

Veblen and Kropotkin on Human Evolution

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Ideas and tools, as institutionalists have known for years, seem to be possessed of their own development logic. Researchers continue to be amazed at how seemingly unrelated ideas and tools suddenly come together to form new ones, as if they were made for each other all along. This article is a perfect example, for it is the product of two originally unrelated lines of inquiry that coalesced as if by their own volition. The first line of inquiry explored the origins of Thorstein Veblen's thought and resulted in an article of that title.¹ The second explored the evolutionary hypotheses of sociobiology and resulted in an article entitled "Sociobiology: A Critical Introduction to E. O. Wilson's Evolutionary Paradigm."² The two combined to show me the existence of a *progressive theory of evolution*, a powerful antidote to that perpetual recrudescence originally known as Social Darwinism. The leading progenitors of progressive evolutionary theory are Thorstein Veblen and Peter Kropotkin.

The Relevance of Veblen and Kropotkin

Veblen and Kropotkin are very relevant to neoinstitutionalists. Both developed full-blown evolutionary theories of *Homo sapiens* that ran

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strongly against the conservative grain of Social Darwinism. Kropotkin was an accomplished naturalist and a committed anarchist, while Veblen was a consummate theorist and a champion of the common man.³ Neoinstitutionalists continue to conceive of *Homo sapiens* as Veblen and Kropotkin did—as a product of evolution. Since as progressive evolutionary theorists we take a stand very similar to theirs and since we face a fallacy (sociobiology) very similar to the one they faced (Social Darwinism), their work can be of some help to our own. Following their lead, neoinstitutionalists can continue to use the general theory of evolution as a powerful instrument of social inquiry and social progress.

The Evolutionary View of Human Beings

General Theory

The basic objective of general evolutionary theory is to build up an understanding of the human condition based in an understanding of the long sweep of natural processes. Inherent to the process of evolutionary theory-building is the drive to make human beings a part of nature by demystifying our view of ourselves so that we become products of evolution rather than products of wishful thinking. In this way it becomes possible to study human beings objectively, instrumentally. When we do so, the mythical foundations of invidious racial and sexual distinctions can be exposed as buncombe. The general theory of evolution strips those who would manipulate us of the myths they must use to do so. Evolution, of course, occurs on two different planes—the biological and the cultural. Cultural evolution involves changes in institutions while biological evolution involves changes in genes.⁴ Emphasis here will be on both evolutionary planes.⁵

To understand human behavior as a product of natural forces, evolutionary theory relies on the general process of “natural selection” and on the general concept of “survival of the fittest.” However, it also makes several substantive distinctions, for the general process of selection is actually three different processes and the survival or selection of the fittest actually occurs at four different genetic levels.⁶ The three selection processes are: (1) environmental selection, through which environmental factors act to favor the faster reproduction of the fittest genetic units; (2) artificial selection, through which human desires—fanciful or practical—act to favor the faster reproduction of favored breed or seed stock; and (3) sexual selection, through which secondary sex traits act to favor

the faster reproduction of favored genetic units. The four genetic levels at which these three different selection processes occur are: (1) individual, where environmental, artificial, or sexual selection favors the reproduction of a single organism; (2) at the level of kin, where selection favors the reproduction of a genetic family unit; (3) the group level, where gene pools are favored; and (4) the species level, where the reproduction of different species, as species, is favored.

General evolutionary theory has also advanced beyond the original view of Charles Darwin by including the work of Gregor Mendel, but the differences between the Darwinian and Mendelian conceptualizations are of minor import to this article.⁷

Encapsulation of Evolutionary Theory

Of major import to this article, however, is the tendency of spokespeople for the cultural status quo to encapsulate general evolutionary theory.⁸ This tendency has been present since Darwin. That is, the liberating and demystifying power of evolutionary theory has been blunted and made to serve as a rationalization of the status quo. First the Social Darwinists and now the sociobiologists have been the theory's principal encapsulators.⁹ Both have drastically truncated general evolutionary theory to use it as a defense of the status quo.¹⁰ Specifically, by virtually ignoring the significance of cultural evolution and by downplaying the importance to biological evolution of two levels of selection—selection at the level of the group and at the level of the species—the theory of evolution has been used to argue that human nature is strongly competitive, selfish, and individualistic. “Human nature,” the traits of successful Robber Barons, holds culture on a leash according to encapsulated evolutionary theory. But it does nothing of the sort according to evolutionary theory in its full form, as first developed by Veblen and Kropotkin. To them we now turn.

