

GEOGRAPHY AS CAUSAL IN SOCIETAL ASCENDANCE: AN AUSTRIAN RETROSPECTIVE ON DIAMOND

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ABSTRACT: In his 1997 book, *Guns, Germs and Steel*, Jared Diamond attributes the ascendancy and triumphs of certain societies to geographical and environmental advantages. But given the conditions of geography and environment, Diamond advances the misguided view that societal ascent is principally contingent upon success in centralizing management of resources. Diamond largely ignores the institutions critical to formation and ascent of a society: (1) private property rights and (2) monetary exchange leading to specialization and division of labor. Diamond fails to understand the fact that these institutions necessarily imply that society cannot be viewed as an acting entity independently of the actions of individual, goal-oriented human beings. Private property and monetary exchange allow individuals to rationally reckon economic scarcity and the marginal private worth of alternative plans for serving the current and future needs of others.

I. INTRODUCTION

In his book, *Guns, Germs and Steel*, Professor Jared Diamond argues that geography and environment are the “ultimate determinants” of the fates of societies.¹ The book can be described as focusing the on

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fields of environmental geography and geographical anthropology. The book explores the ascendancy of certain cultures and their *dominance* over competing societies. For Diamond, the broad pattern of history can be understood and explained within the context of geographical and environmental circumstances facing societies.

This paper examines Jared Diamond's success in explaining the broad pattern of history within the context of geographical and environmental considerations. While Diamond addresses many disciplines in his 1997 book, this paper will focus on Diamond's disregard of purpose-driven human action of individual human beings, property rights, and the institutions that foster specialization and cooperative exchange—these institutions being principally money and monetary exchange. Diamond's failure can be attributed to a vane attempt to attribute major social developments to geographic and environmental factors. In *Guns, Germs and Steel*, Diamond concludes that new technologies emerge randomly across continents. He further asserts that successful societies are so called *complex societies*, which in his view, must be centrally organized and centrally managed.

But Diamond's focus on geographical and environmental considerations leads him to essentially minimize or ignore (1) private property rights, and (2) human action leading to specialization and institutions of cooperative and calculative monetary exchange. Monetary exchange refers to the decision-making ability afforded individuals by being able to use market prices. In particular, individuals can make rational choices between consuming or providing for the future by saving. Without both private property and monetary exchange, members of primitive societies have no means by which to place a marginal net worth on alternative actions necessary to replenish and maintain their personal resource base. Hence, primitive societies tend to remain primitive.

In largely ignoring these institutions, he finds it possible to believe that social interdependence sets the stage for conflict and, hence, reveals the need for a highly centralized governmental order. Diamond is prompted to attach excessive importance to political unification in the formation of society. His neglect of the aforementioned institutions reveals his ignorance of the nature of society and the processes by which societies are formed. For example, mutually-beneficial market exchange *conducted in money* allows individuals to arrive at a rational reckoning of both scarcity and capital. Hence, money is not only a critically important calculational institution, but in conjunction with private property, allays interpersonal conflict, fosters cooperation, and establishes the foundations of society itself.

II. GEOGRAPHY'S ROLE IN SOCIETAL SUCCESS AND ITS LINK TO INNOVATION AND INVENTIVENESS

Jared Diamond is largely a geographic determinist. But the issue of social adaptation seems to lead him in confusing and erroneous directions. In *Guns, Germs and Steel*, Diamond presents the thesis that external factors such as geography and environment actually determine the fate of societies and that the nature and direction of particular civilizations are largely determined by geographical considerations. Geographical determinism has been described as embracing the notion that "the physical, geological and climactic conditions of a region determine the thoughts and the actions of inhabitants" (Mises [1957] 1969, p. 324). In this effort, Diamond pursues "historical laws" accounting for the success or failure of certain societies. Ostensibly he intends to make geography the active or causal element in his thesis; but human action as manifested in innovative adaptation and receptivity to new technologies becomes a problematic issue for Diamond since he must find a way to link these phenomena to geographical considerations.

