Chapter Thirteen

Darwinian Conflict Theory

A Unified Evolutionary Research Program

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At the turn of the last century, Darwinian approaches to human behavior were popular in social science. That human behavior had a biological foundation was widely accepted and not particularly controversial. But in the 1920s and 1930s a reaction against biological explanations set in, and a kind of social and cultural determinism arose; it remains dominant today in one guise or another. And yet in the 1970s and 1980s a number of social scientists, frustrated with the lack of progress in their field, began to reconsider human biology and turned once again to Darwinism to provide theoretical foundations for a science of society. The new Darwinism—known variously by the names sociobiology, evolutionary psychology, and human behavioral ecology—has led to enormous progress, but in and of itself leaves many social phenomena unexplained. In this chapter I bring other approaches—in particular, sociological conflict theory, rational choice theory, cultural materialism, and social evolutionism—into contact with the new Darwinism and create a synthesis that I call Darwinian conflict theory. Though called a theory for purposes of simplification, Darwinian conflict theory is in actuality a large-scale Lakatosian research program. A crude version of this program was developed some years ago, but the version offered here is much more fully worked out. It contains 51 axioms, 52 postulates, 19 theories, and 354 propositions. The theories and propositions apply to reproductive behavior, parental investment, economic subsistence and exchange, dietary choice, incest avoidance, human sexuality, mate choice, kinship and marriage, gender differentiation and inequality, status and resource competition, geopolitics, aggression and violence, ethnic attachment, and religious beliefs and rituals. I conclude the chapter by indicating the kinds of evidence that would falsify Darwinian conflict theory.

Introduction

Mature sciences consist of research programs, or sets of general axioms and postulates and more specific theories and propositions (Lakatos 1970). The axioms and postulates serve as guides to the formulation of the theories and propositions, which must be not only testable but, in the philosophy of science of Karl Popper (1959), falsifiable. In the social sciences at least, at the core of theories and propositions are explanations, although they may also consist of empirical generalizations. It is these theories and propositions that are subjected to direct tests.

Individual theories and propositions that survive empirical tests reflect favorably on the research program itself. However, Imre Lakatos stresses that it is always the case that some of a research program's theories and propositions will not survive these tests. They may be decisively refuted. But this does not refute the research program so long as the number of falsifications is not too large and alternative theories and propositions can be formulated. Research programs are always subject to emendations as empirical research advances. For example, a cardinal principle in evolutionary biology for the past century has been the emphatic rejection of Lamarckian inheritance of acquired characteristics. This was thought to be impossible. However, it is now theorized, with supporting evidence, that environmental perturbations can affect the expression of genes and that the changes can be transmitted genetically. A new concept, epigenetics, has been introduced (West-Eberhard 2003; Jablonka and Lamb 2005). If the advocates of epigenetics turn out to be correct, then a fundamental postulate of evolutionary biology will have been overturned and replaced by a new postulate, but most of evolutionary biology will still stand. This is one way in which research programs progress.

Research programs in sociology and the social sciences more generally are usually focused on the particular phenomena of subfields, although in principle they can be discipline-wide. Thus in sociology we have the rational choice program of religion developed by Rodney Stark and colleagues (Stark 1996, 1999, 2007; Stark and Bainbridge 1987; Stark and Finke 2000) and the state-centered research program of revolutions (Tilly 1978; Skocpol 1979; Collins 1995; Goldstone 1991; Wickham-Crowley 1992; Goodwin 2001). But the aim of this chapter is much more ambitious. It is to develop a discipline-wide research program and to do so by means of a *synthesis* of several existing programs.

Synthesis involves selecting elements from different research traditions and recombining and fusing them into a novel research tradition that is similar to its parents, yet notably distinct. It involves, in other words, taking portions of traditions t_1, t_2, and t_3 and uniting them into a new tradition, T. In the ideal form of synthesis, the new research program contains axioms, postulates, theories, and propositions all its own; t_1, t_2, and t_3 are abandoned, and T becomes the new foundation for research.

This type of synthesis is exceptionally difficult to achieve. A more easily realized type of synthesis is a *grafting* synthesis (Laudan 1977). Here one selects elements of research programs thought to be compatible and brings them together. It might be claimed that their theories and propositions do not represent different things but simply different aspects of the same thing. A sociological research program might have as a key principle the notion that humans are especially conflict-prone animals and yet fail to offer any rationale for why humans are conflict-prone. This makes the program incomplete and thus insufficient on its own. A remedy is to import elements of another research program that are thought capable of grounding the principle of conflict-proneness—of explaining why there is conflict-proneness in the first place. Or, a research tradition that emphasizes conflict-proneness may have a rationale for conflict-proneness, but the rationale is regarded by those outside the tradition as incorrect, if not altogether misguided. One then strips away that rationale and replaces it with the rationale of a different tradition.

In doing any kind of synthesis, one always has to pick and choose. Different research programs cannot simply be glued together in toto, because they always contain inconsistent and incompatible elements. One has to select consistent, compatible, or complementary features of existing programs and discard those elements that do not logically fit together. One would also be guided by the objective of retaining what has proved to be empirically successful in a program and casting aside what has proved empirically false or at least dubious.

The synthetic research program developed here is a grafting synthesis. I call it *Darwinian conflict theory* (DCT). An early formulation of this program was carried out in 2001, but it was much too crude in that it remained at the level of axioms and postulates (Sanderson 2001). Here I use a revised and extended version of these axioms and postulates to formulate a series of theories and propositions regarding the most salient dimensions of human social life. I offer 51 axioms, 52 postulates, 19 theories, and 354 propositions.

The most important criteria for evaluating research programs and their components are (1) testability, (2) empirical success, (3) parsimony, (4) generality, and (5) productivity (Sanderson 2012; cf. Black 1995). Propositions generated by research programs must be capable of being tested against observations and must be formulated in such a way that they can be falsified. Other things equal, the best theories are those that have been most rigorously tested and that have survived these tests relatively unscathed. Either there are no falsifying observations, or any such observations are few in number (anomalies are a virtual constant in science). Research programs should be parsimonious in that their core principles can be simply and efficiently stated. They should also be highly general, which is to say they apply to the largest number and diversity of phenomena. Finally, they should be productive in the sense that new propositions and empirical predictions can be derived from them.

I contend that the research program offered here meets these criteria with reasonable success. Its theories and propositions can all be falsified. Indeed, they have all been tested, some of them extensively. Many of these have survived falsifying tests quite well. Others require much more extensive testing and thus are highly provisional.

Although DCT contains many theories and propositions, its parsimony lies in the simplicity and straightforwardness of its axioms and postulates. Because these components of DCT apply to an extremely large part of the social world, it has an exceptionally high level of generality.

THE BACKGROUND RESEARCH PROGRAMS

The background research programs that are part of the DCT synthesis are five in number:

1. Sociobiology
2. Rational choice theory
3. Sociological conflict theory, especially in its more Weberian form
4. Cultural materialism
5. Social evolutionism

What are the principal elements of each that go into the synthesis?

SOCIOBIOLOGY

Sociobiology is a derivative of Darwinian evolutionary biology. It is closely related to two other Darwinian approaches, evolutionary psychology and human behavioral ecology. Its most basic postulates are:

- Humans are organisms whose brains have evolved by natural and sexual selection.
- The brain contains domain-specific modules that represent evolutionary adaptations.
- These evolutionary adaptations, which evolved in the ancestral environment of small hunter-gatherer societies prior to 10,000 years ago, direct behavior with the aims of maximizing survival and reproductive success.

- Evolutionary adaptations interact with a socioecological context, or total set of ecological, demographic, technological, economic, social, political, religious, cultural, and so on, circumstances to produce behavioral outcomes.
- Evolutionary adaptations are the ultimate foundation for the structure of societies, which evolve as social adaptations.

Sociobiology provides the foundational principles for DCT. A proper research program requires a metaphysic, by which I mean here a set of "first principles" beyond which it is not necessary to go. This makes DCT "reductionist" but in the best sense of the term: good science is by its very nature reductionist. However, this reductionism is tempered by the other research programs that make up the synthesis. (For a much fuller discussion of sociobiology, see Sanderson 2012: 157–181.)

Rational Choice Theory

Rational choice theory's basic principles are (Friedman and Hechter 1988):

- Social behavior is the result of individual actors who act purposively to maximize benefits and minimize costs with respect to certain preferences or goals.
- People's intentional actions are subject to constraints in the form of opportunity costs, or costs associated with not pursuing certain courses of action, and institutional constraints, which act as positive or negative sanctions on any course of action.
- Actors possess limited information concerning what choices will best realize their preferences, and thus their assessment of the best means to realize their preferences will sometimes fail.
- Individuals act rationally in accordance with their own subjective sense of what is in their interests.
- Choices made by individuals concern the means to achieve certain ends, not the ends themselves.
- Societies are the aggregated result of the individual choices and decisions of its constituent members.

One limitation of rational choice theory is that many features of human behavior do not involve conscious calculation at all, and thus no real "choice" in the technical sense of the term. Much behavior is driven by unconscious motives over which individuals have no knowledge or control. A second difficulty with rational choice theory is its inability to explain the nature and origin of human preferences. Rational choice theorists simply bracket preferences out and focus entirely on the means to ends, not the ends themselves. This is a serious lacuna.

A solution to both problems is to introduce sociobiology and its relatives. Sociobiology and rational choice theory are alike in that both are methodologically individualist approaches that assume individual actors pursuing their interests. But sociobiology can take rational choice principles further by grounding them in evolutionary principles and thus providing one solution to the problem of preferences (Hirshleifer 1977; Richerson and Boyd 1992; Nielsen 1994). As Hirshleifer (1977: 19) has said, "The biological approach to preferences . . . postulates that all such motives or drives or tastes represent proximate aspects of a single underlying goal—fitness. Preferences are governed by the all-encompassing *drive for reproductive survival*." Sociobiology also assumes that much human behavior is driven by unconscious motivation and thus helps to overcome the other limitation of rational choice theory mentioned above.

What, then, is rational choice theory's distinctive contribution to the synthesis? Does it add anything not already there? Yes. It helps us understand many human choices, and even institutional practices, that cannot be predicted from Darwinian principles alone. For example, most people are heterosexuals and prefer heterosexual sex to any other kind of sex. But what will they do if such sex is unavailable? Masturbation most obviously comes to mind, but over time this is a rather poor substitute since humans are highly social and like human contact, including sexual contact. The next choice would be some sort of homosexual activity, which we know is relatively common in situations where men are confined together and women are absent (prisons, ships at sea, etc.). Here we see that individual actors are trying to achieve certain preferences or goals within the context of environmental constraints. Sociobiology alone does not predict such situational homosexuality. (For a fuller discussion of rational choice theory, see Sanderson 2012: 94–110.)

Conflict Theory

In its most general form, conflict theory's key principles are (Collins 1974, 2009; Sanderson 2012: 32–74):

- The essence of social life is people competing for resources that are scarce.
- Economic resources and social power are the most important, but not the only, resources that people seek.
- Because of the competition for scarce resources, individuals and groups frequently come into conflict over the distribution of these resources.
- This conflict commonly leads to the formation of dominant and subordinate groups; conflict is both intrasocietal and intersocietal.
- On the intrasocietal level, dominant groups tend to gain priority over subordinate groups in structuring society to favor their interests.
- On the intersocietal level, societies seek to realize their interests through dominating and controlling other societies.

It is common to distinguish between Marxian and Weberian versions of conflict theory. Their main differences are:

- Methodological holism (Marx—e.g., individuals are embodiments of class relations and class interests) vs. methodological individualism (Weber—e.g., the actions of states are the actions of individuals)
- Class conflict as the fundamental form of conflict that determines other forms of conflict (Marx—e.g., states serve the interests of dominant classes) vs. no form of conflict is more fundamental than any other form (Weber—e.g., states have their own interests separate from and often in conflict with dominant classes)
- Social conflict is rooted in private property ownership and can be resolved through collectivization of the means of production (Marx) vs. social conflict is integral to social life and inevitable (Weber)
- The source of self-interest: it arises from class membership based on property ownership (Marx) vs. is a natural human condition expressing itself in all dimensions of social life (Weber)

There are other differences, but these are the most fundamental for our purposes (Collins 1974, 2009; Sanderson 2012).

Sociobiology may be considered a type of conflict theory and, in fact, the deepest form of conflict theory. Sociobiology and Marxian conflict theory are theoretical traditions that seem, on the surface at least, utterly incompatible. After all, Marxists are usually extremely critical of sociobiological arguments, on both theoretical and political grounds. But there is much more of a connection than is initially apparent. Jerome Barkow has said that "a sociobiological theory of society . . . is, necessarily, a conflict theory" (1989: 118). Marx himself read *The Origin of Species* in 1860 and in early 1861 said to Engels in a letter that "Darwin's book is very important and serves me as a natural-scientific basis for the class struggle in history" (quoted in Taylor 1989: 409). Indeed, Wilhelm Liebknecht, an important German socialist leader who visited Marx frequently, indicated that "when Darwin drew the consequences of his investigations and presented them to the public, we spoke for months of nothing else but Darwin and the revolutionizing power of his scientific conquests" (quoted in Feuer 1978: 109). Both Marx and Engels were very unhappy with Darwin's reliance on Malthus's concept of the struggle for existence, but nonetheless the "class struggle came to be regarded as the form which the struggle for existence took in class societies; *the materialistic conception of history was derived as a limiting case of the biological struggle as it obtained for the conditions of the human species*" (Feuer 1978: 110; emphasis added). It is most unfortunate that the extraordinary implications of this last idea have never been properly developed. It is one of the main tasks of DCT to draw out these implications and state them formally.