Kropotkin's Evolutionary Theory

Peter Kropotkin is best known as the Russian anarchist prince. But he was also an excellent naturalist whose *Mutual Aid: A Factor of Evolution* was written especially to show that a full theory of evolution *must* include the workings of cooperation for survival as well as the standard competition for survival.¹¹ Cooperation becomes an important factor in evolution when one moves from the narrow individual and family levels of selection

to the broader group and species of selection. Kropotkin emphasized these broader levels of selection because in his extensive travels and studies as a naturalist he observed few of the phenomena implied by the narrow, encapsulated view that survival of the fittest takes place at the individual or family levels of selection. On the contrary, he observed the phenomena implied by the view that survival of the fittest occurred at the broader levels of group and species selection. What he saw implied that selection occurred through the survival of the fittest groups and species rather than the survival of the fittest individuals and families. Groups survived *as groups* or species survived *as species* because they cooperated to overcome adverse environmental conditions. Competition to overcome *each other*, Kropotkin observed, seldom resulted in the survival of isolated individuals or families. Standard or conventional evolutionary theory implies an overpopulated world of animals harshly competing against one another for a scarce food supply. What Kropotkin actually observed was very different in two important aspects:

One of them was the extreme severity of the struggle for existence . . . against an inclement Nature . . . and the consequent paucity of life. . . . And the other was, that even in those few spots where animal life teemed in abundance, I failed to find—although I was eagerly looking for it—that bitter struggle for the means of existence, *among animals belonging to the same species*, which was considered . . . as the most dominant characteristic of the struggle for life, and the main factor of evolution.¹²

According to Kropotkin, instead of overpopulation and a consequent competition between individual animals for scarce food, animal life is often characterized by underpopulation and a consequent cooperation among individual animals for mutual aid against the ravages of climate and disease. So, Kropotkin emphasized, “the war of each against all is not *the law of nature*. Mutual aid is as much a law of nature as mutual struggle.”¹³ In unusual circumstances when overpopulation occurs, Kropotkin pointed out that individual competition for the means of existence is not the only survival response of animals. One alternative response is to emigrate, and Kropotkin stressed that mass migration is at least as common a response to overpopulation as individual competition. The ability to migrate, Kropotkin explained, is a tremendous evolutionary advance made by animals over plants.¹⁴ The great herd animals and many birds do not compete as individuals when the change in season causes shortages. Instead, they migrate as groups. Individual competition and group migration are both survival responses to “overpopulation.” However, the encapsulated version of evolution largely ignores group survival

as an evolutionary force. Much to his credit, Kropotkin documented it at length throughout the animal kingdom. In short, Kropotkin pointed out that individual competition and group cooperation were both important factors in biological evolution. With this the case, biological contribution to human nature clearly is a product of two factors, not just one. Both group cooperation for mutual aid and individual competition for self interest have shaped human nature over the long sweep of evolutionary time. It follows that *Homo sapiens* are, by nature, selfish. But it also follows that *Homo sapiens* are, by nature, altruistic.

