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0521466458 - Darwinism, War and History: The Debate Over the Biology of War from the 'Origin of Species' to the First World War

Paul Crook

Excerpt

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## Introduction

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At a Washington science conference in the early summer of 1918, as the First World War was drawing towards its finale, the noted American biologist Raymond Pearl rebuked his fellow naturalists for failing to conceive of war as a biological event, 'a gigantic experiment in human evolution'. Reluctantly he traced the war back to his hero, 'that gentlest and kindest of souls', Charles Darwin: 'I believe it to be literally true that the one event in the history of Western Europe which more than any other single one laid the foundation for the situation in which Western Europe finds itself today, was the publication of a book called *The Origin of Species*.' Pearl exemplified the schizoid tendencies that often prevailed in western thought about the connection between Darwinism and war. On the one hand, he blamed 'the frightful welter of blood' on the 'gross perversion' of Darwin's views by German biologists, who ignored the mental and moral qualities of humankind. On the other hand, Pearl himself saw humans as innately pugnacious and war an adaptive response to long-term evolutionary pressures.<sup>1</sup> In this he anticipated the neo-Darwinist doctrine of modern sociobiology. In fact the ancestors of sociobiology on war and human aggression are to be discovered in the era from 1880 to 1919.

World War I seemed to validate images of violent simian humanity, while Allied propaganda magnified the demonic role of Prussianised Social Darwinism in causing the war. Perhaps for these reasons, an imaginative version or mythology of Darwinism as bellicose has been perpetuated in the historical literature of this era to the virtual exclusion of alternative readings of Darwinism that legitimised civilised non-violence.<sup>2</sup> This historiography reconstructs and misrepresents things as they were. It is remembered past more than real past.

This book will examine the debate over the 'biology of war' – that is, over the supposedly biological causes and effects of war – that took place between 1859 and 1919, with especial attention to the legacy of Darwinism for theories of war and human aggression. Darwinism, one of the great scientific revolutions of modern times, conditioned western attitudes of

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racial and cultural superiority that translated into imperial and militarist doctrines, and this will be explored. However, this study is more concerned to investigate the alternative tradition of 'peace biology' that grew out of co-operationist interpretations of biological theory. 'Peace biology' is defined as a matrix of biological arguments and vocabularies that could be used ideologically to foster peace causes. A sub-genre of 'anti-war evolutionism' employed specifically evolutionary, and especially Darwinian, discourse to counter the war school's use of struggle-based analogies from nature. Peace biology expounded an optimistic worldview based upon Darwin's holistic ecology, and used new disciplines such as eugenics to demonstrate that war was a biological disaster for humankind. A very powerful tradition was built upon this foundation during the post-Darwinian years, and it survived even the shock of the First World War.

This topic has been strangely neglected. There has of course been intense interest in the social and political ramifications of Darwin's paradigm, and much polemic. The historiography of 'Social Darwinism' is now a rich field, and much has been said on the connection between biological science – or pseudo-science – and subjects such as religion, ethics, class, eugenics, race and empire. There has been much less systematic investigation, however, of the nexus between Darwinism and theories of war. In what ways, for example, did Darwinist ideas of 'survival of the fittest', or alternatively, of nature as a web of interdependence, affect prevailing concepts of war's desirability or otherwise? To what extent did the languages of war theory and biology interact, and resonate voices of specific cultures and the cultural anxieties of the pre-1914 era? In what way did the changing facts of modern warfare, or war-linked social data, affect bio-social or bio-political analysis and rhetoric? How did – and how does – supposedly 'hard science' translate into dangerously reductionist, determinist and authoritarian cultural and political dogma or, to be optimistic, translate into more open and liberal categories cherishing peace and free will? Or were these polarities, on closer inspection, less clear-cut than we might imagine? The issues here, as in other areas of Social Darwinism, are complex and ambiguous. But answers are required if we are to resolve the larger question of the exact role of the Darwinist model in the value systems of particular cultures at particular times in history.

