men, operated a double movement, placing humans within nature while at the same time defining supernatural faculties belonging to men alone so as to locate them beyond nature.[7] As such, it also widened the gap between polished societies and uncivilised tribes. If the beavers' organisation showed evidence of animal agency and of a common purpose, Buffon argued, it could be compared only to the products of barbarous communities:

> A beam of intelligence, which, though widely different from that of man in principle, produces effects so similar as to warrant a comparison, not indeed with society, as it is found among civilized nations, but as it appears among savages just emerging from absolute solitude.[8]

Although asserting a rupture between species, Enlightenment anthropology would paradoxically suggest some affinities between the animal world and unpolished tribes, drawing them further away from the ideal of the Enlightened man.[9]

The mechanisms of sociability in the insect, animal, and human worlds were also compared one to another so as to prove the rationality of human beings in their decision to assemble with other individuals. One of Buffon's purposes in reflecting upon the 'sociability' of animals was to debunk the myth of the quasi-perfect organisation of the beehive such as detailed by Réaumur. Buffon believed that excessive enthusiasm for animal creations and organisations led naturalists to absurd interpretations overstating the agency and intelligence of animals or insects. Human and animal sociabilities were for Buffon different from one another to the point of antithesis since animals were bereft of rationality. Men chose to meet and assemble because, from the very beginning of their history, they consciously thought about the benefit of human aggregation, gradually morphing into society:

> Among men, society depends less on physical agreements than on moral relations. Man at first measured his strength, his weakness, his ignorance and his curiosity; he felt that, of himself, he could not satisfy the multiplicity of his wants […] he saw that solitude was a state of danger, and of warfare; he sought for security and peace in society; there he augmented his power and knowledge, by uniting them with those of others: and this union is the noblest use he ever made of his reason.[10]

Whereas human sociability was defined as a natural inclination, albeit not an instinctual one since the modes of aggregation depended upon rational thought,

the aggregation of animals depended only upon physical necessities. Commenting upon the activities of bees, he rejected the idea that bees can coordinate themselves, plan or reason together. What can be interpreted as a thoughtful assemblage cannot be evidenced empirically. For Buffon, animals' social intelligence was only in the eye of the scientist.[11]

If Buffon did not deny the existence of certain types of animal societies (herds and clusters), he reduced them to a mere physical assemblage depending on 'common habits' and 'blind imitation'. Since he reasoned on human sociability in contradistinction to animal communities, his explanation of human sociable nature hovered between men's rational understanding of their social dependence and natural feelings like family attachment to be seen among barbarous tribes. He aimed to demonstrate that human beings were naturally sociable, and that their sociable temperament was not, as Rousseau had it, a result of education and customs. However, since he insisted on rationality as being the attribute that differentiated men from brutes, he was sometimes at pains to reconcile the idea of man's natural sociability with a rational motive:

> Every thing has concurred to render man a social being; for though large and civilized societies depend on the use, and sometimes on the abuse of reason, yet they were doubtless pre-ceded by smaller societies, whose sole dependence was on nature. A family is a natural society, which is more permanent, and better founded, because their wants and sources of attachment are more numerous.[12]

For Buffon, the most basic social unit was the family, not the individual, and the formation of the nation was to be understood as an evolving process springing from this ancient form. Whatever the climate, the religion or the geographical location, human beings were naturally inclined towards society since the essence of their species was reproduction to propagate it.[13] Whether organised in empires, monarchies or families, men nowhere existed in isolation. Under the pen of Buffon, human sociabilities evolved in time depending upon the social group's affinity with a polished society, an argument that Coleridge would harness in his later philosophical writings. Buffon's organic interpret-ation of sociability was also to be understood as an attempt to demystify Rousseau's romantic ideal of the state of nature.

Blissful Solitude and Corrupting Sociability in Rousseau's and Lord Monboddo's Writings

In *Discours sur l'origine et les fondements de l'inégalité parmi les hommes* (1755), Rousseau offered a controversial reading of man's sociability, refuting the mainstream representation of man as naturally sociable. Instead of envisaging humans as helpless creatures at birth, an idea used by Buffon as a shortcut justification for men's dependence on other human creatures for their survival and preservation, Rousseau argued that the natural man was more

vigorous and less prone to diseases than the civilised man. Rousseau never suggested the existence of the natural man but simply conjectured on what man could be if he was in a state of nature. For him, the human body degenerated, not when given up to natural circumstances, but under the corrupting influence of society, art, and industry.

Reversing the arguments upheld by most enlightened anthropologists, he argued that man had no natural inclination to enter into society. In the first part of his discourse, concerned with the effects rather than with the causes of man's socialisation, he invoked comparative anatomy to contrast the effects of the animal's domestication with man's socialisation, although he doubted that the field was mature enough to be used as a science:

> The Horse, the Cat, the Bull, nay the Ass itself, have generally a higher Stature, and always a more robust Constitution, more Vigour, more Strength and Courage in their Forests than in our Houses ; they lose half these Advantages by becoming domestic Animals ; it looks as if all our Attention to treat them kindly, and to feed them well, served only to bastardize them. It is thus with Man himself. In proportion as he becomes sociable and a Slave to others, he becomes weak, fearful, mean-spirited, and his soft and effeminate Way of Living at once completes the Enervation of his Strength and of his Courage.[14]

Rousseau did not deny the existence of a form of natural sociability. Yet he argued that man's perfectibility and social virtues were 'in a state of potentiality' and could not develop by themselves: they needed external circumstances that Rousseau detailed in the second part of his discourse:

> After having shewed, that *Perfectibility,* the social Virtues, and the other Faculties, which natural Man had received in Potentia, could never be developed of themselves, […] I must proceed to consider and bring together the different Accidents which may have perfected the human Understanding by debasing the Species, render a Being wicked by rendering him sociable, and from so remote a Term bring man at last and the World to the point in which we now see them.[15]

Man's sociability was dormant. Since it was not an inclination that could develop in a natural way, human beings were compelled to invent forms and practices of sociability. External circumstances like natural catastrophes (floods, earthquakes) forced men to live together and, since social virtues developed and matured like germs, they were gradually corrupted by industrial, social, and cultural progress, and the increasing needs of social life. This argument would represent an unresolved dilemma for the first generation of Romantics, especially for Coleridge, well-read in natural philosophy.

These external causes were only conjectures to argue against the idea that sociability stemmed from a natural bond forged between men and women following the sexual act. Whereas for Buffon the family unit was the first and irreducible human entity, and natural family attachment the foundation of human sociability, society, and the nation, Rousseau saw men's desire to propagate their species simply as an 'appetite', 'a blind Propensity, quite void of any thing like pure Love or Affection'.[16] In no way did nature contribute to develop man's sociability:

> But be the Case of these Origins ever so mysterious, we may at least infer from the little care which Nature has taken to bring Men together by mutual Wants, and make the use of Speech easy to them, how little she has done towards making them sociable, and how little she has contributed to any thing which they themselves have done to become so.[17]

The second part of his discourse posited sociability as resulting from men's observation of their environment, their recognition of human conformity and their growing awareness that their own safety depended upon the relationships they entertained with other human beings.[18]

As for the pleasures of sociability, they emerged from a new sedentary mode of life which brought different families, united by common mores and characters, closer together, gradually forming into a nation. Yet sociable pleasures were constantly thwarted by human pride and selfishness. Sociable practices inevitably turned into a performance for which seeing others and being seen became more important than the enjoyment of a shared sociable moment:

> In Proportion as Ideas and Sentiments succeed each other, and the Head and the Heart exercise themselves, Men continue to shake off their original Wildness, and their Connections become more intimate and extensive. They now begin to assemble round a great Tree: Singing and Dancing, the genuine Offspring of Love and Leisure, become the Amusement or rather the Occupation of the Men and Women, free from Care, thus gathered together. Every one begins to survey the rest, and wishes to be surveyed himself; and public Esteem acquires a Value. He who sings or dances best; the handsomest, the strongest, the most dexterous, the most eloquent, comes to be the most respected: this was the first Step towards Inequality, and at the same time towards Vice.[19]

Like reason and language, Rousseauian sociability was not a fixed natural attribute shared by all human beings, justifying a sharp distinction between apes and men, and man's superiority over the natural world. It was rather a natural and cultural characteristic that developed through time, education, and customs, and, as such, was always prone to potential corruption depending on the factors and circumstances contributing to its growth.

Like Rousseau, Scottish philosopher Lord Monboddo (1714–99) would discredit the common assumption that sociability was a natural given by going one step further than the Genevan philosopher and contending that the natural man was not a fiction, and that human creatures from all nations were at one point in the state of nature. A severe critic of modernity like Rousseau, Monboddo would also show that attributes defined as solely human could be found in the animal world. The thesis of the Scottish philosopher was profoundly controversial since it insisted on the existence of a relational continuity between the ape and the human being. The purpose of a natural history of man was to lay bare his slow and gradual transformation from the brute to the civilised man; as such, Monboddo redrew the line dividing man from beast, assimilating orangutans to the human kind.

In *Antient Metaphysics* (1779), he relied on comparative anatomy to argue that reason and social interaction were not the sole properties of men, and that 'a language of signs, gestures, and inarticulate cries', to be found among beavers for instance, '[wa]s sufficient for a Society of few wants, such as the first societies of men undoubtedly were'.[20] To substantiate his argument, he inserted an extract of the narrative of Antoine-Simon Le Page du Pratz (1695–1775), a French naturalist and the author of *Histoire de la Louisiane* (1758). The passage described his observations of a community of beavers repairing a dam during a journey along the River Mississippi. Beavers were commonly used by anthropologists to argue for the betterment of the species through active social cooperation,[21] without nonetheless hypothesising the existence of a sociable feeling. Monboddo, eager to reveal continuities rather than ruptures between the human and animal realms, used du Pratz's testimony to evidence an efficient communication and social organisation among beavers, each performing a specific role to preserve their joint construction. As one beaver signalled the breach in the dam with four blows of his tail, the other beavers gathered round him and stood 'very attentive' as the beaver 'muttered or mumbled to the rest'.[22] Monboddo concludes:

> I think it is proved, not only from particular facts but from the analogy of Nature, and that resemblance which we must suppose to be between us, in our natural state, and other Animals herding together, that a joint work may be carried on, without the use of that method of communication we call Language.[23]

To support his claim, Monboddo also used the case of 'the Wild Boy', a teenager found in the woods of Hamelin in Hanover, who had a feral existence for most of his life, walking on all fours when he was found in 1725. Wild Peter, whom Monboddo had met in 1782 when Peter, still speechless, was living in a farmhouse near Berkhamsted in Hertfordshire, was for the Scottish philosopher the 'living example of the state of Nature'.[24] After his discovery, Peter had been taken to England and offered as a present to Queen Caroline, who confided him to the care of Dr John Arbuthnot, a friend of Alexander Pope

and Jonathan Swift. Arbuthnot saw in the 'wild' boy a perfect case study to investigate innate ideas. The boy, though, remained 'wild', just able to mumble a few syllables to signify Peter and King George, and was then left to the care of a yeoman till the end of his life.