Kropotkin drew additional implications from group cooperation versus individual competition as factors in evolution. He argued that the competitive response to scarcity of the means of existence often led to an evolutionary dead end, while the cooperative response often opened up new evolutionary avenues. He summarized his view, developed from his observations as a naturalist, as follows:

We may safely say that mutual aid is as much a law of animal life as mutual struggle, but that, as a factor of evolution, it most probably has a far greater importance, inasmuch as it favours the development of such habits and characters as insure the maintenance and further development of the species, together with the greatest amount of welfare and enjoyment of life for the individual, with the least waste of energy.¹⁵

Kropotkin marshalled a great deal of observational evidence to demonstrate that cooperation was the most effective response to any survival threat. It enabled the feeblest species to protect their groups from predators; it provided for longevity and the rearing of young with minimal waste of energy; and it enabled mass migration. He readily admitted that the endurance or prowess of individual animals favored the individual's survival under many circumstances. Nevertheless, he maintained that "under *any* circumstances sociability is the greatest advantage in the struggle for life. Those species which willingly or unwillingly abandon it are doomed to decay; while those animals which know best how to combine, have the greatest chances of survival and of further evolution."¹⁶

Kropotkin argued that the same held for *Homo sapiens* in both the biological and cultural planes of evolution, particularly the cultural. Individuals of competitive prowess come and go, but the potential of communal progress remains, in spite of the predatory spectacles of assertive individuals:

The fact is, that the slave-hunters, the ivory robbers, the fighting kings . . . pass away, leaving their traces, marked with blood and fire; but the nu-

cleus of mutual-aid institutions, habits, and customs, grown up in the tribe and village community, remains; and it keeps men united in societies, open to the progress of civilization and ready to receive it when the day comes that they shall receive civilization instead of bullets.¹⁷

When Kropotkin turned from the biological to the cultural plane of evolution, he continued to emphasize mutual aid and cooperation over self-seeking and competition. He pointed out that the nature of human life at its very earliest beginnings had been grossly distorted by the conventional (encapsulated) view of evolution as an individual struggle for survival: "Unbridled individualism is a modern growth, but it is not characteristic of primitive man."¹⁸ Primitive or savage humans lived in loose communal bands or tribes organized for mutual aid rather than in patriarchal family units organized for war. The Hobbesian speculation that "mankind began its life in the shape of small straggling families, something like the limited and temporary families of the bigger carnivores" was simply incorrect.¹⁹ It ran counter to the established zoological, archeological, and anthropological evidence. For whenever we investigate the life of prehistorical or "savage" people, Kropotkin pointed out, "we find the same tribal life, the same associations of men, however primitive, for mutual support."²⁰

Kropotkin argued further that the historical evidence also contradicted the encapsulated, individualistic view of human evolution. Of course, the vast majority of historians, both ancient and modern, specialize in chronicling the predatory exploits of war and rapine. Yet, while the self-assertive and predatory have left their mark in blood and fire, the cooperative and industrious members of the species have left their mark in more progressive form. Even though historians have emphasized the competition and predation of individual "heroes" throughout history and even before the historical record began, the vast multitudes of the common people have practiced cooperation and mutual aid. Kropotkin tried to set the record right in his *Mutual Aid* by chronicling the evolution of cooperative and mutual aid institutions, the progressive marks left by the common people and ignored by the encapsulated historical record. He knew the difficulties involved in making the historical record whole: "Even in our own time, the cumbersome records which we prepare for the future historian, in our Press, our law courts, our Government offices, and even in our fiction and poetry, suffer from the same one-sidedness."²¹

Nevertheless, Kropotkin attempted to outline the evolution of cooperative institutions in human history. Common people have continually organized and reorganized to practice mutual aid, despite the divisive effects

of warriors, statesmen, and other self-assertive predators. Kropotkin started with the clan. He argued that the clan was the communal, centripetal response to the early development of separate property, separate families, and accumulated wealth that occurred during the later stages of savagery.²² Later on, the European barbarians settled into village communities, following their mass migrations into the crumbling Roman Empire. The village community was the centripetal force that recreated the cooperation that had broken down under the centrifugal forces of war, conquest, and accumulation.²³

Serfs, peasants, and sturdy yeomen were able to survive and sometimes even prosper in the countryside by grouping together in village communities for mutual aid. This was accomplished despite constant disturbances and the predation practiced by the competing warlords and chivalric knights at the expense of the peaceful village communities. Kropotkin concluded his investigation of the cooperative village institution: "And the progress—economical, intellectual, and moral—which mankind accomplished under this new popular form of organization, was so great that the States, when they were called later on into existence, simply took possession, in the interest of the minorities, of all the judicial, economical, and administrative functions which the village community already had exercised in the interest of all."²⁴

