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Sociobiology and the Law: The Biology of Altruism in the Courtroom of the Future

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In *Sociobiology and the Law* John Beckstrom presents an interesting and insightful analysis of the interaction of two seemingly unrelated fields — theoretical evolutionary biology and the practical distribution of entitlements in the legal system. Beckstrom successfully achieves his express purposes: (1) to introduce lawyers to potential legal applications of sociobiological theory and (2) to introduce scientists to existing empirical research opportunities within the law.

At the outset it should be noted that Beckstrom does not mire the reader in technical jargon or in the details of experimental studies; rather, he concentrates on the implications of this nascent theory for lawmaking, referring the curious to the major literature of sociobiology. Yet, despite its clarity to the lawyer or lay person, the book's analysis is not simplistic. It exhibits familiarity with the nuances and limitations of current theory neglected by some writers.

The fundamental premise of sociobiology is that evolution genetically predisposes an individual to aid others in order to promote the proliferation of his specific genes. This proposition focuses upon the success of an individual's specific complement of genes, as opposed to that of the global human gene pool. Thus, sociobiology primarily will affect legal areas, such as probate or family law, which involve the distribution of entitlements among biological relatives or between relatives and genetic strangers (p. 3).

Beckstrom hypothesizes marginal effects of evolutionary genetic programming on the type of aid-giving behavior which lawmakers must attempt to predict, describe, and codify. The expression of these behavioral effects is, however, limited by two important (but occasion-
ally neglected caveats. First, sociobiologists believe that the expression of biological altruism is frequently moderated or completely obstructed, consciously or unconsciously, by culture and environment. Second, Beckstrom acknowledges that sociobiology, like any scientific endeavor in an early stage of development, requires extensive empirical research and substantiation before it can be applied broadly.

The "selfish gene" hypothesized by Beckstrom programs the "host individual" to aid others only when such altruism will enhance his own probability of survival and proliferation (pp. 12-13). Survival to the gene, or to the individual's gene complement, connotes maximizing the reproduction of its exact DNA code (or one that is substantially similar) in future generations. To further survival of the gene complement:

[E]fficient genetic behavioral programming . . . calls for an optimum amount of reproduction of offspring, plus an optimum amount of nurturance of those youngsters who contain our genes (whether or not they are our children) to a point where they are, in turn, in a position to reproduce and nurture others who contain our genes. [p. 82]

The apparent altruism of the selfish gene manifests itself in two types of behavior, "nepotism" (pp. 14-15) and "reciprocal altruism" (pp. 13-14). Nepotism encourages the host individual to aid those with whom he shares significant genetic overlap even to the point at which the host's reproductive health or survival is threatened. Reciprocal altruism encourages the host to help or to promise to help others with the expectation that the beneficiaries will reciprocate.

Beckstrom illustrates the detailed operation of nepotism and reciprocal altruism in the following two situations which require lawmakers

7. Some commentary on sociobiology and the law confuses predisposition with control and carries the marginal implications of sociobiology to an absurd level where they equal or surpass cultural and environmental factors. See, e.g., Gaylord, Sociobiology and the Law, 87 Case & Com. 30, 32 n.3 (1982), where the author asserts:

The "free will" concept . . . should be acceptable to sociobiologists since, if their postulates are correct, it must, as the most widely accepted hypothesis of human behavior, be acceptable to the most number of genes or it would have been rejected for some concept more genetically advantageous to the majority.

8. Yet, throughout Sociobiology and the Law, Beckstrom maintains with little supporting evidence that culture currently only attenuates without reversing this genetic programming: "It is as if the genes hold a long elastic leash on any human behavior that ventures too far, too long, beyond the point to which genetic programming regarding behavior has evolved." P. 27. See also pp. 84-85.


to assess aid-giving potential: \(^{11}\) intestate wealth transfers and prediction of how solicitous each parent will be toward children in custody disputes.