The intention is to focus upon the interactions between biological and social theory, to witness the extent to which nineteenth-century biology was both culturally regulated by, and pressed into the service of, social values associated with violence and war – and their opposites. Both militarist and pacifist speculation used naturalistic analogy and readings of

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human behaviour based upon supposedly universal and inescapable biological laws. Offsetting this in the debate were less strident, but persistent, themes against biological determinism. These may be traced back to Darwin, who was no determinist, even though his work set a fashion for arguing from nature to society, for finding an organic basis for culture and factors such as class and race. It was highly problematic for people to read into Darwin a necessary belief in a system of ethics chained to the empirical contours of nature, especially since his theory of cultural evolution stressed the human capacity to control nature and transcend natural selection. A. R. Wallace and T. H. Huxley became key figures who denied the 'imperial' right of biology to have free access into the world of human behaviour and values. Such dissent amplified protests against evolutionary ethics that were being made in philosophical and other circles.

This style of thought, sceptical of analogy and determinism, proved of major benefit to the peace tradition. Its talk was of humans being able to escape the thralls of a violent nature, being able to construct an independent culture and morality based upon peace. The champions of non-violence effectively censured their militaristic enemies for 'distorting' Darwinism, and illicitly universalising data from nature. At the same time, they themselves frequently used Darwinian science and animal comparisons to legitimise cooperative models for humanity. Surprisingly, this double-dealing was rarely noticed, or criticised. Why? I suggest this was largely because Anglo-American peace theorists grabbed the middle ground of ethics from their rivals. Peace biology benefited immensely because its value system was more congruent with entrenched moral culture than was that of the less conventional, unpleasantly ruthless, militarist school. This was the fatal flaw in nineteenth-century militarism, and helps to explain why – even in Wilhelmine Germany, whose *Kultur* was notably amenable to philosophies of might – rhetorics of war as biological necessity were subsidiary in militarist propaganda to more central concerns of national identity and interest. These could be embraced more readily by those with sensitive consciences.

A word about scope and limits. This study will deal not only with Darwinism, but with a range of biological speculations that include Lamarckism, a broad gamut of biologically based readings of history, and more historically oriented accounts of social evolution. Regard will be had to context, especially biographical context. A great deal of nonsense has been written in Social Darwinist discourse precisely because context has been ignored, because ideas have been wrenched from their proper settings and simplistically deployed as polemics. The best antidote is to return to the original thinkers, texts and ambience. Certainly the debate over war

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requires considerable explanatory information before it becomes fully meaningful. Inevitably that debate became enmeshed with larger issues: with questions such as man's place in nature, instinct versus culture, perceptions of social evolution, the role of analogy, the case for and against naturalistic ethics, science's claim to pronounce on history and policy, theories of determinism, teleology and reductionism. These issues rightly claim their due of literary space. Although European and American thought is treated when appropriate, the primary focus is upon Britain.

The following chapters concentrate upon war/peace biology as discourse. It is beyond the scope of this enterprise to judge the complex specificities of issues such as the institutional and political influence of this discourse. I do not frontally address certain problems: to what extent was peace biology an organised movement? What was its sociology? How does peace/war biology figure precisely in any analysis of the causes of World War I? To elucidate such issues would require an entirely new research programme. Massive research would be needed into official archives and the private papers of participants and political decision-makers. I offer a preliminary reconnaissance of the field. Hopefully the heavier battalions will move in later.

Many of the people discussed below are now forgotten; naturalists, physicians, eugenists, psychologists, socialists, professionals and various experts, minor savants of their time. Their interest in the biological dimensions of war may possibly be explained in Foucault's terms of empowerment. Geneticists, biometricians and physiologists may have been motivated by ambitions, conscious or unconscious, to establish status and a locus of power for their professions in a world dominated by traditional elites and business groups. Certainly the historians of eugenics (especially American eugenics) have embraced such interpretations.<sup>3</sup> If war (and other massive human phenomena) could be understood in essentially biological terms, the disciplines and practitioners of biology, bio-medicine and bio-psychology might expect to play a vital role in future human affairs, both in mediating knowledge and in orchestrating political planning and control. However, any purely instrumental account of biological war theory seems unsatisfactory. There are other dimensions. There is the broader possibility that the war debate represented, at one level, a psychological resolution or adjustment to pervading cultural anxieties in western civilisation. War could be comfortingly conceived either as fatalistic necessity, or as controllable by means of culture. At another level, the 'biologisation of war' might represent a legitimate aspiration to explore the internal logic and dynamics of a new, exciting scientific paradigm. During the nineteenth century the language of Darwinism, then genetics, infiltrated many human fields. The biologising

