

EVOLUTION, SPONTANEOUS ORDER, AND MARKET EXCHANGE

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What does evolutionary theory tell us about how individual freedom -- which implies, of course, pursuit of self-interest -- can be reconciled with social concord? I will first address this issue, which may be called the problem of spontaneous order. I will be comparing the thinking of Charles Darwin and of Adam Smith, the one leading to a theory of "natural economy" and the other to a theory of "political economy."¹ Next I will discuss the question of social instincts in man, with particular emphasis upon what it is in mankind that makes possible that unique evolutionary innovation of the human species -- market exchange. My third topic will be the origin, current status, and future prospects of market exchange as a principle of human social organization.

I. SPONTANEOUS ORDER

There has been a long-standing debate as to which economist, T. R. Malthus or Adam Smith, had the greater influence upon Darwin's thinking.² From Malthus, as is well known,³ Darwin was led to the line of thought: multiplication of populations + scarcity + struggle for existence. The key idea that Darwin derived from Adam Smith was a subtler one: that struggle and striving need not imply chaos but rather may resolve themselves in spontaneous order or (more arguably) even in a kind of harmony. To appreciate the significance of this point for Darwin, recall that the "argument from design" was and is a convincing support of creationism. Does not a well-

designed watch imply a watchmaker? And is not the realm of life infinitely more complex and more intricately organized than any watch? But Adam Smith showed that something as complicated as the 18th-century economy and as astonishingly successful (we ought not overlook this point) could emerge spontaneously, from self-interested competitive striving. This was just what Darwin needed. Order, adaptation of organisms to their environment, need not after all imply a Creator with a universal plan.

Consider the concluding passages of THE ORIGIN OF SPECIES:

And as natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress toward perfection.

It is interesting to contemplate a tangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent upon each other in so complex a manner, have all been produced by laws acting around us . . . Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows.

Darwin's view of progressive change through natural selection has now been woven into every educated person's heritage of ideas. But its Smithian precursor, applying as it does to the spontaneous evolution of human social order, still largely remains to be learned. I will quote Hayek:

It still seems strange and unbelievable to many people that an order may arise neither wholly independently of human action nor as the intended result of such action, but as the unforeseen effect of conduct that men have adopted with no such end in mind. Yet much of what we call culture is just such a spontaneously grown order, which arose . . . by a process that stands somewhere between these two possibilities . . . [Hayek (1964)]

So a complexly ordered economic system, or for that matter the larger culture in which it is embedded, need not imply a rational plan — either beneficent design on the part of a wise law-giver, or the malevolent purposes of dictators or capitalists.

Can an undesigned social order, implying freedom to engage in self-interested competition and struggle, ever lead to harmonious reconciliation of individual interests? Of course we all know the famous quotation:

[E]very individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it . . . [H]e intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. [WEALTH OF NATIONS, Book 4, Ch. 2]

But what is less fully appreciated, Adam Smith also recognized that whatever claim to harmonious order the laissez-faire economy possesses is dependent upon an effective system of property and law:

Commerce and manufactures can seldom flourish long in any state which does not enjoy a regular administration of justice, in which the people do not feel themselves secure in the possession of their property, in which the faith of contracts is not supported by law . . . [WEALTH OF NATIONS, Book 5, Ch. 3]

It is the institution of property, the kernel of any system of law and justice, that explains how freedom and social concord can be reconciled. Only in this way have human societies been able to attain peaks of social organization that transcend — in terms of population numbers, and the extent of mutual dependence and division of labor — even what has been achieved by the blindly instinct-driven social insects.⁴ Whereas, between different human societies, in the absence of any effective international law, the ferocity of human competition is like that in "Nature, red in tooth and claw."⁵

Nevertheless, alongside competition red in tooth and claw we observe in Nature important instances of cooperation, among them parental care, loyalty to the pack or colony, and even symbioses among different species of organisms. The sociobiologists attribute such developments, in animals and mankind, to two main forces: (1) kin selection: evolution has selected for reproductive survival those organisms able to cooperate with relatives, i.e.,

able to promote survival of their own genes by helping kin with shared genetic endowments.⁶ (2) social reciprocity: Certain organisms have gained an evolutionary lead through mutual aid even where kinship is not involved.⁷ The importance of this pattern for human social development is described by E. O.

