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Evolutionary psychology and politics

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Abstract

Like its predecessor sociobiology, evolutionary psychology has distanced itself from political discourse. In so far as evolutionary psychology can contribute towards an understanding of politics, it claims to do so only as a potential explanation for political behaviour. However, I argue that evolutionary psychology – like sociobiology – is itself a political phenomenon. It proceeds from a conception of the political – drawn from the Hobbesian social contract tradition – which crucially informs its theoretical trajectory. A recognition of the political character of evolutionary psychology, in this respect, should be the starting point of its critique.

Keywords: evolutionary psychology; sociobiology; human nature; politics; game theory and rational-choice theory; Hobbesian social contract tradition.

The history of political thought it is punctuated by failed attempts to establish the natural foundations of politics. Are we now, though, witnessing the emergence of a new species of the theory of human nature, one that could offer a final, complete understanding of the natural foundations of politics? There seems to be at least one current candidate for the accolade. Over the past decade, a new discipline has emerged which claims to have discovered the origins of human social behaviour – evolutionary psychology. The leading thinkers in evolutionary psychology – Leda Cosmides and John Tooby, Steven Pinker and David Buss – and those who have supported and drawn on their work – Helena Cronin, Matt Ridley, Peter Singer, Marek Kohn, Susan Blackmore, W. G. Runciman and Robin Wright – have come to occupy an important place in academic and popular discourses. While evolutionary psychology has a notorious ancestor –

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sociobiology – it has gone to some lengths, as will become apparent in the course of this paper, to distance itself from its progenitor.

Most critics of evolutionary psychology to date have focused on it as a problem in science.[1] The specific explanations it submits for a variety of human behaviours are limited to the extent that they are based on a mistaken – and, its critics would argue, unscientific – account of the biological basis of those behaviours that it has inherited from sociobiology. In this respect, 'politics' – both for evolutionary psychology and for many of its critics – is a sub-field of human behaviour, which is explicable in terms of the methodologically appropriate protocols of the social sciences. Proponents and critics alike thus appear in agreement that the central question at the heart of evolutionary psychology, the answers to which should form the grounds for its critique, is one posed about the causes of human behaviour.

Like all other scientific discourses, evolutionary psychology rests on unstated assumptions and addresses hidden questions. It is certainly the case that the explicitly posed question of behaviour is close to the heart of evolutionary psychology, but this is no reason to accept that it *is* its defining question. Why, it should be asked, is the explanation of behaviour so important? How can the theoretical enterprise of explaining behaviour – which is a form of behaviour – be explained? To these two questions evolutionary psychology forwards two kinds of answers, which are closely related. In response to the first question, it claims that the explanation of behaviour is important because it is the key to explaining social events and processes (Tooby and Cosmides 1992). This is, of course, a tautology that simply begs the question why it is important to explain social events and processes. At this point evolutionary psychology usually becomes coy, but where it does venture an answer it suggests that, if we can explain social events and processes in terms of behaviour, we can intervene (or leave alone) in order to meet desired goals (Cronin 1991; Ridley 1997).

To the second question, evolutionary psychology feels fairly confident that it can provide some of the answers in its own terms. In other words, explanatory behaviour is rooted in our genetic constitution – the mind is equipped with specialized cognitive 'modules' that allow us to venture explanations for the behaviour of others, and which have been naturally selected over time because of the reproductive advantages they confer on the possessors of the genes that encode for them (Cosmides and Tooby 1992; Pinker 1995; Buss 1999). But, of course, this can only be a partial explanation – evolutionary psychology recognizes that the *scientific* enterprise of explaining behaviour has also been shaped by the historical and social context in which it has developed. It does not follow from this that scientific truth is a product of those contexts – on the contrary, evolutionary psychology strongly defends the proposition that scientific *truth* is obtainable independently of historical and social context. But then, as Nietzsche asked, 'what really is it in us that wants "the truth"?'[2]

Evolutionary psychology, then, cannot provide convincing answers, in its own terms, to the questions of why it is important to explain behaviour and what explains the behaviour of explaining behaviour. The problem comes more

clearly into relief if we restate the central questions a little differently: evolutionary psychology is not interested in 'behaviour' in general, but 'human behaviour' or, what it takes to be the same thing, 'human nature'. The central questions are now: why is it important to explain human nature? and what is it that explains the behaviour of explaining human nature? I suggest that it is in the course of answering – and, in some cases, avoiding – these questions that evolutionary psychology reveals the true nature of its enterprise. Evolutionary psychology – like sociobiology – is a thoroughly political phenomenon.

This suggestion will drive most practitioners of evolutionary psychology into a fit of pique, but by calling evolutionary psychology a political phenomenon, I do not intend what is usually intended by its critics, i.e. that the science of evolutionary psychology is either derived from a particular political ideology or has specific political connotations. Rather, the argument here is that the central, framing questions of evolutionary psychology are taken from the history of political theory: why is political order necessary and how can political order be achieved? The notion may seem far-fetched to many evolutionary psychologists and to many of evolutionary psychology's critics, who see evolutionary psychology primarily as a lineage of behaviourist psychology attempting to demonstrate its importance for the social sciences in general. But, as I hope to establish in this paper, despite its claims to have moved away from sociobiology, evolutionary psychology rests on the same assumptions about the nature of individual behaviour and the relationship between human nature and human politics. Evolutionary psychology, like sociobiology, has been concerned to ask how civilization could have emerged from savagery – this, I would argue, is the wrong question to address and is the point at which the project of evolutionary psychology unravels.