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of social thought was much remarked on. War biology was part of a widely shared language of the age. Nobody denies that this discourse absorbed a disconcerting share of scientific quackery, of ideologically conditioned and self-serving biology. But it would be over-cynical to deny that it also reflected concern for human welfare and a genuine intellectual quest for knowledge.

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## 1 The Darwinian legacy

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### The general debate

Darwinism has often been blamed for encouraging the idea that humankind is essentially pugnacious and competitive, and that war is therefore a normal part of the human condition. The logic of this argument varies, but it is possible to analyse within it certain recurring constructs, most notably those referring to Darwin's 'conflict paradigm' and the theme of 'animal reductionism'. The conflict paradigm is said to underlie Darwinism. The concept of natural selection, however it was derived – we shall look at its historical derivation soon – emphasised the relentless struggle of superfecund populations for limited resources. This was the precondition for evolutionary change and adaptation, for 'survival of the fittest' (in Herbert Spencer's evocative, if dangerously evaluative, term). Struggle and competition, violence, bloodshed and cruelty were the filtering mechanisms, crude, chancy, wasteful, by which species change and natural progress occurred. It was this side of natural selection that allegedly struck the nineteenth-century imagination, the idea of Nature 'red in tooth and claw' (although Tennyson's line predated *The Origin of Species* by almost a decade). The 'law of the jungle' was offered as the harsh ruling principle governing not only animals in their habitat but humans in their cities and societies. This law became (it is said) a vivid justification for rampant capitalism and uncontrolled individualism, doctrines praising survivors and victors and damning the unfit. T. H. Huxley condemned it as 'the gladiatorial theory of existence', embodying a naturalistic ethic that was a form of 'reasoned savagery'.<sup>1</sup> Moralists pointed out that Darwinism not only gave evolutionary explanations for ethics, but – a logically separate step – helped create a fashion for judging right action by criteria derived from a brutal natural world, such as survival or domination. Taken to extremes, Darwinist discourse conferred approval on a range of doctrines glorifying power, status, elitism, conquest and repression. Differences between cultures, genders, classes and races were reduced to fixed biological differences, imprinted in humans during

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eons of selective struggle. Darwin's conflict model generated militarist and racist extrapolations that conferred approval on war and imperial struggle as 'biological necessities'.

The theme of 'animal reductionism' came out of Darwin's hypothesis of transformism, which argued that *Homo sapiens* had derived from animal ancestors according to the laws of species change, via natural selection, isolation, sexual selection and hereditary transmission. Humans were animals, part of the animal world, subject to the same laws of nature. While Darwin in *The Descent of Man* (1871) acknowledged man's 'noble qualities', 'exalted powers' and social sympathy, 'his godlike intellect which has penetrated into the movements and constitution of the solar system', he also insisted that humans still bore the indelible stamp of their lowly origins. The insistence became even stronger in *The Expression of the Emotions in Man and Animals* (1872). From such an observation, not new with Darwin but given a terrible new impetus by him, could spring reductionist doctrines of all sorts. Human beings, or classes or races of human beings, were seen to be little better than the animals, which were assumed to be unreasoning and motivated by simple primal instincts, aggressive and territorial.