Wilson:

"[H]ard-core" altruism [is] a set of responses relatively unaffected by social reward or punishment . . . "Soft-core" altruism, in contrast, is ultimately selfish. The "altruist" expects reciprocation . . . Reciprocation among distantly related or unrelated individuals is the key to human society . . . [P]ure, hard-core altruism based on kin selection is the enemy of civilization. If human beings are to a large extent guided by programmed learning rules and canalized emotional development to favor their own relatives and tribe, only a limited amount of global harmony is possible . . . My own estimate of the relative proportions of hard-core and soft-core altruism in human behavior is optimistic. Human beings appear to be sufficiently selfish and calculating to be capable of indefinitely great harmony and social homeostasis. [E. O. Wilson (1978), p. 25.]

More debatable is the role to be assigned to a third force -- group selection. This refers to the enhanced evolutionary success of social groups whose members, even where unrelated, are willing to make sacrifices for one another without specific (act-for-act) reciprocity. The process, on the human level, can be described in Darwin's words:

When two tribes of primeval man, living in the same country, came into competition, if (other circumstances being equal) the one tribe included a greater number of courageous, sympathetic and faithful members . . . this tribe would succeed better and conquer the other.⁸ [DESCENT OF MAN, Ch. 5]

Preponderant opinion among social biologists has minimized the force of group selection. The main problem, already recognized by Darwin, is that within the group those who shirk or feign self-sacrificing behavior are likely to profit at the expense of their more faithful fellows.⁹ But a few social biologists continue to attach importance to group selection, while a larger number follow Darwin in emphasizing its role at least among mankind.¹⁰ One point very much worth noting is that group selection, to the extent that it is

effective, supports cooperative behavior that may have evolved either culturally or genetically.¹¹

II. THE SOCIAL INSTINCTS

Is cooperation among humans, kinship apart, due only to social reciprocity — as the preceding E. O. Wilson quotation suggests — or is a "social instinct" also present? The point at issue here in part parallels the controversy between social-contract versus natural-law approaches in political philosophy.

Purely egoistic men ("economic men," we might say) may form an organized society — but only on a quid-pro-quo basis, as expressed in the social contract. The Sophists in particular held the view that man's nature was entirely selfish, that social cooperation stems only from calculations of personal advantage.¹² But the classical Sophists, as well as the modern sociobiologist E. O. Wilson, do not give enough weight to the problem of enforcing a social contract in the absence of a social ethic. Enforcement services are in large part what economists call a "public good": the benefits from punishing evil-doers spill over to the community in general, and are not reaped entirely by whoever takes the risk and trouble of meting out punishment. Hence enforcement services, "moralistic aggression,"¹³ would be undersupplied by economic men. There appears to be no doubt that, from the most primitive to the most advanced societies, a higher degree of cooperative interaction takes place than can be explained as a merely pragmatic strategy for egoistic man.¹⁴ And, in particular, both Adam Smith and Charles Darwin recognized the importance for human behavior and social institutions of the instinct of "sympathy."¹⁵

But the idea of a generalized social instinct is insufficiently precise. While still leaving matters seriously oversimplified, since none of these are probably ever observed as pure forms, as a first approximation it seems possible to classify the main structures of sociality in animals and men on the basis of their reliance upon the principles of: (1) communal sharing, (2) private rights, or (3) dominance. If sharing is the Golden Rule of social interaction, mutual recognition of private rights is the Silver Rule, while the struggle for dominance is the Iron Rule. (Pure egoists may be said to follow the Brass Rule.) These structures and their associated ethics have evolved, each only in particular ecological contexts, because individuals so organized turned out to have a survival advantage over those expressing different behavioral traits.

Dominance, the Iron Rule of social conduct, does not require any very roundabout explanation. In the evolutionary competition for survival and reproduction, no particular subtlety is involved when selfish genes¹⁶ instruct their bearers to strive toward subordinating other organisms in a pattern of association. The only problem is why the dominated individuals, having lost the struggle for the alpha position, submit rather than secede. And, in fact, defeated contenders or other dissatisfied group members sometimes do secede. But there are advantages to group affiliation even in a subordinate position; as Hobbes contended, isolation may be worse. There are lone baboons, but they do not survive the leopard long. Furthermore, in an uncertain world there always remain possibilities of promotion; today's subordinate may become tomorrow's alpha.

