

The Pros and Cons of Selective Breeding

Dr. Garland Allen, a professor in the biology department at Washington University, St. Louis, gave a lecture on eugenics at Dalhousie last Thursday.

He argued that, contrary to the popular myth, science is affected by the society it exists in. Using slides to illustrate his points, Dr. Allen showed how "enormously subjective" the data eugenicists used in the early 1900s was. Early eugenicists attributed traits ranging from alcoholism to "seafaringism" to the genetic make-up of the individual. This movement was so powerful in the early 1900s that by 1935 thirty states in the United States had laws requiring sterilization for the "feeble-minded, the insane, idiots, habitual criminals, imbeciles, and epileptics", to name a few. There was no doctor required to judge who should be sterilized, only a member of the community and a judge.

Dr. Allen spoke of "theories of biological determination", which he defined as "theories that try to explain human social traits by reference to some biological factor." "These theories," he said, "are inevitably subject to misuse."

He concluded with a question: "What can we learn from history?"

The following is the transcript of a subsequent interview with Dr. Allen by Sheila Fardy of the Dalhousie Gazette.

GAZETTE: Dr. Allen, first of all, what is your definition of eugenics?

DR. ALLEN: The definition I would use is the definition that was first put forward around the turn of the century by Charles Davenport, among other people, and it was (I think it's a pretty direct quote), "the attempt to use principles of human heredity for the purpose of perfecting the hereditary make-up of the human population."

GAZETTE: And what is your involvement with eugenics?

DR. ALLEN: I don't have any involvement with eugenics itself, but I've been looking at the history of eugenics as a scientific and a popular movement, particularly in the United States between about 1904 and 1950.

GAZETTE: That sounds very interesting. In the Playboy interview with Shockley, he was concerned with something he calls dysgenics, which he described as "evolution without progress" or "retrogressive evolution". Are you concerned at all with this problem, or is it really a problem?

DR. ALLEN: Shockley of course is a contemporary person who is making these arguments, very similar to what people in the teens and twenties called eugenics. The notion of dysgenics is the failure to weed out so-called genetically inferior traits or people and therefore to allow those to multiply and increase in the population. I personally don't believe that either now or then was dysgenics a real problem.

GAZETTE: Well, with animals the strongest survive and the weaker ones die off, but with our medical progress I guess a lot of weak traits are being perpetuated in the human race. Do you agree?

DR. ALLEN: This depends on how you define weak traits. Traits generally have adaptive value according to the environment they're in. If you put a bunch of organisms in a closed box and turned a hundred mile an hour wind on them, a large number would probably fall to the bottom and be killed. Those who survive would be considered strong in that environment. But if you put those same individuals in another environment where there is no wind some very different characteristics will emerge. Those that were knocked down by the wind in the first case might in fact be able to do something very special in the second case, so that what is dysgenic in one environment might be quite adaptive and advantageous in another environment. Especially when you talk about human beings, who have so much control over their environment, what's dysgenic or eugenic is purely a matter of subjective feeling. My whole basis of argument about eugenics, and it's current proponents such as Shockley, is that they fail to look at the environment and they argue only that some traits are in an absolute sense dysgenic whereas other traits are in an abso-

lute sense eugenic. If you look at what the older eugenicists in the 1920s were saying they thought the favourable characteristics were things like competitiveness, tough-mindedness, industriousness, a whole bunch of things that if you look at them today are a re-statement of old puritan values. These things are values, but the point is that they are very subjective values. They may work to people's advantage in one environment and to their disadvantage in another environment, but we can control our environment. Eugenicists said, for example, that people who don't have jobs are inferior because they aren't capable enough to get and hold a job. On the other hand, it's only in an environment that in some way artificially limits the number of jobs that this becomes a problem. The great depression in the 1930s greatly undercut some of the eugenicists arguments that employment was a function of the genes because all of a sudden a whole bunch of people were out of jobs and their genetics had not changed.

GAZETTE: A few eugenicists have cited examples where well-educated and better-off economically people have fewer children than poorer people, and that costs society in welfare payments, etc. How do you account for this?