From his discovery, throughout his life and even after his death, Peter was subjected to a wealth of narratives by naturalists and satirists who debated his enduring wildness either as a sign of uncorrupted gentleness or of debility. As belonging to the confines of humanity, Peter, like other feral children, was an ideal case study to mull over the 'progress of Man from the mere Animal to the Intellectual Creature'.[25] His inability to learn any language, along with his persistent fondness for natural objects, led some anthropologists, like Johann Friedrich Blumenbach, to conclude upon a human's loss of humanity when abandoned to natural circumstances. Monboddo, on the contrary, corrected this interpretation by describing him as having 'a fresh, healthy look', 'a look that may be called sensible and sagacious'.[26] Although not endowed with speech, Peter understood what was said to him and was able to hum tunes. Monboddo justified his gentleness and sensibility by the fact that he remained a vegetarian. He argued that these had been the defining traits of humanity until humans became hunters and carnivorous. Monboddo's reading of and encounter with Wild Peter led him to the following conclusions: the humanity of Peter was unquestionable; his mutism was no evidence of imbecility; and his healthiness was the result of his vegetarian diet. Applying comparative anatomy to demonstrate the existence of Rousseau's natural man and the continuity between apes and men, he concluded that the orangutan's humanity was as unquestionable as that of Peter, 'unless we are determined to believe that there is no progress in our species'.[27] This type of statement elicited strong reactions from naturalists, especially from Johann Friedrich Blumenbach. He was a well-established German comparative anatomist, the author of *A Manual of Comparative Anatomy* (1807), translated by William Lawrence in 1827, and one of the most prominent racial 'scientists' whose craniological research had brought him international scientific reputation in the late eighteenth century.

Rewriting Wild Peter: Degeneration Theory in Blumenbach's Thesis

Like other eighteenth-century naturalists, Blumenbach believed that man was to be studied as a natural product. The anthropologist adopted a morphological conception of mankind, assuming that physical differences between human varieties were due to external circumstances, such as climate, diet, or mode of life. In 1795, Blumenbach published the third edition of his thesis *De generis humani varietate nativa*, which classified mankind into five races according to a set of physical characteristics ranging from skin colour to facial configuration. Central to his thesis, however, was the idea that all varieties of the human differed in degree and not in kind, so that all races and varieties belonged to one and the same species. To resist the theories of Rousseau or Lord Monboddo, Blumenbach established a sharp distinction between men and

apes, refuting what he called 'the doctrine of the gradation of nature'.[28] He devoted the first section of *De generis humani* to 'the difference of man from other animals',[29] arguing that Linnaeus's classification had fostered an ambiguity which needed to be clarified. Blumenbach did not restrict his argument to man's external morphology, he also listed the human specificities of his 'internal fabric' and, more speculatively, the faculties of the mind peculiar to man:

> All with one voice declare that here is the highest and best prerogative of man, *the use of reason* […] [I] conside[r] it as that prerogative of man which makes him lord and master of the rest of the animals […] the cause of this dominion does not reside in his bodily strength. It must therefore be referred exclusively to the gifts of the mind and their superiority […] Nature as we have seen, has made man so as to be omnivorous and an inhabitant of the whole world. But this unlimited liberty of diet and locality, according to the almost infinite variety of climate, soil and other circumstances, brings with it also multifarious wants which cannot be met or remedied in one way alone. His Creator has therefore fortified him with the power of reason and invention, in order that he may accommodate himself to those conditions […] and thus, in order that one man may use the advantages and assistance of another, he has invented *language*, which again must be considered as one of the things peculiar to man […][30]

Unlike animals, men had been 'gifted' with reason and language so that they could adapt to the peculiarity of their natural condition. For Blumenbach indeed, men's fate, as decided by God, was to colonise the whole world thanks to their ability to acclimate to any type of natural circumstances. As a naturalist, he adopted an evolutionary perspective on human beings but to counter the arbitrary effects of the degeneration theory, he reconfigured Buffon's notion of *Kraft* (power) into *Bildungstrieb* (translated as *nisus* in the English version of his work). He clarified the meaning of this vital power in a small treatise entitled *Über den Bildungstrieb* published in 1781, revised three times and translated into English in 1792 by Sir Alexander Crichton. What differentiated Blumenbach's formative drive from the theories of other evolutionary naturalists was its distinction from other vital forces (contractility, irritability, and sensibility).[31] Grounded in matter, the *nisus,* as a teleological agent, implied the existence of an overarching principle working from within the organism that could ensure the stability of the evolutionary process and a sense of purpose lacking in evolutionary theories.[32]

In line with Buffon, Blumenbach insisted that human beings were born instinctless and what ensured their preservation was sociality fostered by reason, language, and education. Surprisingly, he gave a Rousseauian twist to

his interpretation of 'reason', comparing it to 'a developing germ, which in the process of time, and by accession of a social life and other external circumstances […] developed, formed, and cultivated'.[33] However, the importance of domesticity and reason in defining men sanctioned a clear distinction between men and apes. While a regression from man to beast was possible, no animal creatures, even those living in domestic environments, could develop human faculties:

> Man brought up amongst the beasts, destitute of intercourse with man, comes out a beast. The contrary however never occurs to beasts which live with man. Neither the beavers, nor the seals, who live in company, nor the domestic animals who enjoy our familiar society, come out endowed with reason.[34]

Solitude was thus theorised as an unnatural state. As for those who were forced to live in solitude, like 'wild' children, they inevitably lost through under-development the human peculiarities – language, reason, laughter – that enabled social interaction. As such, Blumenbach's theory deprived feral children of their humanity.

