

SEX, AGGRESSION, AND PAIN: SOCIOBIOLOGICAL IMPLICATIONS FOR THEOLOGICAL ANTHROPOLOGY

by Craig L. Nesson

Abstract. Theological anthropology can be enriched by paying attention to insights into human behavior taken from sociobiology. The capacity for reflective self-consciousness enables the human animal to respond to basic instincts and drives in unprecedented ways. Humans follow gender-specific sexual strategies, display aggressive behavior, and respond to physical pain as do other animals. Yet human beings have the intellectual ability to express these tendencies uniquely in either destructive or constructive ways. The human being, unlike any other animal, must reckon with sexual ethics, the problem of violence, and the meaning of suffering. In developing the basic concepts of theological anthropology—good creation, natural evil, fall, sin, and image of God—sociobiological research can lead to more adequate understanding of the human.

Keywords: aggression; creation; fall; image of God; pain; reflective self-consciousness; sex; sociobiology; suffering; theological anthropology; violence.

The search for the authentically human is pursued between two watchwords. On the one side, the way of science ardently follows the instruction of the Delphic oracle: “Know thyself.” On the other side, the way of faith and theology searches the mystery of the psalmist: “What are human beings that you are mindful of them, mortals that you care for them?” (Ps. 8:4, NRSV).¹

Sociobiology has emerged in recent decades as a comprehensive approach for interpreting human behavior (see, for example, Wilson 1978). Ever new facets of the human phenomenon are illuminated by the evolutionary paradigm. Theology, while not disinterested in the contribution of the sciences to its understanding of the human, has scarcely begun to fathom the implications of sociobiology for theological anthropology.

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As a discipline centuries old, theology understands the human especially from the scriptural accounts of creation and fall in Genesis 1–3.

The claim that human beings are deeply imprinted by their evolutionary past can offer new insight and a more adequate explanation of human reality should theologians enter into a more profound encounter with the research of sociobiologists. This essay is a contribution to furthering this conversation.

It is vital from the outset to clarify two presuppositions. First, from the side of theology, the arguments of sociobiologists regarding human behavior will be taken seriously. This goes beyond the false alternatives of ignoring the conclusions of sociobiology and seeking to refute them. Too often theology continues to be written as though other disciplines, particularly those as apparently threatening as sociobiology, have nothing constructive to say. Second, this approach will avoid the tendency of sociobiology to reduce all data to its own categories. While biological inheritance plays an immense role in shaping human behavior, the emergence of the human brain and the possibility of reflective self-consciousness enable human beings to sublimate and transcend biological impulses. This goes beyond the false alternative of sociobiological reductionism. This essay aims to navigate between these two aporias.

The fundamental thesis of sociobiology is that animal (including human) behavior may be understood according to the measure of what best contributes to propagating the individual's genes (Dawkins 1976). In order to demonstrate the value of sociobiological insight for theological anthropology, three topics are considered: sex, aggression, and pain. In each instance, evolutionary biology contributes enormously to comprehending human reality. Yet, in each case, the capacity of the human brain for reflective self-consciousness adds a new dimension that can accent either the destructive or the redemptive possibilities of biological directedness.

THE HUMAN BRAIN AND THE DIFFERENCE IT MAKES

Man is an exception, whatever else he is. If he is not the image of God, then he is a disease of the dust. If it is not true that a divine being fell, then we can only say that one of the animals went entirely off its head.

—G. K. Chesterton

The consensus of contemporary science interprets the human being in terms of evolutionary history. The human incorporates both the deeply embedded instinctual mechanisms belonging to other animals and a unique capacity for reflective self-consciousness. When describing the human phenomenon, one does well to speak not of the brain alone but of the “brain-mind” (Ashbrook and Albright 1997, xxv). Those who fail to

understand consciousness and mind as integral to the functioning of the human brain fall into serious misunderstanding (Searle 1992). This means that the human being is capable of both “bottom-up” behavior, based on the operation of drives and instincts, and of “top-down” actions, based on conscious intention and decision. To use a homely example, when my dog’s nose itches, she will scratch. If my nose itches, I can choose to scratch or not.