DR. ALLEN: I think you have to look at the data first of all, the data isn't always so accurate, but there has generally been a trend in the last hundred years with regards to birth rate in different sectors of the human population. One is between rural and urban. There are far more larger families in rural agricultural areas than in urban industrial economies. The birth rate has in fact changed quite dramatically when people have moved from rural to urban settings. That is one case which illustrates to me the importance of socio-economic factors in affecting birth rate. In an agricultural environment children are not a liability. They can earn their keep at a very early age; in fact they're really necessary. They can feed the chickens and milk the cows, for example, which is helping the family as a whole to survive in a way much better than the family could survive if they only had a couple of children. The high birth rate in agricultural environments is not a function of their stupidity or their backwardness as is often claimed, but a response to a real perceived economic reality. Whereas in an urban setting children are a liability. We tried in the United States and Britain to use child labour, and this turned out not only bad from a moral point of view but it was also bad from an economic point of view, as the factory owners found out. The kids were not able to handle factory machinery, they were getting hurt and killed, and that was to them an inconvenience, if nothing else. The cheap wage was not made up because the children just couldn't handle that kind of work.

Now with regards to the poor people vs the rich people, the same kind of argument applies. It can be said, and I think this is true, that birth rate reflects economic conditions, not economic conditions reflect birth rate. I do not believe people are poor because of the number of children they have. If their economy has been disturbed, or if they've been denied access to full-scale economic development, then one response to that (and a very real and rational response) is to have more children. If you look at a third world country, a Latin American country, India and so on, one of the reasons they have a high birth rate there is that all those countries have been invaded economically by the western powers for so long that most of the resources flow out of the country; their food, money, and resources are taken away. This means that they have to work really hard to even exist, and children are a real benefit. If you went to India, say, and sterilized every woman after her second child, my argument is that you would find an increase in poverty there, not a decrease. In fact, having five, six, or seven children is an advantage, even though there are more mouths to feed, for the following reasons: Firstly, the children can work in the agricultural setting, and you really do need hands. Secondly, children are an old-age insurance policy, in a society that has no old-age benefits, no retirement

plans, nothing. The only way parents can expect to be supported when they finish all the work is if they have enough kids who can share the burden. One or two kids simply cannot, in that kind of marginal economy, support their parents. But the question I think is important to bring up in that context is "why?". Why do the economics seem to be so poor? It's not because these people are dumb or incapable of feeding themselves. India had no population problem before the British got there in the 19th century and South America had no great population problem before the United States got there in the 19th century. What those countries

suggests that there is anything genetic about that.

GAZETTE: What do you think of eugenics as a science, or do you in fact consider it a science at all?

DR. ALLEN: I don't even consider it a science, I consider it a social movement using science as a cover.

GAZETTE: In your lecture you linked socio-economic conditions in the United States with popular interest in eugenics. Do you see that as a problem now?

DR. ALLEN: O.K. That's a good question. A clearer way to state that is that I think social

without major birth control programs, without availability of contraceptives, and that sort of thing. I think it undermines the old myth that people just keep on having babies because they don't know what else to do, and there is real relationship between perceived economic benefit and birth rate, and that if you increase the economic lifestyle of people, to a certain level that automatically causes a reduction in the birth rate. So birth rate is not something that we can predict as something either inherent in poor people, but also it undermines the myth that we're sitting on a population "bomb" that is just going to end in total over-popula-



do when they make colonies out of third world countries is to drain them of resources, use their cheap labour and take the product away and sell it at a profit elsewhere. The profit doesn't go to the Indian or South American workers, it goes to Britain or the United States. It's like entering into an eco system and disturbing it, rather profoundly, and then noticing that you have a low subsistence level of the organisms in that eco system and then blaming it on the organisms for being incapable, when in fact, there has been a major dislocation from outside.

GAZETTE: O.K. What about the argument that if a University professor has some children, generally the children end up in a higher economic bracket also; while the welfare mother who might have fourteen children, those children often end up on welfare or in jail at the taxpayer's expense. Shockley and others say that that is as a result of genetic factors. I would tend to think that it was because of social factors. What do you think?