Is there an ingrained ethic associated with the Iron Rule of dominance? Yes, and this can be seen in various ways. In the combat for top position, animals typically fight by limited conventional means, often not using their

most lethal weapons.¹⁷ The defeated animal thus does not fight to the death, and his submission is accepted. More generally a degree of noblesse oblige constrains the leader -- for example, he might have to protect weaker group members against predators. And followers must do more than prudently know their place. If the group is to survive severe competition, they must act with a measure of loyal enthusiasm.¹⁸ That the dominance pattern is indeed two-sided is also revealed by the fact that the alpha animal does not always monopolize the male reproductive role.

What of the Golden Rule of sharing? The extent to which unselfish sharing among unrelated individuals may have evolved in mankind, through group selection, is a much debated matter among biologists, but is clearly operative to some degree.¹⁹ The underlying ethic of sharing is not all hearts and flowers. At least on the human level the less attractive emotions of envy and fear of envy (the latter perhaps internalized as conscience or guilt) may serve as enforcers of the noble Golden Rule.²⁰ And, as is well known, Adam Smith emphasized self-esteem as a major motivator of unselfish action.²¹

The really interesting problem for our purposes concerns the Silver Rule. Can Nature actually evolve a social system of private rights, the precondition of market exchange, with its supporting ethic? It has in fact done so in the social structure known as territoriality. Members of many animal species, humans among them, carry about them a bubble of personal space, invasion of which is resisted. How human cultural differences modify the detailed expression of this kind of "taste for privacy" is entertainingly described by Hall.²² Many animals also defend geographically fixed territories, defined on the level of the family or of larger bands or troops.

But the urge to possess is not enough. The supporting ethic is still needed, namely, a complementary reluctance to intrude. In Nature, it has been

found that "proprietors" defending their territories are almost always able to fight off incursions. Such intrusions as do take place tend to be exploratory rather than determinedly invasive.²³

This social pattern need not be founded entirely on group selection. Other things equal, a territory is worth more to its proprietor than to the intruder. The proprietor will have a more accurate knowledge of its resources, and indeed may have to a degree adapted them to his own personal requirements (or himself to them). It therefore pays the proprietor to fight harder and longer. This being the case, evolution might have "hard-wired" defensive belligerence into proprietors together with the complementary traits of reluctance to intrude and willingness to retreat on the part of potential challengers. ~~the territory is worth more to its proprietor than to the intruder.~~ And Maynard Smith has shown that such a "bourgeois" strategy can be viable in evolutionary terms even if proprietorship is founded upon no more than a convention like "first come, first served."²⁴

To summarize, all three main social principles -- dominance, sharing, and private rights -- have evolved in Nature, each as an adaptation to a particular type of social niche. Each principle also tends to be associated with an ingrained supporting ethic, since a mere "social contract" entered into by purely egoistic individuals is unlikely to survive the free-rider problem. Typically, strands of all three may be woven together in the behavioral pattern of each species. And of course the merely egoistic element probably never totally disappears. Indeed, sometimes what seems superficially to represent an organized social unit may be only a "selfish herd" lacking any real cooperative element.²⁵

III. ON THE HISTORY AND PROSPECTS OF MARKET EXCHANGE

Hayek has argued that the transition from the small human band to settled communities and civilized life resulted from man's learning to obey the abstract rules of an emergent market order.²⁶ The alternative to this cultural constraint, Hayek supposed, was for man to remain under the guidance of "innate instincts to pursue common perceived goals" (our Golden Rule). The way of face-to-face communal sharing, probably adaptive to the primitive hunter-gatherer economy in which man may have lived for 50,000 generations, allegedly had to be bypassed if progress was to be made.

There are curious parallels and divergences between Hayek's ideas and those of the Marxist anthropologist Sahlins.²⁷ For Sahlins also, human social advance required that innate instincts be overcome. But in his view the innate instincts are those of "animality" — selfishness, indiscriminate sexuality, dominance, and brute competition. Sahlins agrees with Hayek once again, as to the supposed sharing ethic of the primitive human band.²⁸ But for Sahlins the shift to the Silver Rule ethic, associated with the transition from a hunting to an agricultural way of life, represented degeneration rather than progress.

