



***The Descent of Man,* human nature and the nature/culture divide**

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Abstract

How does human nature, especially as typically construed within an imposed nature/culture divide, fit into Darwin's keen and detailed descriptions of animate life? My answer will point out omissions on each side of the nature/culture divide, a divide academically evident in the division between 'the humanities' on the one side and 'the sciences' on the other. It will proceed to concentrate attention pre-eminently on an incredible lacuna in today's scientific research, and in research generally over the 138 years since *The Descent of Man and Selection in Relation to Sex* was published, namely, on the lack of recognition of, and in turn the lack of penetrating and self-enlightening research on, 'the law of battle' as a real human phenomenon. As described by Darwin, 'the law of battle' is a biological matrix, natural to humans as to other animals, though tempered by 'civilization'. As I will show, variously aided and abetted, the matrix has not only been reduced to a cellular phenomenon, i.e. sperm competition, but has been culturally elaborated – culturally 'exapted', to borrow Gould and Vrba's term – to subserve strictly cultural ends far beyond the original, ends having to do with the pursuit of various forms of 'cultural fitness', and this from the beginnings of recorded human history.

Keywords

aggression/competition distinction, honorific cultural emblems, human sapience, immortality ideologies, male-male competition, reductionism

Introduction

Darwin's great legacy rests on descriptive foundations. Throughout his three major books we have descriptions of myriad forms of life, both flora and fauna.

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Following their focal morphological descriptions in *The Origin of Species*, we find in *The Descent of Man and Selection in Relation to Sex* and in *The Expression of Emotions in Man and Animals* – and in Darwin's last book on worms as well, *The Formation of Vegetable Mould Through the Action of Worms with Observations on Their Habits* – more concentrated descriptions of fauna as *morphologies-in-motion*. Indeed, in these books we are given detailed descriptions of *animate* forms, forms engaged in the affective-cognitive-kinetic living realities of life itself, and moreover in ways that strikingly demonstrate commonalities and relationships within an evolutionary heritage. In short, as Darwin's writings so strikingly show, descriptive foundations are the cornerstone of theory building. Without descriptive foundations, there would be no evolutionary theory. There would be no basis for claiming an inherent and ongoing relationship among all forms of life, present and past. Those relationships are grounded in evolutionary facts gleaned from first-hand studies of life. That they are so grounded brings to the fore the fact that facts of life are grounded in experience, first-person experiences of life itself. Descriptive accounts of these experiences are the foundation of human knowledge about the worlds of nonhuman animals. They are – or should be – the foundation of human knowledge about the human animal itself.

Yet how does the human animal as typically construed within the prism of a nature/culture divide fit into Darwin's keen and detailed descriptions of animate life? My answer is that in a quite crucial sense it does not, and this because of an incredible lacuna in today's scientific research, and in research generally over the 138 years since *The Descent of Man and Selection in Relation to Sex* was published, namely, on the lack of recognition of, and in turn the lack of penetrating and self-enlightening research on, 'the law of battle' as a *real* human phenomenon. As described by Darwin, 'the law of battle' is a biological matrix, natural to humans as to other animals, though tempered in humans according to Darwin, but without elaboration, by 'civilized people' (Darwin 1981[1871]: 326). By 'civilized people' indeed. As I will show, 'the law of battle' in humans has been 'civilized' beyond recognition. It has been hidden under the aegis of aggressive behavior and/or reduced to a cellular phenomenon, 'civilized' practices that only further shroud the central fact that the matrix has been culturally elaborated – culturally 'exapted', to borrow Gould and Vrba's term (1982) – to subserve strictly cultural ends far beyond the original, ends having to do with the pursuit of various forms of 'cultural fitness', and this from the beginnings of recorded human history.

Its exaptation has been aided and abetted on both sides of the nature/culture divide. On the one side is an over-fawning attention on *the brain* in present-day neuroscience and cognitive science that deflects attention precisely from a Darwinian view of life, that is, that elides close-up study of the living nature of human nature and thus, most importantly, deflects attention from a recognition of evolution. On the other side are elevations of culture over nature by social constructionist dogma and the like, elevations on the side of the humanities that have the consequence not simply of deflecting attention from evolution but of

ignoring or denying its significance altogether. The fault lines on each side of the nature/culture divide obviously embody the academic division between ‘the sciences’ on the one hand and ‘the humanities’ on the other. The lines warrant elaboration as a preamble to an elucidation of the culturally exapted or co-opted human ‘law of battle’.