DR. ALLEN: Well, I would tend to think that it's social too. In fact, there is no evidence that

conditions change, certainly, unemployment goes up, there are more strikes, and inflation is rampant. People's understanding of why these changes are coming about and how to correct them is often very unclear. They have different ideas or they have vaguely expressed ideas. Eugenics, by being pushed forward as a readily available explanation, catches on not so much because people in general think of it first, but because it, more than alternative explanations, is made available. So naturally, it's accepted by a certain number of people as a likely explanation. It's a very simplistic explanation, so it's very attractive.

GAZETTE: O.K., That's about all the questions I had prepared, is there anything else you would like to add?

DR. ALLEN: Yes, I would add, with regards to your birth-rate question, one thing that I think bears stating; it has been shown in a number of countries since World War II, where the economic condition has improved, that as soon as standard of living reaches a certain point, that is, certain social and welfare benefits are available, birth rate drops automatically.

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GAZETTE: There is one other thing that I'm interested in, and I don't know too much about I.Q. tests, but these eugenicists are claiming that, for instance, black people score 15% lower on I.Q. tests than white people. Is there any way to explain this?

DR. ALLEN: Despite claims to the contrary, there is always a certain amount of social bias in an I.Q. test. The way they're constructed, and it shouldn't be a big secret, is to make them useful predictors of later behaviour or activity. You will always get an assortment of people who will perform differently on any test you make. The question is, what do you want to give a test for in the first place? The I.Q. test was initiated to predict school success and later to predict their success in life. So the whole thing was done with a predicting aim in mind. How do you tell whether your test is a good predictor or not? You give it to people, and then you look down the road, years later and see what they do. How do they perform in school and how do they perform in jobs? Now if that's your model for designing the test, suppose you look at the

results ten or twenty years later, and the people who did well on your test didn't do very well at all in life. This is all very subjective. Then your test is not a good predictor, so you redesign your test, take out the questions that the people who turned out to be the bankers or the straight A students did poorly on and you keep and add new questions that those people did well on.

GAZETTE: So it has a lot to do with society.
DR. ALLEN: It has ALL to do with society. For example, up until 1937, the tests showed remarkable discrimination between men and women. Men did 15 or more points better than most women on the test. Now in 1937, because of the women's suffrage movement, it was argued that this can't be real, there must be something wrong with the test. So they stand-

ardized the test. They found out which questions men and women consistently did differently on, and they eliminated those questions. The decision to standardize the tests was based on a social value that said that women are no less intelligent than men, and the test was redesigned to show that. The test has never been standardized for black/white differences. So I think that it is social in that it has to do with the designing of the tests, and it's also social in terms of the jobs that people get later. If people don't have much success in the social system, then their children are going to look at the world very differently than if their parents did have success in the social system. So I think it works both ways.

GAZETTE: Thank you very much.
DR. ALLEN: O.K. Good-bye.

Is they dum as he says?

The following is an excerpt from a "Playboy" interview with Nobel Prize-winning scientist, William Shockley, a leading proponent of eugenics.

PLAYBOY: Why is it so important to you to talk about the so-called bottom of the population? And what people are at the bottom, in your opinion?

SHOCKLEY: It's important to me because of the tragedy at the bottom end of the population, which is particularly severe for the blacks, but also probably occurs for the *chicano* population — maybe to a comparable degree — though I am not as conversant with the *chicano* case. The same thing probably occurs for some Appalachian whites. What I'm talking about here is poverty, crime, unemployment and a host of other human miseries that impose heavy burdens on society and bear most heavily on the babies who are born into suffering as a result of this misery.

PLAYBOY: Wait a minute. Let's boil that down a bit. At the nub of what you're saying is the belief that blacks are inferior, right?

