

# Science And Man

## Is Everybody Rotten to the Core?

By Joshua Lederberg

DEAN ACHESON, who was Secretary of State from 1949 to 1953, recently wrote a book review of former Defense Secretary Robert S. McNamara's "The Essence of Security." Acheson especially recommended it "to 'disaffected intellectuals' who have had a bellyful of force," and



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and then cites that "the latest psychiatry and anthropology . . . suggest that human aggressiveness is as legitimate an inheritance as the later-developed doctrine of the golden rule." It appears likely that certain doctrines about the innate biology of human nature may play as important a role in legitimizing the primacy of brute force in world affairs as the "divine right of kings" once did for absolute despotism.

One of the principal themes of this column has been the rapid progress of research in molecular biology, and the opportunity this begins to offer for the diagnosis and cure of inborn diseases of human development. If I believed that modern science supports the innate depravity of man, that global warfare is an inevitable disease of human nature, I would advocate changing that nature by the most powerful tools at our disposal; I would advocate "genetic activism" as the only route to human survival.

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IN FACT, together with many students of human biology and evolution, I believe that the concept of innate aggressiveness is a gross over-simplification, and that our historic political and social institutions need therapeutic attention far more urgently than man's over-all genetic endowment. In

this view, the main place of genetic engineering will be the medical repair shop, to help alleviate the tragedies of individual lives rather than to fulfill the grand design of the utopian fanatic.

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TWO MISCONCEPTIONS have cluttered much of the present-day thinking and writing about human aggression: first, that war and its brutality are founded on individual aggressiveness, and second that aggression to his own species is a recently evolved and peculiarly human instinct.

In fact, submissiveness, not aggression, is the essential condition for modern warfare. Men in combat (whatever else one thinks of war) have given some of the most poignant examples of individual sacrifice, of the submergence of one's own interests for those of the group. The draft compels (and depends upon) submissive behavior. The most brutal acts of war are those which have been most dehumanized: the bombs are dropped on "the other side," an intellectual abstraction to veil a human reality.

In historic times, the scope of human affiliation has grown ever larger. There is no biological reason for one world to be less plausible than one nation as a domain of group cooperation. If we ever do get there it may be none too soon to let us deal with the real enemies (pestilence, pollution, population) that threaten our survival as a species. Meanwhile, the capacity to dehumanize "the others," is the uniquely human perversion. This may be merely a byproduct of our capacity for abstract thinking.

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THE IDEA of evolved aggressive instincts then comes from an inverted perspective. The behavior of lower animals is dominated by instincts, patterns of behavior that are determined by inherited genes. One such instinct, with obvious value for species survival is the inhibition of aggression towards members of the same species.

The special quality of the human brain is the relative unimportance of instinctive behavior generally; it is adapted instead to culture, to learning. We do not have an inborn instinct for war or for peace. It is rather left to our social intelligence to learn whether war or peace will better allow us the enjoyment of our planet.

This outlook, in fact, characterizes McNamara's own thinking, notwithstanding Acheson's side-remarks about human nature or "such diaphanous hopes as the nonproliferation treaty."