For Blumenbach, Wild Peter served as a perfect case study to illustrate this assumption. In his account of the evolution of Wild Peter in a civilised society, the young boy was described not as 'gentle' but as an 'imbecile', 'deviant' creature.[35] Blumenbach's aim was first and foremost to discredit Monboddo's theory of the state of nature: 'this pretended ideal of pure human nature, to which later sophists have elevated the wild Peter, was altogether nothing more than a dumb imbecile idiot.'[36] If through time the boy improved his physiognomy and became slightly more reasonable with food, he remained brutish and stupid in the eyes of the German anthropologist, the best evidence of this was his complete indifference to money and women. Although contemporary paintings and engravings of Wild Peter did not suggest a hideous creature, Blumenbach insisted on the monstrosity of feral children, turning their lack of speech and food preferences into evidence of their deviancy and nonhumanity:

> these were altogether unnatural deformed creatures […] Taken altogether they were very unmanlike, but each in his own way, according to the standard of his own individual wants, imperfections, and unnatural properties […] contrary to the instinct of nature, they lived alone, separated from the society of men, wandering about here and there; a condition, whose opposition to what is natural has been already compared by Voltaire to that of a lost solitary bee.[37]

The formative drive (*nisus*) theory justified a 'scientific' interpretation of Wild Peter as an anomaly of nature: his vital power had 'turned aside from its

determined direction and plan',[38] causing him to degenerate into an 'unnatural' being. Blumenbach thus inverted the meaning of Monboddian degeneration: Wild Peter had not become a nobler creature; rather, his solitude, his unsociability had turned him into a brute, a non-human creature.[39]

Animal Sociability in Romantic Comparative Anatomy

Blumenbach's anthropological thesis was well-known in Britain. He corresponded with Sir Joseph Banks who had helped him enrich his collection of skulls and had given him access to his library when the German anthropologist visited London in 1791–2. His ideas were also disseminated in Britain in the early nineteenth century through the translation of his work into English and through the teachings of surgeon William Lawrence, one of his translators and Professor of Anatomy and Surgery at the Royal College of Surgeons (RCS) in Lincoln's Inn Fields in London from 1815. Like Blumenbach, Lawrence used comparative anatomy less to discuss evolution than to demonstrate the irreducible difference between men and brutes, and the particular position human beings should have in zoological classification.[40]

Lawrence delivered his lectures at the RCS in 1818 before publishing them in a book that stirred great controversy because of its materialist approach to human nature; it was rapidly suppressed after its publication.[41] Lawrence drew mostly on Blumenbach's classification to devise his method, and dedicated his book to the German anthropologist. He also made use of the narrative of Wild Peter to ridicule Monboddo's and Rousseau's philosophical speculations by plagiarising Blumenbach's account of Peter; he concluded that 'wild' children were 'merely instances of defective organization; malformed individuals incapable of speech, and exhibiting few and imperfect mental phenomena; pathological specimens, therefore, rather than examples of human perfection'.[42] Adopting Blumenbach's stance on the sociable nature of man, Lawrence pathologised the case of feral children, and more generally solitude.[43]

Coleridge attended Lawrence's lectures, and the publicity the English surgeon received certainly revived Coleridge's interest in the work of Blumenbach, who had taught Coleridge in natural history when the latter studied at the University of Göttingen in 1799.[44] From 1816, John Abernethy, surgeon and appointed professor at the RCS, publicly quarrelled with his former student Lawrence over the nature of life. The debates revolved around the antecedence of life over organisation. Lawrence argued for a vital yet purely materialist interpretation of life, dependent only upon the structure and organisation of the body, while Abernethy defended the idea of an independent vital force, pervading matter and setting it in motion. Although Coleridge really agreed with neither of them, he sided with Abernethy since Lawrence's position smacked of French materialism. Coleridge hastily drafted a *Theory of Life* in 1816 as a response to the comparative anatomists' debates on the origin of life. From 1816 till the end of his life, Coleridge became fascinated with issues debated in comparative anatomy: human degeneration, varieties and races, the specificities of man, the difference between men and animals, and

animal sociability. From the mid-1820s, he collaborated with surgeon Joseph Henry Green, Professor of Anatomy at the RCS from 1824, and drafted a series of eight essays intended for Green's final lectures delivered in March and April 1828.[45] For these essays, Coleridge had read again and annotated the German translation of Blumenbach's *De generis humani varietate nativa* which heavily influenced his theory of human nature.

Although he relied on Blumenbach's vital power theory, he rebuffed the idea that men could degenerate into varieties due to natural circumstances. Coleridge's originality lies in his use of Blumenbach's formative drive theory that he applied to the moral will rather than to the outer man. Human beings, as self-willed creatures, possessed a higher energy that enabled them to resist the physical pressures exercised by the environment (climate, air, soil, diet). So although animal and vegetable species have to adapt to their environment, humans, thanks to the energy of their will, resist the external circumstances, and can acclimate to different types of environments with the least changes. As such, for Coleridge, man was the only creature on earth that had the power to modify circumstances and 'creat[e] for himself […] external influences which are necessary not only for his Being but his well-being'.[46] As free agents and moral creatures, human beings were not to succumb to nature but to dominate and modify it through science, industry, and art.