I

Present-day human neuroscience and cognitive science display an unprecedented admiration – one might even say idolatry – of *the brain*. Their riveted and to my mind thoroughly blinkered attention to *the brain* – the human one – virtually eclipses proper ongoing attention to evolution and its foundational import to understandings of human nature. The blinkered attention of these sciences seeps into the humanities, as when language, art, and empathy, for example, are deemed a function of mirror neurons via the fashionable culturally-spawned magical lexical band-aid of ‘embodiment’: Vittorio Gallese and George Lakoff, in their ‘neural theory of language’, write that *concepts* – concepts such as *grasping* – are ‘*embodied* in the sensory-motor system’ (Gallese and Lakoff 2005: 19; emphasis added); David Freedberg and Vittorio Gallese write that ‘*embodied* mechanisms’ underlying human responses to images and to visual works of art are ‘universal’ (Freedberg and Gallese 2007; emphasis added); Vittorio Gallese, Morris Eagle and Paolo Migone write that ‘*embodied* simulation’ is ‘a mandatory, nonconscious, and prereflexive [brain] mechanism’ that ‘generates representational content’ allowing one person immediate understanding of another person’s intentional goal, emotion, or ‘sensation’ (Gallese et al. 2007: 143–4; emphasis added). It is of moment to note that, to date, mirror neurons have never been shown to exist in human brains. As one neuroscientist himself recently noted: ‘A flood of theories regarding what mirror neurons do in humans came out before anyone proved whether they exist or not... A lot more groundwork needs to be done before people can talk about these theories of simulation, language and so forth’ (Ilan Dinstein, quoted by Tina Hesman Saey 2009: 11). While people in the humanities not infrequently buy a piece of the brain to fortify their claims, as in George Lakoff and Mark Johnson’s *Philosophy in the Flesh* (1999), the major fault lies clearly with those scientists who are mesmerized by *the brain* as if it were the oracle at Delphi, the shrine to which all questions concerning humans are addressed and from which all bona fide explanations of humans will emanate. An advertisement of a course offered by The Teaching Company in the bimonthly journal *Science News* (175(13): 3) succinctly validates *the brain* as oracle. The course, titled ‘How Your Brain Works’, is taught by a neuroscience professor at Vanderbilt University and is described as follows: ‘Everything you hear, feel, see, and think is controlled by your brain. It allows you to cope masterfully with your everyday environment and is capable of producing breathtaking athletic feats, sublime works of art, and profound scientific insights. But its most amazing achievement may be that it can understand itself.’

Of course, the idea of controlling and predicting is an enduring scientific precept, so interest in an ordained controller – whatever the ordained controller is deemed to be – is not unusual nor, presumably, is the desire to teach people how a particular controller controls. The problem comes with outlandish claims, such as the brain controls '[e]verything you hear, feel, see, and think', as if brains thought of reading this article or feel now like having a chocolate bar. Such outlandish claims obviously make brains rather than people the subject of experience, a practice not in the least uncommon in neuroscience. Francis Crick and Christof Koch, for example, declare: 'If you see the back of a person's head, the brain infers that there is a face on the front of it' (1992: 153). Antonio Damasio, Patricia Churchland and Terence Sejnowski, Semir Zeki and hosts of others make and have made similar experiential ascriptions. An older ascription made by a primatologist is in fact also notable. In 1975 Robert Harding wrote: 'Nonhuman primates have brains capable of cooperative hunting' (1975: 255), as if when summoned by hunger, brains roll forth to do battle on the savannah.

Whether a matter of control or of experiential ascriptions, *the brain* is a product of pure and simple reductionism, and pure and simple reductionism works patently against descriptive foundations (for more on the incontestable need for and value of descriptive foundations, see Sheets-Johnstone 2002). In pure and simple reductionist thought, there is, in the original words of 19th-century sea captain Frederick Marryatt – and the later words of Mary Beeton in her 1861 book *The Book of Household Management* and Samuel Smiles in his 1875 book *Thrift* – 'a place for everything and everything in its place' (Marryatt 1842; Beeton 1861; Smiles 1875). Indeed, reductionism decrees that humans are properly describable only in point-by-point, localized ways. The living, dynamic world of animate beings is virtually off-limits: *that* world is precisely *unpredictable*, *uncertain*. Who knows in exactly which direction a whale will turn or when it will sound? Who knows when a baby will wake or cry or a crow fly off to another perch? Such knowledge would be akin to knowing the exact patterns and shifting shapes in which clouds will form and re-form. Unpredictability aside, an ordered and orderly world in which there is a place for everything and everything in its place is a material world that leaves out meaning or makes meaning a pure and simple neurological phenomenon, a world that not only present-day cognitive scientists conjure but that philosopher Evan Thompson straightforwardly instantiates when he states, '[t]he nervous system . . . creates meaning' (Thompson 2007: 13).

In sum, reductionism compresses life into a neurological caricature of life. With not a full-bodied living animal in sight, neither fine and painstaking observations and descriptions of life itself can be made nor, in consequence, can the topic of evolution rise to its proper prominence as the ground floor of human self-understandings.