I shall be following Hayek and Sahlins in going back to the origins of these social ethics. To some degree these appear to have been genetically implanted in man, to some degree culturally renewed in each human generation. (The distinction need not concern us unduly, in line with the Darwinian view that group selection — which impartially enforces both processes — has been peculiarly effective in the natural history of human sociality.) Genetic adaptation, of course, has much more inertia. It is therefore reasonable to believe that the untold eons of our primate heritage have laid down a foundation of behavioral, as well as morphological traits

that are still with us; that the 50,000 generations of hunter-gatherer life have also left their mark; that man has partially yet probably only incompletely adapted to the life of regular labor that began with agriculture; and, finally, that modern urban patterns in some ways seriously clash with our ingrained attitudes.²⁹

In accord with Sahlins, I am inclined to believe that the deepest and thus "most animal" layer of human sociality is represented by the Iron Rule -- dominance.³⁰ Man appears to have evolved from a primate line that left the forest to live in the African savannah. In this highly dangerous environment, primates lacking biological weaponry could survive only by banding in groups. Sharing is uncharacteristic of the primate heritage,³¹ and territoriality was not a viable principle in the savannah. Dominance, in consequence, had to be the governing rule holding the band together. (Successful savannah-dwelling baboon species are at this stage today.) That all human history testifies to the importance of the struggle for power and status is too obvious to require underlining. I shall add only two points: (1) the instinctive drive for leadership requires the complementary quality of willing followership, and (2) dominance need not be the result of sheer physical force but may also involve traits like intelligence and social adeptness.

The crucial step toward moderation of the Iron Rule, it has been argued, was the shift to a largely carnivorous diet. Hunting of big game probably placed a greater premium upon a more egalitarian form of teamwork. The consequence was a reduction in the steepness of the dominance gradient. Something approaching monogamous sexual pairing -- private rights in mating -- may have been the result of the sexual division of labor in the hunting way of life.³² The development of tools and weapons eventually opened up another

division of labor, between hunter and craftsman; it seems likely that the first systematic trading of material goods was of tools and weapons for meat.³³ The exchange of interpersonal cooperative services (e.g., sex, grooming, mutual aid) took place far earlier, of course. It is material-goods exchange that seems to require some concept of private rights in the abstract, apart from the personal qualities and social relationships of the parties concerned.

What of the Golden Rule of voluntary sharing? Both Hayek and Sahlins appear to have fallen victim to the powerful legend of an Eden-like stage of human social evolution — no less mythical in the versions propagated by Rousseau and by Engels³⁴ than in the original Genesis story. Essentially all known communities have been found to possess relatively elaborate structures of property rights. Though these private rights are defined in ways that vary from society to society, invasions of them are always strongly resented.³⁵ The trouble we must go to if the "sharing" ethic is to be taught to our children also suggests the weak hold of this principle in the human inborn make-up. Golden-Rule motivations were probably present in early man, as they may still be today. But only as one element, almost surely the weakest, in the human mixed brew of motivations: sheer egoism struggling with partially conflicting, partially reinforcing elements of dominance, private-rights, and sharing ethics.

The Silver-Rule ethic is a precondition of exchange, but I now want to talk more explicitly about exchange itself. Adam Smith was perhaps injudicious in asserting, (of "the propensity to truck, barter, and exchange") that:

It is common to all men, and to be found in no other race of animals, which seem to know neither this nor any other species of contracts. [WEALTH OF NATIONS, Book 1, Ch. 2]

Whether or not this "propensity" is instinctive (i.e., genetically rather than culturally transmitted) need not concern us, but is it really common to all men? It has been an important theme of anthropologists that exchange — in its modern impersonal form — is by no means universal. In fact, comparative ethnological study suggests that exchange evolved from the more primitive gift interaction.³⁶

It is possible, however, to make too much of this distinction. "Gifts" among primitive people (and even among modern men?) are not one-sided transactions; absent reciprocation, the "gift" will likely be revoked. The modern cultural development is impersonal exchange, of value for value independent of social or status relations among the transactions. Primitive trade, in other words, does not completely separate the "pure" exchange function from certain symbolic connotations that the transfer of goods may have in particular societies — e.g., to signify a dominance/subordination relationship, or real or simulated kinship between the parties.

The invention of "pure" exchange, independent of status implications, was both socially liberating and economically productive. From the point of view of economic efficiency, reallocation of commodity stocks in accordance with perceived scarcities and desires, and elaborations of the division of labor in accordance with comparative advantage, could now take place without any implications one way or the other as to status or other social relationships among the parties. And the new opportunities to make productive contributions, to one's own or others' well-being, unlocked the chains of status relationships.

Nevertheless, this invention has for the most part been bad-mouthed by anthropologists. Karl Polanyi, in particular, deplored the dehumanizing or desocializing consequences when:

Instead of economy being embedded in social relations, social relations are embedded in the economic system [Polanyi (1944), p. 57].