This idea, although in germ in his early conversational poetry,[47] was fleshed out in his later essays by means of comparative anatomy adapted to a scriptural interpretation of human nature. The essay '"Solitary" and "Gregarious"', co-written with Green, best displays Coleridge's use of comparative anatomy to think of man as distinct from animals, and his growing abhorrence of the idea of natural degeneration. In this essay, he takes a particular interest in the modes of aggregation of various insects and animals. Moving up the scale of nature, the animals within a cluster or a shoal become increasingly 'independent, and the master of [their] own motions' while remaining connected to the group by an 'invisible copula':

> Begin with the Polyps, the Coral Animals, &c. as instances of cluster-animals, or what to borrow a term from Botany we may describe as the syngenesia. The lowest sorts of the Mollusca are still of the syngenesia. Many fixed on a common stalk – but in the ascent – we find, [? (anew)] this as it were dissolved, and each individual *visibly* separate, but yet by constantly swimming altogether in nearly the same distances & forms manifestly still connected by an invisible copula –
>
> Still higher the individual seems independent, and the master of its own motions; for tho' found in immense multitudes or shoals there appears no necessity of […] supposing any internal cause of this […] the same needs enforce the same movements, and they are kept together by the absence of any cause for their separation –[48]

What fascinated Coleridge was the tension at work between sociality and individuality in all types of organisms, humans included. He used the expression 'invisible copula' to describe 'the needs, affection and associations of domestic Man', binding man to a group.[49] Yet, contrary to animals, man, equipped with reason, had the 'means of retaining his independence notwithstanding the […] counter-powers', i.e., the 'agencies of nature […] the domestic & social instincts, affections & necessities'.[50] Though man was bound to a community, as 'an active & useful member', he also had to assert 'his proper *integrity*'.[51] Therefore, in men alone were these two forces – individuality and sociality – reconciled, albeit in polar opposite ways, thanks to their moral will acting as a vital power and ensuring the preservation of their individuality.

> in all the other classes we may find instances of the two opposite characters, the solitary & the gregarious – and we find the union of these in a higher & more perfect form in the great character of the human Race, the *federative* – which accompanies man in all his states with more or less influence, his domestic state […] what we express by the desire of founding a family – more still in communities […] and most perfectly in a state or nation […] having a constitution as the basis & guiding principle of its laws – […] But in the insect we have a type of the federative itself, as in the Bees, the Ants, the Termites &c – […] Yet the comparison then first becomes truly instructive, when we advert to the essential differences – Thus, the formation of an hive is a blind product of natural necessity, (resulting from) the organization needs of the animals – however difficult or impossible it may be for us in the present state of our knowledge to demonstrate the mode or the connection of the instinct with the organic structure of the creation.[52]

In line with Buffon or Blumenbach, Coleridge read men as naturally sociable, or 'federative', whatever their state or the type of governance they were subjected to. The politics of such a moralistic use of comparative anatomy is visible in the above passage when Coleridge suggests that man's sociability is perfected in 'a state or nation […] having a constitution as the basis'. Although he applied comparative anatomy to his thinking about human societies, Coleridge, like Buffon and other enlightened anthropologists, denied insects and other animals any type of intelligence or agency in the way they federate themselves. In an 1827 notebook entry, Coleridge argued that all living creatures below man were 'the joint Product of the inherent and the circumstancial Nature', simply 'recipients', 'instruments', 'Living Machines' fed by Nature.[53] Man on the contrary, 'the master of [his] own motions', was the owner of his own body, and as such, a free and moral agent: 'Instead of the

corpus politicum being produced by a blind mechanism or the force of external agencies, it results from the free movements of his own inward Being'.[54]

At the time of his collaboration with Green, Coleridge upheld the view that 'Man is therefore Man because he is more than Nature – because he knows & refers to God. […] Man can only solve the Nature by the Supernatural'.[55] Coleridge's troubled relation-ship with nature[56] in his prose and poetry may be better understood in the light of anthropological discursive practices which constructed men as fundamentally different from other living creatures. From Buffon to Lawrence, these Enlightenment discourses on life and nature reinforced hierarchies, categorisations and chasms to think of humans' place within nature; under the aegis of Rousseau's state of nature, Romantic thinkers like Friedrich Schelling, Coleridge, and William Wordsworth would attempt to reassess man's relationship to the natural world.[57] Yet, the case of Coleridge exemplifies the enduring legacy of Enlightenment anthropology and the deep anxiety elicited by the concept of natural degeneration in the age of nationalism.[58]

Conclusion

This article has traced the concept of sociability in French, German, and British comparative anatomy from the second half of the eighteenth century to the early nineteenth century. Sociability as a natural yet merely human attribute became a crucial argument for those who challenged Rousseau's natural man and his invention of solitude. The sociable nature of human beings – that is, their natural tendency to associate with other human beings – not only distinguished men from animals, it also justified the formation of nations, through the expansion of the family unit. To a certain extent, anthropology explained the social contract by means of the sociable nature: the more polished the society, the more perfect the social organisation and the laws regulating it.