A larger and more sophisticated form of organization to further mutual aid also evolved from barbarian roots in the form of the medieval city and its system of guilds. And yet the medieval city's centripetal network of cooperation and mutual aid was constantly threatened by the centrifugal forces outside the city proper: "In reality, the medieval city was a fortified oasis amidst a country plunged into feudal submission, and it had to make room for itself by the force of its arms."²⁵ Nevertheless, the medieval city survived from roughly the eleventh into the sixteenth century in Europe, finally succumbing to the new and rising power of the central state.

Throughout his treatment of biological and cultural evolution, Kropotkin insisted on developing a full-bodied, *general* theory of evolution that emphasized mutual aid as a factor and explained how the "survival of the fittest" operated to produce more "fit" groups and species—fit for mutual aid—as well as more "fit" individuals and families—fit for individual competition. His evolutionary theory was a general, full-bodied one, not a special, encapsulated one. For he demonstrated that not only individual competition but also group cooperation were powerful factors in *biological* evolution. Furthermore, he demonstrated that mutual cooperation, in

the forms of the savage clan, then the communal village, and later the medieval city, played a fundamental role in *cultural* evolution as well.

Veblen's Evolutionary Theory

Veblen also produced a broad theory of evolution rather than a narrow, encapsulated one. However, instead of emphasizing mutual aid as a factor of evolution, he expressed his theory in terms of the instinct vocabulary in vogue at the turn of the twentieth century. Veblen did not believe that human behavior was tightly predetermined by instincts—quite the contrary. But he did not use the instinct vocabulary for ease of communication with his contemporaries.²⁶ Until recently, this gave Veblen a dated tone not found in Kropotkin. Ironically enough, the rise to prominence of Sociobiology has now resuscitated Veblen's terminology.

Perhaps more importantly, while Kropotkin insisted that the evolutionary factor of mutual aid operated throughout the entire period of human evolution, Veblen made a very important distinction between two different stages of that evolution—savagery and barbarism. The distinction Veblen draws between these two stages is more in line with a Marxist or at least an economic interpretation than is Kropotkin's view, for Veblen placed great emphasis upon the emergence of an economic surplus in human evolution while Kropotkin did not. Barbarism differed economically from the earlier savagery in that an economic surplus had arisen. Other important features also set barbarism off from savagery, the most important ones being a transition from a condition of perpetual peace to one of perpetual war and the accompanying emergence of a leisure class. The change from savagery to barbarism resulted in a fundamental change in the selection factors or survival traits that affected the direction of human evolution. Mutual aid and cooperation dominated in the earlier savagery, while self-assertion and competition dominated in the later barbarian stage. Here, in the transition from peaceful savagery to warlike barbarism, is the origin of Veblen's famous dichotomy.²⁷

Veblen framed his dichotomy as the instinct of workmanship and the parental bent versus sportsmanship and emulation. The former promoted group survival during the peaceful stage of savagery, while the latter promoted individual survival during the warlike stage of barbarism. In the stage of savagery, Veblen argued, the dominant feature of culture was a "sense of group solidarity, largely expressing itself in a complacent, but by no means strenuous, sympathy with all facility of human life. Through its ubiquitous presence in the habits of thought of the ante-predatory savage man, this pervading but uneager sense of the generically useful

seems to have exercised an appreciable constraining force upon his life and upon the manner of his habitual contact with other members of the group."²⁸

Veblen described and analyzed primitive human life in the context of both the institutional features of evolving culture *and* the instinctual imperatives of evolutionary survival. His conceptualizations applied simultaneously to the biological and cultural planes of evolution, making his thought a very sophisticated synthesis of the two rather than a truncated biological instinct theory alone. His treatment of the barbarian stage of human life was a sophisticated synthesis of the biological and cultural planes:

On the transition to the predatory culture the character of the struggle for existence changed in some degree from a struggle of the group against a non-human environment to a struggle against a human environment. This change was accompanied by an increasing antagonism and consciousness of antagonism between the individual members of the group. The conditions of success within the group, as well as the conditions of the survival of the group, changed in some measure; and the dominant spiritual attitude for the group gradually changed, and brought a different range of aptitudes and propensities into the position of legitimate dominance in the accepted scheme of life.²⁹

These different "aptitudes and propensities" were self-regarding rather than group-regarding in character and they were brought to the fore by a cultural rather than biological change.³⁰ Improved technology—a cultural growth—had given rise to an economic surplus, warfare, and a leisure class.³¹ These, in turn, loosed the predatory "aptitudes and propensities" onto the human landscape, the major features of which were then etched out by a new "regime of status." And, Veblen explained, "the traits which . . . indicate the types of man best fitted to survive under the regime of status, are (in their primary expression) ferocity, self-seeking, clannishness, and disingenuousness—a free resort to force and fraud."³²

Savage life, Veblen believed, was lived on the very margin of subsistence, where group-seeking behavior was essential to the survival of the group. On the other hand, barbaric life allowed for slack. An economic surplus above bare subsistence meant that self-seeking behavior at the expense of the group did not immediately threaten survival. As long as it did not go too far, predation gained a free hand in human culture during the barbaric stage. The relation between the predatory "sports" within the human community and the continuation of the life process of the community itself became similar to the relation between a parasite and its host. If the parasite overexploited the host, both died. In the pecuniary

form of barbarism, as Veblen frequently reiterated, great care generally is taken to charge only "what the traffic will bear."

Veblen divided the stage of barbarism into two substages.³³ The first substage was one of force, the second of fraud. In the first substage the predatory individual benefited at the expense of the group through war and force of arms. The practice of seizing women captives during this substage of barbarism gradually led to the institution of private property, as the kidnapped woman and then the goods she produced became uniquely identified with the personal prowess of her captor. This unique identification and coercive control were the seeds of private property.³⁴ When forcible seizure of property was gradually supplanted by its purchase, humankind reached the second, pecuniary, substage of barbarism. The sharp practice replaced the strong arm, in the main. But the predatory animus remained the same. This is what gives Veblen's *Theory of the Leisure Class* its jarring rhythm and tone deeply disturbing to the bourgeois ear, for he equated the habits of thought of the "gentleman" with those of the "ruffian."

Nevertheless, Veblen did not regard the self-seeking traits of a barbarian, whether a practitioner of the warlike or pecuniary trades, as definitive human nature. For one thing, the barbarian stage of life was a very recent growth in human evolution and, for another thing, the pecuniary substage of barbarism is in serious danger of being undercut by the continued development of the industrial arts.

The barbarian stage having begun late in the timescale of human evolution, the savage stage and its molding of human nature lasted much longer and had a far more permanent effect, according to Veblen. So if there is a hard core to human nature, it was formed during savagery, not barbarism. Veblen argued that barbarian culture "has been neither protracted enough nor invariable enough in character to give an extreme fixity of type."³⁵ Savage culture, on the other hand, "shaped human nature and fixed it as regards certain fundamental traits."³⁶ These "fundamental traits" are group-regarding rather than self-regarding and are three in number: (1) the instinct of workmanship, (2) the parental bent, and (3) idle curiosity.³⁷ These savage traits of communal life are far more ancient and permanent than the self-regarding ones that came in as contaminants, with the advent of barbarism and predation.