On the humanities side, humans are typically construed from the viewpoint of culture and culture is typically conceived honorifically not only as the spawning ground of all that is sweetness and light about humans but as the venerated ground separating humans from animals. From culture comes language, art, libraries,

homes, beds, chairs, tables, cooking, temples, cemeteries, and so on. Moreover, technical ingenuity figures also on the cultural side in the form of film, television, computers, cell phones, and so on. On all these counts and more, a sizable number of humans count themselves a significant cut above animals. An odd fact, however, remains. Experiments on animals have benefited humans and continue to benefit them or are promised to benefit them in the future. Nonhuman animals are used to test a variety of substances, infected with this or that disease or chemical, sent off as proxies into space and investigated as neurological proxies, captured and caged to procure certain substances and liquids humans use to provide themselves with greater vitality or sex appeal, and so on. The question, of course, is: 'if humans are *un*-related to animals, how is it that animals are clinical, experimental, neurological, and chemical stand-ins for humans?' Clearly, to consider themselves *un*-related produces not just an illogical state of affairs, but a thoroughly immoral and unenlightened one. In other words, inconsistent valuations of nonhuman animals, that is, flighty, self-contradictory, and thoroughly capricious attitudinal changes that lack reasoned reflection, are one thing; an underlying insistence on evolutionary discontinuities together with an espousal of continuities for human convenience whenever needed or deemed necessary is quite another. Indeed, to claim evolutionary continuities on self-serving pragmatic grounds and discontinuities on axiological/ontological ones is incontrovertible evidence of both a failed morality and a failed intelligence. In such circumstances and practices, *Homo sapiens sapiens* fails to live up to its doubly vaunted status in the world.

The idea that, in virtue of culture, humans transcend nature is clearly open to question. When we look at human civilizations across history in a broad sense, two features stand out with special salience: war and art. The remains of the former are treasured in cemeteries and prominently housed in monuments and memorials; the remains of the latter are treasured in stage and concert performances and prominently housed in museums. Indeed, humans look back proudly to burial sites and cave art in the Paleolithic. Cultural emblems that allow humans to marvel at their laudable and ingenious past are treasured and cared for. The emblems are consistently taken to mark the transcendence of humans over nature. This self-serving pure and simple rendition of nature, however, like any self-serving pure and simple reductionism, overlooks fundamental realities of human nature. Traditional wisdom about bipedality readily substantiates the critical oversight. Traditional wisdom teaches that the advent of *consistent* or 100 percent bipedality – in comparison with an estimated 55 percent terrestrial bipedality in australopithecines and a 10 percent terrestrial bipedality in their ancestors (Pilbeam 1986) – brought with it two notably distinct capacities: the capacity to see to further distances and thereby the capacity to plan ahead, and the capacity to make tools by freeing the hands. The capacity to see to further distances and thereby plan ahead clearly extols human intelligence, but what of present-day foot-dragging on climate change and what of a runaway global human population, to mention only two prominent current examples? We are still bipedal, but where is the capacity to see to further distances and to plan ahead? The capacity to make tools by freeing the

hands extols a creative intelligence, but what of the unmonitored proliferation and use of guns and assault weapons in the US and of the ongoing development of nuclear weapons? Our hands are indeed free, but what have we done and what do we continue to do with them? Have humans truly transcended nature or have they, on the contrary, *taken what is evolutionarily given and in untold instances shaped or reworked it culturally* – precisely, *culturally* – in various deleterious ways by elaborating, suppressing, neglecting, or exaggerating what is evolutionarily given? (For a thoroughgoing analysis of this claim in relation to power and power relations see Sheets-Johnstone 1994.) Clearly in declaring that culture separates humans from animals, in essence, insisting that humans in the form of *Homo sapiens sapiens* are a species apart, humans are in truth myopically aggrandizing what they prize in themselves and turning a blind eye to what is in fact unprizable.

In sum, with either a riveted attention on *the brain* or an elevation of culture over nature, humans effectively cut themselves off from the animal kingdom and the natural world. In consequence, Darwin's descriptive foundations go by the boards, their import utterly unetched onto the consciousness of humans. It is not just that evolution fades from view but that humans remain ignorant, unenlightened in critical ways about their own history, their evolutionary heritage as animate forms, one among what may be close to 10 million other morphologies-in-motion within the kingdom Animalia (Curtis 1976: 1002).

II

The criticality of human ignorance is nowhere better exemplified than by the benighted state of awareness of 'the law of battle'. I begin with a number of successive passages from Darwin's descriptive accounts of the law as laid out in his 14 chapters stretching over some 575 pages in *The Descent of Man and Selection in Relation to Sex*. The passages lead us from general observations about the evolutionary phenomenon of male-male competition to specific ones about human male-male competition.

There are . . . sexual differences quite disconnected with the primary organs . . . such as the greater size, strength, and pugnacity of the male, his weapons of offence or means of defence against rivals. (vol. 1: 254)

[S]exual selection has played an important part in the history of the organic world. It is certain that with almost all animals there is a struggle between the males for the possession of the female. (vol. 1: 259)

Our difficulty in regard to sexual selection lies in understanding how it is that the males which conquer other males, or those which prove the most attractive to the females, leave a greater number of offspring to inherit their superiority than the beaten and less attractive males. Unless this result followed, the characters which gave to

certain males an advantage over others, could not be perfected and augmented through sexual selection. (vol. 1: 260–1)

In almost all the Orders [of insects], the males of some species, even of weak and delicate kinds, are known to be highly pugnacious; and some few are furnished with special weapons for fighting with their rivals. But the law of battle does not prevail nearly so widely with insects as with higher animals. (vol. 1: 418)

[M]any male birds are highly pugnacious, and some are furnished with special weapons for fighting with their rivals. (vol. 1: 422)