Reflective self-consciousness refers not only to the human capacity for awareness of the self as one who knows, but also to the capacity to appreciate another human being as a knowing self who has the same ability for other-awareness that I do. This leads to infinite complexity in human relationships. Not only do I search my own thoughts and feelings, but I search to know your thoughts and feelings. Moreover, I search to know what you are thinking and feeling about me and about others. To extend this regress but one more step: you in turn search to know what I am thinking and feeling about what you are thinking and feeling about me. The possibilities for insight and for misunderstanding are immense.

Reflective self-consciousness finds expression in the human capacity for symbolic language (Pinker 1994). Human beings employ language not only as signs to describe a concrete state of affairs but also as symbols to communicate multilevel nuances of meaning. One of the most fascinating expressions of human language is the ability to lie and deceive. Reflective self-consciousness also gives rise through language to the construction of culture. Culture is a system of learned and taught behaviors and the symbol system expressed in myth, music, art, and ritual that gives meaning to and guides these learned behaviors (cf. Hefner 1993, 147–48).

While many recent studies stress the continuity of primate and human behavior, any interpretation of the human that fails to reckon with the human capacities for reflective self-consciousness, language, and the construction of culture is inadequate. Even a thoroughgoing sociobiologist like Richard Dawkins could not describe the complexity of the human on the basis of sociobiology alone. Instead, Dawkins (1976, 189–201) introduced the fruitful concept of “meme” in order to adequately explain the phenomenon of human self-transcendence through language and culture.

When we engage in reflective self-conscious thought and symbolic language, the biological inheritance from our animal ancestors still belongs inextricably to our human identity. The neuroscientist Paul D. MacLean (1983) has imaginatively construed the structure of the human brain according to its evolutionary development. According to this heuristic, the human brain is understood according to three distinct antecedents, those deriving from reptilian, mammalian, and human stages of development. While in the human being these three portions of the brain are

intricately interconnected, each contributes in a particular way to human functioning.

The reptilian brain is located at the base of the brain, just above the brain stem. This portion of the brain is responsible for life support, self-preservation, and procreational activities (Ashbrook and Albright 1997, 55–62). The reptilian brain is designed for functions such as establishing and defending territory, foraging and hunting, establishing social hierarchy through ritualistic displays, courtship and mating, grooming, and migration. Although modified by reflective self-consciousness, behaviors based on these instincts persist in human beings.

The limbic system, or mammalian portion (which surrounds the reptilian brain structure), constitutes the next evolutionary stage of human brain development. The limbic system provides the capacity for emotion and interpersonal relationship. Eating, mating, fighting, play, and care for the young are social behaviors to which the limbic system contributes. The emotions help to motivate and mobilize the animal into action. “To a greater or lesser degree, depending on their complexity of development, mammals exhibit anger in competition, emotion-laden cravings for food, and lustful drives to mate” (Ashbrook and Albright 1997, 75). Ethologists study how sex, aggression, appetite, nurturing young, and play in human behavior find precedent in the behavior of animals.

The third portion of the triune human brain is the neocortex, a structure which makes possible the thought and behavior that is peculiarly human. The two hemispheres of the neocortex act in concert with the earlier evolutionary structures. The right hemisphere deals especially with spatial relations and depth perception. The left hemisphere contributes especially to language ability and mathematical understanding. The two sides of the brain work together to provide humans with great capacity for verbal, mathematical, and symbolic thought. Neuroscientists refer to the “organic plasticity” of the cortex in order to describe its great potential for learning something new (Ashbrook and Albright 1997, 114–15). The frontal lobes provide particular ability for evaluation of information, emotional awareness, empathy, moral responsibility, long-term planning, and integration of all other functions. “The frontal region, as the locus of planning, imagining, and deciding, regulates attention” (Ashbrook and Albright 1997, 136). The neocortex in its complex functioning gives rise to the search for the meaning of life and the question of God.