Hence, the question is: is geography a determinant of human action? Realistically, the role played by geography in the lives of acting men is essentially three-fold. First, it provides a stimulus to action. Second, geography plays a large role in providing the means available to acting men striving toward certain goals. Third, geography can act as a restraining element affecting the opportunity costs born by acting human beings in trying to achieve certain objectives. While geography affects man in these various ways, it does not determine responses to the conditions imposed by it. Ludwig von Mises has observed that "the way in which he [man] adjusts himself, the methods of his social, technological and moral adaptation, are not *determined* by the external physical factors" (Mises [1957] 1969, p. 325; emphasis added). Elsewhere Mises notes that "... the same situation has a different effect on different men . . . it is not possible to grasp how the action of the external world influences our minds, our will, and consequently, our action" (Mises [1960] 2003, p. 12).

In a sense, Diamond is forced to at least partially accept these realities. He clearly acknowledges that one of the plausible indicators of societal advance is to be seen in improvements in existing techniques and development of new technologies. Diamond seeks to explain why technological innovation has been clearly robust for some societies while in others it has lagged. But even more difficult for Diamond is the attainment of his narrower objective of trying to explain these differentials in terms of geography and environment. Diamond attempts to answer the specific question: how do differences in the receptivity to

new technologies arise? (Diamond, p. 249). He explores considerations that he seems to view as factors accounting for these differences. Diamond first notes that patent protections that protect ownership rights of inventors, has rewarded innovation in the west, while the lack of such arrangements in other parts of the world has meant a more stagnant approach to the development of new technologies. Second, Diamond observes that capitalism with its attendant property rights has made it profitable to invest in the development of new technologies. Third, Diamond acknowledges the strong individualism in western countries, particularly in the United States, that allows successful inventors to retain earnings that accrue from the profitable applications of new technologies. A fourth factor mentioned by Diamond is risk-taking behavior that is important in cultivating an environment in which innovation can occur (Diamond, p. 250). However, one notes that he never finds a way to fully integrate these insights into his broader examination of societal ascendance. Diamond remarks: "*none of them has any necessary association with geography.—Worse yet, all of these proximate explanations bypass the question of ultimate factors behind them*" (Diamond 1997, pp. 250–51; emphasis added). Groping for a way to explain the apparent irrelevance of these factors to geographical considerations, Diamond observes,

it is untrue that there are continents whose societies have tended to be innovative and continents whose societies have tended to be conservative. On any continent, at any time, there are innovative societies and also conservative ones. . . . To the student of broad historical patterns though, it makes no difference what the specific reasons were in each of those cases. *The myriad factors affecting innovativeness make the historian's task easier, by converting societal variation in innovativeness into essentially a random variable.* (Diamond, p. 254; emphasis added)

The notion that innovativeness of different societies is a random variable is not only implausible but truly bizarre.² One finds astonishing Diamond's inability to recognize the real causes of societal ascendance even after he has listed and discussed them. His search for geographical linkages leads him to the fundamentally implausible notion that receptiveness to innovation and new technologies is a phenomenon defying a means of prediction.

²Diamond could not have gained much insight from mainstream economics regarding the role of institutions in societal receptivity to innovation. In the mainstream world of static optimization, institutions are little more than an ancillary afterthought.

This list of conditions that Diamond ultimately rejects as being of primary importance can be distilled into the following elements all bearing on some form of purpose-directed human action: (a) secure rights of private property as an inducement to successful inventing, (b) property rights assuring an appropriable return on investment in technological advances, and (c) property rights nurturing an environment in which the actions of undertaking risky ventures are rewarded. But the preceding list of three items is incomplete. An additional element (d) totally ignored by Diamond, is the fact that new technologies are introduced through acts of saving and investing. In other words, acts of saving are a critical underpinning of a rational reckoning of technology development and application. New technologies emerge in a growing stock of new types of capital goods. Capital goods embodying new technologies do not come into existence without savings (Mises [1962]) 2006, p. 115). The practical deployment of the technological innovations emerging from the natural sciences is critically conditioned by the institutions of capitalism.