Sociobiology and politics

One of the most controversial currents of thought in the 1970s was sociobiology. Sociobiology has its origins in the mathematical modelling of altruistic behaviour among animals to be found in the work of Hamilton (1964) and Trivers (1971). The principal aim of this work was to refute 'group selectionist' theories in ethology, i.e. theories that explained individual behaviour in terms of its consequences for group or species fitness. Rather, altruism was considered to be a genetic trait that conferred a reproductive advantage on those in possession of it. Self-sacrificing behaviour could be thought consistent with an explanation in terms of individual fitness, if the genes were considered to be the main unit of selection in evolution. In other words – in Dawkins's (1976) famous metaphors – genes are 'selfish' and individual organisms are 'vehicles' for the genes.

E. O. Wilson's *Sociobiology* (1975) summarized studies of social behaviour in ethology based on the gene selection theory, and attempted to sketch a sociobiology of human social behaviour. Wilson argued that human social behaviour, despite widespread variation in its expression, is the product of innate genetic

programmes fashioned by natural selection in the immediate prehistory of the species, i.e. the several hundred thousand years spent by early humans on the African savannah following a hunter-gatherer lifestyle. Hence, many aspects of human social life – including its least attractive, such as war, racism and sexual inequality – can be explained in terms of innate mechanisms that humans came to possess in the course of their evolutionary history. While acknowledging that 'culture', taken to mean learned behaviour, plays a considerably greater role in human social life than in that of any of the other social animals, Wilson regarded it as one component of the human 'biogram', designed to enhance genetic fitness, rather than as an autonomous cause of behaviour.

In this respect, Wilson was primarily responsible for marking out the boundaries of the following debate on sociobiology. Sociobiology was seen to be concerned with the explanation of human social behaviour in the service of scientific understanding. The notion of 'human nature', for sociobiology, is no more than a technical category – in the same sense as are the not widely employed epithets 'chimpanzee nature' and 'crocodile nature'. 'Human nature' simply refers to the collection of species-specific genetic traits possessed by human beings, which are capable of explaining a significant proportion of human social behaviour. Accordingly, the debate between sociobiology and its detractors came to be seen as a disagreement over 'human nature' in this sense. For sociobiology, human nature was a persistent and causally powerful feature of human social arrangements, whereas for its critics human nature was, at best, a trivial description of the somatic and cognitive limits of human action, within which a huge variety of social and cultural institutions and practices coexist.[3]

Of course, it was not the case that sociobiology was not considered in a political light. Many of its opponents saw it as an explicitly conservative political programme, one more moment in a long-line of pseudo-scientific disciplines that sought to justify social inequality and market order.[4] But sociobiology was keen to reject the notion that it was committing the naturalistic fallacy: human beings may be predisposed to selfish, competitive and at times murderous behaviour, but that does not mean that, in a contemporary setting, such behaviour has to be the norm. Fortunately, evolution has also provided the means – complex and consciously constituted social order – by which the worst effects of evolved human genetic inheritance can be controlled. In light of this view, sociobiology does not mandate any particular position in morality or political ideology: a range of values may be prescribed and pursued by humans consistently with their inherited behavioural predispositions (Wilson 1975; Dawkins 1976; Trivers 1981).[5]

In *Sociobiology*, Wilson did argue, however, that sociobiological research has some implications for the future of human politics. In this light, the role of sociobiology 'will be to monitor the genetic basis of social behaviour' so that it can make recommendations as to the compatibility of certain kinds of social arrangement with innate human behavioural predispositions (Wilson 1975: 575). Again, the agenda for the core of later debates was being set in place – these intimations of the explanatory power of sociobiology were premised on a

rigorous individualism. Accordingly, 'social' and 'cultural' phenomena are nothing more than the aggregate of individual behaviours, whether genetically determined or otherwise. It was the light that sociobiology might shed on politics in this regard that was at the forefront of Robert Trivers' mind when he wrote the introductory piece to the only book published to date devoted specifically to sociobiology and politics (White 1981). His comments on the political implications of sociobiology were cursory: its most important insight in the course of attacking species-selection theories was to undermine 'the comfortable belief that the dominant interests naturally rule in everybody's self-interest' (Trivers 1981: 39). On the contrary, individuals act on the basis of their own self-interests, or rather the interests of the genes that they bear.

Later chapters of the book explored the implications of sociobiology for political theory and political science. Two of the authors, in particular, were able to recognize the implicit, central questions that informed sociobiology and would later inform evolutionary psychology:

> sociobiology . . . points towards the revival of a concern for those social and cultural practices that are consistent with human nature. Although this involves reviving a tradition that can be traced to classical philosophers like Aristotle, such applications of recent sociobiology remain to be worked out.
>
> (Masters 1981: 159)

> the basic objective of ethology and sociobiology . . . is to explain the 'nature of human nature' – what it is, how and why it got that way, and the degree to which we can realistically hope to control or change it. What is sometimes not so readily grasped, even by political scientists, is that these same questions, slightly restated, have constituted the central core of political speculation from Plato to the present.
>
> (Somit 1981: 167)

The general reception of these authors to sociobiology was mixed – insofar as explaining human nature is taken to be central to the practice of political theory, sociobiology can provide some, limited aid. What was more important than the particulars of their criticisms, however, was their recognition of the compatibility of sociobiology with what they took to be the central question of the history of political thought, i.e. the necessity and possibility of political order given the character of human nature. More specifically, sociobiology seemed consistent with the Hobbesian strand of the social contract tradition.[6] Trivers' theory of 'reciprocal altruism' (1971) could be taken as providing a biological basis for social contract theory: social benefits and burdens are shared out on the basis of a compromise between individual agents in possession of a first-order interest, i.e. the preservation of their own lives and those of their closest genetic relatives. The creation of a social order, on this view, is at the same time the creation of a political order made possible by human nature – individuals are self-interested but at the same time endowed with the capacity for reciprocity, which makes the social contract possible. The constitution of political order requires individuals to consent to perform binding obligations subject to some

form of legitimate authority, in return for the enhancement of their long-term genetic interests. What bestows legitimacy on political authority, in this respect, is the original agreement that individuals make given the capacity they have to enter into such an explicit agreement.