Of course, Veblen's evolutionary theory was open rather than predetermined. He did not argue that human group-regarding traits were certain to replace the self-regarding contaminants brought in by the devolutions of our barbarian age. The opposite could happen as well, and probably would if history set a precedent. For, in one of his most famous

statements, Veblen pointed out that “history records more frequent and more spectacular instances of the triumph of imbecile institutions over life and culture than of peoples who have by force of instinctive insight saved themselves alive out of a desperately precarious institutional situation, such as now (1913) faces the peoples of Christendom.”³⁸

Veblen frequently is underestimated as a utopian reformer turned cynic, on the basis of this and other popular Veblenisms.³⁹ But he was no mere cynic; the thrust of his evolutionary theory propelled him far beyond utopian visions and cynical despair. His work led him to speculate that, barring another triumph of imbecility, the continued development of the industrial arts in the twentieth century would undercut the extant institutions of pecuniary barbarism, and that humans would revert back to their original traits—the group-seeking proclivities of the peaceable savage.⁴⁰ In a sense then, Veblen’s theoretical work posits a Rousseau-like system. However, it is far more complete and empirical than Jean Jacques Rousseau’s utopian vision of the noble savage. Veblen never fantasized that human beings were born free, as noble savages. Instead, human beings with general inherent proclivities were born into an existing institutional structure. Neither the proclivities (instincts) nor the structure (culture) were the product of the newly born’s free will; both were products of previous evolution and both shaped the newly born’s “free will” at every turn.

Nevertheless, Veblen explained, in the twentieth century the continually developing industrial arts were having a liberating effect. In particular, the machine process was inculcating a direct cause-and-effect habit of thought on all those who came in contact with it and this was steadily loosening the grip of the status-binding, self-seeking institutions of the pecuniary substage of barbarism. According to Veblen, the intellectual outcome of contact with the machine process “is an habitual resort to terms of measurable cause and effect, together with a relative neglect and disparagement of such exercise of the intellectual faculties as does not run on these lines.”⁴¹ The latter effect is of major importance for it leads to a growing skepticism and even an iconoclastic habit of thought. This means, according to Veblen, “an ever weakening sense of conviction, allegiance, or piety toward the received institutions.”⁴²

The spread of skepticism about the received pecuniary institutions of the twentieth century may or may not take concrete form in socialism or anarchism. However, Veblen argued that it would lead to a natural decay of the institutional basis of private property and business enterprise;⁴³ that is, unless a more effective and archaic cultural discipline in the form of war and national politics were brought to bear against the disaffection

spread by the new machine technology.⁴⁴ The more coercive warlike culture is "most promising as a corrective of iconoclastic vagaries."⁴⁵

Patriotism and war will immunize the population against the incidence of the machine process, of this our experience of the last six decades leaves little doubt. Veblen seems prophetic on that score. Yet he also argued that patriotism and war were incompatible with private property and business enterprise.⁴⁶ Although both are classified by Veblen as barbarian (predatory) cultural arrangements, they belong to different substages of barbarism. A resort to the disciplinary effects of patriotism and war will not take society back to the pecuniary substage. Certainly, such a reversion has saved us from socialist disaffection with private property and business enterprise. But it did *not* make the world safe for business. Quite the contrary. Such a reversion, Veblen argued, would take society all the way back to the *warlike* substage of barbarism, which is incompatible with the more peaceful *business* substage of barbarism.⁴⁷

Any way he looked at it, the institutional basis of business enterprise was a remarkably unstable one. If peace broke out accidentally, the machine process would infect those it touched with a socialistic or anarchistic disaffection. If war broke out accidentally, the resulting cultural discipline would crush not only the socialists but the businesspeople as well. Although Veblen had not fully worked out the idea, he knew that the only way out for business enterprise seemed to be a peace that was actually war (the Cold War) or a war that was actually peace (the Vietnam War).⁴⁸

Veblen's general theory of evolution was clearly an open one. He never argued in support of predetermined or teleological ends. Instead, he inquired into the possibilities of different evolutionary paths. To conclude, the *direction* of his system remained unencapsulated by conventional wishful thinking. Furthermore, the *content* of his general theory of evolution also remained unencapsulated. That is, he fully worked out the evolutionary role played by the self-regarding survival traits, which operated at the individual and family levels of selection, *and* the evolutionary role played by the group-regarding survival traits, which operated at the higher group and species levels of selection. And, his general theory incorporated both the biological and cultural planes of evolution. He left nothing out of his system. It was all there, in spite of very strong cultural biases.