Weberian conflict theory fits even better in terms of the differences between the Marxian and Weberian versions outlined above. Randall Collins recognizes this to some extent when he says that "Darwin is in the background for all of the later nineteenth-century conflict theory" (1974: 148) and that "conflict theory is Machiavelli without the Prince, Marx without Hegel, Darwin without Spencer, Weber without idealism, Freud without Victorianism" (1974: 150). In his early book *Conflict Sociology*, Collins gives prominent attention to ethology, a forerunner of sociobiology. He says that we need to remember that man is an animal, which then takes us back to Darwin (Collins 1975: 91). Unfortunately, Collins abandoned this line of thinking in all of his later work. A golden opportunity was missed. He tells us that humans are highly conflict-prone organisms but cannot tell us why they are conflict prone. The conflict-prone nature of humans is an unexplained given, an assertion that goes completely untheorized. In my view Collins's assertion is correct, but he leaves unanswered the question why it is correct.

Collins is sensitive to the necessity of establishing microfoundations, but his microfoundations are inadequate to sustain any type of conflict theory. These foundations are located in what Collins calls interaction ritual theory (IRT), which he derives from Durkheim and Erving Goffman. Durkheim did not develop this explicitly; Collins sees it as implicit in *The Elementary Forms of the Religious Life*. Goffman developed it explicitly, largely from ethology, which he studied as a graduate student.[1] Collins uses IRT to develop some interesting insights, but it also leads him into dubious assertions, such as claiming that people want material possessions only for their status value. He even feels the need to raise the question of why people eat; the answer is apparently not to survive but to be able to continue to participate in interaction rituals.

In my view a much more useful part of Collins's (2004) IRT is his concept of *emotional energy* (EE). EE is a feeling of exhilaration gained from successful interaction rituals; its downside comes from unsuccessful rituals and is tantamount to a kind of depression. EE is a concept that, sufficiently tweaked, can fit very nicely inside a Darwinian paradigm. It is in essence a kind of psychological kick or payoff individuals get when they are successfully

achieving their goals. Status-conferring rituals lead to EE, but status-losing rituals lead to its opposite. The obvious next step in this line of thinking is to see that gaining status has this payoff effect to keep individuals striving for it; the desire to experience EE is the proximate cause of status-seeking, whose ultimate cause is evolutionary.

Without demonstrating any familiarity with Collins's work, Richard Alexander shows how the EE concept can be reformulated in Darwinian terms:

> Happiness and its anticipation are thus proximate mechanisms that lead us to perform and repeat acts that in the environments of history, at least, would have led to greater reproductive success. This is a central hypothesis in evolutionary biology. Paralleling it in importance is the hypothesis that control of resources is the most appropriate route to reproductive success. . . . Similarly, I presume that status is typically a vehicle toward resource control and an outcome of it. If these ideas are correct, then humans should always experience pleasure when they gain in status or increase their control of resources (unless they do so at large expense to close relatives or spouses), and they should experience some converse feeling when they lose status or resource control (except, sometimes, when they transfer it to relatives or spouses). (1987: 26–27)

There is one important difference between EE as Collins conceives it and as it is conceived within DCT. EE for Collins results not just from status attainment but even more from the intensity of social interaction. Interaction rituals are, after all, *interaction* rituals. But interaction rituals, I would contend, will be most likely to produce EE when individuals have central membership roles in groups. This is the link to status striving.

DCT draws more on the Weberian form of conflict theory, although it sees Marx's emphasis on material forces as the most crucial causal conditions as superior to Weber's more eclectic position on this issue (e.g., ideas shape history as much as material conditions). However, Marx's materialism is now outdated and in many ways inadequate and has been substantially improved upon by the cultural materialism of Marvin Harris.

CULTURAL MATERIALISM

Harris's (1968, 1979) cultural materialism is an anthropological approach that has drawn extensively on Marxian historical materialism, cultural ecology, and social evolutionism. A crucial part of Harris's analysis is his formulation of what he calls the *universal pattern*, or the basic components of all societies. Societies are trichotomized into an infrastructure, a structure, and a superstructure. The *infrastructure* consists principally of technology, ecosystems, demography, and techno-environmental relationships. It is subdivided into a *mode of production* and a *mode of reproduction*. The mode of production consists of those things that go into the process of producing the means of human survival. It includes subsistence technology and the basic features of the natural environment. The mode of reproduction consists of those things relating to the production of human life itself. It includes demographic behavior (rates of population growth, population density, age and sex ratios, etc.) and the technology of birth and population control. The *structure* consists of political economy and domestic economy. Political economy involves stratification systems, forms of political organization, and war. Domestic economy includes patterns of marriage, family life, kinship, gender roles, and age roles. The *superstructure* is composed of such things as ideology, art, music, literature, rituals, sports and games, and science.

These components are linked by a causal principle that Harris calls the Principle of Infrastructural Determinism. This holds that *the flow of causation in social life is primarily from the infrastructure to the structure, and then from the structure to the superstructure*. This is understood probabilistically, and allowance is made for feedback from superstructure to structure to infrastructure. But not only does the infrastructure largely determine the structure and superstructure in a synchronic sense; from a diachronic perspective, changes tend to occur first within infrastructures and these changes generate reverberating changes in structures and superstructures. The infrastructure is primary because it consists of the means whereby humans produce the basic conditions of human existence and reproduce human life itself. Structures and superstructures are therefore adaptations to the infrastructural conditions that societies lay down first.

Harris's earlier work was heavily bogged down by a functionalist conception of societies (1968, 1974), but he later switched to rational choice's cost-benefit assumptions (1977, 1979)—from explaining cultural patterns in terms of their adaptive value for societies to explaining them in terms of their adaptive value for individuals. "Just as a species does not 'struggle to survive' as a collective entity, but survives or not as a consequence of the adaptive changes of individual organisms, so too do sociocultural systems survive or not as a consequence of the adaptive changes in the thought and activities of individual men and women who respond opportunistically to cost-benefit options" (1979: 61). This gives a clear link to rational choice theory, and to sociobiology as well despite Harris's strong criticism of that perspective.

Harris's Principle of Infrastructural Determinism is a very useful principle, but it is insufficiently grounded. As Richard Alexander has pointed out, the principles of cultural materialism make sense only *in light of* sociobiological principles (1987: 26–27):

> Harris's analysis takes economic or "productive" ends as ultimate rather than as means to the end of reproductive success. Such analyses are like those which take pleasure and happiness as ultimate ends. They cannot explain why the proximate mechanisms of pleasure and happiness (Harris's "bio-psychological benefits") operate as they do, or even why they exist. . . . Harris implies that reproductive success, representing "remote and hypothetical interests," is somehow an *alternative* explanation to more proximate "bio-psychological benefits" as "the most certain and powerful interests served by infrastructure." He sees the "struggle to maintain and enhance differential politico-economic power and wealth" as *opposed* to "the struggle to achieve reproductive success." In the sense of comprehensive explanation, however, the relationship between such proximate and ultimate factors is not adversarial. Rather, neither can be explained without the other. . . . I cannot imagine how cultural materialist explanations of human behavior and institutions can ever make real or complete sense except in light of a continuous history of natural selection of genetic alternatives.

Moreover, Harris was on the cusp of recognizing such a thing himself. Consider, for example, this assertion: "True, sociobiological models based on reproductive success and inclusive fitness can yield predictions about sociocultural differences that enjoy a degree of empirical validity. . . . But the reason for this predictability is that most of the factors which might promote reproductive success do so through the intermediation of bio-psychological benefits that enhance the economic, political, and sexual power and well-being of individuals and groups of individuals" (Harris 1979: 139). This illustrates

almost perfectly the postulate that evolutionary mental adaptations interact with socio-ecological context to produce behavioral outcomes. Cultural materialism's proximate causes are rooted in sociobiology's ultimate causes. People seek economic resources and power because these are the principal means of achieving reproductive success.

Unfortunately, many of Harris's specific theories have now been cast into doubt, if not falsified. These are his theories of war, male domination, the potlatch, the incest taboo, fertility levels, and status seeking. (See Sanderson [2007a: 205–212] for explications and critiques of these theories.) In all cases a Darwinian approach can offer better explanations of these phenomena.

Social Evolutionism

To a large extent, social evolutionism is not an autonomous theoretical approach but a component of other approaches. There are numerous types of theories of social evolution that are not only different but often contradictory (Sanderson 1990, 2007b). Some theories of social evolution have been functionalist and idealist (e.g., Parsonian evolutionism), whereas others have been materialist and employed, at least implicitly, rational choice principles (e.g., Harris, Sanderson). The version of evolutionism endorsed here is of the latter type (for details see Sanderson 1994a, 1995).

Social evolutionism's distinctive contribution is its emphasis on societies as dynamic entities. By looking at how societies change, it is much easier to reveal how and why certain social arrangements may be adaptive. This connects it to Darwinian evolutionism in the sense that change is constant and new forms arise out of old ones as adaptations to new circumstances.

Darwinian Conflict Theory: Axioms

And now to DCT itself. I begin with its axioms and then pass on to postulates, theories, and propositions.

Webster's Encyclopedic Unabridged Dictionary offers several definitions of an axiom: (1) a self-evident truth that requires no proof, (2) a universally accepted principle or rule, (3) a proposition that is assumed without proof for the sake of studying the consequences that follow from it. I use the term here primarily in the third sense, although some of the axioms qualify under the first and second definitions.

I. General

1. Like all other species, humans are organisms that have been built by millions of years of biological evolution.
2. Human bodies and brains are products of *natural selection*. Natural selection is selection for survival in specific environments.
3. Human bodies and brains are also products of *sexual selection*. Sexual selection is selection for the ability to attract mates rather than for survival.
4. The human brain is the locus of human nature.

II. Evolution of the Brain's Architecture

1. The brain evolved to solve the basic problems of survival and reproduction.
2. The brain evolved in the *ancestral environment* of small communities organized around an economy of hunting and gathering.

3. The architecture of the brain consists of *evolutionary adaptations* to the conditions of life in the ancestral environment.
4. These evolutionary adaptations direct behavior.
5. Most evolutionary adaptations are *facultative*. They direct behavior in conjunction with individuals' assessments of environmental context.
6. The ultimate goal of human behavior is to achieve individual *fitness* relative to other individuals. Fitness is *differential reproductive success*.
7. Novel environments, especially modern environments, may deflect behaviors from maximizing reproductive success even though behavior is being directed by the same domain-specific psychological adaptations.
8. Evolutionary adaptations do not require conscious recognition by individuals. The adaptations that direct behavior are usually below the threshold of conscious awareness.
9. The evolutionary adaptations of the brain are *domain-specific* mechanisms, or specialized modules, that are designed to solve specific problems. The brain is not a general all-purpose mechanism.
10. The brain consists of domain-specific adaptive mechanisms because (a) the adaptive problems confronted by our ancestors in the ancestral environment were very specific, and specialized adaptations are much better than general adaptations in solving specific adaptive problems;[2] (b) a great deal of successful behavior is dependent on highly variable environmental conditions requiring behavioral flexibility, and this flexibility requires highly specialized brain mechanisms.[3]

III. Adaptive Arrangements

1. The architecture of the brain consists of evolved *biological* adaptations.
2. Social life consists of evolved *social* adaptations.
3. Many, probably most, of the organizational and institutional features of human social life are the adaptive consequences of people struggling to satisfy their interests. But these social arrangements are deeply impregnated by adaptations at the biological level and thus not autonomous.
4. It is individuals who are the *targets* of adaptations; group adaptations are aggregated individual adaptations.
5. Group adaptations may exist as the result of *intersocietal selection*. But societies are still aggregations of individuals pursuing their interests.

IV. Human Interests

1. Humans are engaged in a struggle for survival and reproduction with their fellow humans that is inevitable and unceasing.
2. Human social life is the complex product of this ceaseless struggle for survival and reproduction.
3. The core of social life is individuals pursuing their interests. In the struggle for survival and reproduction, humans give priority to their own interests over those of others.
4. Humans' most important interests and concerns are reproductive, economic, and political. Political life is primarily a struggle to acquire and defend economic resources, and economic life is primarily a matter of using resources to promote reproductive success.

V. Socioecological Context

1. The brain's architecture interacts with a *socioecological context*, which is the total set of environmental circumstances (natural and social) within which people engage each other.
2. Socioecological context, itself biologically impregnated, enables and constrains the expression of the brain's evolutionary adaptations.
3. To optimize reproductive success, humans must adjust their behavior to socioecological context.
4. The socioecological context is composed of three basic elements: (a) the *ecostructure*, or the basic natural phenomena and social forms essential to economic production and biological reproduction, i.e., the ecological, demographic, technological, and economic structures of a society; (b) the *structure*, or basic social arrangements and institutions of a society apart from the economic; (c) the *superstructure*, or principal beliefs, values, and norms as these are expressed in religion, art, literature, myth, legend, philosophy, art, and music.
5. Although all elements of the socioecological context are of causal importance, they are not of equal importance.
6. The most important causal forces are located in the ecostructure, then in the structure, and last in the superstructure.

VI. Self and Others

1. The pursuit of individual interests leads to cooperative, competitive, and conflictive social arrangements.
2. Many cooperative forms of behavior exist at the level of social groups or entire societies. Cooperative social relations exist because they are the relations that will best promote each individual's self-interests, not because they promote the well-being of the group or society as a whole. Natural selection of cooperative social relations occurs at the level of the individual, not the group or society.
3. Cooperative forms of interaction are found most extensively among individuals who share reproductive interests, i.e., among kin and especially close kin.
4. Outside of kin relations, cooperative relations are most likely to be found among individuals who depend heavily on each other for the realization of their basic interests.
5. When competitive or conflictive behavior will more satisfactorily promote individual interests, cooperative relations will decline in favor of competition and conflict.
6. Competition and conflict under certain socioecological arrangements lead to the formation of socially dominant and socially subordinate groups.
7. Members of dominant groups benefit disproportionately from their social position, and therefore are highly motivated to structure society so that their superior social position can be preserved or enhanced.
8. Social life is therefore disproportionately influenced by the interests and actions of the members of dominant groups.