The question of how such an order is made possible was, then, at the heart of sociobiology, and it is in this sense that it was a political phenomenon. Wilson and Trivers may not have explicitly addressed the question of political order in their work, but it is clear that much more was going on than the transference of insights from ethology to human social life. Why transfer these insights? Wilson and Trivers were working within a scientific problematic that valorizes the quest for human nature, because it *already* assumes that so much flows from this. It is a problematic that was constituted in the seventeenth century, and one that continues to inform much of political theory and political science. Far from sociobiology being a tool for answering the questions posed by this problematic, as was assumed by the authors of *Sociobiology and Human Politics*, it was a product of this problematic.[7]

Evolutionary psychology's break with sociobiology

While some critics of sociobiology did see how this Hobbesian political problematic informed its emphasis on human nature (Sahlins 1976; Rose *et al*. 1984), there has been little analysis or criticism of evolutionary psychology from this point of view.[8] In part, this is because 'pop' evolutionary psychology has been more successful than sociobiology in deflecting criticisms of its political nature, and because of a changed political environment in which biological explanations of human behaviour have become quite widely accepted. But evolutionary psychology also offers theoretical grounds on which to distinguish itself from sociobiology, which at the same time have had the function of making it seem also distinct from sociobiology at a political level.

Critics of sociobiology had argued that to say that culture has genetic origins does not entail that the particular content of culture can be genetically explained or that the effects of learned behaviour on social organization can be simply accounted for by genetic programming. Accordingly, those who have wished to pursue sociobiology's innatist approach to social behaviour have had to recognize that any such successful argument has to incorporate learned behaviour, in the sense that social organization is not simply the product of genetic programmes but is at least mediated by the capacity for humans to adapt to different environments through culture.

An important starting point for evolutionary psychology in defending innatism while avoiding crude genetic determinism, is the rejection of the traditional distinction between nature and nurture, which went largely unquestioned in sociobiological literature. Wilson claimed that significant portions of human social behaviour could be accounted for by 'nature', i.e. genetic programmes created by natural selection. However, given the wide degree of cultural

variation that obtains in human societies, it would seem to follow that, if as a single species humans share the same genetic programme, any diversity of behaviour has to be explained in non-genetic terms, i.e. by reference to culture. Yet this is only the case if we see a crude trade-off between nature and nurture in the determination of behaviour. Evolutionary psychology asserts that human social behaviour should be conceived of as a product of a symbiosis of genes and environment. On this view, biology should not be considered a *constraint* on what humans can do, but something that gives them the potential to act in specific ways, which are, at some level, the result of the impact of the environment on evolved cognitive capacities.

This view of the relationship between nature and nurture seems incontrovertible. Most psychologists and social scientists have long since rejected the notion of humans as *tabula rasa*. Approaches that supposedly rested on the blank-slate model of the mind, such as behaviourist psychology as this was represented by figures like John Watson and B. F. Skinner, in fact took a more complex view. For behaviourism, the mind could be seen as a 'black box', a structure not precisely knowable, transforming certain stimuli into forms of action. The innate mechanisms of the mind, on this view, would include such simple reasoning abilities as the recognition of similarities and differences between perceived objects. Such mechanisms could be said to be the product of natural selection, with the human capacity for much more diverse forms of behaviour than any other species down to its relatively large brain, providing for more fine-grained perception and conceptual categorization, and the ability to communicate experiences to others by means of another evolutionary development, language. At the same time, the acknowledgement that human behaviour relies on psychological mechanisms which govern the broad form of that behaviour need tell us nothing of its content. Indeed, for Skinnerian psychology, the content of behaviour could be explained only by environment, which meant that the key to explaining human behaviour lay at the level of culture. In contrast, evolutionary psychologists claim that the crucial moment in the determination of behaviour is not culture, but the evolved psychological mechanisms possessed by the human species. Unlike behaviourist psychologists, most evolutionary psychologists reject the idea that there are *generalized* psychological structures and argue instead for specific adapted cognitive modules. The mind is best compared not to a general-purpose computer, programmed externally by the environment, but to a Swiss-army knife – that is, a tool which is made up of a number of other tools, each of which is designed to perform a particular function (Tooby and Cosmides 1992; Pinker 1994, 1995).[9]

Evolutionary psychology's notion of specifically adapted psychological modules is designed to get round the problem of sociobiology's view that significant aspects of human behaviour are coded for by genes. In this sense, evolutionary psychology is not a form of biological determinism.[10] The main focus is on the psychological basis of behaviour, and the suggestion that important aspects of human psychology are hard-wired. Its principal target, accordingly, is the 'Standard Social Scientific Model', which supposedly rests on the

blank-slate model of the human mind (Tooby and Cosmides 1992).[11] What evolutionary psychology is not arguing for is a rejection of 'culture' – or learning – in the explanation of behaviour.[12] The judgement as to the role played by culture in behaviour is a scientific and empirical one – it cannot be determined *a priori* by a commitment to an erroneous view of human nature, whether that be the blank-state view of the mind or strong genetic determinism.