From such assumptions a variety of unpleasant consequences could be derived (not always logically). Popularisers from the 1880s on wrote about man as fighting ape (or, more recently and flatteringly, as 'imperial animal').<sup>2</sup> If pugnacity is rooted in human, as in animal, nature, an ineradicable instinct, the product of genetically programmed behaviour patterns that are relatively immune to cultural influences or 'nurture', then violence is a constant human potential, war is not aberrant and may even be commended as a biological necessity. War is rationalised and opposition to it eroded by the spread of pessimistic and quietist sentiments. As Frederick Wertham has argued, if violence 'is all in human nature, and if we are all guilty, then nobody is guilty. And if we are all responsible, no man is responsible'.<sup>3</sup> The alternative view that violence is socially caused, and socially preventable, is laughed out of court. Major elements of the above agenda appear in modern sociobiology, especially in the work of its founder E. O. Wilson, although in the nuclear age there is little temptation to speak of war as a biological necessity.

In the above there is also much potential for manipulative and authoritarian politics. We all live in a 'human zoo' and zoos require zookeepers. Discipline, conditioning and culling will be necessary. Humans are seen as 'nothing but' animals. When, as the organismic biologist Ludwig Von Bertalanffy said, thinkers and leaders see in man, not just an analogue to a rat, but nothing but an overgrown rat, then it is time to be alarmed. What Arthur Koestler condemned as 'ratomorphic

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philosophy' has become pervasive in the twentieth century: systematic depreciation of the human spirit, people turned into automata of consumption or marionettes of political power, dehumanised by a sophisticated psychological technology.<sup>4</sup>

Zoological reductionism caught on in the nineteenth century for a variety of reasons. Discourse about animals was a way by which humans expressed assumptions about themselves and their society. Enterprises such as hunting and zookeeping paralleled and justified imperial enterprise. English elites felt a sense of domination over animals, who became a metaphor for the lesser imperial breeds, or lesser social classes, over whom they ruled.<sup>5</sup>

Judeo-Christian tradition also equated sin and bestiality, seeing animals as vicious, and human vengeance and war as a reversion to an animal world of chaos. Scholars explain this dark vision of animality in terms of early monotheistic efforts to counter beast-worship. Animals became scapegoats to shoulder guilt about humans' own patently ferocious behaviour to their own and other species. Religious tradition also fostered a view of the animal world as a field for exploitation, God's gift for humankind's exclusive use, a tradition reinforced in the nineteenth century by the prevailing scientific world-view. In contrast to Christian thought, which at least theoretically blamed sin on man's own fallen nature, classical tradition perpetuated Plato's imagery of 'the wild beast within us', the incarnation of rampant carnality, violence, treachery, the source of ignobility in humans.<sup>6</sup>

The myth of the Beast Within intensified in the later nineteenth century. We find it in Social Darwinist discourse, in Nietzsche, Robert Louis Stevenson's *Dr Jekyll and Mr Hyde*, in H. G. Wells's *The Island of Dr Moreau* (warning against the perils of bestiality and science), and in much of the widespread literature on 'degeneration'. In such soil doctrines of despair and nihilism flourished and with them, one may argue, the potential for totalitarian and warmongering politics. The First World War – as we shall see – was portrayed as the final vindication of the mythology of bestiality, encoded anew in terms of neo-Darwinian genetics and instinct theory.

I cannot dwell here on the more general accusations made against Darwinism as depreciating human dignity. There was religious disquiet that Darwin had destroyed Christian teleology in the tradition of William Paley, and had expelled man from the centre of God's creation and concern. There was philosophical disquiet that Darwin had replaced a purposeful and benevolent world by a purposeless and violent one. As John Burrow has said: 'Nature, according to Darwin, was the product of blind chance and a blind struggle, and man a lonely, intelligent mutation,



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scrambling with the brutes for his sustenance ... Darwinian nature held no clues for human conduct, no answers to human moral dilemmas.<sup>7</sup> Darwinism has been widely viewed as one of those potent intellectual forces that helped erode the west's traditional moral order in the later nineteenth century. By undermining ideas of absolute morality, by emphasising man's animality, it is said to have weakened the Christian association of war with sin (the basis of much pacifism), and contributed to a growing 'cult of violence', a cult that romanticised force as exciting, liberating, 'instinctive and elemental'.<sup>8</sup>

Biological militarism drew upon all of the above notions. Peace biology, however, appealed to other connotations of Darwinism. It challenged the conflict model and its political ramifications, a challenge that – as we shall shortly see – is consistent with recent revisionist historiography on Social Darwinism. It was always possible to see in Darwinian biology more than conflict theory, to see it as an holistic ecology that postulated a web of coexistence linking organisms. This holistic concept gave sustenance to social doctrines leading in reform-collectivist and 'new liberal' directions; and it encouraged optimistic assumptions about human nature and the possibilities of a peaceful human future. The conflict model could be replaced by a cooperationist model.