And finally and most importantly, (e), the savings necessary to incorporate new technologies in a growing stock of capital goods is critically dependent upon monetary institutions fostering calculative exchange and a rational comparative reckoning of alternative investments. Without economic calculation made possible by a medium of exchange—money, the concept of capital would be virtually impossible.³ Without rational capital reckoning, accumulation of new and more productive types of capital goods most probably would not occur (Mises [1962]) 2006, p. 114). The ability of businessmen and engineers to make a rational calculation of the profitability of alternative investment in different capital goods also accommodates a thoughtful contrast of the advantages of applying one technology over another. The formal mathematical relations emerging in the development of physics and chemistry, the new discoveries emerging in biology would be economically sterile if it were not for the monetary institutions accommodating economic calculation.

Capitalism embraces all these features and nurtures the indispensable environment in which investment risks can be profitably undertaken in trying to introduce innovations. *To this extent, contra Diamond, the preceding capitalistic institutions must be seen as primary determinants of innovative activity and receptivity to new technologies.* Hence, Diamond's conclusion that the phenomenon of technological advance is a random phenomenon

³Capital is always a monetary reckoning of the prospective worth of a plan undertaken to achieve a future net monetary gain. In a barter economy, such a reckoning would not be possible. Hence capital would not and could not exist.

across continents is a gross absurdity that, in itself, greatly diminishes his credibility. One must fully reject Diamond's apparent judgment that the institutions of private property and market exchange are of only "proximate" importance in explaining technological advance. Liberal institutions associated with markets are indispensable and of primary importance in fostering innovative action on the part of individual human beings and are in fact the ultimate cause of not only receptiveness to innovation but also the pace of technological advance.

III. DIAMOND'S CENTRALIZATION IMPERATIVE FOR COMPLEX SOCIETIES

In discussing the role of innovation and technological advance in the ascendancy of societies, Diamond came very close to outlining some legitimate and centrally important factors accounting for this phenomenon. These insights bore on human action and property rights. But he was finally led to assign them secondary or even minimal importance. Unfortunately, Diamond lets himself to be drawn even further astray in attempting to deal with what he labels "complex societies."

While the concept of complexity as applied to society seems critical to Diamond's explication of societal ascendancy, he fails to actually define the term in a manner that bears on the realities of the contemporary world. For example, he expressed the view that the principal predictor of complexity is population size. When Diamond is using the phrase "complex society," he seems not to be talking about what one might call a *modern industrial society*. Rather, he is talking about a social order still subject to the type of explosive violence that one might find within and between primitive tribes. Without offering a definition, Diamond seems to see four characteristics as exemplary of what may be called complex societies; these are (1) large population size, (2) centralized government, (3) the ability to produce large quantities of food, and (4) a centralized management of resources (Diamond, pp. 281–87). As the following discussion will make clear, when discussing what he labels a complex society, Diamond is still thinking about a tribal culture, writ large, with a centralized social and political structure. He is not thinking about the actual institutions that commonly characterize modern societies in the present day.

In approaching the requisite features of the complex society, Diamond poses the question of why a tribal organization is inadequate in the context of larger populations. He catalogues a series of four reasons why tribal organization cannot serve the needs of large populations. "Considerations of [1] conflict resolution, [2] decision making, [3] economics

and [4] space converge in requiring large societies to be centralized” (Diamond p. 288). In effect, he is outlining a series of arguments for societal centralization. It is ironic that even though Diamond thinks he is addressing the needs of a complex society, he never seems to be able to free himself of assumptions that would accord with the characteristics of primitive tribal cultures. It is in his manor of addressing this matter that Diamond reveals his incomplete understanding and even ignorance of human action and property rights; he fails to understand their role in a social order facing the universal issue of resource scarcity.