Male stickleback fish are extraordinarily bold and pugnacious... Their battles are at times desperate; for these puny combatants fasten tight on each other for several seconds, tumbling over and over again, until their strength appears completely exhausted. (vol. 2: 2)

Almost all male birds are extremely pugnacious, using their beaks, wings, and legs for fighting together. We see this every spring with our robins and sparrows. The smallest of all birds, namely the humming-bird, is one of the most quarrelsome. (vol. 2: 40)

Most male birds are highly pugnacious during the breeding-season, and some possess weapons especially adapted for fighting with their rivals. But the most pugnacious and the best-armed males rarely or never depend for success solely on their power to drive away or kill their rivals, but have special means for charming the female. With some it is the power of song, or of emitting strange cries, or of producing instrumental music... Many birds endeavour to charm the females by love-dances or antics, performed on the ground or in the air, and sometimes at prepared places. (vol. 2: 232–3)

With mammals the male appears to win the female much more through the law of battle than through the display of his charms. (vol. 2: 239)

All male animals which are furnished with special weapons for fighting, are well known to engage in fierce battles (vol. 2: 240)... When the males are provided with weapons which the females do not possess, there can hardly be a doubt that they are used for fighting with other males, and that they have been acquired through sexual selection. (p. 242)

[M]ale monkeys, like men, are bolder and fiercer than the females. They lead the troop, and when there is danger, come to the front. We thus see how close is the parallelism between the sexual differences of man and the *Quadrumana*. (vol. 2: 320)

There can be little doubt that the greater size and strength of man, in comparison with woman, together with his broader shoulders, more developed muscles, rugged outline

of body, his greater courage and pugnacity, are all due in chief part to inheritance from some early male progenitor, who, like the existing anthropoid apes, was thus characterised. (vol. 2: 325)

Man is the rival of other men; he delights in competition, and this leads to ambition which passes too easily into selfishness. These latter qualities seem to be his natural and unfortunate birthright. (vol. 2: 326)

The foregoing quotations leading up to the reality of human male-male competition can be elaborated initially by calling attention to a passing reference of Darwin, the place at which he mentions that in some bird species, males endeavor to charm the females at 'prepared places'. *Leks* – a Swedish term – is the name given to special grounds on which male-male competition takes place, grounds that are returned to year after year at mating season, males enacting what is justly termed their ritual competitive practice. Leks are not peculiar to avian males, as is commonly thought, but to species of insects, flies, lizards, butterflies, antelope, wildebeest, deer, fish, frogs, and bats (Attenborough 1990; Höglund and Alatalo 1995).

Though he is definitely neither concerned with leks nor writing about leks, just such 'prepared places' enter into cultural historian Johan Huizinga's description and discussion of war in a chapter of his book *Homo ludens*. Huizinga provides examples of how in the Middle Ages, for example, and in early Greece, battles in the form of duels, community clashes and national conflicts were fought according to certain rules, including where the battle was to take place and how long it was to last. He writes of the difference between such true or civilized contests – *agons*, where combatants are equals – and uncivilized contests – non-agonistic forms of fighting as in 'the surprise, the ambush, the raid, the punitive expedition and wholesale extermination', virtually decrying such forms of fighting as outside culture and, interestingly enough, waged by 'lesser breeds without the law' (Huizinga 1955: 90, 89–90, respectively). The point is not that the formal, rule-governed human male-male competitions that Huizinga describes qualify as leks but that they are of the same character as leks; that is, they are archetypal examples of ritual male-male competition, derivative from the ancestral form. In finer terms, when culturally co-opted by humans, agonistic male-male competition no longer serves its original sexual purpose, i.e. it is no longer a matter of winning fights with other males in order to win females. It is, as Huizinga describes it, a matter of upholding one's honor or of administering justice, for example. Indeed, abilities (and perhaps even weaponry) that evolved originally and specifically for the purpose of sexual pursuit and conquest are utilized to a different end, a cultural end serving psychosocial, socio-political, or socio-economic supremacy of one male or group of males over another.¹

Put in biological perspective, Huizinga's writings about war and 'trials by battle' give us an initial sense of how cultures elaborate the biological phenomenon of male-male competition, that is, of how 'the law of battle' is and has been co-opted

from its evolutionary moorings and elaborated on the cultural stage of human societies and civilizations. His writings thereby provide an initial sense of how Darwin's succinct description of human males – 'Man is the rival of other men; he delights in competition, and this leads to ambition which passes too easily into selfishness' – is the point of departure for understanding what is played out culturally in myriad ways, not only in the fundamental, seemingly indelible, and ever-present human practice of war, but in the radically non-agonistic practices of genocidal massacres, territorial takeovers, resource plunderings, and more, including the ever-present wholesale raping of women and even children.