The particular dilemmas that human beings face are the decisions whether and how to act on the instincts and drives emanating from the reptilian and mammalian antecedents of the brain. Whereas other animals naturally survive by acting upon their instincts and drives, to an unprecedented degree the human animal is confronted with an intense moral problem by knowing how such actions will affect others. There is an

innocence about earlier animal behavior that no more belongs to humankind. For the human, inherited behaviors—such as defending territory, mating, killing prey for survival, and self-propagation—are fraught with moral responsibility. What is adaptive behavior at an earlier evolutionary stage becomes for the human a matter of culpability. Much of the glory and the shame of human existence derives from the challenges of negotiating the boundary between inherited animal nature and the wonder of reflective self-consciousness.

SEX

Sex drive, aggression, and the experience of pain belong to human behavior in an elemental way. They are no less dimensions of the human species than of our evolutionary predecessors. Yet, to the human belongs a unique responsibility for reflecting and acting upon them.

Advertisers and mass-media moguls know what sells. What sells is what appeals to the two primary lobes of the limbic system. Located there are the emotions which propel all mammals into behaviors that perpetuate their own lives and promote the survival of the species to which they belong—to wit: feeding, breeding, and aggression to promote the accomplishment thereof. The *amygdala* is associated with activity related to preservation of the self/organism, while the *septum* is associated with activity related to continuity of the species. (Ashbrook and Albright 1997, 74, emphasis in original)

One of the most powerful of all animal motives is that of propagation through sexual intercourse. In his book, *The Red Queen: Sex and the Evolution of Human Nature*, Matt Ridley (1993) argues that the human intellect evolved in large measure because “big brains contributed to reproductive success either by enabling men to outwit and outscheme other men (and women to outwit and outscheme other women) or because big brains were originally used to court and seduce members of the other sex” (p. 21). By surviving into the next generation through breeding, an individual animal contributes in the best way to the continuing betterment of the species. Increasing intelligence has proved advantageous to individual humans for ensuring that their genes get passed on to the next generation.

According to sociobiology, men and women differ regarding the best strategy for accomplishing the purpose of the survival of their genes into the future. Men proliferate their genes best by impregnating women as often as possible. This means that polygamy offers men an evolutionary advantage insofar as each woman has only a limited potential for child-bearing. Indeed, polygamy flourishes in pastoral societies where individual men can achieve the status and power necessary to secure an economic base sufficient to provide for the needs of large numbers of wives and children (Ridley 1993, 193–97). One important limit placed upon male

promiscuity is the degree to which women tolerate minimal participation of the father in providing for the raising of a child. (Another major factor in male sexuality is the use of violence to procure and safeguard sexual access to women. The issue of male violence is taken up in greater detail in the next section.)

A successful strategy for a woman aims at ensuring that the child she bears survives to the age of reproduction. Because an individual woman can give birth to only a limited number of children, the survival of each one has a high priority. A woman, therefore, needs to be particularly selective when choosing a man to father her children. Women tend to evaluate potential spouses on the basis of status and wealth—markers, first, for physical fitness and, second, for the ability to adequately provide for a family. The female strategy is enhanced by the insistence that a father invest in providing food and protection for mother and child. Therefore, women are more inclined to monogamy than are men.

One twist to this strategy is the phenomenon of women engaging in illicit affairs with men of higher status than their husbands in order to acquire superior genes for their offspring. These women then cuckold their husbands to invest in raising children who are not of their own seed. Jealousy is the male reaction to the threat of cuckoldry.

Strikingly, what goes for sexual attractiveness bears testimony to the reality of these strategies. Men find most attractive young women (of an age to bear a maximum number of children) with large breasts (supposedly better to feed a child) and broad hips (to facilitate birthing). Studies of women's views of male sexual attractiveness disclose preferences for men with certain personality characteristics such as self-assurance, intelligence, and ambition. Such characteristics are desirable as indicators of who will succeed in life as providers for a family. Women are interested in the financial prospects and status of potential mates, again as signs of the potential to provide well and be reliable in the raising of a family. For this reason women usually prove to be better judges of character than are men. In sum, "men consistently place physical features above personality and status when considering women; women do not when considering men" (Ridley 1993, 297).