First, he notes that one of the problems that emerges within larger populations is “conflict between unrelated strangers” (Diamond, p. 286). As Diamond characterizes this problem, its likelihood intensifies as the number of people becomes larger. He uses the following example to present his point:

Relationships within a band of 20 people involve only 90 two-person interactions (20 people times 19 divided by 2), but a band of 2000 would have 1,999,000 dyads. Each of these dyads represents a potential time bomb that could explode in a murderous argument. . . . Once the threshold of “several hundred,” below which everyone can know everyone else, has been crossed, increasing numbers of dyads become pairs of unrelated strangers. . . . Hence, a large society that continues to leave conflict resolution to all of its members is guaranteed to blow up. That factor alone would explain why societies of thousands can exist only if they develop centralized authority to monopolize force and resolve conflict. (Diamond, p. 286)

Diamond is ostensibly unaware that a more important institution for averting and eliminating the possibility of conflict is private property and monetary exchange. Private property emerges out of the certainty of scarcity. It is clear that without the reality of scarcity, the motives for interpersonal conflict would be markedly diminished if not eliminated;

[i]t is the function of property rights to avoid such possible clashes over the use of scarce resources. . . . Property is thus a normative concept; a concept designed to make conflict-free interaction possible by stipulating mutually binding rules of conduct (norms) regarding scarce resources. (Hoppe 1989, p. 8)⁴

But monetary exchange plays a tandem role with private property in avoiding the interpersonal conflict that seems to concern Diamond. While an economy based on barter means that every exchange may have

⁴See, also, Hayek (1988, p. 30).

a personal dimension, exchange is often based on the bargaining skill and the mutual goodwill between the affected parties, monetary exchange means that transaction can be completed with complete anonymity. Moreover, monetary exchange enhances the extent of competition availed to the transacting parties meaning that each party to a transaction can make a more precise and more certain reckoning of what is received and what is relinquished in each exchange. This latter fact in itself dramatically reduces the scope of situations that might prompt misunderstanding and conflict.

Diamond sees a second reason that complex societies must be centralized; large populations must have effective means of communication and the means to engage in "communal decision-making." Here Diamond is guilty of a non-sequitur; effective communication is not necessarily contingent on centralization. Moreover, he asserts that some sort of governing body is required to facilitate communications. Diamond is presumably addressing the communications thought to be required in effectuating "democratic decision-making." In other words, Diamond sees a "growing impossibility of communal decision making with increasing population size. . . . Hence a large society must be structured and centralized if it is to reach decisions effectively" (Diamond, pp. 286–87).

Here again one sees that Diamond is in the grip of confusion and misunderstanding largely because there is little scope for private action in the world that he posits. No allowance is made for the information acquisition capabilities of individual human beings in their efforts to pursue their own ends. He has no understanding of the fact that when individual actors have secure rights of private property and freedom to engage in market exchange, communal decision-making and supervisory intervention in private life can be chaotic and disruptive. In a free market economy, the individual is able to avail himself of sufficient information to act in pursuit of his own goals and in the process generate price information useful to others in pursuit of their own ends (Hayek 1988, p. 76). Hence, "it was found that decentralized control over resources, control over several [private] property, leads to the generation and use of more information than is possible under central direction" (*ibid.*, p. 86).

The type of communal decision-making that Diamond has in mind would only serve a purpose, however perverse, if individual property rights were foreclosed by a tyranny of the majority and if the actions of individuals were tyrannically constrained. Ironically, this type of tyranny turns out to be the logical outgrowth of democratic government (Hoppe 2001, pp. 104–05). One notes that private property and a freedom of individual action mean that market processes impose a rationality upon social interaction that cannot possibly be replicated by interventionist

actions perpetrated through communal decision making. For example, the institutions of private property are self-enforcing since each property owner has a vested interest in the integrity and security of his neighbor's property. Insecure property rights as may be experienced by the single property owner have implications for the security of property rights for the entire population. Moreover, each property owner is able to engage in exchange and is able to exclude the use of his property in lessor valued occupations. Hence, the rational property owner will always hold out for the highest bid meaning that the prices that emerge in the process of exchange draw resources to their most highly valued uses. In this way, prices become a tool of rational calculation in the consumption and investment decisions of individuals in the complex society. In essence, prices expressed in monetary terms offer the only coherent indications of relative scarcities. Communal decision-making that curtails or impedes this process can only be destructive of the society.