This line of thought had been more powerfully expressed earlier, in the famous passages:

The bourgeoisie, wherever it has got the upper hand, has put an end to all feudal, patriarchal, idyllic relations. It has left no other nexus between man and man than naked self-interest, than callous "cash payment." It has drowned the most heavenly ecstasies of religious fervor, of chivalrous enthusiasm, of Philistine sentimentalism, in the icy water of egotistical calculation. It has resolved personal worth into exchange value...

The bourgeoisie has stripped of its halo every occupation hitherto honored and looked up to with reverent awe. It has converted the physician, the lawyer, the priest, the poet, the man of science, into its paid wage laborers.

The bourgeoisie has torn away from the family its sentimental veil, and has reduced the family relation to a mere money relation. [Marx and Engels, MANIFESTO OF THE COMMUNIST PARTY.]

That radical thinkers in their anti-market enthusiasm will profess to admire status-bound societies (or at least recall them with nostalgic sympathy) still puzzles me. (A hint once again of the power of the Eden myth?) And the specific charge here is surely false. The free market opens up access to the status ladder, but does not destroy nonmarket social relationships. Do we really now refuse to defer to our leaders, cherish our friends, or love our children — except for money payment? This much is true, however: under market society these social relationships are subject to freer choice than ever before.

Since time and space do not permit arguing the point, I shall take it as established that market economy has been and continues to be both surpassingly productive and unprecedentedly liberating — if the field of comparison is any form of actual (rather than merely imaginable) society known to mankind. Nevertheless, the prospects for long-term survival of market society cannot be rated very high, in the face of the internal and external threats.

As concerns the internal threat, the analysis by Schumpeter [1942, Ch. 12-14] is still the classic statement. Some of his specifics, it is true, have not been fully borne out. He thought that the rationalization and routinization of industrial progress would destroy the role of the entrepreneur-creators. But recent private-sector developments, like the computer industry with its host of new self-made millionaires, suggest that entrepreneurship is still alive and well. He also thought that large corporations would inevitably throttle medium and small businesses, thus eroding the only mass political support of the bourgeois order. Here again, while business generally is in trouble thanks to over-regulation and over-taxation, medium and small enterprises seem to be doing no worse than big ones. But the main pillars of Schumpeter's argument, the sociological rather than industrial ones, continue to stand up. Industrial and financial progress have undermined the mystique of natural leadership, weakened the sense of property by the reduction of full-blooded ownership to shareholding, and have enfeebled the family motive for saving and investment. But most importantly, capitalism favors a mental set which is critical, rationalistic, and welcome to innovation. And by its very success in the generation and the wide distribution of wealth, capitalism has given large numbers of people the resources, the education, and the leisure for political and ideological activity directed against the capitalist order itself:

[U]nlike any other type of society, capitalism inevitably and by the very logic of its civilization creates, educates and subsidizes a vested interest in social unrest. [CAPITALISM, SOCIALISM, AND DEMOCRACY, p. 146.]

Schumpeter was speaking here of the sociology of the intellectual, of course. He did not perhaps perceive what may come to be an almost equally destructive development, observable at least in America -- the hypertrophy of the legal profession, with the consequence that legal processes are intruding

into and often paralyzing the effective functioning of industry, government, education, and even family relations.

The external threat is of course no secret, though not often discussed as a military competition between social orders. The role of war in the selection of human types and social structures has of course been enormous throughout history. Today's militarized socialist dictatorships, while ineffective at the production and distribution of wealth, are nevertheless tough competitors in the game of conflict and coercion — whereas the comparative advantage of market societies lies in peaceful rather than warlike pursuits. Adam Smith³⁷ is but one among many philosophers who deplored the loss of heroic qualities as commercial affluence grows. Still, market societies do not always do badly at war. (It was, after all, a "nation of shopkeepers" that defeated Napoleon.)