VII. Culture Acquisition

1. The ecostructures, structures, and superstructures that individuals create can, for purposes of simplification only, be called *culture*.[4]

2. Culture is learned behavior but is biologically impregnated.
3. Culture is not an organic whole or a "thing apart." It is an aggregation of individual beliefs and practices that are the same or similar.
4. Some culture is transmitted by senior to junior generations by direct instruction. This is *transmitted* culture (Tooby and Cosmides 1992).
5. Some culture is acquired by junior generations through imitation. This is *evoked* culture (Tooby and Cosmides 1992).
6. Juniors are strongly inclined to imitate what the majority of both seniors and older juniors do. This is *frequency-dependent imitation* (Boyd and Richerson 1985).
7. Juniors are strongly inclined to imitate seniors and older juniors of high status. This is *status imitation* (Boyd and Richerson 1985).
8. Transmitted culture is more difficult to acquire than evoked culture, which is why it must be taught.
9. Evoked culture is easier to acquire, which is why it can be left to imitation.
10. Humans are creatures of habit and, ceteris paribus, are strongly inclined to resist changes in their society and culture.
11. Imitation will decline in favor of innovation when cultural beliefs and practices decline in their level of adaptiveness.
12. Imitation will decline in favor of innovation when improved opportunities for the pursuit of basic human aims emerge.
13. Some cultural beliefs and practices develop in ways inconsistent with or contradictory to human nature. These practices are unstable and will eventually disintegrate or disappear.

Darwinian Conflict Theory: Postulates, Theories, and Propositions

The definition of a postulate (*Webster's Unabridged*) is essentially the same as that of an axiom. However, I define a postulate here as a fundamental principle that is less general and abstract than an axiom and that is attached to a specific substantive content. Postulates express known or assumed facts. Theories are bundles of related propositions, and propositions are statements of relationships between variables.

The principal postulates, theories, and propositions of DCT follow. After each proposition I use asterisks to indicate the extent to which that proposition has been successfully *corroborated*. Popper uses this term to indicate a theory that has been extensively tested and so far has not been falsified. This term replaces the term *verified*, which implies proved beyond all doubt, an impossibility for Popper. A single asterisk (*) indicates limited corroboration, two asterisks (**) substantial corroboration, and three asterisks (***) a high level of corroboration. References to the relevant empirical literature supporting the propositions are provided in parentheses. In many instances the references are to secondary summaries of the empirical literature, in which case the reader may wish to consult the additional references contained in the summaries.

A. Reproductive Strategies Theory

Postulate. All animals have evolved species-specific reproductive strategies designed to maximize reproductive success.

Postulate. In order to maximize their reproductive success, people adjust their reproductive behavior to socioecological constraints.

Postulate. Reproductive strategies involve trade-offs between the quantity and the quality of offspring.

1. In making reproductive decisions, females assess socioecological context for the level of dependability of male providers.* (Sanderson 2001: 166–168; Ellis 2004; Ellis et al. 2003)
2. Where male dependability is assessed to be high, both menarche and reproduction begin later.* (Sanderson 2001: 166–168; Ellis 2004; Ellis et al. 2003; Chisholm et al. 2005)
3. Where male dependability is assessed to be low, menarche and reproduction begin earlier.* (Sanderson 2001: 166–168; Ellis 2004; Ellis et al. 2003; Chisholm et al. 2005)
4. Fertility behavior is adjusted to levels of infant and child survival.** (Sanderson 2001: 169–175)
5. When infant and child survival levels are low, fertility is high for purposes of replacing offspring lost.** (Sanderson 2001: 169–175)
6. When infant and child survival levels are high, fertility is low because there is little or no need to replace lost children.* (Sanderson 2001: 169–175)
7. Fertility behavior is adjusted to the economic resources available to support offspring.** (Sanderson 2001: 169–175)
8. Fertility is inversely related to the level of female empowerment.* (Sanderson 2001: 170–171; Sanderson and Dubrow 2000)
9. In modern industrial societies, people emphasize the quality of offspring over their quantity.** (Wiley and Carlin 1999; Kaplan and Lancaster 2000; Cleland 2001)
10. Modern industrial societies are characterized by low-low fertility, i.e., fertility below replacement level.*** (Frejka and Ross 2001; Chesnais 2001; Allen 2006; *CIA World Factbook* 2010)
11. Low-low fertility is a function of the high economic costs of children.** (Wiley and Carlin 1999; Kaplan and Lancaster 2000; Cleland 2001)
12. Low-low fertility is a function of high levels of female empowerment and female labor force participation.** (Hakim 2003)
13. Low-low fertility is a function of the degree of pursuit of creature comforts.* (Chesnais 2001)

B. Parental Investment Theory

Postulate. Humans adjust their investment in offspring so as to maximize their and their offspring's reproductive success.

Postulate. There is a trade-off between the sexes in parental care and mating. The sex that invests more in parental care will invest less in mating, and vice versa.

Postulate. Females invest more in parental care, males more in mating.

1. Women have a natural inclination to mother that exceeds the natural inclination of men to father.*** (Sanderson 2014: 188–192)
2. Women overwhelmingly monopolize the care of infants and young children in all societies.*** (Sanderson 2014: 188–192)
3. Most women need to mother and feel unfulfilled when circumstances prevent them from being able to mother.*** (Hrdy 1999; Sanderson 2014: 191–192)

4. The quality of maternal care is contingent upon the circumstances for successful rearing of an infant.*** (Hrdy 1999; Sanderson 2014: 189–191)
5. In premodern societies, infanticide is more likely when and where the conditions for rearing are poor and the likelihood of infant and child survival are low. Poor rearing conditions include insufficient economic resources, unhealthy or deformed offspring, mothers' lack of social support, and children born too close together.*** (Hrdy 1999; Sanderson 2014: 206–207)
6. Infanticide varies inversely with the extent of mother-infant bonding.** (Sanderson 2014: 205, 207)
7. Natural offspring receive better parental care than step-offspring.** (Daly and Wilson 1988, 1998; Sanderson 2014: 191)
8. Abuse and neglect are more frequently suffered by step-offspring than natural offspring.** (Daly and Wilson 1988, 1998; Sanderson 2014: 191)
9. Infanticide is sex-selective.*** (Sanderson 2014: 207–209)
10. Infanticide is directed more frequently toward the sex with poorer marital and reproductive prospects.** (Sanderson 2014: 207–209)
11. In nonindustrial societies, mothers of high social status will bear more sons, mothers of low status more daughters.** (Sanderson 2014: 200–202)
12. In industrial societies, the social status of mothers is unrelated to the birth of sons versus daughters.** (Sanderson 2014: 203–204)
13. When the marital and reproductive prospects of sons exceed those of daughters, parents will invest more in sons.** (Sanderson 2014: 201–203)
14. When the marital and reproductive prospects of daughters exceed those of sons, parents will invest more in daughters.** (Sanderson 2014: 202–203)
15. In hypergynous societies, daughters of lower-status families have better marital and reproductive prospects than sons.** (Sanderson 2014: 208–209) *Def.*: Hypergynous societies are those in which women systematically marry into higher-status families.
16. In hypergynous societies, sons of higher-status families have better marital and reproductive prospects than daughters.** (Sanderson 2014: 208–209)

C. Economic Subsistence Theory

Postulate. Humans adopt the subsistence strategy that provides the best chances for survival, well-being, and reproductive success within the context of the subsistence strategies known and available at the time.

Postulate. Humans have evolved to maximize efficiency. Other things being equal, they prefer to carry out activities by minimizing the amount of time and energy they devote to these activities, in particular activities considered burdensome and onerous.

1. Modes of economic subsistence are functions of population density and environmental quality.** (Sanderson 1995, 1999)
2. Foraging—hunting and gathering—is the primordial human economic adaptation.*** (Sanderson 2014: 41–46)
3. Most foraging societies exist at subsistence level.** (Sanderson 2014: 46–49)
4. Foraging economies can be sustained only at very low population densities, unless resources are unusually abundant.*** (Sanderson 2001: 264–265)
5. Foragers adopt strategies of resource collection that will optimize calories produced and minimize labor time and energy, except when males seek to acquire

resources that are harder to obtain and that impress women as potential mates, and/or when protein is preferred over plant food.** (Sanderson 2014: 83–87)
6. The ratio of meat to plant foods in the diet increases as latitude increases.*** (Sanderson 2014: 44)
7. Food-storing foragers have larger populations and greater social complexity than non-food-storers.*** (Sanderson 2014: 45–46)
8. Foragers often resist converting to cultivation because cultivation carries greater risks and uncertainties and is often more labor-intensive.* (Sanderson 2014: 52)
9. Foragers will switch to cultivation when increasing population pressure leads to declining caloric returns relative to the amount of time and energy invested.* (Sanderson 2014: 52–53)
10. Agriculture arose worldwide beginning ten millennia ago because of increased population pressures and declining living standards, and also because warmer and wetter climates made cultivation possible.** (Sanderson 2014: 49–53)
11. Cultivation will be intensified in direct proportion to increasing population densities and environmental degradation.*** (Sanderson 2014: 58–59)
12. Pastoralism replaces cultivation in very dry environments.*** (Sanderson 2014: 59–60)

D. Economic Exchange Theory

Postulate. Humans in all societies calculate the benefits and costs of economic actions within the limitations of their knowledge and the constraints of their socioecology.

Postulate. Most individual economic action is self-interested.

Postulate. Humans follow those courses of economic action that maximize benefits and minimize costs.

Postulate. Humans are highly sensitive to incentives for economic gain.

Postulate. People have a natural sense of reciprocity. They seek to exchange like for like.

1. Economic exchange will tend to be mutual and balanced when one party lacks the resources or power to put the other party at a disadvantage.*** (Sanderson 2001: 268–272)
2. Economic exploitation is directly proportional to the possession of superior resources and power by one of the parties.*** (Sanderson 2001: 274–276)
3. The level of development of exchange relations is dependent on the size and complexity of societies.*** (Sanderson 1995)
4. Throughout social evolution, exchange relations have expanded, from the local to the regional to the supraregional to the global.*** (Sanderson 1995)
5. Capitalism is based on the natural human inclination for exchange, and therefore on the incentives of the parties to exchange for gain.*** (Hirshleifer 1977; Berger 1986; Sanderson 2014: 68–69) *Def.*: Capitalism is the production and sale of commodities in a market for the realization of maximum profit.
6. Capitalism is the product of the long-term expansion of exchange relations.** (Sanderson 1994b, 1995)
7. Capitalism develops more easily in societies with greater access to maritime trade.*** (Sanderson 1995)
8. Capitalism develops more easily in societies with decentralized political control.** (Sanderson 1995)

9. Socialism undermines the incentives of parties to exchange for gain.*** (Berger 1986; Kornai 1992)
10. Socialism is incompatible with the natural human inclination for exchange.*** (Berger 1986; Kornai 1992)
11. Socialist economies are unstable.*** (Sanderson 2010; Sanderson and Alderson 2005)
12. Because socialist economies are unstable, they will revert to capitalist economies over time.*** (Sanderson and Alderson 2005)

E. Dietary Choice Theory

Postulate. People make food choices by evaluating the balance of nutritional and caloric benefits and costs of potential food sources.

1. The universal desire for meat is an evolutionary adaptation because animal proteins are more efficient sources of amino acids and other nutrients than plant foods.*** (Harris 1987; Hamilton 1987; Rozin 1987; Lieberman 1987; Sanderson 2014: 81–83)
2. People therefore value animal proteins more than plant foods.*** (Harris 1987; Hamilton 1987; Rozin 1987)
3. People therefore seek a high representation of animal proteins in their diets.*** (Harris 1987; Hamilton 1987; Rozin 1987)
4. Preferred sources of animal protein are large herbivorous animals because they yield a greater energy return per unit of time and effort than small animals.*** (Murdock 1967; Abrams 1987)
5. In foraging societies, people give priority to hunting large herbivorous animals.*** (Sanderson 2014: 83–84)
6. In societies with animal domestication and stock breeding, people depend primarily on large herbivorous animals.*** (Murdock 1967; Abrams 1987)
7. Carnivorous animals will be low-ranked sources of protein because they are much less efficient converters of food sources to flesh than herbivorous species.*** (Harris 1985; Abrams 1987)
8. Carnivorous animals may be eaten when other sources of animal protein are scarce.** (Harris 1985)
9. In modern environments where food is widely available, people may make choices based on evolved adaptations but that lead to suboptimal levels of health and nutrition.*** (Hamilton 1987)
10. Insects have been widely eaten in societies throughout the world and throughout history.*** (Abrams 1987)
11. Insects will be eaten more frequently in societies lacking ample supplies of animal protein and where large swarming insects are common.** (Harris 1985)
12. Most food taboos are placed on meat. Plants and fruits are the subject of few taboos.** (Fessler and Navarrete 2003)
13. Some food taboos exist to protect animals with critical nonfood functions or to prohibit animals that are ecologically and economically costly.** (Harris 1987; Sanderson 2014: 87–92)
14. Tastes and distastes, including disgust reactions, are learned during a critical period of the first two years of life.* (Cashdan 1994; Rozin et al. 1986; Pinker 1997)

15. Disgust is most often associated with animal foods because they are much more likely to contain pathogens than nonanimal foods.** (Fessler and Navarrete 2003)
16. Avoiding foods with high pathogen potential is evolutionarily adaptive.*** (Fessler and Navarrete 2003)
17. People highly esteem sweet foods because of the importance of sweet foods (especially fruits) in the ancestral environment.*** (Harris 1987; Hamilton 1987; Rozin 1987)
18. The desire for sweet foods is an evolutionary adaptation.*** (Harris 1987; Hamilton 1987; Rozin 1987)
19. Dairying economies and genes for adult lactose absorption coevolved in human history.*** (Durham 1991; Sanderson 2014: 92–100)

F. Incest Avoidance Theory

Postulate. Humans rarely mate with close kin. Incest avoidance is the norm in all societies.