Sociobiological interpretation of human sexual behavior accounts for much of what we empirically witness: the proclivity of men to promiscuity and infidelity, sexual appeal of young women to men, women's greater concern for marital stability, women's commitment to the nurture of children, occasional affairs of women with men (especially those of higher status), a man's jealousy concerning his wife, and the attractiveness of personality and wealth to women. A sociobiological explanation accounts for an immense range of human behavior that we daily experience, hear about, and read about in the newspapers.

Are human beings predetermined to act upon their innate sexual impulses according to sociobiological models? The emergence of the thinking capacity of the neocortex allows for two primary possibilities. First, the human individual is capable of ever more ingenious ways of acting upon basic sociobiological sexual tendencies: more devious ways for men to seduce a large number of women, more elaborate plans for husbands to cheat on their wives, more careful selection of mates by women, more reliable methods for women to guarantee paternal support, and more clever ways for women to conduct an occasional fling.

Second, the human capacity for reflective self-consciousness, especially for empathy toward others and for long-term commitment, would turn us from self-serving sexual strategies which do immense harm to partners and children (as well as the entire social fabric) and turn us toward a fidelity that provides both a secure environment for raising children and long-term companionship with a spouse. The human animal is caught between sexual drive (which may be biologically effective but can become socially devastating) and conscience (which would value others more than the self but may, in the process, lose evolutionary advantage).

Theological anthropology better accounts for the complexity of human sexual behavior when it attends to both the sociobiological evidence and the uniqueness of the human thinking capacity that gives rise to this dilemma. How can the human ability for reflective self-consciousness, drawing upon ethical and religious resources, modify the sociobiological tendency that is destructive of families and the well-being of community life? How can the sexual drive be sublimated for the sake of families and the larger society? It belongs to cultural structures and religious symbols of the ultimate to promote marital bonding and stable family life for the sake of human community.

AGGRESSION

Aggression among primates is normal and necessary behavior for the sake of survival (Turner 1992, 148–49). Aggression takes the form of vocal or visual displays that assert the animal's privileged access to a disputed resource (such as territory, food, or mate). The level of aggression depends on a complex variety of contextual cues, including the likelihood of serious injury or death. Depending on the urgency of the situation, aggression can escalate into combat with biting and hitting.

One can understand aggression as a function of hormone level, brain activity, and physiological arousal within a particular situation of threat. Among human beings, the factors that contribute to expressions of aggression are highly complex.

The variability of violence as a strategy can be seen by considering the following. It may be instrumental and without anger, when securing a resource; or it may be accompanied by negative affect where the motive is frequently a defensive one—for example, involving threat to self-esteem, reputation, or perceived control. There are many different negative affects that can be associated with violence besides anger, such as hostility, anxiety, shame, resentment, and envy, and in everyday language we use labels to distinguish various types of violence—such as “defensive,” “vindictive,” “malicious,” “spiteful,” “sadistic,” “impulsive,” “vengeful,” “exploitative,” “protective.” (Gilbert 1994, 355–56)

A complete taxonomy of human aggression and violence would require examination of physiological, evolutionary, developmental (family and socialization), emotional, cognitive, cultural, socio-economic, and religious factors. Again, the amygdala and septum, lobes within the limbic system, contribute greatly to human aggression.

Sociobiological explanations provide great insight into male violence against women (Archer 1994, 325). The domination of men over women can be explained through the competing reproductive strategies of the two sexes. Men are able to force their interests upon women for several reasons: male body strength, the building of male alliances, and the physiology of the male reproductive process of impregnation. Men can be biologically “successful” in promoting their breeding interests not only through persuasion but also through the use of force (coercion, rape), while avoiding situations in which their own lives become endangered. Competition for the reproductive capacities of women also leads to intermale competition and rivalry. Furthermore, a man can become aggressive and violent when jealous and guarding “his” woman.