Diamond presents a third reason for believing that large populations require a centralized social structure. Diamond labels this reason as being "economic" in nature though it bears on the first item in this list described above. He observes that situations will arise in which some individuals will acquire more of some essential commodity during some periods and less in other periods of time. Diamond sees a problem with these types of occurrence. Here again Diamond advertises his abysmal ignorance of economics. He offers the following astonishing observation:

the same mathematics that makes direct pairwise conflict resolution inefficient in large societies makes direct pairwise economic transfers also inefficient. Large societies can function economically only if they have a *redistributive economy* in addition to a reciprocal economy. Goods in excess of an individual's needs must be transferred from the individual to the centralized authority, which then redistributes [goods] to the individuals with deficits. (Diamond, p. 287: emphasis added)

Diamond is unable to think in terms of the institutional framework of what one might legitimately view as a modern society. There is no private property in the world that he characterizes. There is no exchange process in which the individual can make an offer to sell goods that may be in surplus. Diamond disregards markets and the emergence of prices in which each individual is able to make his own decisions with respect to buying and selling of property. The redistributive economy to which he makes reference is not an economy at all but a system of forced confiscation of property with distribution being made on the basis of the central authority's judgments about the needs of those receiving the surpluses of others. But need is a fundamentally subjective judgment that

can only be made by the individual. In actual fact, since interpersonal comparisons of well-being are epistemologically impossible, the redistribution process to be conducted by the central authority would be totally arbitrary. Only the individual is able to judge the extent to which his holdings of particular goods represent an excess or shortage with respect to his demand. While this sort of paternal intervention in the private lives may have its counterpart in the economic culture of primitive tribes, it has no place in a complex society that may exist in the modern world.

Diamond's incoherence and seeming ambivalence on the matter of centralization is further manifested in his view that the need for central control is necessarily more far-reaching in complex societies in which economic specialization is more extensive. With regret, he notes that not even farmers are self-sufficient. Somehow, he has convinced himself that specialization and a drift away from self-sufficiency is detrimental to society. "Hence the effect on the society is catastrophic when the government collapses" (Diamond, p. 279). Presumably Diamond has concluded that without a centralized government, there can be no specialization, exchange, and social order. He cannot bring himself to accept or understand the fact that the degree of efficient specialization and exchange are not contingent in the least on the existence of a governmental order—centralized or not. In fact these processes are more likely to be fostered and strengthened by the absence of a centralized governmental order.

Diamond's fourth reason for assuming that the structure of a complex society must be centralized relates to space and population densities. This reasoning is a bit difficult to understand until one realizes that Diamond is still immersed in the culture of a tribal society in which property rights do not exist. His observations have little relevance to a modern day economy with property rights and mutually beneficial exchange. Diamond reasons from the premise of generic bands comprised of perhaps a few dozen people. He also explicitly assumes that these bands coexist in a state of periodic war with each other, presumably over scarce resources. But for the Diamond, the likelihood of conflict is diminished as long as bands of people exist within a sparsely populated region in which the band faces a greater likelihood of being self-sufficient. "As population density increases, the territory controlled by a few dozen people would shrink to a small area, with more and more of life's necessities having to be obtained from outside the area" (Diamond, p. 287). As people find themselves in closer proximity to one another, and are reliant on others for the necessities of life, Diamond sees an elevated likelihood of conflict. As he argues, societal interdependence creates greater likelihood that conflict and violence will erupt.

Hence, he concludes that greater population density necessarily intensifies conflict requiring a strong centralized government to maintain civil order.

Again, Diamond's thinking about this issue is fundamentally erroneous. He has in mind a band of a few dozen people that make decisions and act to attain the group's objectives. But within a larger society, the individual groups become more dependent upon others outside the band for the necessities. For Diamond, such situations set the stage for periodic conflict since he is unable to bring property rights and cooperative monetary exchange into the orbit of his thinking about any society—simple or complex. The error in this thinking is highlighted by reiterating a point made above; property rights serve to avoid interpersonal clashes over the use of resources by particular individuals.