Evolutionary psychology, then, seems more theoretically sophisticated than sociobiology.[13] Evolutionary psychology's move towards a more nuanced account of innatism is inspired, *prima facie*, by the 'unscientific' and aprioristic light in which much of sociobiology came to be viewed. What we can see here is a repetition of sociobiology's claim that the primary purpose of the innatist approach is to study the bases of human social behaviour in the broader service of scientific inquiry. But for evolutionary psychology, the theoretical break with sociobiology serves another function: it helps to demonstrate that it is ideologically untainted and autonomous of 'politics'. Politics, for evolutionary psychology, can only be taken as a subset, albeit an important one, of human behaviour. While obviously a candidate for behavioural analysis, politics is not – in any sense that could besmirch its scientific credentials – implicated in the substantive theoretical positions adopted in evolutionary psychology.

The politics of evolutionary psychology

Contrary to its self-perception, evolutionary psychology is a political animal. It is so at one very obvious level: despite its frequent contention that it has no concrete implications for political practice in terms of policy, it seems barely credible to argue that 'human nature' has been relatively fixed for the past several hundred thousand years and shapes much of what we do, without saying that knowledge of it can illuminate our understanding of politics and public policy.[14] Indeed, a number of acolytes of evolutionary psychology have argued that we should draw political implications from its empirical findings. For example, Matt Ridley writes:

> Our societies are torn by war, violence, theft, dissension and inequality. We struggle to understand why, variously apportioning blame to nature, nurture, government, greed or gods. The dawning self-awareness that this book has chronicled ought – indeed must – have some practical use. Knowing how evolution arrived at the human capacity for social trust, we can surely find out how to cure its lack. Which human institutions generate trust and which dissipate it?
>
> (Ridley 1997: 250)

Ridley's answer – in an effort to garb Adam Smith in evolutionary psychology – is that market exchange promotes trust and co-operation, while the state undermines them. Others, to the left of Ridley, such as Peter Singer and Marek Kohn, have argued that evolutionary psychology demonstrates that government

policies designed to reduce social inequality make sense from a Darwinian point of view (Singer 1999; Kohn 1999).

It is not clear whether the 'core' theorists of evolutionary psychology, such as Buss, Pinker, Cosmides and Tooby, would consider their discipline to have such clear implications for politics and public policy. Even were they to deny that evolutionary psychology has *any* such implications, it does not cease to be the case that evolutionary psychology is a political phenomenon. There are two further levels at which this is apparent: first, as I have already argued, evolutionary psychology is a political phenomenon because – implicitly – it takes its framing questions from the history of political theory. As I argue in the final section, evolutionary psychology is principally concerned with demonstrating how social, and at the same time political, order is both necessary and possible. Moreover, in modelling human behaviour in general, evolutionary psychology has turned squarely to political science and economics. For evolutionary psychology, the methods constructed by some political scientists out of neoclassical economics in order to explain political behaviour – game and rational-choice theory – are the tools *par excellence* for understanding the evolution of co-operation and conflict among modern humans.

Before evolutionary psychology, sociobiology had turned towards game theory in order to try to explain the origins of altruistic behaviour in animals (Maynard Smith 1988). Game theory demonstrates how certain outcomes result when individuals in a strategic situation act on the basis of their own self-interest. The favoured device of game theorists for demonstrating a central paradox of rationality in strategic scenarios is the 'prisoner's dilemma' – in this 'game', acting according to self-interest does not secure an optimal outcome for all the parties. In the prisoner's dilemma, two separately kept prisoners who have committed a crime in concert are made aware of the costs and benefits of silence (co-operation) and confession (defection) respectively. The best outcome is for both to remain silent, in which case they walk away free. The worst outcome accrues when one remains silent while the other confesses – in which case the former receives a hefty prison sentence, the latter a lighter one. The rational thing to do in this situation (where rational is understood in terms of self-interest) is to confess – whereupon both prisoners receive a short prison sentence. But this is, of course, a sub-optimal outcome – both could have gone free if only they had remained silent. However, given that the possible costs of silence are too high, both choose to confess, and the result is that neither gets off as lightly as they could have done.

In this form, the prisoner's dilemma held out little promise for sociobiologists attempting to explain altruism in terms of the pursuit of genetic fitness. If anything, it seemed to suggest that co-operation could not arise on that basis. However, computer models of the 'iterated' prisoner's dilemmas – in which the dilemma occurs back-to-back with the prisoners allowed to use their knowledge of the previous outcome in the calculation of what decision to take this time around – have demonstrated that, over time, the optimally rational strategy for the prisoners to follow is one of 'tit-for-tat', i.e. treat like with like, by replicating

your partner's decision from last time (Axelrod 1984). Accordingly, all that is needed is one instance of co-operative behaviour to arise for it – and an optimal outcome – to be repeated perpetually. Where the information available to the prisoners is thus broad enough, there can emerge a strategy in which the pursuit of self-interest leads to optimal outcomes on the basis of co-operative behaviour.