Since implementing the desire of intestate decedents is a stated goal of the Uniform Probate Code, \(^{12}\) Beckstrom analyzes how the average intestate \(^{13}\) would distribute property between various relatives by blood and marriage. Beckstrom argues that nepotism prevails when the decedent’s death is imminent since he cannot gain personally and reciprocally by aiding others. Conversely, reciprocal altruism competes strongly with nepotism when death will occur at some indeterminable future time. \(^{14}\)

The division of the intestate’s property between the spouse and the children illustrates Beckstrom’s treatment of sociobiological theory, empirical research, and existing law. At the moment of death, the average intestate favors the children, with whom he shares a genetic overlap of one-half, over the genetically unrelated spouse (pp. 23-24). The intestate’s resulting nepotistic distribution depends on the maturity of the children. If they are not mature, the intestate would give all resources to the spouse as a guardian for the children. The average surviving spouse, with the same genetic overlap of one-half, will have greater biological interest in the children’s well-being than will other potential recipients. \(^{15}\)

Once the children reach maturity, however, the intestate would

\(^{11}\) Beckstrom also relates sociobiology to selection of which classes of bystanders witnessing a tortious injury may recover damages for emotional distress. Pp. 99-113.

\(^{12}\) P. 8 (quoting UNIF. PROB. CODE 24 (6th ed. 1982)).

\(^{13}\) Beckstrom estimates the average age of death for intestates to be approximately 60 years. P. 20.

\(^{14}\) P. 25. Beckstrom concludes that the average intestate under either nepotism or reciprocal altruism will favor the member of the youngest generation within each class of relatives of identical genetic overlap. Pp. 35, 43-44. Examples of the operation of age, in order of decreasing priority include: one-fourth genetic overlap with intestate — grandchildren/nieces and nephews/aunts and uncles; one-half genetic overlap — children/siblings/parents. An individual aware of his imminent death will distribute property to the youngest mature relative of a class, who ordinarily will possess the greatest reproductive and nurturing potential. Pp. 35-36. See also Potential Dangers and Benefits, supra note 3, at 1286. Similarly, an individual anticipating death only at an indefinite time in the future will consider that the “relative youth and vigor” of such relatives enables them “to reciprocate with personally bestowed effort for a longer period of time.” P. 26 (emphasis omitted).

\(^{15}\) Contrary instances can be envisioned. A surviving spouse with other children by previous marriages or young siblings could devote fewer resources to the intestate’s children than would a grandparent, uncle, or aunt related to the children by only one-fourth.

Should the surviving spouse receive the entire estate, some of the intestate’s resources will serve the spouse directly instead of the children, but that is necessary to insure adequate nurturing.

Potentially more troubling to the intestate, the spouse shares a genetic overlap of one-half not only with their children but also with her parents and siblings. While these relatives by marriage could compete for the intestate’s resources given to the spouse, Beckstrom considers this unlikely on average because children comprise the youngest generation of these three groups.
provide almost exclusively for them, neglecting the spouse. At this point, direct support of the children becomes the optimal means to further survival of the intestate's gene complement. The children are capable of using the intestate's resources to reproduce and to nurture their own offspring, with whom the intestate shares a genetic overlap of one-fourth, independent of the spouse.

Beckstrom contrasts the predicted sociobiological outcome with existing intestate succession laws which provide a much greater proportion of the estate, typically one-half or one-third, to the surviving spouse. To explain the apparent inconsistency between the published research and the hypothesized nepotistic programming, Beckstrom turns to reciprocal altruism. Since most people writing wills or being interviewed are not certain when they will die, they may receive “future, personal, reciprocated advantage from a favor presently done or promised.”

Beckstrom identifies interparental child custody disputes as a more fertile area for both research and application of sociobiological theory. He begins by predicting that the average American biological mother with primary custody of her child will be more solicitous toward the child than will the average father. Beckstrom admits that enhanced feminine concern for their children could result purely from cultural influences, but suggests an alternative basis in sociobiological theory.

Genetic programming supports this conclusion through the following two gender differences: (1) reproductive potential, including the number of reproductive opportunities, the level of investment in reproduction, and the duration of reproductive capacity, and (2) the degree of certainty that the child carries the presumed parent’s genes.

16. P. 24. However, Beckstrom suggests that the intestate would grant some resources to the spouse for maintenance so the survivor can continue to nurture their adult children and any grandchildren. P. 24.

17. This preference for the surviving spouse derives empirical support from wills studies and live interviews. According to Beckstrom, over 50% of the subjects in most studies leave everything to the spouse. P. 25.

18. P. 25 (emphasis omitted). By promising to leave resources to the surviving spouse, the intestate can receive “personally bestowed aid on a day-to-day basis.” P. 26.


20. Pp. 80-81. Beckstrom admits that the studies could be “wholly or mostly attributable to biologically divorced differential socialization.” P. 81.