Conclusion

In the hands of Social Darwinists, evolutionary theory was turned to account. It served the interests vested in the status quo by mystifying hu-

man origins and human nature. But it could be made to do so only after being encapsulated. Through encapsulation, Social Darwinists ignored the role played by cultural evolution and dismissed the survival traits fostering group-seeking behavior. Evolutionary theory is still being turned to account and in the same way by sociobiologists who spin myths about the origins of woman and the nature of man.⁴⁹

So the unencapsulated evolutionary theories of Veblen and Kropotkin remain relevant to all social scientists who espouse an evolutionary view of humans. Self-seeking has been a strong factor in evolution, granted. But Kropotkin marshalled a wealth of naturalist's observations to show that group-seeking has been just as important. Mutual aid, cooperation, and avoidance of competition over scarce means of existence are real survival traits and they have operated throughout the span of human biological and cultural evolution, according to Kropotkin. According to Veblen, the group-seeking survival traits of workmanship, parental bent, and idle curiosity were strongly fixed in humans by the very long stage of savagery. Barbaric contaminants of self-seeking have worked their way into the human landscape, but their continued hold is problematical. As Veblen was fond of implying, the peoples of Christendom are of more permanent stuff.⁵⁰

Notes

1. William M. Dugger, "The Origins of Thorstein Veblen's Thought," *Social Science Quarterly* 60 (December 1979): 424-31.
2. William M. Dugger, "Sociobiology: A Critical Introduction to E. O. Wilson's Evolutionary Paradigm," *Social Science Quarterly* 62 (June 1981): 221-33.
3. For Veblen see Joseph Dorfman, *Thorstein Veblen and his America*, 7th ed. (Clifton, N.J.: Augustus M. Kelley, 1972). For Kropotkin see Peter Kropotkin, *Memoirs of a Revolutionist* (New York: Dover, 1971).
4. See Kenneth E. Boulding, "An Incomplete Paradigm," *Social Science Quarterly* 59 (September 1978): 333-37.
5. For a recent work on the cultural plane see Richard L. Brinkman, *Cultural Economics* (Portland, Oregon: Hapi Press, 1981).
6. Further discussion is in Dugger, "Sociobiology."
7. However, see Thorstein Veblen, "The Mutation Theory and the Blond Race," in *The Place of Science in Modern Civilization and Other Essays* (New York: B. W. Huebsch, 1919), pp. 457-76.
8. Further discussion of encapsulation within a broad theoretical framework is in Paul D. Bush, "An Exploration of the Structural Characteristics of a Veblen-Ayres-Foster Defined Institutional Domain," *Journal of Economic Issues* 17 (March 1983): 35-66.
9. See Richard Hofstadter, *Social Darwinism in American Thought*, rev. ed. (New York: George Braziller, 1959), and Arthur L. Caplan, ed., *The Sociobiology Debate* (New York: Harper and Row, 1978).