The attraction for sociobiology of this abstract modelling of strategic behaviour in game theory lay in its demonstration of how a blind or unconscious mechanism for co-operation could emerge from the pursuit of self-interest. Natural selection works like the iterated prisoner's dilemma: where behaviour emerges that tends to benefit its performer, this behaviour may be naturally selected and become more prevalent in the population in general. Tit-for-tat, as a strategy in the prisoner's dilemma, can model many instances of altruism between distantly related animals, even between those from different species. The genetic predisposition to behave co-operatively will come to be selected over time if it enhances the reproductive fitness of its possessors until such a time that co-operative behaviour is so widespread that 'defection' – now a free-riding strategy – again becomes optimal (Maynard Smith 1988).

Even more than for sociobiology, the notion that the evolution of co-operation can be modelled in terms of the development of tit-for-tat strategies has been of central importance to evolutionary psychology. While sociobiology crudely explained social order in terms of genetic 'programming', evolutionary psychology argues that it is underpinned by the human mind's possession of a number of content-specific psychological modules that are designed to detect social and anti-social behaviour, rewarding the former (with co-operation) and punishing the latter (with defection) (Cosmides and Tooby 1992). In a sense then, the insights into co-operative behaviour gleaned from game and rational-choice theory constitute something more than a model. Evolutionary psychology can, it claims, provide an *explanation* – Darwinian natural selection acting on the human mind in its prehistory – of why gaming strategies such as tit-for-tat are not just abstractions, but concrete behavioural patterns to be seen at work in human society (Ridley 1997).

Evolutionary psychology shares many underlying assumptions with game theory and rational-choice theory. The notion that social co-operation can be modelled as a game involving rational, self-interested actors presupposes explanatory individualism, i.e. the claim that social and cultural phenomena can only be explained by reference to the behaviour of individuals. Evolutionary psychology, as we have seen, places a great deal of value on the concept of 'behaviour' – indeed, social science is said to be about the explanation of behaviour, and a full account of behaviour is assumed to be sufficient to explain social and cultural phenomena. At the same time, the theory of the selfish gene demands that we view organisms as self-interested, in so far as the principal point of their existence is the reproduction of the genes that encode for their behaviour. This particular conceptualization of self-interest is what divides evolutionary psychologists from many social and political scientists. Rational-choice theorists can be agnostic about the genesis of preferences – there is no

necessary inconsistency between the assumption of explanatory individualism and the claim that preferences are the product of the 'social norms' that result from social interaction over the course of generations (Elster 1989). Equally, however, there is no injunction in rational choice against the claim that preferences are innate and naturally selected. Rationality, in this regard, does not imply consciousness – decisions to act may be a consequence of the wirings of the pleasure machine or evolved cognitive mechanisms.

Rational-choice in political science emerged as part of the broader behavioural 'revolution' in the social sciences of the 1950s and 1960s. Evolutionary psychology has an ambiguous relationship to behaviourism in the social sciences: on the one hand, it considers it to be tainted by an atavistic commitment to the blank-slate theory of the mind and cultural determinism. On the other hand, evolutionary psychology is itself clearly a creature of behaviourism – it claims that the key to effective social science is the explanation of individual behaviour. The affinity between evolutionary psychology and behaviourism in political science should not, therefore, appear at all surprising from the point of view of the explanation of social and political behaviour. What may be more surprising is that they share a deeper resemblance: both are preoccupied with the question of how social and political order is necessary and, in so being, work within a well-established problematic of human nature and politics.

Evolutionary psychology, political theory and human nature

The central, implicit, questions that guide the enterprise of evolutionary psychology are: 'why is political order necessary?' and 'how is political order possible?' The contention that it is *political* order that evolutionary psychology is concerned with, rather than just social co-operation, may seem somewhat odd. I would maintain, however, that evolutionary psychology shares a conception of 'man'[15] that stretches back to Aristotle. What distinguishes man from other animals is that he is 'political' – in other words, he is endowed with the capacity to act in accord with other men in order to determine the system of rules that bind them together and shape their conduct in a specific community. One of the central concerns of evolutionary psychology – if it is not *the* central concern – has been to demonstrate how this capacity has arisen in human prehistory – i.e. the capacity to form rule-governed institutions and practices that have allowed men to create communities which enjoy internal peace and stability, even where its members are not closely genetically related and conflict between individuals naturally persists.[16]

The assumption that evolutionary psychology makes – and shares with a number of important thinkers in the history of modern political thought, such as Grotius, Hobbes, Locke, Hume and Smith – is that man is by nature self-interested, but that order is possible only on the basis of self-interest. But in the constitution of that order for evolutionary psychology – and this is where it has most in common with the Hobbesian social contract tradition – there has to be a

defining moment of transition, in which man emerges from the state of nature to become political man. Evolutionary psychology even has a special name for its state of nature – the 'environment of evolutionary adaptedness' (EEA) (Tooby and Cosmides 1992; Barrett *et al*. 2002). The EEA is the African savannah in the several hundred thousand years of human prehistory, where life was solitary, poor, nasty, brutish and short and the future of *Homo sapiens* hung in the balance. What allowed humans to survive on the savannah, and to spread further afield, were the species-specific adaptations it developed; and the consensus in evolutionary psychology is that two of these in particular were of utmost importance: language and culture (Cosmides and Tooby 1992; Pinker 1994; Buss 1999).

Language and culture were foremost in the evolutionary success of modern humans because they provided them with the ability to adapt to a range of different environments by means of complex social interactions. More specifically, language and culture allowed humans to develop rules for social organization that were not coded for by genes, but were rather a result of the impact of given environments on the naturally selected attributes of the human mind. It was the creation of these rules that primarily accounted for the emergence of man from the state of nature into social – and political – order. At the same time, the emergence of this order results not from the needs of the species – this, for evolutionary psychology, would be to slip back into the theory of group selection – but from the needs of the individual, or at least the needs of the individual conceived as a vehicle for genes.