Postulate. Incestuous mating is genetically maladaptive and reduces reproductive success.

Postulate. Incest avoidance is an evolved strategy to minimize inbreeding depression, i.e., the production of unhealthy and defective offspring.

1. Incest avoidance is a function of the extent to which children of the opposite sex are reared together in the early years of life.** (Westermarck 1922; Sanderson 2014: 109–115)
2. Children separated at birth and reunited later in life often experience sexual and romantic attraction.** (Sanderson 2001: 218–219)
3. Incest avoidance is often supplemented by strong incest taboos.** (Sanderson 2014: 114–115)
4. Incest taboos above and beyond Westermarck effects result from the recognition of the deleterious effects of close inbreeding.* (Durham 1991)
5. Exogamous marriage represents extended incest avoidance and incest taboos.** (Sanderson 2001: 238–239) *Def.:* Exogamy is the practice of prohibiting marriage within a lineage or clan.
6. Sexual bonding varies inversely with familial bonding.** (Sanderson 2014: 113–114) *Defs*: Sexual bonding = attachment for sexual intercourse. Familial bonding = attachment for caretaking.
7. Incest is most likely to occur between kin who have failed to develop sufficient familial bonds and who experience family dysfunction.** (Sanderson 2014: 114)

G. Mate Choice Theory

Postulate. Human mate choice is the product of sexual selection.

Postulate. Men and women have evolved adaptations for sexual attraction that represent the mating strategies that yield the highest levels of reproductive success.

Postulate. The reproductive potential of males greatly exceeds that of females.

1. Males seek mates who exhibit strong signs of reproductive value.*** (Sanderson 2014: 126–137)
2. Males seek younger females because their reproductive value is greater than that of older females.*** (Sanderson 2014: 129–131)

3. Males value facial attractiveness more than females.*** (Sanderson 2014: 127–129)
4. Faces whose features are average are judged more attractive.*** (Sanderson 2014: 127)
5. Symmetrical faces are judged more attractive.*** (Sanderson 2014: 127–129)
6. Facial attractiveness as judged by averageness and symmetry is a fitness indicator, i.e., an indicator of genetic quality and reproductive value.** (Sanderson 2014: 128)
7. Males prefer females with low waist-to-hip ratios because their reproductive value is greater than that of females with high waist-to-hip ratios.*** (Sanderson 2014: 131–137)
8. Females value status and resources more than males.*** (Sanderson 2014: 137–139)
9. Females prefer as mates males with more status and resources than other males.*** (Sanderson 2014: 137–139)
10. Males with higher status and more resources acquire more and better mates and have more sex with more partners.*** (Sanderson 2014: 141–144)
11. Males with higher status and more resources leave more offspring under conditions of premodern contraception.*** (Sanderson 2014: 141–144)
12. Females with higher levels of facial and sexual attractiveness leave more offspring.** (Sanderson 2014: 128–129)
13. Both sexes value sexual fidelity because infidelity potentially compromises their reproductive interests.*** (Sanderson 2014: 123–125)
14. Males show particular concern with female sexual infidelity, whereas females show more concern for male emotional infidelity.** (Sanderson 2014: 123–125)
15. Female sexual infidelity compromises the reproductive interests of males because females may then cuckold males. A male who is cuckolded commits resources to offspring who are not his own.*** (Sanderson 2014: 123–125)
16. Male emotional infidelity compromises female reproductive interests because males may then abandon their mates for new mates and withdraw resources from the original mates and their offspring.** (Sanderson 2014: 123–125)
17. Both sexes have evolved strategies to detect infidelity.*** (Sanderson 2014: 123–125)
18. Sexual and emotional jealousy are the first line of defense against suspected or actual infidelity.*** (Sanderson 2014: 123–125)
19. Males' additional lines of defense against infidelity include mate guarding by means of claustration and veiling and threatened or actual violence toward mates.*** (Sanderson 2014: 123–125)

H. Sexual Choice Theory

Postulate. Humans are highly sexed, and sex is a major preoccupation of humans everywhere.

1. Most sex is heterosexual, and heterosexuality is the norm in all societies.*** (Uncontested)
2. Heterosexuality is the norm in all societies because it is the only form of sexuality that can promote reproductive success.*** (Uncontested)
3. The male sex drive is stronger and more urgent than the female sex drive.*** (Symons 1979)

4. Copulation is a service provided primarily by women to men in all societies.*** (Symons 1979)
5. Prostitution is primarily a female service to men. Therefore, most prostitutes are women.*** (Posner 1992)
6. Males are more interested than females in multiple mates and sexual variety because such interest promotes male reproductive success more than female reproductive success.*** (Sanderson 2014: 121–122)
7. Males are more interested than females in casual sex because such interest promotes male reproductive success more than female reproductive success.*** (Sanderson 2014: 119–120)
8. Males are more interested in viewing naked female bodies than women are in viewing naked male bodies.*** (Sanderson 2014: 122–123)
9. The male desire to view naked female bodies is an evolutionary adaptation because it increases the probability of sexual intercourse, and by extension reproductive success.*** (Sanderson 2014: 122–123)
10. Pornography exists in all societies and is consumed overwhelmingly by men.*** (Sanderson 2014: 122–123)
11. In societies with high female empowerment, women will display more unrestricted sexual behavior than in societies with low female empowerment.* (Sanderson 2014: 121)
12. A homosexual *orientation*—preferential homosexuality—is rare in human societies because it is nonreproductive.*** (Sanderson 2014: 146)
13. Preferential homosexuality develops when a fetus is exposed to an excess of hormones of the opposite sex during a critical period of neurological development.** (Sanderson 2014: 147–148, 151–152)
14. Many preferential homosexuals exhibit gender atypical behavior in childhood.*** (Sanderson 2014: 149–151)
15. Homosexual *behavior* on the part of preferential heterosexuals—situational homosexuality—is common throughout the world.*** (Sanderson 2014: 144–146)
16. Situational homosexuality will be practiced to the extent that members of the opposite sex are limited or unavailable.** (Sanderson 2014: 145–146)
17. The relative frequency of different sexual practices is determined by the balance of private costs and private benefits of each practice.** (Posner 1992)
18. Masturbation occurs more frequently among middle-class than among lower-class youths because middle-class youths begin to have intercourse at a later age.** (Posner 1992)
19. Petting to orgasm and early marriage are found more frequently in highly religious societies because these societies discourage premarital intercourse.** (Posner 1992)
20. Intolerance of homosexuality makes it more costly, which increases the desire to conceal it. Therefore, the more intolerant a society is of homosexuality, the greater the proportion of homosexuals who marry.** (Posner 1992)
21. The lowest quality of sexual services among prostitutes is provided by streetwalkers and the highest quality by call girls. This is because the search costs for streetwalkers are low and the search costs for call girls are much higher.** (Posner 1992) *Def.*: Search costs are the amount of time and energy expended in finding a sexual partner.
22. Bestiality is more common in rural than in urban areas because the search costs for animals are much lower in rural areas.** (Posner 1992)

23. Urban areas will contain a higher percentage of homosexuals than rural areas because the search costs for homosexual mates are lower in the former.** (Posner 1992)
24. In societies in which there is a high ratio of men to available women, opportunistic homosexuality and prostitution will be more frequent than in societies with an approximately equal ratio of men to available women.** (Posner 1992)
25. As women have more job opportunities in a society, prostitution will occur less frequently.** (Posner 1992)
26. Most rapists are young men.*** (Sanderson 2001: 191–193)
27. Most rape victims are women near their peak fertility.** (Sanderson 2001: 191–193)
28. Rape is a strategy employed by socially marginalized men to mate when conventional mating is difficult or impossible.** (Thornhill and Palmer 2000; Sanderson 2001: 191–193)
29. Rape varies directly with the level of economic inequality.** (Sanderson 2001: 191–193)
30. Rape is more common when the risks of detection and punishment are low.** (Sanderson 2001: 191–193)
31. Rape is common in war because the risk of punishment (but not detection) is low.** (Sanderson 2001: 191–193)
32. Rape is a social violation because it is harmful to a woman's reproductive interests and those of her male kin.*** (Thornhill and Palmer 2000)

I. Marital Choice Theory

Postulate. Marriage exists in all societies.

Postulate. Marriage is a reproductive contract that evolved for the successful rearing of children.

1. Most human societies permit or encourage polygyny, or the marriage of one male to two or more females.*** (Murdock 1967)
2. Most males in most known societies prefer polygyny to monogamy.** (Sanderson 2014: 172–173)
3. Males prefer polygyny because of their desire for multiple copulations and sexual variety.** (Sanderson 2014: 172–173)
4. The number of wives a man has is directly proportional to his status and resources.*** (Sanderson 2014: 171)
5. The greater the prevalence of polygyny, the greater the degree of reproductive inequality among men.*** (Betzig 1986, 2005, 2012)
6. In highly polygynous societies, many men will be monogamous or experience lifelong celibacy.*** (Betzig 1986, 2005, 2012)
7. Although polygyny exists because men want it, women may prefer polygyny over monogamy if the former permits marriage to a man with high status and resources and the latter does not.** (Sanderson 2014: 172–173)
8. Monogamy will displace polygyny when (a) resources are so scarce that no man can support more than one wife (ecologically imposed monogamy), or (b) when companionate marriage is the principal marital arrangement (socially imposed monogamy, or monogamy imposed by law or custom).* (Sanderson 2014: 173–175)

9. All modern industrial societies have socially imposed monogamy because they all have companionate marriage.* (Sanderson 2014: 173–175)
10. Polyandry—the marriage of one woman to two or more men—is rare because it is highly incompatible with male sexual strategies.*** (Sanderson 2014: 175)
11. In the unusual societies in which it is found, polyandry may nevertheless promote reproductive success over several generations.* (Durham 1991)
12. In both nonindustrial and industrial societies, marital dissolution is a positive function of infidelity, especially on the part of the wife.** (Betzig 1989)
13. In nonindustrial societies, marital dissolution is a positive function of infertility.** (Betzig 1989)
14. In both nonindustrial and industrial societies, marital dissolution is a positive function of cruelty or maltreatment, especially on the part of the husband.** (Betzig 1989)
15. In industrial societies, the probability of divorce is a negative function of a couple's number of dependent children.* (Betzig 1989)
16. In nonindustrial societies, to acquire wives the groom's kin group is usually expected to compensate the bride's kin group.*** (Murdock 1967)
17. In societies with limited resources, bride service is one mode of compensation of the bride's kin group.*** (Murdock 1967) *Def.*: Bride service is work provided by the groom to the bride's kin group.
18. In societies with limited resources, compensation may take the form of the direct exchange of women between lineages or clans.*** (Sanderson 2001: 237–241)
19. In societies with greater resources, the groom's kin group often pays bridewealth to the bride's kin group.*** (Sanderson 2001: 235) *Def.*: Bridewealth consists of a society's highly valued goods, for example, cattle among cattle pastoralists.
20. Bridewealth payments are a positive function of the perceived reproductive value of the bride.** (Sanderson 2001: 235)
21. Bridewealth payments are a positive function of the degree of polygyny in a society.** (Sanderson 2001: 235)
22. Dowry is most common in highly stratified agrarian societies with socially imposed monogamy.* (Sanderson 2001: 236) *Def.*: Dowry is a sum of valuables taken by a bride into a marriage.
23. Dowry is a marital strategy in which a family seeks to secure the best husbands for their daughters (i.e., husbands with high status and ample resources).** (Sanderson 2014: 208–209)
24. The greater the level of male power in a society, the larger the age gap between husbands and wives.** (Sanderson 2014: 130)
25. In polygynous societies, as men grow older the age gap between them and their secondary wives increases.** (Sanderson 2014: 129)
26. Capitalist industrialization favors a shift to companionate marriage.** (Coontz 2005)
27. As companionate marriage increases in prevalence, the expectations for marital happiness increase.** (Coontz 2005)
28. As the expectations for marital happiness increase, marital unhappiness increases.* (Coontz 2005)
29. As marital unhappiness increases, the probability of divorce increases.* (Coontz 2005)

J. Kin Selection Theory

Postulate. People organize themselves by genealogical descent in all societies.

Postulate. Humans strongly favor kin over nonkin and close kin over distant kin because such favoritism is a principal means of maximizing reproductive success.