One particularly graphic body of research examined homicide (Daly and Wilson 1988). Consistent with sociobiological theory, the murder of blood kin is relatively rare in comparison to the killing of nonrelatives. One does not murder those who share one’s own genes. Analyzing extensive data, Daly and Wilson isolated male competition for the reproductive capacities of women as a major factor in murders by young men occurring outside the family. Murder of a wife is highly correlated with situations in which husbands are seeking to control the sexual behavior of their wives. Murder also occurs with a statistically high significance in instances of revenge, where one is defending one’s family from attack. Each of these findings supports a sociobiological interpretation of human aggression and violence.

Given that the proclivity for aggression is an adaptive behavior in a given situation, a response deeply rooted in human biology, what difference is made by the emergence of reflective self-consciousness? Two distinct directions emerge. First, there exists the capability for human beings to employ their intellectual capacity for ever more well-planned schemes of violence. Need we recount the litany of violent acts committed by

human beings every day? They include verbal abuse, spanking, hitting, spouse abuse, child abuse, rape, torture, slavery, murder, capital punishment, and war. Human beings can use their minds to become sophisticated in violence. "Humans are the only animals which devote much time and energy to making weapons for nonritualized violence where death and serious injury are the goals" (Gilbert 1994, 357). When not engaged themselves in acts of violence, many watch influential depictions of violent acts in the media as a matter of routine (Hoffmann, Ireland, and Widom 1994, 291).

A second possibility is for human beings to employ reflective self-consciousness, with its power for empathy and altruism, to develop non-violent alternatives to the primordial way of violence. Although the champions of nonviolence are few by comparison, the examples of Jesus and Gandhi and Martin Luther King Jr., provide creative models for resolving conflict and building human community without violence. One of the greatest spiritual struggles facing humankind is the challenge of mastering violence, whether on the individual, family, local, or global level.

Ironically, the religions also face the same alternative: either to employ their symbols, myths, and rituals for the elimination of violence or to use them in the partisanship of one warring group against another. Within each of the great world religions are strong peace traditions that must be summoned to shape a nonviolent future for humanity. In this monumental undertaking, theology must draw upon all resources, both traditional, such as the legacy of women as peacemakers (Ferris 1996), and recent, such as René Girard's theory of the scapegoat mechanism (Baille 1995). Comprehending the sociobiological roots of the struggle can assist in not underestimating the difficulty of the task.

Whereas other animals operate with instincts and drives that employ aggression as a useful and necessary survival tactic, it is only with the human animal that we witness violence, that is, the intentional act of inflicting physical and/or psychological damage on another. Violence can be defined as the attempt of an individual or group to impose its will on others through any nonverbal, verbal, or physical means that inflict psychological or physical injury. According to this definition, violence is a uniquely human potentiality. Humans share tendencies toward aggression with their animal ancestors. But it is only when reflective self-consciousness is added to aggression that it becomes violence. Violence occurs because human beings are capable of knowing what they are doing. Violent behavior by humans is culpable in a way aggression by animals is not.

PAIN

Discussions of human and other creaturely suffering would be enhanced by first giving positive acknowledgment to the value of pain in the

evolutionary process. Pain is not a unilaterally negative reality but aids the sentient being to detect the existence of a physical problem that does or could threaten survival. Pain thus serves a necessary (though ambiguous) function, integral to the survival of living creatures.

It is only with the human possibility of reflective self-consciousness that the physiological reality of pain poses the question of suffering. While all animals experience and respond to pain, only human reflective self-consciousness knows the meaning of suffering. The reality of pain raises for the human animal many issues. Only humans struggle with profound questions regarding the meaning of life in the face of unbearable suffering. Suffering is experienced not only as a consequence of physical sensation but also as a psychological state. Human beings, given their intellect, have the unique capacity to willfully inflict psychological or physical pain on others for ideological purposes. Likewise, humans have a unique ability for empathy and may compassionately choose to help relieve the suffering of others.