The extent to which Diamond fails to grasp this point raises the question of whether or not he actually understands the nature of society as a concept. In the closing chapter of *Guns, Germs and Steel*, Diamond seems to deal with "organization" as a type of decision variable with which some "central authority" chooses from among alternative patterns of organization in order to attain some type of social goal. He poses the following questions:

[W]hat is the best way to organize human groups, organizations and businesses so as to maximize productivity, creativity, innovation and wealth? Should your group have a centralized direction (in the extreme, a dictator), or . . . diffuse leadership, or even anarchy? Should your collection of people be organized into a single group, or broken down into small or a large number of groups? Should you maintain open communication between your groups or erect walls of secrecy between them? . . . These questions may arise at many different levels and for many types of groups. They apply to the organization of entire countries: remember the perennial arguments about whether the best form of government is a benign dictatorship, a Federal system, or an anarchical free-for-all. (Diamond, p. 433)

The way in which these questions are framed only tends to reinforce the impression that Diamond has, at best, only a confused understanding of the legitimate role of organization in a modern society and the context in which legitimate organizational decisions are made. As noted, these questions seem to suggest the idea that organization can be manipulated by some governing authority. While, there are two broadly-defined contexts in which organization has become a decision variable, only one is justifiable in a practical and ethical sense. The *unjustifiable role* of organization as a decision variable emerges out of the democratic

process in which governmental power has become more centralized and more invasive. Hans-Hermann Hoppe has observed:

It does not follow from the right and need for protection of person and property that protection should or effectively can be provided by a monopolist of [territorial] jurisdiction and taxation. To the contrary, it can be demonstrated that any such institution is incompatible with the rightful and effective protection of property. (Hoppe 2001, p. 226)⁵

As the concept of centralization of organization has become a type of decision variable within a political context, it has become a detriment to the general health and well-being of society as a whole.

One such area in which the government tries to use organization as a decision variable is in governmental efforts to regulate and alter the structure of industry. From an ethical perspective, one notes that such interventions are almost never undertaken without a breach of property rights. But legal sanctions such as anti-trust laws and their accompanying regulations have created a complex interventionist bureaucracy with the stated purpose of protecting the consuming public from monopoly and anti-competitive practices within industry. Implicit in this type of interventionist agenda is the assumption that the government can regulate the number, size, and behavior of firms in an industry to achieve the goal of increasing the welfare of consumers. However, from a practical perspective, there exists no scientifically legitimate means by which this can be done. Moreover, there are no legitimate analytical methods by which monopoly prices or predatory prices can be empirically discerned (Rothbard 2004, pp. 661, 681–87). Attempts by governments to treat societal organization as a decision variable in regulating industry are certainly unsupported by any scientific rationale.

The legitimate and ethical context in which organization can be treated as a decision variable occurs in the size and internal structure of private firms *when these decisions are made by the owners of the firm*. In this context, the questions posed above by Diamond become practical and important concerns. But these questions, as they pertain to firms, only have coherent answers within an aspect of society to which Diamond is largely oblivious. The same institutions that facilitate economic calculation, principally private property and monetary exchange, also allow the entrepreneur to assess investments in particular capital goods and, in the process, also present the same entrepreneur with answers to several questions posed above by Jared Diamond. These institutions include

⁵See, also, Higgs (1987, p. 67) and Smith (1988, pp. 134–35).

private property in the means of production and competitive prices for both consumer goods and capital goods. These institutions afford the entrepreneur a rational reckoning of profits (net monetary gain), allow the entrepreneur to decide what activities should remain within the firm, and what services should be obtained through transactions with other firms (Coase [1937] 1952, pp. 331–51). Economic calculation helps the entrepreneur to formulate answers to questions on the size of the firm, the degree of centralization or decentralization, the degree of competition versus cooperation in the operation of the firm, the nature of the communications, and many other issues that affect the ability of the firm to profitably serve its customers.