Darwin's description can in fact be elaborated along psychologically inflected cultural lines. Rivalry and competition leading to ambition and selfishness can be played out in the form of ideas, ultimately, in life and death psychological struggles over ideas. In his masterful critique of psychology and its abandonment of a concern with *psyche* – with soul – psychoanalyst Otto Rank shows how soul-belief was first attached to woman, who through procreation brought to life the souls of the dead, and how it was later attached to the hero whose courageous conquests were heralded in mythic tales, thus how, in the beginning, soul-belief was tied to notions of immortality. Rank proceeds then to show how soul-belief and attendant notions of immortality eventually lost all relationship to animate life and became attached instead to 'scientific intellectualism', an intellectualism embodied in the 'new god' of *truth*. Every conflict over truth, he remarks, 'is in the end the old struggle for the soul's existence and its immortality' (Rank 1998: 59, 60, respectively). In taking up Rank's theme of truth-seeking, cultural anthropologist Ernest Becker vividly and strikingly points out:

If anyone doubts [that the conflict over truth is a struggle over immortality], let him try to explain in any other way the life-and-death viciousness of all ideological disputes. Each person nourishes his immortality in the ideology of self-perpetuation to which he gives his allegiance; this gives his life the only abiding significance it can have. No wonder men go into a rage over fine points of belief. If your adversary wins the argument about truth, *you die*. Your immortality system has been shown to be fallible, your life becomes fallible. History, then, can be understood as the succession of ideologies that console for death. (Becker 1975: 64)

Male-male rivalry and competition are indeed culturally elaborated in complex ways, ways that become engrained as much in individual psyches as in nationalist and religious ones. That ambition and selfishness are generated from the rivalry and competition is hardly surprising. Darwin's brief observation is in fact supported from multiple other perspectives. Affirming male-male competition on the basis of his own research studies as well as those of Darwin, anatomist and anthropologist Sir Arthur Keith states that: 'at the base of man's "competitive complex" is [his] desire for place and power – ambition' (Keith 1968: 58). Sir Arthur in fact considers ambition to be 'the most compelling of human passions' (Keith 1946: 145). Three hundred years earlier, Thomas Hobbes wrote

of man's selfishness. His well-known observation that life is 'solitary, poor, nasty, brutish, and short' and his descriptions of the difficulties such life presents run along different but no less compelling lines with respect to the ease with which selfishness is generated (Hobbes 1930 [1651]). That Hitler's ambition was to found a thousand-year Reich and that Stalin's was to found the first-ever socialist state are further support of Darwin's observation. Their personal ambitions are supportive as well of Rank's seminal claims about human immortality ideologies, as are de Gaulle's proclamation of 'la France éternelle' and of US Army Third Infantry Division Major Morris T. Goins's pronouncement to soldiers before the push to Baghdad on 13 April 2003: 'Thirty-six hours, then we'll be in the history books forever' (*New York Times* 'Quotation of the Day'). Studies of our primate relatives lend further support to Darwin's observation. Consider the following description:

There is no mistaking a dominant male macaque. These are superbly muscled monkeys. Their hair is sleek and carefully groomed, their walk calm, assured and majestic. They move in apparent disregard of the lesser monkeys who scatter at their approach. For to obstruct the path of a dominant male or even to venture, when unwelcome, too near to him is an act of defiance, and macaques learn young that such a challenge will draw a heavy punishment. (Eimerl and DeVore 1965: 106)

Clearly, as Darwin observed, there is a 'close parallelism' between 'man and the *Quadrumana*', i.e. nonhuman primates. Jane Goodall provides further evidence of the close parallelism in her description of a chimpanzee, Mike, and of just how 'Mike's rise to the number one or top-tanking position in the chimpanzee community was both interesting and spectacular':

A group of five adult males, including top-ranking Goliath, David Graybeard, and the huge Rodolf, were grooming each other. The session had been going on for some twenty minutes. Mike was sitting about thirty yards apart from them, frequently staring toward the group, occasionally idly grooming himself. All at once Mike calmly walked over to our tent and took hold of an empty kerosene can by the handle. Then he picked up a second can and, walking upright, returned to the place where he had been sitting. Armed with his two cans Mike continued to stare toward the other males. After a few minutes he began to rock from side to side. . . . Gradually he rocked more vigorously, his hair slowly began to stand erect, and then, softly at first, he started a series of pant-hoots. As he called, Mike got to his feet and suddenly he was off, charging toward the group of males, hitting the two cans ahead of him. The cans, together with Mike's crescendo of hooting, made the most appalling racket: no wonder the erstwhile peaceful males rushed out of the way. Mike and his cans vanished down a track, and after a few moments there was silence. . . . After a short interval that low-pitched hooting began again, followed almost immediately by the appearance of the two rackety cans with Mike close behind them. Straight for the other males he charged, and once more they fled. . . . Rodolf was the first of the males

to approach Mike, uttering soft pant-grunts of submission, crouching low and pressing his lips to Mike's thigh. Next he began to groom Mike, and two other males approached, pant-grunting, and also began to groom him. (Goodall 1971: 112–13)

In *The Roots of Morality*, I commented on Goodall's description as follows:

Though on an infinitesimally smaller scale than the scale of possible human attempts at dominance, Mike's bid for dominance is readily comparable to human male bids for dominance, and not only individual male bids but national bids, bids in the form of displays that break into otherwise peaceful relations, that utilize immediate attention getting objects, that provoke fear, and by provoking fear, aim to subdue or subjugate others. Piercing through ordinary activities of everyday life, such human displays of power can and do generate unendurable tensions that readily leave vengeful, rancorous figures in their wake as well as cringing, submissive ones. (Sheets-Johnstone 2008: 106)