Elaine Scarry dissects the anatomy of human pain in her work *The Body in Pain: The Making and Unmaking of the World*. Intense pain reduces a human being to total preoccupation with its elimination, that is, to a state comparable to that of other animals in pain. One "dimension of physical pain is its ability to destroy language, the power of verbal objectification, a major source of our self-extension, a vehicle through which the pain could be lifted out into the world and eliminated" (Scarry 1985, 54). In the case of severe pain, reflective self-consciousness gives way to basic reptilian survival instincts.

This quality of pain becomes the occasion for contrasting human possibilities. First, despots may manipulate the experience of pain through methods of torture in order to accomplish their purposes of ideological control. The sufferer's inability to articulate pain allows its inflicter to co-opt its meaning on behalf of the torturer's own chosen interpretation (Scarry 1985, 56–59). Second, human beings may employ their ability for reflective self-consciousness in order to empathize with victims of suffering and lend aid in alleviating pain. Again, much depends on how humans employ their intellectual capacity: either to invent ever more damaging ways to inflict physical and psychological pain on others or to heighten human sensitivity through ethical and religious symbol systems in order to mitigate suffering.

IMPLICATIONS FOR THEOLOGY

Sociobiological interpretation of human behavior has significant implications for a more adequate theological anthropology. Human behavior continues to be shaped tremendously by deeply rooted sociobiological tendencies. Yet human behavior cannot be reduced to sociobiological

categories. The emergence of reflective self-consciousness means that, for human beings, sociobiological impulses become the occasion for moral deliberation. Humans may elect to act upon basic sociobiological tendencies either for self-aggrandizing or for other-serving purposes.

This essay has examined three particular sociobiological phenomena—sex drive, aggression, and pain—and has suggested how in each case human intellectual functioning may either direct humans toward ever more destructive ways of perpetuating the self or redirect them toward the betterment of human community. While religion can serve either of these aims, the intention of the great world religions is to contribute to overcoming selfishness on behalf of others.

The research of sociobiologists raises numerous questions about concepts basic to theological anthropology. We would postulate that God's good creation includes animal aggression, gender-appropriate sexual strategies, and the experience of pain. Within the realm of animals, these are signs of positive evolutionary development and the goodness of creation. This affirmation calls into question the theological concept of "natural evil" insofar as this refers to aggressive or sexual behavior in animals. For animals to defend themselves through aggression and to propagate according to species-specific sexual strategies is part of God's good created order. Likewise, pain as a signal aiding survival belongs to the goodness of creation. It is only for the human animal that sex becomes destructive, aggression becomes violence, and pain becomes suffering.

The fall into sin belongs exclusively to the human and can be seen in the unprecedented dilemma facing human beings due to the emergence of reflective self-consciousness (Nesson 1993). What is highly programmed behavior for animals (sex or aggression) involves intense reflection for human beings, because humans have the capacity either to act upon or to sublimate their sociobiological tendencies. It is for humans sinful to follow sociobiological impulses in the knowledge that doing so inflicts harm on others. Human beings demonstrate their fallen condition insofar as they fail to realize their capacity to redirect sociobiological inclinations for the sake of the neighbor.

Human beings have from earliest times given evidence of religious concern (Hefner 1993, 170–72). To be created in the image of God refers to the capability of humans to live in relationship with God, which occurs through the emergence of reflective self-consciousness. It is reflective self-consciousness, moreover, that gives rise to the hiatus between instinct and thought, making human beings responsible for how they respond to their sociobiological tendencies (Gehlen 1988, 45–46). In developing the basic concepts of theological anthropology—good creation, natural evil, fall, sin, and image of God—the incorporation of sociobiological insights can lead to more adequate formulations.

NOTE

1. New Revised Standard Version.

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