SHOCKLEY: Actually, it's more as if the baby got a genetic five-card poker hand that was drawn not from a full deck but from a ten-card deck made up of the two hands holding the genetic cards of the parents. If both parents had high hands, for example, each containing four of a kind, the chance of the baby's getting two pairs or, even better, a full house, would be pretty good and the worst possible draw would be one pair. This oversimplified genetic explanation suggests how high-I.Q. parents will tend to produce not-quite-so-high-I.Q. children, while sometimes producing a dumb one. Sometimes parents blame themselves when one child falls far below his sibling in making grades. Actually, genetic models predict that in about ten percent of all two-child families, the I.Q.s of the children will differ by 20 I.Q. points or more. Knowledge of this fact might keep some parents from trying to push the slower child beyond his capacity, which may do the child far more harm than good. At the other extreme, if the parental ten-card deck is composed of two worthless four-card flushes, both in the same suit, one child in 20 would have a good chance of being a high-value flush. This suggests how a single, highly gifted child may show up in a large family even though all the other children are below average.

PLAYBOY: If you agree, how does that fit with your view of blacks as a genetically enslaved race?

SHOCKLEY: My point is, the environment and the discrimination have not stopped some blacks who have the ability from progressing, so I don't see why it is necessarily stopping all the rest.

PLAYBOY: Very interesting. But what does that have to do with the relationship between the badly loaded genetic dice cup and what you call the American Negro Tragedy?

SHOCKLEY: Tragedy for American Negroes, if you please. The relationship is that in some cases the cards are stacked or the dice are loaded, so to speak, so that the likelihood of drawing really good genes for intelligence and other behavioral traits is much smaller for some groups of people than for others. This is patently unfair. These people end up at the bottom rungs of the socioeconomic ladder through no fault of their own. This is the fate that is now befalling a disproportionately large fraction of the black minority. This fate will become worse

if dysgenic effects result from the 5.4-to-1.9 ratio found in the 1970 census.

PLAYBOY: Let's assume that the dysgenics threat is real and the quality of the human race is declining. What would you propose as a solution?

SHOCKLEY: I proposed a thinking exercise about ten years ago called the Voluntary Sterilization Bonus Plan. What it does is to offer people who may be carrying genes that are defective, including those for intelligence, a bonus for voluntarily agreeing to be sterilized.

PLAYBOY: OK, that's fair. How would your Voluntary Sterilization Bureau Plan work?

SHOCKLEY: Every time I have discussed the Voluntary Sterilization Bonus Plan, I have described it carefully as a *thinking exercise* rather than as a legislative proposal. It shows that we don't have to define what the perfect man is and that no authority is deciding who can have children. It's a voluntary choice by the people themselves. It does not require Hitler's concentration camps. There is an inducement, but nevertheless, its acceptance is voluntary. The amount of the cash bonus would vary. In some cases, it would be zero. For example, income-tax payers, who tend to be somewhat successful already in society, would get no bonus. All others, regardless of sex, race or welfare status, would be offered a bonus that would depend upon best scientific estimates of any genetically carried disabilities that they might have. Those would include diabetes, epilepsy, hemophilia, Huntington's chorea and other genetically transmitted illnesses. A dysgenic increase of these afflictions is probably now occurring, owing to advances in medicine that overcome evolution's pruning actions. There would also be bonuses for lower-than-average I.Q.s.

PLAYBOY: How much money would those people receive for agreeing to sacrifice their right to have children?

SHOCKLEY: My thinking exercise proposes a figure of \$1000 for every I.Q. point below 100. That may sound high, but \$30,000 put into a trust for a 70-I.Q. moron, who might otherwise produce 20 children, might make the plan very profitable to the taxpayer. If three of these hypothetical children ended up in institutions for the mentally retarded for life, it might cost the taxpayers nearly \$300,000 to take care of them. Furthermore, if we offered ten percent of the bonus in spot cash, it might stimulate our native American genius for entrepreneurship.

PLAYBOY: Do you believe in equal opportunity for all people, black or otherwise?

SHOCKLEY: Yes. I believe in the created-equal assertion of the Declaration of Independence, when it is interpreted in terms of equal political rights, but I would qualify it some: I don't think the right should be given equally to everyone to have children, if those people having children are clearly destined to produce retarded or defective children. This puts an unfair burden upon society. But when I talk about that burden, my standard language emphasizes the fact that the ones who suffer most are the children themselves.

PLAYBOY: But we're asking about equal opportunity, not about the right to have children.

SHOCKLEY: Can you have equal opportunity if you don't have the same capacity as someone else to utilize it?