The foregoing exposition of male-male rivalry and competition notwithstanding, what Darwin specifies as the 'natural and unfortunate birthright' of human males is not indelibly scripted, any more than it is indelibly scripted in other animals. *All* males are not equally driven to compete, to dominate, and so on. The first tenet of evolution is variation. There is indeed *variation* among males with respect to quarrelsomeness, bellicosity and combativeness, what Darwin frequently describes as 'pugnacity'. The point of moment here, however, is to acknowledge straightforwardly what I term *real* male-male competition (Sheets-Johnstone 2008) or, in other words, to acknowledge the evolutionary realities of our humanness in the form of male-male competition and to shed light on the ways in which 'the law of battle', which phylogenetically serves strictly reproductive ends, has over eons of human time been culturally co-opted to serve quite other ends, ends having to do with ambition, power, dominance, greed, territorial pursuits, immortality ideologies, and so on, and this by squelching the life and livelihood of those who stand in the way or by outright killing.

III

Two notable and thriving present-day academic research programs are obstacles to the straightforward recognition of *real* human male-male competition. The biological matrix of *real* male-male competition is either hidden under the aegis of aggressive behavior or reduced to a cellular phenomenon. Each obstacle warrants attention.

In light of his popular 1966 book *On Aggression*, Konrad Lorenz might be cited as the forerunner of academic research on the topic. In that book, Lorenz writes of 'the aggressive instinct' (p. x), of the 'survival value of aggression' (p. 39), of the 'survival value of the rival fight... [that] leads to useful selection where it breeds fighters fitted for combat with extra-specific enemies as well as for intra-specific

duels' (p. 39), and of the fact that 'present-day civilized man suffers from insufficient discharge of his aggressive drive' (p. 235). He furthermore writes at some length of 'a powerful phylogenetically evolved behavior which', he says, 'I propose to call that of militant enthusiasm' (p. 259). He speaks of how phylogenetically evolved behavioral patterns can 'interact' with 'culturally ritualized social norms and rites' (p. 259), but oddly enough never mentions *real* male-male competition and its human cultural subduction into war.

War is indeed a cultivated human taste, the cultural magnification of the biological archetype of *real* male-male competition, co-opted from its original sexual context and put in the service of dominance *über alles* and all that dominance *über alles* brings with it. It is of considerable interest to note in this context that, with the neglect of attention to *real* male-male competition, there is a correlative unwitting leap from talk of humans to talk of 'man', not as a commonly used synonym for 'human' but with pointed reference to 'man's destructiveness', man's 'innate aggression', man's propensity to war, and so on, as in Carthy and Ebling's edited book *The Natural History of Aggression* (1964: 4). In short, that it is not a question of humans generally but of males in particular is everywhere evident but nowhere acknowledged. Moreover, in neglecting any mention of the biological phenomenon of *real* male-male competition in discussions of aggression, whether its 'natural history' or its psychological aspects, writings on the subject testify to an absorption in what is derivative rather than what is original: from a biological perspective, *male-male competition motivates aggression, and not the reverse*. 'Aggression' is a label put upon a certain kind of behaviour – unprovoked offensive action upon another, as the *OED* indicates; male-male competition is, in contrast, a bona fide biological phenomenon. How any particular competition plays out depends on just those biological variables Darwin discusses in his explanation of sexual selection; that is, some males are more pugnacious than others, some more energized, some more vocal, and so on. Though unmentioned as such, a propensity toward unprovoked offensive action upon another is just such a biological variable, precisely as Mike's behavior indicates. Aggression exists along an affective psycho-sociological gradient. The biological matrix of male-male competition exists in humans along a decidedly *cultural* gradient, a gradient readily exemplified in the degree to which, and the ways in which, cultures can and do promote competition in the pursuit of power, fame, territory, glory, and so on, and in the correlative honing of heroes and prominencing of warriors. As Lorenz astutely observed: 'Virtues such as heroism and courage are regarded as being "manly" and are traditionally associated with waging war. Conversely, the avoidance of war or the pursuit of peace are generally regarded as "effeminate", passive, cowardly, weak, dishonorable or subversive' (Lorenz 1966: 275).

Lorenz wrote more than 40 years ago, but today's writings on aggression are virtually no different except in their reductionist treatment of aggression. In the Preface to his book *Biology of Aggression* – a gathering of 18 articles by people at the National Institute of Mental Health and in departments of

psychopharmacology, psychology, biology, neurobiology, psychiatry, and zoology – editor Randy J. Nelson writes:

For years, the roles of learning and environmental influences, both social and nonsocial factors, were prominent in discussions of the etiology of human aggression. Biological factors were not thought likely to be important candidates for dealing with human aggression or violence. With recent advances in pharmacology and genetic manipulation techniques, new interests in the biological mechanisms of human aggression have been pursued. Certainly, aggression is a complex social behavior with multiple causes, but pursuit of molecular biological causes may lead to interventions to prevent excess aggressive behaviors.