Anthropological inquiries focused on the effects of sociability, rather than on its causes. If Rousseau conjectured on its development, that he related to external circumstances, Buffon and Blumenbach left it unexplained as it was a natural attribute: man was born sociable and this had been so since the days of Aristotle. Comparative anatomists thus did not restrict their field of study to organisms and bodies. They also looked at and compared the formation of animal and human groups. Yet, since they made human attributes the only valid criteria to evaluate the nature and function of social assemblage, they were quick to dismiss the cohesiveness of animal groups and their natural achievements as insignificant. Whether the beehive or the beavers' dam, there was no underlying logic in the products of animal teamwork, since they were devoid of cognitive faculties and communication skills.

What was not human then could not be sociable, in the sense used for human beings, and the reverse held true. Animals unequipped for social interactions (without reason and language) could not have a sociable behaviour and form a

social assemblage, and humans, without a capacity to socialise, gradually lost their humanity. As recently mentioned by philosopher Corinne Pelluchon, this view has had a long-lasting influence on our perception of man's relationship to the animal world and to otherness.[59]

Romantic culture, or at least Coleridgean Romanticism, did not develop in opposition to anthropology as a new science as suggested by Isaiah Berlin in *The Roots of Romanticism*.[60] Coleridge's notebooks and marginalia, his studies at Göttingen, his attending the lectures at the Royal College of Surgeons, and his collaborative friendship with Green attest to his knowledge of comparative anatomy and, most importantly, to his use of it for his poetic and philosophical reflections. What Berlin is right about, though, is the importance of free agency and the will, albeit the moral will, in Romantic culture to define man's relationship to nature. Thinking of humans simply as products of nature was to suggest that they could be submitted to the same natural forces as any living organism and therefore to the same degenerative process. Rousseau's natural man and Monboddo's claims regarding the continuity between humans and apes raised further questions about human nature if abandoned to natural circumstances. Romanticism was part of these debates on humanity, sociality, and nature; yet, far from shaping an 'indomitable' will oblivious of history, circumstances and nature, it revived the inner man, his senses, imagination and pure reason, as 'stolen *from heaven*, to mark its *superiority* in kind […] that it suffers no change, and receives no accession from the inferior'.[61]

Notes

1. M.-L. Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London and New York, 1992), p. 38.
2. On the naturalisation of the human and the production of racial discourses, see, for instance, S. Gaukroger, *The Natural and the Human: Science and the Shaping of Modernity, 1739– 1841* (Oxford, 2016); M. Duchet, *Anthropologie et histoire au siècle des Lumières* (Paris, 1971); C. Fox, R. Porter, R. Wokler (eds), *Inventing Human Science: Eighteenth-Century Domains* (Berkeley, 1995); R. L. Meek, *Social Science and Ignoble Savage* (Cambridge, 1997); W. D. Jordan, *White Over Blacks: American Attitudes Towards the Negro, 1550– 1812* (Chapel Hill, 1968).
3. See P. R. Sloan, 'The Buffon-Linnaeus Controversy', *Isis*, 67:3 (1976), 356–75.
4. G.-L. L., Comte de Buffon, Œ*uvres complètes*, tome II (Paris, 1838), p. 512.
5. G.-L. L., Comte de Buffon, *Buffon's Natural History*, trans. J. S. Barr, volume 3 (London, 1792), p. 328. Buffon, Œ*uvres complètes*, tome II, p. 512: 'L'homme rend par un signe extérieur ce qui se passe au dedans de lui;

il communique sa pensée par la parole […] aucun des animaux n'a ce signe de la pensée'.

6. Buffon, *Buffon's Natural History*, volume 6, p. 289. Buffon, Œ*uvres complètes*, tome IV, p. 122: 'Ainsi l'ouvrage des abeilles qui, dans un lieu donné, tel qu'une ruche ou le creux d'un vieux arbre, bâtissent chacune leur cellule […] sont des travaux purement mécaniques qui ne supposent aucune intelligence, aucun projet concerté, aucune vue générale […]. Ce n'est donc pas la société, c'est le nombre seul qui opère ici ; c'est une puissance aveugle qu'on ne peut comparer à la lumière qui dirige toute société'.
7. J.-F. Schaub, S. Sebastiani, *Race et histoire dans les sociétés occidentales (XV–XVII siècle)* (Paris, 2021), p. 377. See also O. Doron, *L'homme altéré: aces et dégénérescence, XVII– XIX siècles* (Paris, 2016).
8. Buffon, *Buffon's Natural History*, volume 6, pp. 289–90. Buffon, Œ*uvres complètes,* tome IV, p. 122: 'une lueur d'intelligence qui, quoique très différente de celle de l'homme par le principe, produit cependant des effets assez semblables pour qu'on puisse comparer [les castors], non pas dans la société plénière et puissante, telle qu'elle existe parmi les peuples anciennement policés, mais dans la société naissante chez des hommes sauvages, laquelle seule peut, avec équité, être comparée à celle des animaux'.
9. Schaub, Sebastiani, *Race et histoire dans les sociétés occidentales*, p. 320: 'aussi paradoxal que cela puisse paraître, lorsque s'affirme un droit universaliste et égalitaire des êtres humains, il devient d'autant plus nécessaire d'inventer des catégories qui justifient l'inégalité et décrètent la différence [….] Les constructions naturalistes et universelles des Lumières sont

