

BIOLOGY AND SOCIAL PROBLEMS

by R. C. Lewontin

My remarks on the issue of selective breeding and population control are almost entirely reactive and will center primarily on Professor Ingle's paper.¹ That is not entirely unfortunate, since many of the points made by Professor Ingle are representative of a general attitude on these questions that is widespread. I hope I will not be offensive when I say that Professor Ingle's essay contains two closely related fallacies that permeate most of the thinking in this field.

Professor Ingle begins with the fact, which no one will deny, that there is an immense variation in human performance in the whole variety of behavioral and physiological tasks that constitute human social life. Second, he quite correctly points out that people vary in the degree to which the psychic and material rewards of society accrue to them. Finally he states, again correctly, although some may deny it, that biological differences exist among individuals in their ability to perform certain tasks in certain environments, and at least some of this biological difference is a difference in genetic constitution.

But from these undoubted facts, he draws incorrect conclusions, based, as I said, on two related fallacies. The first is that of *biological determinism*. This doctrine states that if a biological difference is found between two organisms or groups of organisms with respect to some trait, that biological difference represents the irreducible minimum difference that will exist in the trait in question. For example, men and women are biologically different, and, ultimately, that biological difference is traceable to a genetic difference. Moreover, that biological difference necessarily includes some difference in average behavior pattern between men and women, even if they had identical environments from birth. But it does *not* follow that therefore there *must* be a difference in social roles between men and women. It is entirely within the behavioral flexibility of individuals

R. C. Lewontin, professor of biological sciences at the University of Chicago, presented this article in response to Dwight J. Ingle's "Genetic Bases of Individuality and of Social Problems." He and Professor Ingle were participants in a seminar on this topic at Meadville/Lombard Theological School, Chicago, February 15, 1971. Professor Ingle offers a rebuttal following Professor Lewontin's piece.

and within the structural flexibility of social organization that men and women play the same social roles or even reverse them, *if that becomes a social imperative*. Because men and women are genetically different, it would require a change in social structure, upbringing, and family orientation to make sex roles interchangeable, but it would be neither impossible nor probably very difficult, given an appropriate cultural revolution.

The error of biological determinism arises from the failure to understand that human behavior is determined by an *interaction* between genotype and environment, and especially social environment. The social and family milieu determines how and to what extent biological differences will be manifest; the biological differences themselves determine nothing. Thus, it is a biological fallacy to say, for example, "Women are 'naturally' more passive than men." Even putting aside the huge range of variation and overlap between these groups in their behavior, it is only correct to say, "Given our present social structure and family organization, the biological difference between men and women manifests itself as an average greater passivity of women." While I have couched this problem entirely in terms of sexual roles in society, exactly the same reasoning applies to racial differentiation or any other classification of human beings with some biological basis.

Professor Ingle's second error I will call the *fallacy of inflexible assortment*. An example of this fallacy is the following incorrect syllogism. "It is a statistical fact that the more education a person has, the higher his lifetime income. Therefore, if we could increase the educational level of the population as a whole, we could increase the average income." But this conclusion is patently false. The average income—indeed, the distribution of incomes, in which 5 percent of the population has 20 percent of the income and 20 percent of the population has only 5 percent of the income—is a result of the social organization of work and exchange. In fact, the distribution figures just cited have not changed for fifty years, although the average educational attainment has increased markedly. It is certainly true that persons with lower education or lower IQ performance tend to be relegated to menial jobs with low pay or are totally unemployed. But their low education or IQ is not the *cause* of the existence of those menial jobs or of the 6 percent unemployment. The menial jobs and the lack of employment are a result of the economic system under which we live. Given that situation, persons of low IQ, low social status, low education, will be assorted into the menial jobs and into the ranks of the unemployed. But that is a totally different thing

from saying that the proportion of unemployed stems from the existence of such persons.

An analogy can be seen in peck orders among chickens. In a barnyard, the chickens assort themselves by aggressive displays into a hierarchy or peck order. It can be shown that there are biological differences between the chickens at the bottom of the peck order and those at the top. But if the lowest chickens are removed and replaced by chickens taken from the top of the peck order in another barnyard, the peck order does not disappear. On the contrary, it is reestablished after a rather more protracted and bloody set of aggressive encounters.

The peck order in our competitive, aggressive society is a socially established phenomenon. In the aggressive exchanges that occur, some part of the ordering of individuals will reflect biological or cultural inheritance. But the peck order will not be abolished by abolishing those at the bottom of it! If everyone could read Immanuel Kant's *Critique of Pure Reason*, we would still have 6 percent unemployed. Professor Ingle's notion that by discouraging the breeding of the lower classes we will be turned into a world of fat cats is simply based on a total misunderstanding of political economy.

I would suggest that instead of concerning ourselves with the biological and cultural basis of the sorting-out process which determines who will be the "haves" and who the "have-nots," we would far better turn our attention to the real issues. How can we organize society so that there will be a positive correlation between work and reward, instead of the negative one that exists in our competitive, aggressive system? How can we so organize society that all human beings will receive the full measure of psychic and material benefits that social organization can produce? Professor Ingle's approach, which is the standard liberal one, asserts that people get, by and large, what they deserve, so that the problems of society will be solved by making more deserving people. I assert that all human beings are equally "deserving" and the problems of society can only be solved by a radical reorientation of the social and political structure so as to guarantee the fruits of social organization to all.

NOTE

1. Dwight J. Ingle, "Genetic Bases of Individuality and of Social Problems," *Zygon* 6 (1971): 182-91.