21. Following menopause the average mother is less likely than is the average father of the same age to conserve resources for personal reproductive welfare. P. 86. Even before menopause, Beckstrom argues, the substantial maternal investment in each child relative to that of the father should predispose her to greater concern for existing offspring. To realize on the mother’s investment, “the child must reach maturity and thereby be in a position to, in turn, reproduce.” P. 84. Conversely, because of the relatively small paternal investment of reproductive capacity in each child, the average male (even when completely certain of paternity) is more likely than the female to devote more resources to reproductive welfare than to nurturing children.

22. This difference is the so-called maternity or paternity confidence factor. P. 83. Beckstrom asserts that the male can never be more confident of paternity than the female is of mater-
Beckstrom also anticipates a rough increase in the level of solicitude toward children by the average parent, whether male or female, with age. As the physical reproductive capacity and the practical ability to attract mates diminish, the parent devotes increasing time, attention, and resources to nurturing offspring (pp. 83-84). So long as some reproductive capacity exists, however, Beckstrom expects "considerable behavioral tension" in allocating resources either to nurture their existing children or for their own welfare to reproduce more offspring.

Attorneys, judges, and legislators may initially suspect that such scientific theorizing or speculation offers little to the practical exigencies of the law. Beckstrom addresses this criticism, suggesting that sociobiological theory is only one additional resource available to lawmakers, not a panacea. The value of sociobiology to law is the insight it provides into human behavior on the gross, abstracted level at which the legal system is often forced to operate. Although sociobiology will never reach the degree of accuracy necessary to determine the contribution of biological programming to the behavior of specific individuals, it does permit definition of the genetic altruism of a hypothetical "average" person. Because difficulties in obtaining adequate information and in enforcing the law frequently require legislators and courts to estimate objectively the behavior of an average person with certain sex and age characteristics, Beckstrom believes that any evidence on gross tendencies, including sociobiological theory, could improve lawmaking.

One might critique the theory as unsupportable or undesirable, as well as irrelevant. In addition to supporting scientific evidence from observation of other species and certain interview results, new empirical research must attempt to minimize the cultural and environmental factors that potentially mask genetic programming in humans. 

nity. Even in nonpromiscuous societies, the average male is not certain that he is the father. P. 85. Faced with uncertainty as to true genetic overlap with the child, the selfish gene programs the male to devote some resources to nurturing, in case the child is in fact his offspring, but to retain significant resources for himself to continue reproducing.

23. Reproductive capacity ceases abruptly in females at menopause and gradually in males with increasing age.

24. P. 83. The existing offspring may produce grandchildren who are genetically related to the parent by one-fourth, but the parent may produce additional children with a genetic overlap of one-half.

25. In this respect, sociobiology differs from other sciences contributing to lawmaking, notably psychology, which claim applicability to both specific individuals and broad population groups.


27. Beckstrom suggests avenues for empirical research which could both advance knowledge in sociobiological theory and practically aid courts in predicting, for example, parents' disposition toward solicitude. In particular, he believes the genetic programming hypothesis could be tested by studying the relationship between child abuse and parental age or reproductive capacity. Pp. 91-92. Later in the book, Beckstrom suggests tentative applications which await scientific refinement of sociobiological theory. Pp. 127-41. Potential areas for extension of this
Sociobiology also raises difficult political and social questions. Legislators and courts may prefer to restrict the marginal tendency toward nepotistic competition suggested by the biology of altruism rather than condoning or adopting it into the law.

But to disagree with the theory or its implications is not to criticize *Sociobiology and the Law*. Beckstrom leaves investigation of the broader overtones of the theory to cultural leaders and sociologists. As he noted in an earlier article: "[I]t appears that sociobiology holds considerable potential for assisting in everyday, nuts and bolts, apolitical legal decisionmaking. In view of that, it makes little sense to attempt to keep it shrouded for fear of sociopolitical abuse that may never materialize." Content to leave to others the design and advocacy of a coherent cultural, political, or legal approach or response to the biology of altruism, Beckstrom successfully informs lawyers of the contours of sociobiological theory and its potential for effecting changes in specific laws or in their underlying policy rationales.

— Charles F. Weiss

28. Concern over the asserted conflict between genetic self-interest and democracy leads other commentators on sociobiology to go considerably beyond Beckstrom's relatively apolitical conclusions. See Caldwell, *Biology and Bureaucracy: The Coming Confrontation*, 40 Pub. Admin. Rev. 1, 1 (1980) ("[B]iology and bureaucracy are approaching a confrontation comparable to the philosophical conflict between physical science and the medieval church.").