One possible objection to the comparison of evolutionary psychology with Hobbesian social contract theory is that evolutionary psychology does not possess a 'social contract' as such. The emergence of modern humans from the EEA is not a product of a conscious agreement between individuals whose *capacity* for that agreement is already in place, but rather – in terms of the history of the species – a long, gradual process driven by natural selection. In fact, the form of evolutionary psychology's explanation of the emergence of modern social, and political, man is strikingly similar to Hobbes's if one bears in mind that the latter saw the state of nature and the social contract as largely fictional. The purpose of Hobbes's famous chapter XIII of *Leviathan* – 'Of the Naturall Condition of Mankind, as Concerning their Felicity and Misery' (Hobbes 1985) – was to *imagine* what life is like for man in a context independent of social and political order, i.e. the state of nature. This is much the same strategy that evolutionary psychology has followed in delineating the EEA, which, as its critics point out, is largely a convenient fiction.[17] Evolutionary psychology imagines that life in the Pleistocene was filled with dangers to survival that could only be overcome by the emergence of forms of social co-operation that were naturally selected. It is important to recognize that these dangers did not just come from competitor species or other environmental exigencies, but also from 'fellow' men. Hobbes's 'three principall causes of quarell' in the state of nature – competition, diffidence and glory (Hobbes 1985: 185) – are, for evolutionary psychology, clearly at work in the EEA.

Even if evolutionary psychology can accept a similarity between the form of its account of the EEA and Hobbes' state of nature, it can deny that it is appealing to anything like a Hobbesian social contract to *explain* the emergence of the modern human from its primordial condition. Again, however, Hobbes's conception of the social contract was designed neither as an historical description nor as an explanation of the origins of government, but as a means of justifying it on the basis of an understanding of how human nature is constituted. It was a thought experiment, requiring an abstract account of the individual man and his first-order interests. It requires neither that individuals did ever freely contract to create a sovereign power nor that they understand the rules on which political legitimacy is based. Evolutionary psychology adopts a similar strategy in explaining the origins of social order. How can social order emerge from self-interested behaviour? One of the ways in which this emergence can be modelled, as I outlined in the previous section, is to think about human social interaction as an iterated game, in which the protagonists are responsible for the distribution of benefits and burdens. Over time, in such a scenario, self-interest can lead to the development of altruistic strategies, strategies premised on an implicit understanding of the rules of the game.

Evolutionary psychology's claim, then, is not that human social life involves individuals *understanding* the rules that shape co-operative behaviour, but that it can be at least modelled in this fashion. Social co-operation can be pictured as having its origins in a 'contract' between self-interested human ancestors, to treat like behaviour with like, even if ultimately such behaviour is a product of natural selection. But, as was seen in the last section, in constructing this picture, evolutionary psychology has relied squarely on ideas from political theory and science designed to answer the question of order: how can political order arise from the pursuit of self-interest? In other words, given human nature, how is politics possible?

Sociobiology has a strong – if mistaken – answer to this question. Politics is coded for directly by behavioural genes that have emerged in human evolution. Evolutionary psychology, however, cannot take this route – to say that there are 'genes' for political and social order rules out what makes it distinct from sociobiology, namely the claim that the variety of forms of political and social order are proofs of the existence of adapted psychological mechanisms designed to promote flexible social arrangements suitable to a given environment. There are no genes for politics, just genes that build the psychological 'architecture' that permits the practice of human politics. But, in effect, evolutionary psychology *is* indeed repeating the sociobiological view of the relationship between human nature and politics, i.e. that human nature *precedes* politics, that politics is an adjunct and function of it. What is presupposed by both sociobiology and evolutionary psychology is the veracity of the question – *given* human nature, what makes politics possible?

There is, of course, another way to approach this question. It is the wrong way round. The important question to ask is, *given* politics, what makes human nature possible? Evolutionary psychology presupposes that politics can appear

only after the emergence of modern humans and their species-specific traits. But this is a blithe supposition. Surely, if we can talk of 'chimpanzee politics', as ethologists often do,[18] then can we not assume as well that there were Cro-Magnon politics? The obvious retort of evolutionary psychology is that we can indeed do this – 'politics', in this sense, refers to activities, such as primate grooming, designed to form intra-group alliances and regulate social hierarchy. Yet this is *not* the manner in which evolutionary psychology has thought about human social and political order: human politics, like culture and language, is seen as an adaptation designed to enhance individual fitness, something, properly speaking, that is a product of human nature. Even, then, if we accept evolutionary psychology's view of the architecture of the modern human mind, it must concede that 'politics' was a selective pressure shaping its building. Life on the savannah was already political, even before modern human nature appeared.

The error evolutionary psychology commits here is telling; it follows directly from the political problematic that it unquestioningly accepts. This problematic equates politics with civilization and sees both as a response to the dangers threatening individuals in a pre-political state of nature. But the function of politics is not to lift us totally out of this pre-civilizational state, but to protect certain interests that humans are endowed with by virtue of their evolution in such environmental conditions. In other words, as in the Hobbesian social contract tradition, evolutionary psychology considers the first-order natural interests of individual humans to be their own survival and reproduction. Conceiving of the political in this fashion is not an outcome of the science of evolutionary psychology, but rather one of its founding presuppositions: the political (which, for evolutionary psychology, means the capacity for individuals to act politically) is an adaptation designed to enhance the genetic fitness of individuals. Yet, as we have seen, an alternative understanding of the political regards it as a selection pressure – like culture and language – rather than an adaptive design.

