Against "Sociobiology"

Elizabeth Allen, Barbara Beckwith, Jon Beckwith, Steven Chorover, and David Culver, et al.

NOVEMBER 13, 1975 ISSUE

In response to:

Mindless Societies from the August 7, 1975 issue

The following letter was prepared by a group of university faculty and scientists, high school teachers, doctors, and students who work in the Boston area.

To the Editors:

Beginning with Darwin's theories of natural selection 125 years ago, new biological and genetic information has played a significant role in the development of social and political policy. From Herbert Spencer, who coined the phrase "survival of the fittest," to Konrad Lorenz, Robert Ardrey, and now E. O. Wilson, we have seen proclaimed the primacy of natural selection in determining most important characteristics of human behavior. These theories have resulted in a deterministic view of human societies and human action. Another form of this "biological determinism" appears in the claim that genetic theory and data can explain the origin of certain social problems, e.g., the suggestion by eugenicists such as Davenport in the early twentieth century that a host of examples of "deviant" behavior—criminality, alcoholism, etc.—are genetically based; or the more recent claims for a genetic basis of racial differences in intelligence by Arthur Jensen, William Shockley and others.

Each time these ideas have resurfaced the claim has been made that they were based on new scientific information. Yet each time, even though strong scientific arguments have been presented to show the absurdity of these theories, they have not died. The reason for the survival of these recurrent determinist theories is that they consistently tend to provide a genetic justification of the *status quo* and of existing privileges for certain groups according to class, race or sex. Historically, powerful countries or ruling groups within them have drawn support for the maintenance or extension of their power from these products of the scientific community. For example, John D. Rockefeller, Sr. said.

> The growth of a large business is merely a survival of the fittest…. It is merely the working out of a law of nature and a law of God.

These theories provided an important basis for the enactment of sterilization laws and restrictive immigration laws by the United States between 1910 and 1930 and also for the eugenics policies which led to the establishment of gas chambers in Nazi Germany.

The latest attempt to reinvigorate these tired theories comes with the alleged creation of a new discipline, sociobiology. This past summer we have been treated to a wave of publicity and laudatory reviews of E. O. Wilson's book, *Sociobiology: The New Synthesis*, including that of C. H. Waddington [*NYR*, August 7]. The praise included a front page *New York Times* article which contained the following statement

> Sociobiology carries with it the revolutionary implication that much of man's behavior toward his fellows…may be as much a product of evolution as is the structure of the hand or the size of the brain. [*New York Times*, May 28]

Such publicity lends credence to the assertion that "we are on the verge of breakthroughs in the effort to understand our place in the scheme of things" (*New York Times Book Review*, June 27). Like others before him, Wilson's "breakthrough" is an attempt to introduce rigor and scope into the scientific study of society. However, Wilson dissociates himself from earlier biological determinists by accusing them of employing an "advocacy method" (deliberately selecting facts to support preconceived notions) generating unfalsifiable hypotheses. He purports to take a more solidly scientific approach using a wealth of new information. We think that this information has little relevance to human behavior, and the supposedly objective, scientific approach in reality conceals political assumptions. Thus, we are presented with yet another defense of the status quo as an inevitable consequence of "human nature."

In his attempt to graft speculation about human behavior onto a biological core, Wilson uses a number of strategies and sleights of hand which dispel any claim for logical or factual continuity. Of the twenty-seven chapters of *Sociobiology*, the middle twenty-five deal largely with animals, especially insects, while only the first and last chapters focus on humans. Thus, Wilson places 500 pages of double column biology between his first chapter on "The Morality of the Gene" and the last chapter, "From Sociobiology to Sociology." But Wilson's claim for objectivity rests entirely upon, the extent to which his last chapter follows logically and inevitably from the fact and theory that come before. Many readers of *Sociobiology*, we fear, will be persuaded that this is the case. However, Wilson's claim to continuity fails for the following reasons:

1) Wilson sees "behavior and social structure as 'organs,'—extensions of the genes that exist because of their superior adaptive value." In speaking of indoctrinability, for example, he asserts that "humans are absurdly easy to indoctrinate" and therefore "conformer genes" must exist. Likewise, Wilson speaks of the "genes favoring spite" and asserts that spite occurs because humans are intelligent and can fathom its selective advantages. Similar arguments apply to "homosexuality genes" and genes for "creativity, entrepreneurship, drive and mental stamina." But there is no evidence for the existence of such genes. Thus, for Wilson, what exists is adaptive, what is adaptive is good, therefore what exists is good. However, when Wilson is forced to deal with phenomena such as social unrest, his explanatory framework becomes amazingly elastic. Such behavior is capriciously dismissed with the explanation that it is maladaptive, and therefore has simply failed to evolve. Hence, social unrest may be due to the obsolescence of our moral codes, for as Wilson sees it we still operate with a "formalized code" as simple as that of "members of hunter-gatherer societies." Xenophobia represents a corresponding failure to keep pace with social evolution, our "intergroup responses…still crude and primitive."

This approach allows Wilson to confirm selectively certain contemporary behavior as adaptive and "natural" and thereby justify the present social order. The only basis for Wilson's definition of adaptive and maladaptive, however, is his own preferences. While he rejects the "advocacy approach" and claims scientific objectivity, Wilson reinforces his own speculations about a "human nature," i.e., that a great variety of human behavior is genetically determined, a position which does not follow from his evidence.