   les matrices d'un discours qui unit et divise l'humanité, créant ainsi un espace pour différentes « races »'. See also Andrew Valls (ed.), *Race and Racism in Modern Philosophy* (Ithaca, 2005).
10. Buffon, *Buffon's Natural History*, volume 5, p. 79. Buffon, Œ*uvres complètes*, tome III, p. 508: 'Parmi les hommes, la société dépend moins des convenances physiques que des relations morales. L'homme a d'abord mesuré sa force et sa faiblesse, il a comparé son ignorance et sa curiosité, il a senti que seul il ne pouvait suffire ni satisfaire par luimême à la multiplicité de ses besoins […] il a vu que la solitude n'était pour lui qu'un état de danger et de guerre, il a cherché la sûreté et la paix dans la société, il y a porté ses forces et ses lumières pour les augmenter en les réunissant à celles des autres: cette réunion est de

    l 'homme l'ouvrage le meilleur, c'est de sa raison l'usage le plus sage'.
11. Buffon, Œ*uvres complètes*, tome III, p. 507.
12. Buffon, *Buffon's Natural History*, volume 5, pp. 79–80. Buffon, Œ*uvres complètes*, tome III,

p. 508: ‘Il est vrai que tout a concouru à rendre l’homme sociable; car quoique les grandes sociétés, les sociétés policées, dépendent certainement de l’usage et quelque fois de l’abus qu’il a fait de sa raison, elles ont sans doute été précédées par de petites sociétés, qui ne dépendaient, pour ainsi dire, que de nature. Une famille est une société naturelle, d’autant plus stable, d’autant mieux fondée, qu’il y a plus de besoins, plus de causes d’attachement’.

13. Buffon, Œ*uvres complètes*, tome IV, p. 9.
14. J.-J. Rousseau, *A Discourse upon the Origin and Foundation of the Inequality among Mankind* (London, 1761), pp. 29–30. J.-J. Rousseau, *Discours sur l’origine et les fondements de l’inégalité parmi les hommes* (Paris, 1992), p. 181: ‘Le cheval, le chat, le taureau, l’âne même ont la plupart une taille plus haute, tous une constitution plus robuste, plus de vigueur, de force, et de courage dans les forêts que dans nos maisons; ils perdent la moitié de ces avantages en devenant domestiques, et l’on dirait que tous nos soins à bien traiter et nourrir ces animaux n’aboutissent qu’à les abâtardir. Il en est ainsi de l’homme même: en devenant sociable et esclave, il devient faible, craintif, rampant, et sa manière de vivre molle et efféminée achève d’énerver à la fois sa force et son courage’.
15. Rousseau, *A Discourse upon the Origin and Foundation of the Inequality among Mankind*, p. 93. Rousseau, *Discours sur l’origine et les fondements de l’inégalité parmi les hommes*, pp. 220–1:

    ‘Après avoir montré que la *perfectibilité*, les vertus sociales et les autres facultés que l’homme naturel avait reçues en puissance ne pouvaient jamais se développer d’ellesmêmes […] il me reste à considérer et à rapprocher les différents hasards qui ont pu perfectionner la raison humaine, en détériorant l’espèce, rendre un être méchant en le rendant sociable, et d’un terme si éloigné amener enfin l’homme et le monde au point où nous le voyons..
16. Rousseau, *A Discourse upon the Origin and Foundation of the Inequality among Mankind*,
    pp. 98–9.
17. Rousseau, *A Discourse upon the Origin and Foundation of the Inequality among Mankind*,
    p. 63. Rousseau, *Discours sur l’origine et les fondements de l’inégalité parmi les hommes*,

    p. 209: ‘Quoi qu’il en soit de ces origines, on voit du moins, au peu de soin qu’a pris la nature de rapprocher les hommes par des besoins mutuels, et de leur faciliter l’usage de la parole, combien elle a peu préparé leur sociabilité, et combien elle a peu mis du sien dans tout ce qu’ils ont fait, pour en établir les liens’.

18. Rousseau, *Discours sur l'origine et les fondements de l'inégalité parmi les hommes*, p. 224.
19. Rousseau, *A Discourse upon the Origin and Foundation of the Inequality among Mankind*,
    pp. 113–14. Rousseau, *Discours sur l'origine et les fondements de l'inégalité parmi les hommes*, p. 228: 'A mesure que les idées et les sentiments se succèdent, que l'esprit et le cœur s'exercent, le genre humain continue à s'apprivoiser, les liaisons s'étendent et les liens se resserrent. On s'accoutuma à s'assembler devant les cabanes ou autour d'un grand arbre: le chant et la danse, vrais enfants de l'amour et du loisir, devinrent l'amusement ou plutôt l'occupation des hommes et des femmes oisifs et attroupés. Chacun commença à regarder les autres et à vouloir être regardé soimême, et l'estime publique eut un prix. Celui qui chantait ou dansait le mieux; le plus beau, le plus fort, le plus adroit ou le plus éloquent devint le plus considéré, et ce fut là le premier pas vers l'inégalité, et vers le vice en même temps'.
20. Lord J. B. Monboddo, *Antient Metaphysics. Volume Third. Containing the History and Philosophy of Men* (London, 1784), p. 53.
21. See, for instance, G.-L. L., Comte de Buffon, 'Le castor' (1760), in *Oeuvres complètes*, tome XV (Paris, 1830), p. 316.
22. Monboddo, *Antient Metaphysics*, p. 54.
23. *Ibid.*, p. 56.
24. *Ibid.*, p. 67.
25. *Ibid.*, p. 65.
26. *Ibid.*, p. 63.
27. *Ibid.*, p. 68.
28. T. Bendyshe (trans. and ed.), *The Anthropological Treatises of Johann Friedrich Blumenbach* (London, 1865), p. 151.
29. *Ibid.*, p. 163.
30. *Ibid.*, pp. 183–5.
31. J. F. Blumenbach, *An Essay on Generation*, trans. A. Crichton (London, 1792), p. 20.
32. For further details on Blumenbach's vital power theory, see T. Lenoir, *The Strategy of Life: Teleology and Mechanics in Nineteenth-Century German Biology* (Dordrecht, 1982), p. 22.
33. Bendyshe (trans. and ed.), *The Anthropological Treatises of Johann Friedrich Blumenbach*,
    p. 82.
34. *Ibid.*, p. 83.
35. *Ibid.*, p. 332, 334, 336, 339.
36. *Ibid.*, p. 334.
37. *Ibid.*, p. 339.