10. Further discussion is in Dugger, "Sociobiology," and the comment by Joseph Lopreato, "The Battle of BB Guns Against Sociobiology," *Social Science Quarterly* 62 (June 1981): 234-42; see also the rejoinder by Dugger, "Do Genes Hold Culture on a Leash?" *Social Science Quarterly* 62 (June 1981): 243-46.
11. P. Kropotkin, *Mutual Aid: A Factor of Evolution* (New York: Alfred A. Knopf, 1925).
12. *Ibid.*, p. 1.
13. *Ibid.*, p. 31.
14. *Ibid.*, pp. 52-53.
15. *Ibid.*, p. 14.
16. *Ibid.*, pp. 49-50.
17. *Ibid.*, pp. 194-95.
18. *Ibid.*, p. 71.
19. *Ibid.*, p. 64.
20. *Ibid.*, p. 87.
21. *Ibid.*, p. 92.
22. *Ibid.*, pp. 88-89.
23. *Ibid.*, pp. 93-100.
24. *Ibid.*, p. 117.
25. *Ibid.*, p. 151.
26. Veblen defined instinct both biologically and culturally: "A genetic inquiry into institutions will address itself to the growth of habits and conventions, as conditioned by the material environment and by the innate and persistent propensities of human nature; and for these propensities, as they take effect in the give and take of cultural growth, no better designation than the time-worn 'instinct' is available." Thorstein Veblen, *The Instinct of Workmanship and the State of the Industrial Arts* (New York: Macmillan, 1914), pp. 2-3. Further discussion is in John P. Diggins, *The Bard of Savagery: Thorstein Veblen and Modern Social Theory* (New York: Seabury Press, 1978), pp. 69-84, and C. E. Ayres, "Veblen's Theory of Instincts Reconsidered," in *Thorstein Veblen: A Critical Reappraisal*, ed. Douglas F. Dowd (Ithaca, N.Y.: Cornell University Press, 1958), pp. 25-37.
27. See also Ayres, "Veblen's Theory of Instincts Reconsidered," pp. 28-30.
28. Thorstein Veblen, *The Theory of the Leisure Class* (New York: Mentor Books edition, 1953 [1899]), p. 149. See also Thorstein Veblen, *The Instinct of Workmanship*, pp. 1-37.
29. Veblen, *Theory of the Leisure Class*, pp. 149-50.
30. Further discussion is in Myron W. Watkins, "Veblen's View of Cultural Evolution," in Dowd, ed., *Thorstein Veblen: A Critical Reappraisal*, pp. pp. 249-64.
31. But see Thorstein Veblen, "The Mutation Theory and the Blond Race," and "The Blond Race and the Aryan Culture," in Veblen, *The Place of Science*, pp. 457-76. Also of interest on this point of biological versus cultural evolution in Veblen's thought is his "An Experiment in Eugenics," in *Essays in Our Changing Order*, ed. Leon Ardzrooni (New York: Augustus M. Kelley, 1964), pp. 232-42.
32. Veblen, *Theory of the Leisure Class*, p. 152.

33. Ibid., pp. 43-44.
34. Ibid., pp. 33-38, and Veblen, "The Beginnings of Ownership," and "The Barbarian Status of Women," in *Essays in Our Changing Order*, pp. 32-49, and 50-64. Both Veblen and Kropotkin argued that the evolution of private property was tied in with sex and the family. While Veblen traced private property back to the capture of women, Kropotkin traced it back to the transition from communal marriage in the clan to the growth of separate families in the tribe. See Kropotkin, *Mutual Aid*, pp. 88-89.
35. Veblen, *Theory of the Leisure Class*, p. 148.
36. Ibid., p. 149.
37. Watkins calls these fundamental traits Veblen's "trinity." Watkins, "Veblen's View of Cultural Evolution," pp. 260-61.
38. Veblen, *The Instinct of Workmanship*, p. 25.
39. See David Riesman, *Thorstein Veblen: A Critical Interpretation* (New York: The Seabury Press, 1960).
40. Thorstein Veblen, "The Place of Science in Modern Civilization," in *The Place of Science in Modern Civilization and Other Essays*, pp. 1-31.
41. Thorstein Veblen, *The Theory of Business Enterprise* (Clifton, N.J.: Augustus M. Kelley, 1975), p. 309.
42. Ibid., p. 324.
43. Ibid., pp. 330-91.
44. Ibid., pp. 391-400.
45. Ibid., p. 391.
46. Ibid., pp. 394-400.
47. Further analysis of the relations between war, business, and the machine process is in Thorstein Veblen, *The Nature of Peace* (New York: Augustus M. Kelley, 1964), pp. 299-367. This is one of Veblen's most insightful passages, but also one of his most neglected ones.
48. See Veblen's discussion of peace as a preparation for war in his *The Nature of Peace*, pp. 18-23.
49. See Edward O. Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978).
50. See Veblen's "Christian Morals and the Competitive System," in *Essays in Our Changing Order*, pp. 200-18. Veblen's use of terms in this essay is very similar to Kropotkin's. Veblen refers to "the ancient bias in favor of mutual aid and human brotherhood" (p. 217).