That evolutionary psychology fails to conceive of the political in this fashion is testimony to the view of the individual and its interests that it adopts from the Hobbesian social contract tradition and which can be seen at work in game theory and rational-choice theory. Again, it is important to see that this notion of the individual is a presupposition of evolutionary psychology rather than an empirically established hypothesis. Evolutionary psychology cannot, and for the most part does not want to, sustain the claim that humans in contemporary societies act in their own genetic best interests when they engage in a large variety of behaviours such as raising step-children, undergoing sex change operations, acting as human bombs, smoking and so on. But, evolutionary psychology also seems largely oblivious to the fact that for much of the time people behave in ways not consistent with their *own* conception of what is in their own (genetic or otherwise) best interests. If evolutionary psychology's retort is that it is not concerned with whether people act consistently with their interests in the present, but whether they did in fact do so in the Pleistocene, at

the time of the evolution of our present cognitive predispositions, then it immediately constructs an insurmountable epistemological hurdle. For how can we know that people *did* act consistently with their 'interests' in the Pleistocene? It is no answer to say that they did so otherwise they would not have had successful descendants – all this does is to affirm Darwinist fundamentalism in the face of scant empirical evidence.

We have few empirical grounds to accept the view of the individual and its interests that evolutionary psychology presents to us as a *fait accompli*. This is not necessarily an objection about the scientific status of evolutionary psychology – though it may be. The notion of individual selection, as first set out by Hamilton and Trivers, rests on a highly abstract and mathematical account of genetic interests that attributes too much explanatory weight to genes and too little to diverse and volatile environmental forces. Indeed, some voices have even been raised in recent years arguing for a return to group selection in Darwinian evolution.[19] The objection is rather to the explanatory order that evolutionary psychology adopts: the notion of the individual and its interests that, it implies, follows from its view of the political as an adaptive trait made possible by natural selection. But the claim rests on an old ruse – establish what human nature is and we establish what constitutes politics. The real problem is not that evolutionary psychology leaves us no further along the line than sociobiology as regards the nature of human nature – which it does not – but that it rests on this sleight of hand. 'Human nature' is *politically* constituted at a number of important levels – an argument to which evolutionary psychology is either ignorant or intentionally blind.

The search for a theory of human nature that could truly inform our understanding of politics, then, is unlikely to end with evolutionary psychology. It might be argued, that the dismal failure of evolutionary psychology and its predecessors should warn one against the entire enterprise of questing after human nature. But the problem with such quests is not necessarily that there is no such thing as 'human nature' that science may one day manage to reveal, nor even that all such quests are 'bad' science (though they may be). Evolutionary psychology may well be right to argue that some human behavioural predispositions are 'hard-wired'. The problem with evolutionary psychology, as with all previous lineages of the theory of human nature, is the failure to recognize that it has embarked on a political odyssey – indeed, that its journey was already under way the moment it sprang forth from sociobiology's loins.

Notes

1 For compelling criticisms in this respect, see Rose and Rose (2001) and Dupré (2001).
2 Nietzsche (1990: 33). To this question, evolutionary psychology might retort that what 'it' is, is a cognitive module or modules that have been designed by natural selection to enable us to establish what is true and what is not. Thus, for example, Cosmides and Tooby (1992) have argued that humans possess a 'cheat detection' module that allows them to detect deception in social contexts (for criticisms, see Badcock 2000; Dupré

2001). Evolutionary psychology may argue that there are other such modules designed to distinguish between true and false, which endow human scientists with the ability to achieve scientific truth, but then what is posited is a specifically *human* criterion of truth. When evolutionary psychology defends scientific truth, what it means, of course, is what science states to be true independently of human cognition of it (Pinker 1994: 447–9). It may or may not be possible to establish the objectivity of scientific truth in this sense, but it certainly cannot be done in evolutionary psychology's own terms.

One possible way to explain the urge to truth is to see it, as Nietzsche did, as an essentially religious phenomenon. For a revealing account of the use of religious language and imagery in evolutionary psychology, see Nelkin (2001).

3 For important critiques of sociobiology, see Sahlins (1976), Rose *et al.* (1984), Kitcher (1985) and Fausto-Sterling (1992).

4 See, in particular, Rose *et al.* (1984), Brown (2000).

5 Though, in this respect, Wilson and Trivers are highly inconsistent: they suggest that, at the same time as sociobiology having no direct implications for political values, a sense of justice rooted in our genetic inheritance has 'deeper and more secure foundations' than one that is 'entirely the product of cultural influences acting on an indifferent, or even hostile, genotype' (Trivers 1981: 38; see also Wilson 1975: 563–4). For a more general critique of the way in which sociobiology and evolutionary psychology hide behind the naturalistic fallacy while effectively re-introducing genetic determinism, see Dupré (2001: 85–92).

6 Indeed, Daniel Dennett, a leading advocate of Darwinism in the social sciences has gone as far as to claim that 'Thomas Hobbes was the first sociobiologist' (1996: 453).

7 This argument was put to great effect by Marshall Sahlins in the last chapter of his *The Use and Abuse of Biology* (1976).