Animal reductionism also became more complex on analysis. Naturalising, or 'lowering', man could also involve humanising or 'raising' animals and puncturing myths of animal violence. The obverse of the thesis about man's brutal stamp, for Darwin and Huxley, was a case about animal skill and 'consciousness'.<sup>9</sup> It has been suggested that generations of middle-class stories about animal sagacity and character influenced Darwin's closing of the gap between man and animals, the case for a common ancestor and differences of degree only in mental capacity between humans and apes.<sup>10</sup> The dark vision of an animal world of chaos could be replaced by a brighter vision; one that took account of the considerable evidence of structural, social behaviour in animals. Within animal groups cooperative behaviour was marked, environmental interdependence undeniable. Darwin made this point, and it was expanded in Peter Kropotkin's *Mutual Aid* (1902).

Naturalists pointed out that murder and war were virtually unknown among non-human primates and most other species (except for warfare among social insects such as ants). Killing was largely predation directed at species other than one's own. Within species killing tended to be curbed by instinctive controls. Such observations diminished the militaristic analogy from nature. But they were less reassuring about humanity itself, pointing up the warlikeness and general unpleasantness of the human species by comparison with the rest. As modern commentators have often remarked,

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man was a killer, 'the greatest predator the world has ever known – the only mammal to slay other members of his species in vast numbers'.<sup>11</sup> Angst about man's uniquely fallen condition is now conceived biologically rather than religiously.

More optimistically, Darwin's *Descent* broke down the traditional demarcation between humans as persons and animals as things. Darwin sought out in the lower animals incipient senses and intuitions, emotions and faculties (such as love, memory, curiosity, imitation, reason) akin to those of humans. Ultimately this sustained what the American biologist Liberty Hyde Bailey called a 'biocentric', rather than man-centred, view of the living creation.<sup>12</sup> The social evolutionist Benjamin Kidd predicted that the concept of brotherhood would be extended 'outside the limits of race and beyond all political barriers', while a sense of human responsibility would extend 'first of all to fellow creatures and then to life itself'.<sup>13</sup> In *Prolegomena to Ethics* (1883), the Oxford Idealist T. H. Green similarly applied the idea of neighbourship to the whole sentient universe. A style of opinion and alternative politics grew up that was sympathetic towards environment, tolerant towards all living creatures, and impatient of mindless destruction of natural resources. It was to be a force for peace in the twentieth century.

Animal reductionism was counterbalanced by teleological and orthogenic doctrines associated with Darwinism. Strictly speaking they were illicitly associated with it. Darwin denied that evolutionary change worked purposefully towards a long-term goal (teleology) or that it proceeded in a single direction (orthogenesis). He warned himself not to use terms such as 'higher' or 'lower' (implying progress up or down an evolutionary ladder), and warned his readers that evolution often led into dead ends. Nevertheless elements of natural theology (which was teleological) persisted in his thought, and much of his language was reminiscent of the Victorian 'doctrine of progress'.

While animal reductionism implied that man's origins were all, the opposite 'elevationist' view was more respectful of human dignity and potential. To that degree it nourished liberal politics concerned with individual growth, freedom, creativity and choice. True, humanity was subject to evolutionary laws, a proper subject of scientific scrutiny, no longer projected above nature by metaphysical discourse. Man's animal nature was not in question (not by evolutionists anyway). However, evolution dealt not only in origins, but in historical change and development. It was prospective as well as retrospective. If humans were barely domesticated brutes to the reductionists, to others they were the splendidly endowed end product of evolution, creators of civilisation and culture. Through their tool-making, language and learning skills, humans