1. In small-scale foraging societies that are highly mobile, nuclear families prevail.*** (Pasternak, Ember, and Ember 1997)
2. In horticultural societies with permanent settlements, people are aggregated into large kin groups (lineages and clans).*** (Pasternak, Ember, and Ember 1997)
3. Lineages and clans are usually exogamous.*** (Murdock 1967)
4. In agrarian societies, where most people are peasant farmers, people live in extended groups, either joint or stem families.*** (Sanderson 2014: 162–163) *Defs.*: Joint family = three generations living under a common roof, pooling resources, and normally headed by the eldest male. Stem family = a married couple, their unmarried minor children, and one married son and his wife and dependent children.
5. Kin relations are the most important social relations in all nonindustrial societies.*** (Sanderson 2014: 162)
6. Kin relations decline in importance in industrial societies but are still pervasive.*** (Sanderson 2014: 163–164)
7. Because males have greater reproductive potential than females, patrilineal descent is the most common form of descent.* (Sanderson 2014: 168) *Def.*: Patrilineal descent is descent through the father's line. Inheritance passes from fathers to sons.
8. In societies where certainty of paternity is low, matrilineal descent is an alternative means of achieving reproductive success.* (Sanderson 2014: 168–170) *Def.*: Matrilineal descent is descent through the mother's line. Inheritance passes from mothers' brothers to maternal nephews.
9. In matrilineal societies, maternal uncle–maternal nephew ties take priority over father-son ties. In patrilineal societies the opposite is true.*** (Sanderson 2001: 222–223)
10. Bilateral descent is found when the reproductive prospects of sons and daughters are approximately equal. (Empirical prediction) *Def.*: Bilateral descent is descent through both fathers and mothers. Inheritance passes from fathers and mothers to sons and daughters.
11. Most patrilineal societies are organized into patrilocal households.*** (Sanderson 2001: 222, 224–225) *Def.*: Patrilocal households involve residence with the husband's father's group.
12. Most matrilineal societies are organized into matrilocal or avunculocal households.*** (Sanderson 2001: 222–223) *Defs.*: Matrilocal households involve residence with the wife's mother's group. Avunculocal households involve residence with the husband's mother's brother.
13. Husband-wife ties are weaker in matrilineal than in patrilineal societies.*** (Fox 1983)
14. Neolocal households are found where nuclear families predominate.*** (Sanderson 2001: 222)

K. Gender Differentiation Theory

Postulate. Humans, like most animal species, are differentiated by sex.

Postulate. Human sexual differentiation is the underlying biological foundation of gender differentiation.

Postulate. Human sexual differentiation interacts with socioecological context to produce gender arrangements and gender-specific behavior.

1. Males are on average more aggressive than females.*** (Sanderson 2014: 216–217)
2. Males are on average more competitive than females.*** (Sanderson 2014: 217–218)
3. Males are on average more risk-prone, females more risk-averse.*** (Sanderson 2014: 218, 220)
4. Males everywhere monopolize warfare.*** (Sanderson 2014: 217)
5. Males everywhere monopolize political leadership.*** (Sanderson 2014: 218–219)
6. Females everywhere monopolize parenting.*** (Sanderson 2014: 219–220)
7. Males and females exhibit different cognitive skills.** (Sanderson 2014: 220–222)
8. Males on average have superior spatial skills, especially for three-dimensional object rotation.** (Sanderson 2014: 220–222)
9. Superior male spatial skills evolved as adaptations facilitating male hunting success.* (Sanderson 2014: 220–222)
10. *Alternative hypothesis*: Superior male spatial skills evolved as adaptations facilitating the male search for mates over wide territories.* (Sanderson 2014: 220–222)
11. Females on average have superior verbal skills.** (Sanderson 2014: 220–222)
12. Females on average have superior skills for object location memory.** (Sanderson 2014: 220–222)
13. Superior object location memory evolved to facilitate female gathering success.** (Sanderson 2014: 221)
14. Gender differentiation is found in all societies.*** (Sanderson 2014: 215)
15. Both sexes have a strong sense of gender identity.*** (Sanderson 2014: 222–224)
16. Gender identity is under the strong influence of sex hormones, especially prenatal hormones.*** (Sanderson 2014: 222–223, 225)
17. In foraging societies, women specialize in plant collection because it is more compatible with child care than hunting.** (Sanderson 2014: 44–45)
18. In foraging societies, men specialize in hunting because of their greater physical strength, better spatial skills, and lesser participation in child care.** (Sanderson 2014: 44–45)
19. In horticultural societies the principal cultivators are usually women.*** (Sanderson 2014: 54)
20. In agrarian societies that use the plow, the principal cultivators are men.*** (Sanderson 2014: 55)
21. In agrarian societies without the plow, women contribute more to cultivation than in agrarian societies with the plow.* (Blumberg 1984, 2009)
22. Men prefer occupations that involve building things, working outdoors, and solving abstract problems.** (Sanderson 2014: 230–232)
23. Women prefer occupations that involve working with people and providing nurturance.** (Sanderson 2014: 230–232)
24. In modern societies, women are overrepresented in occupations that are people-oriented and have a strong nurturant component.*** (Sanderson 2014: 233–234)

25. In modern societies, men are overrepresented in occupations that involve abstract problem-solving.*** (Sanderson 2014: 233–234)
26. In modern societies, men are more likely than women to choose occupations that involve risk and danger.*** (Sanderson 2014: 232–235)
27. Because of their greater upper-body strength, men are more likely to choose occupations that are physically demanding.*** (Sanderson 2014: 232–235)
28. The representation of the sexes in modern occupations is a direct function of their expressed occupational interests.** (Sanderson 2014: 235–237)

L. Gender Inequality Theory

Postulate. Males and females compete for positional advantage.

1. A sex's control over resources is the principal determinant of its degree of positional advantage. The most important of these resources are economic and political.** (Sanderson 2001: 206–212)
2. Women's status is a positive function of their contribution to economic subsistence.** (Blumberg 1984; Sanderson 2001: 206–212)
3. Women's status is higher in horticultural than in agrarian societies without the plow.* (Blumberg 1984; Sanderson 2001: 208)
4. Women's status is lowest in agrarian societies with the plow.** (Blumberg 1984; Sanderson 2001: 208–209)
5. Women's status has improved in modern industrial societies because of their increasing economic contribution.** (Sanderson 2014: 228–229)
6. Women's status has improved in modern industrial societies because of modern technological inventions reducing the amount of time needed for domestic work.** (Sanderson 2014: 228–229)
7. Women's status has improved in modern industrial societies because of innovations in contraceptive technology giving women increasing control over reproduction.** (Tiger 1999)
8. Women's status is higher in matrilineal societies than in patrilineal societies.** (Sanderson 2001: 208)
9. Because men are more competitive than women, they are overrepresented in a society's high-status positions.** (Sanderson 2014: 217–218)
10. In modern societies, many women choose occupations that are highly compatible with child care.*** (Phipps, Burton, and Lethbridge 2001; Browne 2002; O'Neill 2003)
11. Occupations compatible with child care tend to pay less and have fewer opportunities for promotion.*** (Phipps, Burton, and Lethbridge 2001; Browne 2002; O'Neill 2003)
12. Therefore, women tend to be overrepresented in lower-status, lower-paying jobs.*** (Phipps, Burton, and Lethbridge 2001; Browne 2002; O'Neill 2003)

M. Status Competition Theory

Postulate. Status seeking is an evolutionary adaptation that promotes the acquisition of economic resources and mates.

Postulate. Status seeking as an evolutionary adaptation is also valued for its own sake.

Postulate. Status seeking has biochemical foundations in the hormone testosterone and the neurotransmitter serotonin.

Postulate. The acquisition of status promoted reproductive success in the ancestral environment and may continue to do so in modern environments.

Postulate. People living in modern novel environments engage in status competition regardless of its consequences for reproductive success.

1. People compete for status in all of the groups and institutions of all societies.*** (Sanderson 2014: 245–247)
2. Status equality is not natural to humans. To exist, threats to equality must be continually policed.** (Sanderson 2014: 247–248)
3. People acquire *emotional energy* (EE) from status achievement.** (Collins 2004) *Defs.*: Positive EE = confidence, high self-regard, enthusiasm, exhilaration. Negative EE = lack of confidence, low self-regard, disinterest, depression.
4. When people rise in status, their positive EE increases.** (Collins 2004)
5. When people fall in status, their negative EE increases.** (Collins 2004)
6. Status is enhanced through the accumulation of resources.*** (Sanderson 2014: 252–254, 256–259; Veblen [1899] 2007)
7. Status is enhanced by the conspicuous display of resources.*** (Sanderson 2014: 252–254, 256–259; Veblen [1899] 2007)
8. Under some circumstances, status is enhanced by giving resources away.*** (Sanderson 2014: 249–251, 256–259; Bliege Bird and Smith 2005)
9. Status seeking through resource giving signals a person's special ability to produce resources.** (Sanderson 2014: 249–251, 256–259; Bliege Bird and Smith 2005)
10. Status seeking through resource giving may also signal the possession of an extremely large fund of remaining resources.** (Sanderson 2014: 250, 256)
11. The desire for status is infinitely expandable. One can never have enough status.** (Veblen [1899] 2007; Dowling 1979; Hammond 1999)
12. In societies with sharp status differentiation, rituals of deference and demeanor tend to accompany interactions among individuals of higher and lower status.*** (Collins 2009)
13. In societies with sharp status differentiation, high status positions are often accompanied by elaborate dress and other paraphernalia.*** (Collins 2009)
14. Agrarian societies achieved the highest levels of status differentiation in human history.*** (Collins 2009)
15. Status differentiation is accompanied by order-giving and order-taking.*** (Collins 2009)
16. In highly status differentiated societies, people signify high status by the possession of cultural capital.*** (Bourdieu 1984). *Def.*: Cultural capital consists of refinements in the areas of art, music, literature, language, poise, wit, and overall cultural knowledge.
17. Status differentiation has been partially reversed in the transition to modern societies.** (Collins 2009)
18. The reversal of status differentiation is a direct function of the widespread diffusion of wealth throughout a population.** (Lenski 1966)
19. The reversal of status differentiation is signified by the elimination or diminution of titles, paraphernalia of rank, and rituals of deference and demeanor.** (Collins 2009)

N. Wealth Accumulation Theory

Postulate. Humans naturally compete to attain resources because the possession of resources promoted reproductive success in the ancestral environment.

Postulate. In most instances the possession of resources promotes reproductive success in modern environments.

Postulate. In modern environments resource possession is valued for its own sake irrespective of its consequences for reproductive success.

1. Competition for resources normally leads to resource inequality.*** (Sanderson 2014: 245–260)
2. Resource equality can only be maintained if resource competition is constantly policed and leveling mechanisms regularly employed.** (Sanderson 2014: 247–248)
3. Resource equality can only be maintained in societies of very small scale.*** (Sanderson 2014: 245–260)
4. Resource equality can only be maintained in societies living at or near subsistence level.*** (Sanderson 2014: 245–260)
5. When societies exceed subsistence level, resource competition intensifies and resource inequality becomes more likely.*** (Sanderson 2014: 245–260)
6. People are unequally endowed to compete in status and resource competition (e.g., some are bigger, more intelligent, more aggressive or ambitious, more clever, or more deceitful).*** (Lenski 1966)
7. The greater the amount of resources produced beyond subsistence level, the greater the intensity of resource competition and therefore the greater the extent of resource inequality.*** (Lenski 1966)
8. Because most hunter-gatherer societies exist at subsistence level, they lack resource inequality.*** (Testart 1982, 1988)
9. Hunter-gatherer societies with resource abundance and the ability to store food have resource inequality.*** (Testart 1982, 1988)
10. Small-scale horticultural societies produce small economic surpluses. Resource inequality is therefore limited, although status competition may be highly developed.*** (Lenski 1966)
11. Advanced horticultural societies with large economic surpluses have resource inequality in the form of class distinctions based on wealth and status.*** (Sanderson 2014: 252–253; Lenski 1966)
12. Agrarian societies with very large economic surpluses have great resource inequality and extreme wealth gaps between nobles and peasants.*** (Sanderson 2014: 253–254; Lenski 1966)
13. Wealth is more evenly distributed throughout the population in modern industrial societies than in stratified preindustrial societies.*** (Lenski 1966)
14. A more egalitarian distribution of wealth is a function of the shift to market-dominated economies and radical changes in the occupational structure.*** (Lenski 1966)

O. Geopolitical Theory

Postulate. The struggle for power is universal.

Postulate. People naturally compete for power because it confers status and resources, which promoted reproductive success in ancestral environments.

Postulate. Power can also be pleasurable and rewarding in itself.

Postulate. Although people seek to attain and hold power, they dislike being subjected to it.