2) Another of Wilson's strategies involves a leap of faith from what might be to "what is." For example, as Wilson attempts to shift his arguments smoothly from the nonhuman to human behavior, he encounters a factor which differentiates the two: cultural transmission. Of course, Wilson is not unaware of the problem. He presents (p. 550) Dobzhansky's "extreme orthodox view of environmentalism":

> Culture is not inherited through genes; it is acquired by learning from other human beings…. In a sense human genes have surrendered their primacy in human evolution to an entirely new non-biological or superorganic agent, culture.

But he ends the paragraph saying "the very opposite could be true." And suddenly, in the next sentence, the opposite does become true as Wilson calls for "the necessity of anthropological genetics." In other words, we must study the process by which culture is inherited through genes. Thus, it is Wilson's own preference for genetic explanations which

is used to persuade the reader to make this jump.

3) Does Wilson's analysis of studies in nonhuman behavior provide him with a basis for understanding human behavior? An appeal to the "continuity of nature" based on evolutionary theory will not suffice. While evolutionary analysis provides a model for interpreting animal behavior, it does not establish any logical connection between behavior patterns in animal and human societies. But Wilson requires such a connection in order to use the vast amounts of animal evidence he has collected. One subtle way in which Wilson attempts to link animals and humans is to use metaphors from human societies to describe characteristics of animal societies.

For instance, in insect populations, Wilson applies the traditional metaphors of "slavery" and "caste," "specialists" and "generalists" in order to establish a descriptive framework. Thus, he promotes the analogy between human and animal societies and leads one to believe that behavior patterns in the two have the same basis. Also, institutions such as slavery are made to seem natural in human societies because of their "universal" existence in the biological kingdom. But metaphor and presumed analogy cannot be allowed to mask the absence of evidence.

4) Another way Wilson confronts the difficulties in making the jump from non-human to human societies is by the use of *ad hoc* arguments. For example, a major problem exists in Wilson's emphasis on innate biology: how can genetic factors control behavior if social structure within a group can change rapidly over the course of just a few generations? Wilson, of course, does not deny the enormous flexibility and rapid change in human action. But Wilson admits that according to standard population genetics, this period is far too short for the changes observed. He turns instead to the "multiplier effect," which is a concept borrowed from economics. He uses this "effect" in an attempt to show how small genetic changes can be amplified enormously in a limited time span. But nowhere does Wilson present any basis for introducing the multiplier. A crucial point in Wilson's explanation remains purely speculative. Further he relies on the unproven assumption that genes for behavior exist.

5) Many of Wilson's claims about human nature do not arise from objective observation (either of universals in human behavior or of generalities throughout animal societies), but from a speculative reconstruction of human prehistory. This reconstruction includes the familiar themes of territoriality, big-game hunting with females at home minding the kids and gathering vegetables ("many of the peculiar details of human sexual behavior and domestic life flow easily from this basic division of labor"—p. 568), and a particular emphasis on warfare between bands and the salutary advantages of genocide. But these arguments have arisen before and have been strongly rebutted both on the basis of historical and anthropological studies. (See, for instance, A. Alland, *The Human Imperative* or M. F. A. Montagu, *Man and Aggression*.)

What we are left with then is a particular theory about human nature, which has no scientific support, and which upholds the concept of a world with social arrangements remarkably similar to the world which E. O. Wilson inhabits. We are not denying that there are genetic components to human behavior. But we suspect that human biological universals are to be discovered more in the generalities of eating, excreting and sleeping than in such specific and highly variable habits as warfare, sexual exploitation of women and the use of money as a medium of exchange. What Wilson's book illustrates to us is the enormous difficulty in separating out not only the effects of environment (e.g., cultural transmission) but also the personal and social class prejudice of the researcher. Wilson joins the long parade of biological determinists whose work has served to buttress the institutions of their society by exonerating them from responsibility for social problems.

From what we have seen of the social and political impact of such theories in the past, we feel strongly that we should speak out against them. We must take "Sociobiology" seriously, then, not because we feel that it provides a scientific basis for its discussion of human behavior, but because it appears to signal a new wave of biological determinist theories.

Elizabeth Allen, pre-medical student, Brandeis University; Barbara Beckwith, teacher, Watertown Public High School; Jon Beckwith, professor, Harvard Medical School; Steven Chorover, professor of psychology, MIT; David Culver, visiting professor of biology, Harvard School of Public Health, professor of biology, Northwestern; Margaret Duncan, research assistant, Harvard Medical School; Steven Gould, professor in the Museum of Comparative Zoology at Harvard University; Ruth Hubbard, professor of biology, Harvard University; Hiroshi Inouye, resident fellow, Harvard Medical School; Anthony Leeds, professor of anthropology, Boston University; Richard Lewontin, professor of biology, Harvard University; Chuck Madansky, graduate student in microbiology, Harvard Medical School; Larry Miller, student, Harvard Medical School; Reed Pyeritz, doctor, Peter Bent Brigham Hospital, Boston; Miriam Rosenthal, research associate, Harvard School of Public Health; Herb Schreier, psy chiatrist, Massachusetts General Hospital. (*Affiliations for identification only*.)

Editors' Note: We regret that C. H. Waddington, who would have been asked to reply to this letter, died on September 26.

Letters
For Sociobiology December 11, 1975