IV. DIAMOND ON THE FORMATION AND NATURE OF SOCIETY

To an extent, Jared Diamond treats society as a type of living being with an existence of its own independent of the actions of the individual human beings that make up the society. He has employed such metaphorical techniques in examining the requisite conditions accounting for the growth of bands and tribes into larger societal entities such as nations or states. It is in his explanation of societal formation that Diamond finds himself relying on a militaristic explanation based on one group somehow acquiring power and eventual control over other groups. For Diamond, the formation of societies occurs through a process of cascading amalgamation through conquest or union to ward off the threat of conquest. In coming to this view, Diamond eschews Rousseau's notion that societies are the product of a social contract:

amalgamations never occur by a process of unthreatened little societies freely deciding to merge, in order to promote the happiness of their citizens. . . . Amalgamation occurs instead in either of two ways; by merger under threat of external force, or by actual conquest. (Diamond, p. 289)

Diamond offers a few instances that superficially seem to support his case. In the case of amalgamation by threat of attack, he gives as his most prominent example, the formation of the Cherokee nation in dealing with the influx of white settlers in eighteenth century North America (Diamond, p. 289). He also notes the unification of the original thirteen colonies in revolting against the British and the example of the German unification in 1871 in response to a French declaration of war (Diamond, p. 290). In the latter category of amalgamation by conquest, Diamond, of course, includes the example of the Roman Empire and the empire of Alexander the Great.

Do Diamond's examples really support his argument? The answer is no. The thirteen colonies of North America did not suddenly become a society after having adopted a centralized Federal government under the current constitution. The people of the colonies became a society, independently of the form of government. The Cherokees, the thirteen American colonies, and the Germans were successfully able to cohere in the face of an external threat because they already existed as societies. Political unification was an ancillary event almost unrelated to the actual events that made the formation of these societies possible. With respect to amalgamation by conquest, Diamond's use of this explanation of societal formation seems singularly unconvincing. Alexander's empire did not survive as a society after Alexander's demise (Durant 1966, pp. 557–58). These disintegrations occurred principally because these empires did not exist as societies in the true sense of the word. They were held together initially by tyrannical force.

But if societies exist prior to the establishment of a state wielding centralized control, what legitimate criteria can be employed to recognize a society and to understand its formation? As noted, Diamond is of a mind to label large agglomerations of people as societies if there is a centralized governmental authority to establish a state. From such a perspective, society is thought to have an existence separate and apart from the lives of individual human beings. The true meaning of society eludes Diamond. One is reminded of Hayek's observation that

the word "society" has become a convenient label denoting almost any group of people, a group about whose structure or reason for coherence nothing need be known—a makeshift people resort to when they do not quite know what they are talking about. (Hayek 1988, p. 113)

Both Hayek and Mises emphasize that society truly emerges out of the self-interested actions of individuals engaged in mutually beneficial exchange. Hayek notes that "the extended order that is also a 'society' is formed into a concordant structure by its members' observance of similar rules of conduct in the pursuit of *different* individual purposes" (Hayek 1988, p. 113; emphasis added). Similarly, Ludwig von Mises has been critical of metaphorical treatments of society on the part of historians and philosophers:

society is nothing but the combination of individuals for cooperative effort. It exists nowhere else than in the actions of individual men. It is a delusion to search for it outside the actions of individuals. To speak of a society's autonomous and independent existence, of its life, its soul, and its actions is a metaphor which can easily leads to crass errors. (Mises [1949] 1998, p. 143)

For Mises, society emerges out of the actions of individual human beings. He offers a distinctly different perspective that acknowledges private property and cooperative exchange between individual human beings.