38. *Ibid.*, p. 195.
39. *Ibid.*, p. 327.
40. W. Lawrence, *Lectures on Physiology, Zoology, and the Natural History of Man* (London, 1819), p. 132.
41. See P. G. Mudford, 'William Lawrence and The Natural History of Man', *Journal of the History of Ideas*, 29:3 (1968), 430–6.
42. Lawrence, *Lectures on Physiology*, p. 124.
43. *Ibid.*, pp. 124–5.
44. For additional information on Blumenbach's influence on Coleridge's thoughts on evolution, degeneration and varieties, see J. H. Haeger, 'Coleridge's Speculations on Race', *Studies in Romanticism*, 13:4 (1974), 333–57; P. J. Kitson, *Romantic Literature, Race, and Colonial Encounter* (Houndmills, 2007).
45. These essays are collected in H. J. Jackson and J. R. De Jackson (eds), *The Collected Works of Samuel Taylor Coleridge, vol. 11, part II. Shorter Works and Fragments* (Princeton, 1995), pp. 1387–416: 'On the Distinguishing Characters of Man and Mankind' (wm 1827); 'Distinction Between "Species" and "Race" and "Variety" (wm 1825); 'Distinguishing Men from Animals'; '"Solitary" and "Gregarious"' (wm 1825); 'The Races of Men' (wm 1825); 'Origins of the Human Race'; 'The Distinguishing Characteristics of Mankind (wm 1826); 'The Emergence of Passions in the Scale of Nature' (wm 1826). For additional details on

    Coleridge's friendship and collaboration with Joseph Henry Green, see H. J. Jackson, 'Coleridge's Collaborator, Joseph Henry Green', *Studies in Romanticism*, 21:2 (1982), 160–79.
46. Coleridge, *Shorter Works and Fragments*, p. 1391.
47. See for instance 'The Eolian Harp'. The narrator is much tempted by a trance-like state, giving up his mind to the rhythm of nature, but the reproachful gaze of his wife brings him back to reason and intellectual morality. When the ancient Mariner kills the blessed bird, the social bond with the other members of the crew is gradually loosened and his humanness slowly

    withers away, til he remains 'all, all alone', his 'soul in agony', his 'heart as dry as dust'. Ernest Hartley Coleridge (ed.), *Coleridge Poetical Works* (Oxford, 1980), p. 102; 196.
48. Coleridge, *Shorter Works and Fragments*, p. 1392.
49. *Ibid.*, p. 1393.
50. *Ibid.*, pp. 1393–4.
51. *Ibid.*, p. 1394.
52. *Ibid.*, p. 1395.
53. K. Coburn and A. J. Harding (eds), *The Notebooks of Samuel Taylor Coleridge, vol. 5: 1827-1834* (London, 2002), note 5554.

54. Coleridge, *Shorter Works and Fragments*, p. 1396.
55. *Ibid.*, p. 1405.
56. See also R. Modiano, *Coleridge and the Concept of Nature* (Tallahassee, 1985) and T. H. Levere, *Poetry Realized in Nature* (Cambridge, 1981).
57. R. J. Richards, *The Romantic Conception of Life* (Chicago, 2002); D. Gigante, *Life: Organic Form and Romanticism* (Yale, 2009).
58. E. Balibar, I. Wallerstein, *Race, Nation, Class, les identités ambigües* (Paris, 1988); N. Hudson,

    'From "Nation" to "Race": The Origin of Racial Classification in Eighteenth-Century Thought', *Eighteenth-Century Studies*, 29:3 (1996), 247–64. See also M. B. Ross, 'The

    Race of/in Romanticism: Notes Toward a Critical Race Theory', in P. Youngquist (ed.), *Race, Romanticism and the Atlantic* (London, 2013), pp. 41–74. For more on Coleridge's racial thinking, see J. H. Haeger, 'Coleridge's Speculations on Race', *Studies in Romanticism*, 13 (1974), 333–57.
59. C. Pelluchon, *Les lumières à l'âge du vivant* (Paris, 2021), pp. 77–8.
60. See for instance I. Berlin, *Roots of Romanticism* (London, 2000), p. 119: 'Science is submission, science is being guided by the nature of things, scrupulous regard for what there is […] The opposite of this, which is what the romantic movement proclaimed, may be summarised under two heads. One of these will by now be familiar, namely the notion of the indomitable will: not knowledge of values, but their creation, is what men achieve.'
61. Coleridge, *Shorter Works and Fragments*, p. 1268.