1. The struggle for power can be suppressed only if it is sufficiently policed.*** (Sanderson 2014: 269–271)
2. The struggle for power can only be sufficiently policed in small-scale societies with extensive face-to-face interaction.*** (Sanderson 2014: 269–271)
3. The struggle for power is limited to the extent that societies possess few resources to control.*** (Sanderson 2014: 269–271)
4. As a society's resources expand, the struggle for power intensifies.*** (Sanderson 2014: 271–281)
5. The struggle for power is greater when the resources to be controlled are of high value.*** (Sanderson 2014: 271–281)
6. In small-scale societies, most justice is private.*** (Sanderson 2014: 270–271)
7. As societies evolve in size and scale, public justice gradually replaces private justice.*** (Sanderson 2014: 270–271)
8. The form of political organization is a function of the degree of population pressure.*** (Carneiro 1970)
9. The form of political organization is a function of the mode of subsistence technology and the level of economic surplus.*** (Lenski 1966; Sanderson 1995, 1999)
10. The form of political organization is a function of the degree of environmental circumscription.** (Carneiro 1970) *Def.*: Environmental circumscription = barriers to exit from an environment due to large bodies of water, areas of inhospitable land, or mountain ranges.
11. The form of political organization is a function of a society's type of economy and the level of its development.** (Sanderson 1995; Collins 2009)
12. The form of political organization is a function of a society's relations with neighboring societies.** (Collins 2009)
13. The form of political organization is a function of a society's degree of external threat.** (Collins 2009)
14. Small-scale societies based on foraging or simple horticulture lack formal positions of power and authority. There are no leaders with binding authority to enforce decisions.*** (Sanderson 2014: 269–271)
15. Where horticulture is more intensive and productive, autonomous villages tend to be brought under centralized control of chiefs who have formal authority and command obedience and deference.** (Carneiro 1981; Sanderson 2014: 271–274)
16. The acquisition and maintenance of a high degree of authority within chiefdoms requires a military apparatus to check rebellion.** (Sanderson 2014: 273–274)
17. Chiefdoms evolve into states when political leaders establish an administration capable of holding a monopoly of force over a defined territory.*** (Sanderson 2014: 274)
18. States control the means of violence through armies and militias.*** (Sanderson 2014: 274)
19. States can usually form only in societies using advanced horticultural or agrarian techniques of subsistence capable of producing large economic surpluses.*** (Sanderson 2014: 274–278)

20. Complex chiefdoms and premodern states use conquest as the principal means of obtaining wealth and other resources (land, slaves, etc.).*** (Sanderson 2014: 278–281; Gat 2006; Snooks 1997)
21. States seek to advance their level of military technology in order to increase the killing power of military forces and weapons and thus the likelihood of successful political conquest.*** (Collins 2009)
22. Most states have centralized bureaucratic leadership.*** (Sanderson 2014: 280)
23. Decentralized feudal states form when an economy is too rudimentary for centralized administration and when the presence of the horse permits a warrior aristocracy mounted on horseback.** (Gat 2006; Sanderson 2014: 279–280)
24. Feudal states are rife with internecine conflict.*** (Sanderson 2014: 279–280)
25. People who are granted or who attain formal authority tend to abuse it. They oppress those subject to it in order to maintain or enhance their power and the resources that accompany it.*** (Sanderson 2014: 267–269)
26. In societies with leaders who have formal authority, people have a natural tendency to obey them.*** (Sanderson 2014: 266–267; Salter 1995: 15–16, 89–95; Somit and Peterson 2005)
27. People are more likely to obey authority if they consider it legitimate.*** (Weber [1923] 1978)
28. Obedience to authority is an evolutionary adaptation because obedient state subjects throughout history were more likely to survive and leave offspring than disobedient subjects. (Untested prediction)
29. The more oppressive the state (up to a point), the greater the likelihood of obedience. (Untested prediction)
30. When the power exercised over them becomes too oppressive, people will rebel against it.*** (Sanderson 2010)
31. In most societies, people subject to power lack the resources necessary to successfully challenge power-holders.*** (Sanderson 2010)
32. Revolt against power-holders is common, successful rebellion uncommon.*** (Sanderson 2010)
33. Most attempted revolutions fail because revolutionaries lack sufficient resources to overthrow states with powerful military force.*** (Sanderson 2010)
34. Revolutionaries can succeed only if they are militarily strong, are highly mobilized, and are attempting to overthrow politically and militarily vulnerable states.*** (Sanderson 2010)
35. The ever-present desire for power means that people are not naturally predisposed toward democratic government.*** (Somit and Peterson 2005)
36. Democracy is rare in human history.*** (Somit and Peterson 2005)
37. Democratic government can only arise when the large mass of the population possesses resources necessary for the extraction of democratic concessions from ruling elites. Such resources have only existed in modern capitalist economies.** (Sanderson 2001: 315–318; Sanderson and Alderson 2005: 134–139)
38. Therefore, democratic governments are found only in modern capitalist societies.** (Sanderson and Alderson 2005: 134–139)
39. Democratic government is precarious and unstable because of the natural struggle for power.*** (Somit and Peterson 2005)

P. Human Aggression Theory

Postulate. Aggression is the threat or use of violence against conspecifics. The threshold for human violence is low.

Postulate. Violence is both interpersonal and intergroup.

Postulate. Violence is easily elicited.

1. Interpersonal violence (violent assault, rape, homicide) is common and frequent in societies lacking centralized authority and laws.*** (Sanderson 2014: 298–302; Wrangham and Peterson 1996; Wrangham, Wilson, and Muller 2006)
2. In every society, most interpersonal violence occurs between and among young males.*** (Sanderson 2014: 289–290)
3. In small-scale societies, the level of interpersonal violence is a direct function of the level of competition for women as mates.** (Sanderson 2014: 291–296)
4. In modern societies, the level of interpersonal violence is a function of the degree of economic inequality.** (Blau and Blau 1982; Daly, Wilson, and Vasdev 2001; Sanderson 2014: 291–292)
5. In modern societies, interpersonal violence is most likely among economically marginalized men who are competing for status and access to mates.** (Daly and Wilson 1988)
6. Interpersonal violence in all societies is a function of the degree to which men experience threats to their status and honor.** (Daly and Wilson 1988)
7. Only a small proportion of homicides are directed toward genetic relatives.*** (Daly and Wilson 1988)
8. State-organized societies pacify large populations. They limit interpersonal violence through law. (Uncontested)
9. Violence of husbands toward wives is directly proportional to male suspicions of female infidelity or to actual knowledge of infidelity.*** (Sanderson 2014: 293–294)
10. Violence of husbands toward wives is a positive function of wives' reproductive value.** (Daly and Wilson 1988; Wilson and Daly 1993)
11. Violence of husbands toward wives is a positive function of the age gap between them.** (Daly and Wilson 1988; Wilson and Daly 1993)
12. Violence of husbands toward wives is a positive function of the likelihood or actual occurrence of wives' abandonment of their mates.** (Daly and Wilson 1988; Wilson and Daly 1993; Buss 2005)
13. Interpersonal violence has declined dramatically with societal modernization.*** (Pinker 2011)
14. War in small-scale societies is common and frequent.*** (Keeley 1996; LeBlanc 2003; Sanderson 2014: 298–302)
15. War deaths in small-scale societies are numerous, and war is one of the leading causes of male deaths.*** (Keeley 1996; LeBlanc 2003; Sanderson 2014: 298–302)
16. The level of war in small-scale societies is a positive function of the degree of resource competition and the need to eliminate competitors.** (Sanderson 2014: 303–304)
17. Women are the most important resource inducing small-scale war.** (Sanderson 2014: 304–305)
18. The desire for revenge is a major cause of war in small-scale societies.*** (Chagnon 2013)

19. Chiefdoms and states are conquest societies.*** (Sanderson 2014: 305–310)
20. Large-scale war among chiefdoms and states is a positive function of the need for more land to support denser populations.*** (Carneiro 1970, 1990; Sanderson 1995)
21. Large-scale war among chiefdoms and states is a positive function of the desire of ruling elites for more wealth, power, and status.*** (Sanderson 2014: 305–310; Gat 2006)
22. Competition for women remains a motive, even if only a secondary motive, for war in large-scale societies.* (Gat 2006)
23. War in modern societies is a positive function of ethnic conflict (civil war) and nationalism (interstate war).*** (Gat 2006)
24. Modern democratic societies infrequently fight each other in major wars.** (Pinker 2011)
25. Modern capitalist societies infrequently fight each other in major wars.** (Pinker 2011; Mousseau, Hegre, and O'Neal 2003; Gartzke 2007; Gartzke and Hewitt 2010)
26. Modern capitalist societies infrequently fight each other in major wars because war is no longer the principal means of acquiring wealth in market-based economies.** (Mousseau, Hegre, and O'Neal 2003; Gartzke 2007; Gartzke and Hewitt 2010)

Q. Ethnic Attachment Theory

Postulate. Humans have natural (primordial) ethnic attachments, which may be based on language, culture, physical appearance, or any combination thereof.

Postulate. Because members of the same ethny share more genes in common with each other than with members of other ethnies, ethnic attachments represent extended kin selection and thus promote reproductive success.

Postulate. Ethnic attachments evolved when humans lived in tribes in the ancestral environment.

Postulate. Strong ethnic attachments are evolved adaptations that promoted the survival of one's tribe, and thus one's co-ethnics, in intertribal conflict in ancestral environments.

Postulate. Evolutionary adaptations for strong ethnic attachments persist into modernity.

Postulate. Modern ethnic groups are large-scale tribes.

1. Ethnic attachments frequently lead to the denigration of out-groups. (Uncontested)
2. The degree of denigration of out-groups is a positive function of their linguistic, cultural, or physical differences from the in-group.** (Smith 1981; van den Berghe 1981)
3. Denigration of out-groups will be greater when two or more differences (ethnic markers) exist simultaneously.** (Smith 1981; van den Berghe 1981)
4. Denigration of out-groups will be greater when out-groups exhibit different levels of economic achievement and success (either more or less).** (Smith 1981; van den Berghe 1981)
5. Race differences arose as humans migrated out of Africa and occupied other regions with very different environmental challenges to survival and reproduction.*** (Sanderson 2014: 321–324)
6. Race and ethnicity overlap. Ethnies differ biologically as well as culturally.** (Sanderson 2014: 330–332; Cavalli-Sforza, Menozzi, and Piazza 1994)

7. Racism is a positive function of the physical differences between groups and achievement levels of the respective groups.** (van den Berghe 1967, 1981)
8. Racism is ancient and has existed in many societies.** (Sarich and Miele 2004; Sanderson 2014: 324–326)
9. Ethnic heterogeneity is a positive function of the degree of migration and political conquest.*** (Smith 1986)
10. The greater the degree of ethnic heterogeneity within a state, the greater the level of conflict.*** (Vanhanen 2012)
11. The greater the degree of competition of ethnic groups for resources, the greater the level of conflict.*** (Vanhanen 2012)
12. The more an ethny monopolizes political and economic resources, the greater the level of hostility directed toward it by other ethnies.*** (Vanhanen 2012)
13. Violent ethnic conflict is most likely when two or more ethnies compete for control of a state.* (Wimmer, Cederman, and Min 2009)
14. Increasing worldwide immigration will lead to an increase in the amount and intensity of ethnic conflict. (Empirical prediction)

R. Religious Choice Theory

Postulate. Humans have a natural religious sense that is an evolved adaptation.

Postulate. Religion provides people with rewards that are otherwise unavailable.

Postulate. In nonindustrial societies, most religious beliefs and practices are directed toward this-worldly rewards.

Postulate. In modern industrial societies, most religious beliefs and practices are motivated primarily by the search for other-worldly rewards, or rewards otherwise unavailable in social life.

1. As an evolutionary adaptation, religion promotes health.** (Sanderson 2008b)
2. As an evolutionary adaptation, religion promotes reproductive success.** (Sanderson 2008b)
3. The primordial religious practitioners are shamans.** (Sanderson 2014: 341–342) *Def.*: Shamans are religious practitioners who use trance states for healing and curing and for locating game animals.
4. Some nonindustrial societies have a high god.*** (Swanson 1960; Murdock 1967; Sanderson and Roberts 2008) *Def.*: A high god is a society's only god and is thought to have created the universe and be the source of many natural and supernatural events.
5. Some high gods are active and are worshiped.*** (Swanson 1960; Murdock 1967; Sanderson and Roberts 2008)
6. Some high gods are remote and unconcerned with human affairs.*** (Swanson 1960; Murdock 1967; Sanderson and Roberts 2008)
7. Some high gods are concerned with human morality.*** (Swanson 1960; Murdock 1967; Sanderson and Roberts 2008)
8. Some high gods are unconcerned with human morality.*** (Swanson 1960; Murdock 1967; Sanderson and Roberts 2008)
9. In religious evolution, high gods have become more common, more active, and more concerned with human morality.*** (Sanderson and Roberts 2008)

10. Most religions have no full-time religious practitioners or formal doctrines.*** (Wallace 1966)
11. Ecclesiastical religions arose with the development of civilization and writing.** (Sanderson and Roberts 2008) *Def.*: Ecclesiastical religions are those with priesthoods (often full-time) and official doctrines (often written) and in which priests interpret doctrines for laypersons.
12. Ecclesiastical religions may be polytheistic or monotheistic.*** (Wallace 1966; Sanderson and Roberts 2008)
13. Polytheistic religions with numerous specialized gods are characteristic of nonindustrial states.*** (Stark 2007)
14. Rulers in nonindustrial states look to specialized gods for assistance in the attainment of various worldly goals, such as success in war.*** (Stark 2007)
15. State rulers engage in exchange relationships with specialized gods by means of regular sacrifices of food, especially slaughtered animals.*** (Stark and Bainbridge 1987; Stark 2007)
16. Throughout human history, polytheistic religions have been gradually supplanted by world transcendent religions.*** (Stark 2007)
17. Some world transcendent religions are devoted to the worship of a single omnipresent, omniscient, and omnipotent god.*** (Stark 2007)
18. Some world transcendent religions are polytheistic.*** (Stark 2007)
19. World transcendent religions impose much greater demands on their followers than polytheistic religions.*** (Stark 2007; Norenzayan 2013)
20. World transcendent religions evolved to meet people's changing religious needs.* (Sanderson 2008a)
21. The most important of these needs was release from worldly suffering.* (Sanderson 2008a)
22. The desire for release from suffering was a response to increasing ontological insecurity.* (Sanderson 2008a)
23. Increasing ontological insecurity was the result of the disruptive effects of the increasing intensity and killing power of war.* (Sanderson 2008a)
24. Increasing ontological insecurity was the result of the disruptive effects of large-scale urbanization.* (Sanderson 2008a)
25. Nonindustrial societies contain few atheists.** (Barrett 2004)
26. Secularization is a positive function of high levels of ontological security.** (Norris and Inglehart 2011)
27. Secularization is a positive function of high levels of scientific and educational development.** (Norris and Inglehart 2011)

Falsifying Darwinian Conflict Theory

Popper (1959) has said that a scientific theory must declare, ideally in advance, what it empirically forbids. If what is empirically forbidden is observed to occur, then the occurrence counts as a falsifying test. However, this falsifying test does not necessarily overturn, by itself, the theory or proposition in question. Other tests may be required.