Following a brief paragraph that defines aggression as ‘overt behavior with the intention of inflicting physical damage upon another individual’ and that provides a sentence or two about territorial aggression in pursuit of resources and the possibility of an animal averting combat by a submissive gesture, Nelson begins his next paragraph with the statement: ‘Because most aggressive encounters among humans and nonhuman animals represent a male proclivity, studies using the most appropriate murine model (such as testosterone-dependent offensive intermale aggression, which is typically measured in resident-intruder or isolation-induced aggression tests) are discussed’ (Nelson 2006: v). In short, reductionism holds sway. There is no entry in the index for male-male competition; there is no entry for Darwin; and in fact neither is there an entry for evolution. Indeed, the preponderance of articles are rooted in experimental or laboratory research on nonhuman animals; those dealing with humans are rooted in neurobiology, psychopharmacology, or psychophysiology. The biological matrix of male-male competition across the kingdom Animalia and its cultural exaptation by humans are indeed nowhere on the map.

The cultural honing of heroes and the cultural adulation of warriors have been staples of human civilization for centuries and even millennia. Surely it should be astonishing rather than merely surprising that *real* male-male competition has been an ignored dimension of human history. Inattention to human history aside, what is singularly remarkable in today’s world of biological sciences is how *real* male-male competition has vanished in a reductive sleight of hand into sperm competition. A 2006 book titled *Sperm Competition in Humans: Classic and Contemporary Readings* gives ample evidence of the subversion of the real-life phenomenon into a near parody of what Darwin aptly recognized as ‘the law of battle’, even to the point of a proposing a ‘kamikaze’ sperm hypothesis (Baker and Bellis 2006a [1988], 2006b [1989]). As Geoffrey A. Parker, the 1970 ‘discoverer’ of sperm competition in insects, defines it, sperm competition is the ‘competition between the sperm from two or more males over the fertilization of ova’ (Parker 2006: 33). Parker ‘suggests’ sperm competition as an explanation of why sperm are ‘so small and so numerous’ (p. 33). As one of the contributors to the book remarks, however, in a paper titled ‘Human Sperm Competition’, ‘Data on the incidence of human sperm competition

are meager' (Smith 2006 [1984]: 110). He adds that 'Most come from forensic genetics studies conducted to exclude paternity, and very few from human population genetics studies' (pp. 110–11). It is relevant in this context of human sperm competition and 'paternity' to quote an outlandish claim by sociobiologists Martin Daly and Margo Wilson that epitomizes the blatant omission of *real* male-male competition. Daly and Wilson state: 'If a marriage contract provided a man with a magical guarantee of paternity, the world would be a more peaceable place!' (Daly and Wilson 1983: 285). Does paternal uncertainty foment war, genocide, an *über alles* mentality, and other forms of *real* male-male competition, whether national or religious? Or does war, genocide, an *über alles* mentality, and other forms of *real* male-male competition rather open the door to rape, unwanted pregnancies, and fatherless children, the latter in spite of the fact that, as one contributor with seemingly molecular anthropomorphic candor states, 'The human vaginal environment is considered generally hostile toward sperm' (Smith 2006: 105).²

In sum, there is no doubt but that 'the law of battle' of which Darwin wrote at length and in meticulous descriptive detail across both invertebrate and vertebrate species in *The Descent of Man* has been submerged in aggression, subverted into sperm competition, and in general disregarded – all, I would add, to the detriment of humans knowing themselves as they really are. As phenomenological philosopher Edmund Husserl would admonish, 'to the things themselves' – in other words, to the realities of life itself and to understandings of that lifeworld. To win one's freedom from ignorance, whatever its culturally inculcated source, requires recognition of human evolution, the basic phenomenon of male-male competition, and of the ways in which that biological matrix is and has been culturally elaborated. It requires what might be called an expansion of ordinary consciousness, not only the ability to reflect on experience, but the sagacity to acknowledge experience as the ground floor of any objective study – precisely as Darwin's investigations of animate life teach us: his questionings of himself and others about that life, and his sojournings onward through scrupulous observations and descriptions toward a solidification into theory. To win one's freedom thus means what I once described as practicing one's chosen profession 'close-up', that is, immersing oneself in the living, experiential foundations on which any empirical study of individuals is based. In close-up study of *real* male-male competition, one indeed discovers options. A brief story, however anecdotal, makes the point:

A Native American grandfather was talking to his grandson about how he felt about the tragedy on 11 September. He said: 'I feel as if I have two wolves fighting in my heart. One wolf is vengeful, angry, violent. The other wolf is loving, forgiving, compassionate.' The grandson asks him: 'Which wolf will win the fight in your heart?' The grandfather answers: 'The one I feed.'³

Humans – male humans in this particular instance – are free to choose what they affectively cultivate. Realizing their affective freedom – in effect, that cultural offsprings of biology are non-deterministic – means realizing they are not locked in. Their natural power to reflect gives them other options as does their knowledge

of the possible range of human experience. Ignoring or turning away from these other options, they compromise their self-glorifying intelligence, the doubly sapiential wisdom of *Homo sapiens sapiens*. The descent of man can in turn be literally read as a moral rather than evolutionary descent, a descent that runs from the self-ennobling heights of *Homo sapiens sapiens* to the gutters of *Homo nescius et barbarus* – *nescius* meaning precisely ignorant, lacking knowledge. The dangers of a moral descent can be countered only by a moral education grounded in an evolutionary history that humans undertake about themselves. We are, after all, together in this onrunning flow of life in which we find ourselves. The legacy of Charles Darwin is rich and extends beyond *The Origin of Species*. What we learn from his writings is a measure of the depths of our humanity. What we in turn open ourselves to examining further and what we contribute in our own time is a measure of our individual integrity and sapience.