Technological developments in modern war seem peculiarly adverse to the survival prospects of free nations. Such military power that commercial societies possess is better at the defensive than the offensive, is more in the nature of latent mobilizable industrial strength for the long pull than instantly ready forces, is more adapted toward versatile citizen-soldiers than specialized military professionals. But the recent phenomenal advances in destructive force and long-range delivery capabilities have given the offensive an historically unprecedented military advantage. Mobilizable industrial strength means nothing when vulnerable to atomic destruction. Indeed, strategic defense has essentially been abandoned today. We have to rely on what we are not good at, constant peacetime vigilance by military professionals, so as to deter attack by threatening a retaliatory offense. On the other side of the scale, the fearsome expense of modern weapons should be more tolerable by the wealthier commercial societies, but this advantage is

counterbalanced by their more divided priorities. A new revolution in military technology, or political developments dividing or weakening their enemies, may change the picture tomorrow, but as of today it does not seem likely that the market societies will be able to survive the game much longer.

FOOTNOTES

¹I have developed this distinction in detail in my "Natural economy versus political economy" [1978]. The terminology is based upon a suggestion of Michael T. Ghiselin [1978].

²For an excellent review see Schweber [1978].

³See, for example, Himmelfarb [1959], Ch. 7.

⁴See E. O. Wilson [1975], Ch. 18.

⁵The polymath Stephen J. Gould, in an otherwise insightful discussion of the parallels between Smith and Darwin, has gotten this curiously backward. He maintains that the invisible hand operates more harmoniously in Nature than it does within the capitalist political economy! [Gould (1980), p. 68.]

⁶The classic reference is Hamilton [1964]. The extent of warranted sacrifice selected by evolution is a function of degree of relatedness: e.g., full siblings will be more cooperative than half-sibs.

⁷See especially Trivers [1971].

⁸However, as Darwin points out, in human societies courageous, sympathetic, and faithful acts are often rewarded by specific social reciprocation.

⁹On this see especially G. C. Williams [1966], M. T. Ghiselin [1974], and J. Maynard Smith [1964].

¹⁰The much-criticized contentions on this score of V. C. Wynne-Edwards [1962] have recently been rehabilitated by D. S. Wilson [1980]. For the view that group selection has been particularly effective among mankind, see Alexander and Borgia [1978].

¹¹A number of biologists have proposed models of cultural evolution, among them W. H. Durham [1979], R. Dawkins [1976, Ch. 11], and P. J. Richerson

and R. Boyd [1978].

¹²See Masters [1978].

¹³Trivers [1971].

¹⁴For a modern example of inability to explain behavior without calling on "social altruism," see Stigler [1980].

¹⁵THEORY OF MORAL SENTIMENTS, Part 1, Section 1, Ch. 1; DESCENT OF MAN, Ch. 4.

¹⁶Dawkins [1976].

¹⁷Konrad Lorenz [1966 (1963)].

¹⁸An instructive instance of a two-sided dominance/subordination ethic, implanted not by natural but by artificial selection over many generations, is the relation between dog and master.

¹⁹W. D. Hamilton [1975].

²⁰See Helmut Schoeck [1970] and F. H. Willhoite, Jr. [1980].

²¹R. H. Coase [1976].

²²Edward T. Hall [1966].

²³See Robert Ardrey [1966].

²⁴John Maynard Smith [1978], p. 176.

²⁵W. D. Hamilton [1971].

²⁶Hayek [1978].

²⁷Marshall D. Sahlins [1970, 1972].

²⁸A contradiction leaps to the eye here. Suppression of "indiscriminate sexuality" sounds rather like a move from group sharing to private rights, which (to be consistent) Sahlins ought to deplore rather than approve.

²⁹On these points see especially Tiger and Fox [1971]. E. O. Wilson [1975] is somewhat unusual among the sociobiologists in the degree of lability he assigns to genetic traits; he would therefore be inclined to minimize their

possible current maladaptedness (p. 569).

³⁰See also Tiger and Fox [1971] and Willhoite [1976].

³¹E. O. Wilson [1975], p. 551.

³²D. Morris [1967, 1969], Johanson and Edey [1981]. (For an opposed view, see Hrdy and Bennett [1981].) On sexual rights among baboons, see Willhoite [1976].

³³The beginnings of recognized private rights to material goods have been observed among primates. An economic analysis of chimpanzee recognition of rights to meat, maintained even against otherwise dominant animals, appears in Fredlund [1976].

³⁴J. J. Rousseau, DISCOURSE ON THE ORIGIN OF INEQUALITY; F. Engels, THE ORIGIN OF THE FAMILY, PRIVATE PROPERTY, AND THE STATE.

³⁵See Beaglehole [1968].

³⁶See especially Mauss [1954 (1925)] and Hoyt [1926].

³⁷WEALTH OF NATIONS, Book 5, Ch. 1.

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