Below is a list of empirical observations forbidden by DCT. To the extent that these forbidden phenomena are observed to occur, DCT is falsified. So far none of these forbidden phenomena have ever been observed. (The list is partial and mainly illustrative.

A comprehensive list would be a practical impossibility within the space limitations of this chapter.)

1. Foraging societies living at extremely high population densities.
2. Societies in which women hunt and men gather.
3. Agrarian societies in which women plow and men perform domestic work.
4. Societies in which people prefer to maximize the amount of time and energy devoted to economic subsistence.
5. Societies in which individuals are indifferent to the costs and benefits of their economic behavior.
6. Societies in which plant foods are more highly valued than animal proteins.
7. Societies with large-scale dog and cat slaughtering industries.
8. Societies in which men prefer as mates older women judged to be unattractive.
9. Societies in which incestuous mating is widespread throughout the population.
10. Societies in which women show more interest than men in casual sex and sexual variety.
11. Societies in which pornography is consumed primarily by women.
12. Societies in which neither sex expresses sexual jealousy.
13. Societies in which most prostitutes are men.
14. Societies in which men are indifferent to cuckoldry.
15. Societies in which most rapes are committed by high-status men.
16. Societies in which there are as many preferential homosexuals as heterosexuals.
17. Societies in which women prefer as mates men of low status and few resources.
18. Societies in which men seek as mates women of higher status and women seek men who are younger than they are.
19. Societies without marriage.
20. Agrarian societies in which companionate marriage is the norm.
21. Societies in which people consistently favor nonkin over kin and distant kin over close kin.
22. Societies practicing polygyny in which the polygynists are low-status men.
23. Industrial societies organized in patrilineal clans.
24. Foraging societies practicing dowry.
25. Industrial societies with bridewealth payments.
26. Small-scale societies in which half the population chooses to remain childless.
27. Societies in which men perform most of the parental care.
28. Societies in which women invest more in mating than in parental care.
29. Step-offspring consistently receiving better care than natural offspring.
30. Societies without sexual differentiation.
31. Societies in which the sexes have no sense of gender identity.
32. Societies in which women have superior spatial skills and men superior verbal skills.
33. Industrial societies in which occupations with a strong nurturant component are held primarily by men.
34. Societies in which veiling and claustration are directed toward men rather than women.
35. Societies in which women compete more vigorously than men for high-status positions.
36. Societies in which the achievement of high status is accompanied by a decline in emotional energy.

37. Societies in which people of high status take orders from those of low status.
38. Societies of large size and great complexity that have no status distinctions or wealth inequalities.
39. Agrarian societies with constitutional democracies.
40. Societies in which revolts and revolutions are always successful.
41. Societies in which people enjoy being dominated.
42. Societies in which most killing occurs between kin.
43. Societies in which most warriors are women.
44. Agrarian states that do not fight wars.
45. Societies in which most homicides are committed by older women against other older women.
46. Societies lacking a sense of ethnic identification.
47. Societies with high levels of ethnic heterogeneity in which there is no ethnic conflict.
48. Societies without religious beliefs and practices.
49. Hunter-gatherers practicing ecclesiastical religions and modern industrialists practicing shamanic religions.
50. Nonindustrial societies with many atheists.
51. Trajectories of social evolution in which large-scale and complex societies give way to smaller and simpler ones.
52. Trajectories of social evolution in which inequalities decrease rather than increase over time.

Conclusion

DCT is a work in progress. It is unfinished and, indeed, can never be finished. Many more theories and propositions can be added to those that already exist, and new domains of application will arise, which will require theories and propositions of their own. Moreover, some theories and propositions will prove untenable as the result of falsifying tests. They will have to be discarded and replaced with alternatives. Logical and other errors will need to be corrected. But this is the very nature of science. There are always errors of reasoning, anomalies, falsifying tests, new phenomena to be discovered, and new predictions to be made. In the near future revised and updated versions of DCT will need to be produced. Eventually it will disappear and its corroborated propositions will be incorporated into an improved research program. Most of the changes, I suspect, are likely to come from the rapidly expanding fields of neuroscience and cognitive science.

Notes

1. The influence of ethology on Goffman is little recognized (if recognized at all) by sociologists. Frank Salter (1995), himself an ethologist, has identified a number of Goffman's ideas that connect with ethology.
2. Thornhill and Palmer (2000). The evolutionary psychologists Tooby and Cosmides (1989, 1992) point out that the brain could not have evolved as a domain-general organ because such an organ would be too clumsy to have had much adaptive import. "Many adaptive problems that humans routinely solve," Tooby and Cosmides say, "are simply not solvable by any known general problem-solving strategy, as demonstrated by formal solvability analyses on language acquisition" (1992: 111). They add that "domain-general, content-independent mechanisms are inefficient, handicapped, or inert compared to systems that also include specialized techniques for solving particular families of adaptive problems. A specialized mechanism can make use of the enduring relationships present in the problem-domain or in the related features of the world by reflecting

these content-specific relationships in its problem-solving structure. Such mechanisms will be far more efficient than general-purpose mechanisms, which must expend time, energy, and risk learning these relationships through [an inefficient process of trial and error]" (1992: 111).

Special-purpose mental designs are also implied by our knowledge of how nonpsychological adaptations are designed. The human body is nothing at all like a general-purpose system, but rather is an extremely complex system consisting of many highly specialized cells, tissues, and organs that do very specific things.

3. Thornhill and Palmer (2000: 18) quote Donald Symons (1987) on this point: "Extreme behavioral plasticity implies extreme mental complexity and stability; that is, an elaborate human nature. Behavioral plasticity for its own sake would be worse than useless, random variation suicide. During the course of evolutionary history the more plastic hominid behavior became the more complex the neural machinery must have become to channel this plasticity into adaptive action."
4. I do not like the term *culture* because it has been given many, often inconsistent and contradictory, meanings. I have sought to replace it with a more suitable term but have so far been unsuccessful. The closest I have come is the term *socioecological context*, which has a similar meaning. (This term is not my own invention. I picked it up somewhere along the way but have forgotten where I originally obtained it. I might have gotten it from Richard Sosis and Candace Alcorta, or from the evolutionary ecologist Eric Alden Smith.)

REFERENCES

Abrams, H. L. 1987. "The Preference for Animal Protein and Fat: A Cross-Cultural Survey." In *Food and Evolution: Toward a Theory of Human Food Habits*, edited by M. Harris and E. B. Ross, 207–223. Philadelphia, PA: Temple University Press.

Alexander, R. D. 1987. *The Biology of Moral Systems*. New York: Aldine de Gruyter.

Allen, J. L. 2006. *Student Atlas of World Politics*. 7th ed. New York: McGraw-Hill.

Barkow, J. H. 1989. *Darwin, Sex, and Status*. Toronto: University of Toronto Press.

Barrett, J. L. 2004. *Why Would Anyone Believe in God?* Walnut Creek, CA: AltaMira Press.

Berger, P. L. 1986. *The Capitalist Revolution: Fifty Propositions about Prosperity, Equality, and Liberty*. New York: Basic Books.

Betzig, L. L. 1986. *Despotism and Differential Reproduction*. New York: Aldine de Gruyter.

———. 1989. "Causes of Conjugal Dissolution: A Cross-Cultural Study." *Current Anthropology* 30: 654–676.

———. 2005. "Politics as Sex: The Old Testament Case." *Evolutionary Psychology* 3: 326–346.

———. 2012. "Means, Variances, and Ranges in Reproductive Success: Comparative Evidence." *Evolution and Human Behavior* 33: 309–317.

Black, D. 1995. "The Epistemology of Pure Sociology." *Law and Social Inquiry* 20: 829–870.

Blau, J. R., and P. M. Blau. 1982. "The Cost of Inequality: Metropolitan Structure and Violent Crime." *American Sociological Review* 47: 114–129.

Bliege Bird, R., and E. A. Smith. 2005. "Signaling Theory, Strategic Interaction, and Symbolic Capital." *Current Anthropology* 46: 221–248.

Blumberg, R. L. 1984. "A General Theory of Gender Stratification." In *Sociological Theory 1984*, edited by Randall Collins, 23–101. San Francisco: Jossey-Bass.

———. 2009. "Mothers of Invention? The Myth-Breaking History and Planetary Promise of Women's Key Roles in Subsistence Technology." In *Techno-Well: Impact of Technology on Psychological Well-Being*, edited by Yair Amichai-Hamburger, 227–259. Cambridge: Cambridge University Press.

Bourdieu, P. 1984. *Distinction: A Social Critique of the Judgement of Taste*. Translated by Richard Nice. Cambridge, MA: Harvard University Press.

Boyd, R., and P. J. Richerson. 1985. *Culture and the Evolutionary Process*. Chicago: University of Chicago Press.

Browne, K. R. 2002. *Biology at Work: Rethinking Sexual Equality*. New Brunswick, NJ: Rutgers University Press.

Buss, D. M. 2005. *The Murderer Next Door: Why the Mind Is Designed to Kill*. New York: Penguin Press.

Carneiro, R. L. 1970. "A Theory of the Origin of the State." *Science* 169: 733–738.

———. 1981. "The Chiefdom: Precursor of the State." In *The Transition to Statehood in the New World*, edited by G. D. Jones and R. R. Kautz, 37–79. New York: Cambridge University Press.

———. 1990. "Chiefdom-Level Warfare as Exemplified in Fiji and the Cauca Valley." In *The Anthropology of War*, edited by J. Haas, 190–211. New York: Cambridge University Press.

Cashdan, E. A. 1994. "A Sensitive Period for Learning about Food." *Human Nature* 5: 279–291.

Cavalli-Sforza, L. L., P. Menozzi, and A. Piazza. 1994. *The History and Geography of Human Genes*. Princeton, NJ: Princeton University Press.
Chagnon, N. A. 2013. *Noble Savages: My Life among Two Dangerous Tribes—the Yanomamö and the Anthropologists*. New York: Simon & Schuster.
Chesnais, J. 2001. "Comment: A March Toward Population Recession." *Population and Development Review* 27 (Supplement): 255–259.
Chisholm, J. S., J. A. Quinlivan, R. W. Peterson, and D. A. Coall. 2005. "Early Stress Predicts Age at Menarche and First Birth, Adult Attachment, and Expected Lifespan." *Human Nature* 16: 233–265.
CIA World Factbook. 2010. Washington, DC: Central Intelligence Agency.
Cleland, J. 2001. "The Effects of Improved Survival on Fertility: A Reassessment." *Population and Development Review* 27 (Supplement): 60–92.
Collins, R. 1974. "Reassessments of Sociological History: The Empirical Validity of the Conflict Tradition." *Theory and Society* 1: 147–178.
———. 1975. *Conflict Sociology: Toward an Explanatory Science*. New York: Academic Press.
———. 1995. "Prediction in Macrosociology: The Case of the Soviet Collapse." *American Journal of Sociology* 100: 1552–1593.
———. 2004. *Interaction Ritual Chains*. Princeton, NJ: Princeton University Press.
———. 2009. *Conflict Sociology: A Sociological Classic Updated*. Abridged and updated by S. K. Sanderson. Boulder, CO: Paradigm Publishers.
Coontz, S. 2005. *Marriage, a History: How Love Conquered Marriage*. New York: Penguin Books.
Daly, M., and M. Wilson. 1988. *Homicide*. New York: Aldine de Gruyter.
———. 1998. *The Truth about Cinderella: A Darwinian View of Parental Love*. New Haven, CT: Yale University Press.
Daly, M., M. Wilson, and S. Vasdev. 2001. "Income Inequality and Homicide Rates in Canada and the United States." *Canadian Journal of Criminology* 43: 219–236.
Dowling, J. H. 1979. "The Goodfellows vs. the Dalton Gang: The Assumptions of Economic Anthropology." *Journal of Anthropological Research* 35: 292–307.
Durham, W. H. 1991. *Coevolution: Genes, Culture, and Human Diversity*. Stanford, CA: Stanford University Press.
Ellis, B. J. 2004. "Timing of Pubertal Maturation in Girls: An Integrated Life History Approach." *Psychological Bulletin* 130: 920–958.
Ellis, B. J., J. E. Bates, K. A. Dodge, D. M. Fergusson, L. J. Horwood, G. S. Pettit, and L. Woodward. 2003. "Does Father Absence Place Daughters at Special Risk for Early Sexual Activity and Teenage Pregnancy?" *Child Development* 74: 801–821.
Fessler, D.M.T., and C. D. Navarrete. 2003. "Meat Is Good to Taboo: Dietary Proscriptions as a Product of the Interaction of Psychological Mechanisms and Social Processes." *Journal of Cognition and Culture* 3: 1–40.
Feuer, L. S. 1978. "Marx and Engels as Sociobiologists." *Survey* 23 (4): 109–136.
Fox, R. 1983. *Kinship and Marriage*. New York: Cambridge University Press.
Frejka, T., and J. Ross. 2001. "Paths to Sub-replacement Fertility: The Empirical Evidence." *Population and Development Review* 27 (Supplement): 213–254.
Friedman, D., and M. Hechter. 1988. "The Contribution of Rational Choice Theory to Macrosociological Research." *Sociological Theory* 6: 201–218.
Gartzke, E. 2007. "The Capitalist Peace." *American Journal of Political Science* 51: 166–191.
Gartzke, E., and J. J. Hewitt. 2010. "International Crises and the Capitalist Peace." *International Interactions* 36: 115–145.
Gat, A. 2006. *War in Human Civilization*. Oxford: Oxford University Press.
Goldstone, J. A. 1991. *Revolution and Rebellion in the Early Modern World*. Berkeley: University of California Press.
Goodwin, J. 2001. *No Other Way Out: States and Revolutionary Movements, 1945–1991*. New York: Cambridge University Press.
Hakim, C. 2003. "A New Approach to Explaining Fertility Patterns: Preference Theory." *Population and Development Review* 29: 349–374.
Hamilton, W. J. III. 1987. "Omnivorous Primate Diets and Human Overconsumption of Meat." In *Food and Evolution: Toward a Theory of Human Food Habits*, edited by M. Harris and E. B. Ross, 117–132. Philadelphia, PA: Temple University Press.
Hammond, M. 1999. "Arouser Depreciation and the Expansion of Social Inequality." *Social Perspectives on Emotion* 5: 339–358.
Harris, M. 1968. *The Rise of Anthropological Theory*. New York: Crowell.
———. 1974. *Cows, Pigs, Wars, and Witches: The Riddles of Culture*. New York: Random House.
———. 1977. *Cannibals and Kings: The Origins of Cultures*. New York: Random House.
———. 1979. *Cultural Materialism: The Struggle for a Science of Culture*. New York: Random House.
———. 1985. *Good to Eat: Riddles of Food and Culture*. New York: Simon & Schuster.