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It is with great pleasure that I acknowledge Ian Baucom, Director of the John Hope Franklin Center at Duke University, who invited me to be one of four guest speakers at the Darwin Anniversary Symposium, 'Darwin Across the Disciplines', in November 2009. Each guest speaker had a commentator from the Genomic Institute at Duke. It is with equally great pleasure that I acknowledge Daniel McShea, Professor of Biology at Duke, who was my interlocutor. The original version of this article was presented at the Symposium.

Notes

1. At the Symposium, McShea commented on this paper in the form of what he called two 'quibbles'. The first questioned the claim that all 'culturally-mediated expressions of male-male competition no longer serve their original purpose' (pers. comm.). He stated, 'we don't really know that "ambition", for example, or "power" do not lead to greater reproductive success'. In response, I would question whether it is really 'reproductive success' that ambition and power achieve or whether it is not simply sexual success. The desire for children is, after all, not commonly reported to be the prime motivator in an ambitious or powerful male's bedding of a female. That child support has to be legally mandated further supports the priority of sexual success over reproductive success. The second 'quibble' questioned whether the 'co-opting of passions (associated with male-male competition)' may have beneficial results in that co-opting keeps 'these very dangerous animals' (i.e. males) 'busy in a relatively harmless way' via sports, politics, money-making, and so on. My beginning response would be that sports may indeed constitute a 'relatively harmless' outlet for competition, as Konrad Lorenz claimed, though in the context of aggression, not male-male competition (Lorenz 1966). My continuing response, however, would be that while in a general comparative sense the co-opting of passions may indeed be 'relatively harmless' – compared, that is, to outright killing, massacring, and so on – money-making and politics can have physically and/or psychologically devastating effects, effects that are overwhelmingly harmful. *Greed*, for example, can deprive others to the point of penury and starvation, just as

power and territorial pursuits, for example, can oppress others, degrading and humiliating them to the point of psychologically destroying their lives.

The above responses to McShea's comments were written after the Symposium in the course of our follow-up correspondence and prior to my submission of this article for publication. In light of McShea's further thoughtful and challenging comments in his gracious review of this article for the journal, I would like to amplify my responses briefly along two further interrelated lines of thought concerning the possibility of keeping 'these very dangerous animals' 'busy in a relatively harmless way' via the activities of sports, politics, and money-making.

Competitive sports are a cultural elaboration of a natural phenomenon: play. When prematurely introduced and intensely promoted, as in some Little League programs in the US, they can suppress natural dispositions to play and foreground aggression in its place: 'Where competition drowns out play, in particular, the bodily play originating in infancy and typical of young children, it undermines its own foundations, foundations that are phylogenetic as well as ontogenetic. In so doing, it transforms its otherwise low-profile place in early life and gives rise to an altogether other social activity. . . . The name of the game is win, and win at all costs' (Sheets-Johnstone 2003: 409; 2008: 242). Not surprisingly, the imperative perdures into adult competitive sports, as witness the 2010 World Cup (see Parks 2010). Wars, of course, are competitive and equally tied to winning at all costs, hence, tied to politics and business as well as to sports. Wars are furthermore exciting for the actual combatants, not simply in a competitive win or lose sense but in a competitive life or death sense. Recent books on war, i.e. Evan Thomas's *The War Lovers* and Sebastian Junger's *War* (in addition to his film *Restrepo* made with Tim Hetherington), are topical to the point as are several chapters in *The Roots of Morality* (Sheets-Johnstone 2008). The books and chapters tie in with my dialogue with McShea and spur hopes for an ongoing substantive discussion of the biological reality of male-male competition and its cultural elaborations, and for a thoughtful public awareness of the phenomenon beyond the halls of academia.

2. Smith goes on to remark: 'Evidence for this is partially circumstantial in that only a very small fraction of ejaculated sperm ever reach the uterine tubes where fertilization usually occurs. Of the hundreds of millions of sperm contained in each ejaculate, only about 2,000 arrive in the vicinity of the descending ovum' (Smith 2006: 105).
3. It is worth noting from a specifically cultural perspective that the grandfather is a Native American Indian, someone who has a de facto spiritual nature. Not that all Native American Indians were docile, non-warring peoples, but that there is a whole history of 'the white man' usurping lands cultivated and lived on by Native American Indians. In short, would the conversation, however anecdotal, have the credibility and impact it has if the grandfather had been just a grandfather – or, say, an Hispanic grandfather or a German grandfather or an Israeli grandfather or a Northern Ireland grandfather, not to say a plain old American grandfather?

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