8 In her criticism of evolutionary psychology's notion of the 'Standard Social Scientific Model' (SSSM), Hilary Rose writes:

> They [Tooby and Cosmides] see the SSSM as setting aside any biologically founded theory of human nature. Arbitrarily Tooby and Cosmides exclude both economics and political science from their SSSM model, which is rather like excluding physiology and biochemistry from an account of the life sciences. Indeed, the exclusion is rather more serious, as economics has long had a model of economic man [sic], and political science, above all political theory, has been one of the most fertile sources of theories of human nature. Hobbes, Rousseau, Locke and Marx, to name a few, have been neither silent or without influence. Indeed, given that a theory of human nature has historically been seen as the starting point of political theory, it would seem the discipline to focus on, not to exclude in this arbitrary way.
>
> (Rose, H. 2001: 119)

This is the closest that any of the contributors to the recent collection *Alas Poor Darwin* come to recognizing the political nature of evolutionary psychology as I outline it here (Rose and Rose 2001). The authors of *Alas Poor Darwin* largely take on – and successfully demolish – evolutionary psychology as a science of behaviour. I would argue that, important as this approach is, it needs start from an identification and questioning of the political problematic in which evolutionary psychology operates.

9 For criticisms of this modular view of the mind, see Badcock (2000), Herrnstein Smith (2001), Karmilloff-Smith (1992, 2001) and Dupré (2001). For criticisms of Tooby and Cosmides's particular account of the evolution of human mental 'architecture', see Mithen (1996).

10 Or at least that is the claim. Its critics argue that evolutionary psychology pays only lip service to the rejection of genetic determinism, while often citing genes 'for' the construction of cognitive modules that are thus directly implicated in the cause of behaviour. See Dupré (2001: 38–40).

11 For effective criticism of Tooby and Cosmides' model of the SSSM, see Rose, H. (2001).

12 The conception of 'culture' held by evolutionary psychology is limited by the notion that it constitutes 'learned' behaviour. Accordingly, evolutionary psychology sees culture *and* language principally as means of communicating information about the world ('language [is] . . . a biological adaptation to communicate information', as one leading evolutionary psychologist starkly puts it (Pinker 1994: 6)). In this regard, 'units' of culture and language can be seen as working analogously to genes, passed on from generation to generation, with those that contribute towards cultural or linguistic 'fitness' becoming more common in the population. This way of thinking about culture and language, first suggested by Richard Dawkins (1976), has become increasingly popular. The theories of the 'meme' as the unit of cultural transmission and selection (Dennett 1996; Blackmore 1999) and of 'practices' as the unit of social transmission and selection (Runciman 1999) have come to occupy an important place in the contemporary field of 'Darwinian' explanations in the social sciences. The problem with these approaches to culture and language (and social practices) is that the latter are not simply or even most importantly means of communicating *information* (even if language, at least, may have first developed for this purpose), but means for generating *meaning* within a symbolically constituted social order (the best defence of this position against evolutionary psychology remains Sahlin's critique of sociobiology (1976)). For more recent criticism of meme theory and Runciman's conception of 'social practices', see Midgley (2001), Benton (2001) and Ingold (2001).

Of course, there is a wider problem here – both meme theory and Runciman's theory of social practices rest on the analogy drawn with genes after the fashion in which they are said to work in Dawkins' selfish gene theory. However, selfish gene theory has itself been subjected to strong criticisms by biologists and geneticists; see, for example, Rose (1997), Sober and Wilson (1998), Dover (2000, 2001).

13 Though there is a strong tendency in evolutionary psychology to re-introduce genetic determinism through the back door (see note 5 above).

14 Two of the better-known evolutionary psychology studies focus on parental abuse of step, foster and adopted children (Daly and Wilson 1988) and male rape (Thornhill and Palmer 2000). The first study concluded that there is a genetic predisposition for parents to bestow less affection on their non-biological children, which explains the large number of murders of step, foster and adopted children by their carers in comparison to parental murders of biological offspring, the second that there is a genetic predisposition for men to rape women. How could such findings *not* be thought to have implications for policy making? For powerful criticisms of these studies, see Dupré (2001) and Rose, H. (2001).

15 According to evolutionary psychology, men and women possess different cognitive traits that have arisen as evolutionary adaptations. These different traits can be explained in terms of differential levels of 'parental investment', i.e. it is in women's genetic interests to place a great deal of investment, in terms of nurturing, in their offspring as, compared to men, they possess a limited supply of gametes. In contrast, men need invest little in their offspring, being able to have so many more children than women. For most sociobiologists and evolutionary psychologists this basic sexual difference underpins a crude sexual division of labour, in which women in the Pleistocene were largely confined to bearing and raising children, while it was men, with their need for ever more sexual partners, who were principally responsible for increasing group size, which in turn has been considered a major factor in the evolution of culture and language (e.g. Dunbar 1996). Implicit in evolutionary psychology, then, is an idea rendered explicit in the Hobbesian social contract tradition – that men, not women, are the agents of modern social and political order.

For persuasive feminist criticisms of sociobiology and evolutionary psychology, see Fausto-Sterling (1992, 2001).

16 This emphasis on the origins of man as cultural – and political – animal can be seen in some the titles of the evolutionary psychology canon and related works – for example, Cosmides *et al*. (1992), Tooby and Cosmides (1992), Wright (1994), Ridley (1997), Mithen (1996).

17 Palaeoarchaeology provides little evidence for what life for human ancestors was like in the Pleistocene (Gould 2001: 100–1). For the most part evolutionary psychology tends to postulate what life would have been like in the past, given how it is in the present. The danger of inventing *Just So* stories here is clear (Rose, S. 2001: 253; Brown 1999: 72).
18 See, for example, de Waal (1982).
19 See, for example, Sober and Wilson (1998).

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