———. 1987. "Foodways: Historical Overview and Theoretical Prolegomenon." In *Food and Evolution: Toward a Theory of Human Food Habits*, edited by M. Harris and E. B. Ross, 57–90. Philadelphia, PA: Temple University Press.

Hirshleifer, J. 1977. "Economics from a Biological Viewpoint." *Journal of Law and Economics* 20: 1–52.

Hrdy, S. B. 1999. *Mother Nature: A History of Mothers, Infants, and Natural Selection*. New York: Pantheon.

Jablonka, E., and M. J. Lamb. 2005. *Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life*. Cambridge, MA: MIT Press.

Kaplan, H. S., and J. B. Lancaster. 2000. "The Evolutionary Economics and Psychology of the Demographic Transition to Low Fertility." In *Adaptation and Human Behavior: An Anthropological Perspective*, edited by L. Cronk, N. Chagnon, and W. Irons, 283–322. New York: Aldine de Gruyter.

Keeley, L. H. 1996. *War before Civilization: The Myth of the Peaceful Savage*. New York: Oxford University Press.

Kornai, J. 1992. *The Socialist System: The Political Economy of Communism*. Princeton, NJ: Princeton University Press.

Lakatos, I. 1970. "Falsification and the Methodology of Scientific Research Programmes." In *Criticism and the Growth of Knowledge*, edited by I. Lakatos and A. Musgrave, 91–196. Cambridge, UK: Cambridge University Press.

Laudan, L. 1977. *Progress and Its Problems: Towards a Theory of Scientific Growth*. Berkeley: University of California Press.

LeBlanc, S. A. 2003. *Constant Battles: Why We Fight*. New York: St. Martin's Press.

Lenski, G. E. 1966. *Power and Privilege: A Theory of Social Stratification*. New York: McGraw-Hill.

Lieberman, L. S. 1987. "Biocultural Consequences of Animals versus Plants as Sources of Fats, Proteins, and Other Nutrients." In *Food and Evolution: Toward a Theory of Human Food Habits*, edited by M. Harris and E. B. Ross, 225–260. Philadelphia, PA: Temple University Press.

Mousseau, M., H. Hegre, and J. R. O'Neal. 2003. "How the Wealth of Nations Conditions the Liberal Peace." *European Journal of International Relations* 9: 277–314.

Murdock, G. P. 1967. *Ethnographic Atlas*. Pittsburgh, PA: University of Pittsburgh Press.

Nielsen, F. 1994. "Sociobiology and Sociology." *Annual Review of Sociology* 20: 267–303.

Norenzayan, A. 2013. *Big Gods: How Religion Transformed Cooperation and Conflict*. Princeton, NJ: Princeton University Press.

Norris, P., and R. Inglehart. 2011. *Sacred and Secular: Religion and Politics Worldwide*. 2nd ed. New York: Cambridge University Press.

O'Neill, J. 2003. "The Gender Gap in Wages, Circa 2000." *American Economic Review* 93: 309–314.

Pasternak, B., C. R. Ember, and M. Ember. 1997. *Sex, Gender, and Kinship: A Cross-Cultural Perspective*. Upper Saddle River, NJ: Prentice Hall.

Phipps, S., P. Burton, and L. Lethbridge. 2001. "In and out of the Labor Market: Long-Term Income Consequences of Child-Related Interruptions to Women's Paid Work." *Canadian Journal of Economics* 34: 411–429.

Pinker, S. 1997. *How the Mind Works*. New York: Norton.

———. 2011. *The Better Angels of Our Nature: Why Violence Has Declined*. New York: Viking.

Popper, K. 1959. *The Logic of Scientific Discovery*. New York: Basic Books. (Original German edition *Logik der Forschung* 1935.)

Posner, R. A. 1992. *Sex and Reason*. Cambridge, MA: Harvard University Press.

Richerson, P. J., and R. Boyd. 1992. "Cultural Inheritance and Evolutionary Ecology." In *Evolutionary Ecology and Human Behavior*, edited by E. A. Smith and B. Winterhalder, 61–92. New York: Aldine de Gruyter.

Rozin, P., L. Hammer, H. Oster, T. Horowitz, and V. Marmora. 1986. "The Child's Conception of Food: Differentiation of Categories of Rejected Substances in the 16 Months to 5 Year Age Range." *Appetite* 7: 141–151.

Rozin, P. 1987. "Psychobiological Perspectives on Food Preferences and Avoidances." In *Food and Evolution: Toward a Theory of Human Food Habits*, edited by M. Harris and E. B. Ross, 181–205. Philadelphia, PA: Temple University Press.

Salter, F. K. 1995. *Emotions in Command: A Naturalistic Study of Institutional Dominance.* Oxford: Oxford University Press.

Sanderson, S. K. 1990. *Social Evolutionism: A Critical History.* Oxford: Blackwell.

———. 1994a. "Evolutionary Materialism: A Theoretical Strategy for the Study of Social Evolution." *Sociological Perspectives* 37: 47–73.

———. 1994b. "The Transition from Feudalism to Capitalism: The Theoretical Significance of the Japanese Case." *Review (Fernand Braudel Center)* 17: 15–55.

———. 1995. *Social Transformations: A General Theory of Historical Development*. Oxford: Blackwell.

———. 1999. *Macrosociology: An Introduction to Human Societies*. 4th ed. New York: Addison Wesley Longman.

———. 2001. *The Evolution of Human Sociality: A Darwinian Conflict Perspective*. Lanham, MD: Rowman & Littlefield.

———. 2007a. "Marvin Harris, Meet Charles Darwin: A Critical Evaluation and Theoretical Extension of Cultural Materialism." In *Studying Societies and Cultures: Marvin Harris's Cultural Materialism and Its Legacy*, edited by L. A. Kuznar and S. K. Sanderson, 194–228. Boulder, CO: Paradigm Publishers.
———. 2007b. *Evolutionism and Its Critics: Deconstructing and Reconstructing an Evolutionary Theory of Human Society*. Boulder, CO: Paradigm Publishers.
———. 2008a. "Religious Attachment Theory and the Biosocial Evolution of the Major World Religions." In *The Evolution of Religion: Studies, Theories, and Critiques*, edited by J. Bulbulia, R. Sosis, E. Harris, R. Genet, C. Genet, and K. Wyman, 67–72. Santa Margarita, CA: Collins Foundation Press.
———. 2008b. "Adaptation, Evolution, and Religion." *Religion* 38: 141–156.
———. 2010. *Revolutions: A Worldwide Introduction to Social and Political Contention*. 2nd ed. Boulder, CO: Paradigm Publishers.
———. 2012. *Rethinking Sociological Theory: Introducing and Exploring a Scientific Theoretical Sociology*. Boulder, CO: Paradigm Publishers.
———. 2014. *Human Nature and the Evolution of Society*. Boulder, CO: Westview Press.
Sanderson, S. K., and A. S. Alderson. 2005. *World Societies: The Evolution of Human Social Life*. New York: Pearson Allyn & Bacon.
Sanderson, S. K., and J. Dubrow. 2000. "Fertility Decline in the Modern World and in the Original Demographic Transition: Testing Three Theories with Cross-National Data." *Population and Environment* 21: 511–537.
Sanderson, S. K., and W. W. Roberts. 2008. "The Evolutionary Forms of the Religious Life: A Cross-Cultural, Quantitative Study." *American Anthropologist* 110: 454–466.
Sarich, V., and F. Miele. 2004. *Race: The Reality of Human Differences*. Boulder, CO: Westview Press.
Skocpol, T. 1979. *States and Social Revolutions.* New York: Cambridge University Press.
Smith, A. D. 1981. *The Ethnic Revival in the Modern World*. Cambridge, UK: Cambridge University Press.
———. 1986. *The Ethnic Origins of Nations*. Oxford: Basil Blackwell.
Snooks, G. D. 1997. *The Ephemeral Civilization: Exploding the Myth of Social Evolution*. London: Routledge.
Somit, A., and S. A. Peterson. 2005. *The Failure of Democratic Nation-Building: Ideology Meets Evolution*. New York: Palgrave Macmillan.
Stark, R. 1996. *The Rise of Christianity: A Sociologist Reconsiders History*. Princeton, NJ: Princeton University Press.
———. 1999. "Micro Foundations of Religion: A Revised Theory." *Sociological Theory* 17: 264–289.
———. 2007. *Discovering God: The Origins of the Great Religions and the Evolution of Belief*. New York: HarperOne.
Stark, R., and W. S. Bainbridge. 1987. *A Theory of Religion*. New Brunswick, NJ: Rutgers University Press.
Stark, R., and R. Finke. 2000. *Acts of Faith: Explaining the Human Side of Religion*. Berkeley: University of California Press.
Swanson, G. E. 1960. *The Birth of the Gods: The Origin of Primitive Beliefs*. Ann Arbor: University of Michigan Press.
Symons, D. 1979. *The Evolution of Human Sexuality.* New York: Oxford University Press.
———. 1987. "If We're All Darwinians, What's the Fuss About"? In *Sociobiology and Psychology: Ideas, Issues, and Applications*, edited by C. Crawford, M. F. Smith, and D. L. Krebs, 121–146. Mahwah, NJ: Lawrence Erlbaum.
Taylor, A. 1989. "The Significance of Darwinian Theory for Marx and Engels." *Philosophy of the Social Sciences* 19: 409–423.
Testart, A. 1982. "The Significance of Food Storage among Hunter-Gatherers: Residence Patterns, Population Densities, and Social Inequalities." *Current Anthropology* 23: 523–537.
———. 1988. "Some Major Problems in the Social Anthropology of Hunter-Gatherers." *Current Anthropology* 29: 1–32.
Thornhill, R., and C. T. Palmer. 2000. *A Natural History of Rape: Biological Bases of Sexual Coercion*. Cambridge, MA: MIT Press.
Tiger, L. 1999. *The Decline of Males*. New York: St. Martin's Press.
Tilly, C. 1978. *From Mobilization to Revolution*. New York: McGraw-Hill.
Tooby, J., and L. Cosmides. 1989. "Evolutionary Psychology and the Generation of Culture, Part I. Theoretical Considerations." *Ethology and Sociobiology* 10: 29–49.
———. 1992. "The Psychological Foundations of Culture." In *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, edited by J. H. Barkow, L. Cosmides, and J. Tooby, 19–136. New York: Oxford University Press.
van den Berghe, P. L. 1967. *Race and Racism: A Comparative Perspective*. New York: Wiley.
———. 1981. *The Ethnic Phenomenon*. New York: Elsevier.
Vanhanen, T. 2012. *Ethnic Conflicts: Their Biological Roots in Ethnic Nepotism*. Ulster, Northern Ireland: Ulster Institute for Social Research.
Veblen, T. (1899) 2007. *The Theory of the Leisure Class*. New York: Oxford University Press.
Wallace, A.F.C. 1966. *Religion: An Anthropological View*. New York: Random House.

Weber, M. (1923) 1978. *Economy and Society*. 2 vols., edited by G. Roth and C. Wittich. Berkeley: University of California Press.
West-Eberhard, M. J. 2003. *Developmental Plasticity and Evolution*. New York: Oxford University Press.
Westermarck, E. 1922. *The History of Human Marriage*. Vol. II. 5th ed. London: Macmillan.
Wickham-Crowley, T. P. 1992. *Guerrillas and Revolution in Latin America: A Comparative Study of Insurgents and Regimes since 1956*. Princeton, NJ: Princeton University Press.
Wiley, A. S., and L. C. Carlin. 1999. "Demographic Contexts and the Adaptive Role of Mother-Infant Attachment." *Human Nature* 10: 135–161.
Wilson, M., and M. Daly. 1993. "An Evolutionary Psychological Perspective on Male Sexual Proprietariness and Violence against Wives." *Violence and Victims* 8: 271–294.
Wimmer, A., L. Cederman, and B. Min. 2009. "Ethnic Politics and Armed Conflict: A Configurational Analysis of a New Global Data Set." *American Sociological Review* 74: 316–337.
Wrangham, R. W., and D. Peterson. 1996. *Demonic Males: Apes and the Origins of Human Violence*. Boston: Houghton Mifflin.
Wrangham, R. W., M. L. Wilson, and M. N. Muller. 2006. "Comparative Rates of Violence in Chimpanzees and Humans." *Primates* 47: 14–26.