Society is concerted action, cooperation. Society is the outcome of conscious and purposeful behavior. This does not mean that individuals have concluded contracts by virtue of which they have founded human society. The actions that have brought about social cooperation and daily bring it about anew do not aim at anything else than cooperation and coadjuvancy with others for the attainment of definite singular ends [of individual human beings]. The total complex of the mutual relations created by such concerted actions is called society. It substitutes collaboration for the—at least conceivable—isolated life of individuals. (Mises [1949] 1998, p. 143)

Mises explains the role of the mundane but, nonetheless, indispensable role of specific market institutions in the formation of societies. For example, he notes the fact that Western civilization emerged as a process of cooperation between individual human beings based on essentially contractual relations. In essence, cooperation between human beings is fostered by contractual relations between buyers and sellers. These contractual arrangements brought about the emergence of civilization in a process by which individual families abandoned action aimed at self-sufficiency and resorted to inter-familial exchange of goods and services.

Both Mises and Hayek emphasize the division of labor as a fundamental element in the formation of society. “In a hypothetical world in which the division of labor would not increase productivity, there would not be any society. There would not be any sentiments of benevolence and good will” (Mises [1949] 1998, p. 144). Work performed under division of labor is the fundamental impetus to cooperation, society, and civilization and historically has been responsible for converting animal man into human man. Man recognized the fact that work performed under the division of labor was more productive than the isolated work done under attempts at self-sufficiency. Hayek observes:

The morals of the market do lead us to benefit others, not by our intending to do so, but by making us act in a manner which, nonetheless, will have that effect. The extended order circumstances individual ignorance . . . and thereby does make our efforts altruistic in their effect. In an order taking advantage of the higher productivity of extensive division of labor, the individual can no longer know whose needs his efforts do or ought to serve,

or what will be the effects of his actions on those unknown persons who do consume his products or products to which he has contributed. (Hayek 1988, p. 81)

Without this latter recognition, groups would have remained deadly enemies in a perpetual state of perpetual inter-tribal war as envisioned by Jared Diamond. Without specialization and rights of private property, the perpetual inter-group conflict over scarce resources would have been a description of the real world. Each group would have viewed other human beings from other groups with covetous suspicion and would have been unable to seek cooperation in the attainment of mutually beneficial ends. No sense of community would have been possible and what we have come to know as society could not come into existence.

V. SUMMARY AND CONCLUDING COMMENTS

In *Guns, Germs and Steel*, Jared Diamond attempts to write the story of modern man with geography and the environment playing the central roles in human destiny. This paper has outlined ways in which Diamond has failed in this undertaking. Irrespective of geography and environmental circumstances, man has emerged as an acting force in the formation of society and the emergence of institutions that assure long-term societal sustainability. The institutions of private property and modern market exchange have been and are critical and essential landmarks in societal ascent. Moreover, modern man has also been able to witness the tragic failure of societal experiments in which these centrally important institutions have been ignored or destroyed. Diamond has shown himself to be unable to appreciate or acknowledge this insight.

In neglecting free-market institutions, Diamond finds himself attributing technological innovation to random events that occur across continents rather than to the formation of property rights which he treats as a secondary or proximate consideration. His ignorance of recent twentieth-century history is made manifest in his treatment of what he refers to as complex societies. He attempts to show that complex societies, by which he means principally large agglomerations of people, require centralized organization and centralized management of resources. He cites several concerns in advancing this idea that bear respectively on conflict resolution, decision-making, economics, and space. Diamond mistakenly clings to the view that violent conflict is inevitable within large aggregations of people finding themselves mutually dependent upon each other while experiencing increasing population density. Hence, Diamond sees a need for centralization in achieving what he describes as an efficient distribution of goods. Here again Diamond fails to understand that one

of the principal roles of private property in any civilization is to allay the need for conflict over scarce resources. Moreover, where property rights are secure and property owners are able to engage in mutually beneficial exchange, a distribution of goods is achieved most in accord with individual aspirations.

Diamond's views on what he refers to as complex societies betrays a level of unawareness concerning the way in which true societies are formed. For Diamond large agglomerations of people under one centralized government constitute a society. Yet this view is clearly erroneous. True societies need no centralized government to establish cohesion and unity; societies are formed quite independently of any sort of governmental organization. The bonds of social cohesion are nurtured and strengthened by mutual interdependence, division of labor, and cooperative exchange between peoples. These activities and institutions have the power to transcend even ethnic differences that may exist within a true society.

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