

sidered as "pollutants." The need for high pressure vessels, cobalt 60 and ethylene indicate that the creation of the plastics would require sophisticated equipment and skilled personnel, a fair-size manufacturing complex of itself.

K. Kaneta  
Seattle, Wash.

### Nature of intelligence

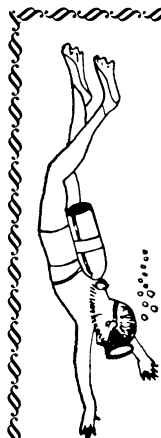
Recently it has seemed that biologically related models of human behavior are increasing in popularity. Your article "Nature vs. nurture in intelligence" (SN: 4/5, p. 326), reflects this trend which is also exemplified by Talcott Parson's recent attempt to resurrect the model of societal evolution, Amitai Etzioni's article in the December 1968 *AMERICAN SOCIOLOGICAL REVIEW* examines the possibility of "basic human needs," and attempts to explain aggression as an instinctive "territorial imperative."

It appears more likely that such models become popular not because of compelling scientific evidence but rather from a dissatisfaction with the seeming ineffectiveness of the social sciences. Arthur Jensen's argument, as reported in the April 5 *SCIENCE NEWS*, that I.Q. is primarily dependent on heredity may have one root in his disaffection with quasi-governmental programs, such as Headstart, which have not shown as dramatic a success as hoped.

But the applications of social science are not necessarily reflections on the science; application is also dependent on the abilities of social engineers just as physicists are not solely responsible for the collapse or success of bridges. Of course Jensen is right that "intelligence" is limited by genetic endowment, but there is abundant evidence that it is either released or smothered by the environment. Beyond this point is the fact that it is politically unrealistic to alter intelligence by tampering with genes. And, so far as I am aware, the technical knowledge is not adequate to do so efficiently.

Two important researches bearing on the question of "nature vs. nurture" should be brought to the attention of your readers to supplement the April 5 report. James Coleman's study, "Equality of educational opportunity," showed, for example, that family background affects academic success much more than the quality of the academic environment. Thus the failure of Headstart, if it has failed, may be due to a misemphasis on certain parts of environmental change. It certainly does not in any way demonstrate the determination of intelligence by heredity.

Robert Rosenthal's studies of "experimenter effects" established that (See p. 446)



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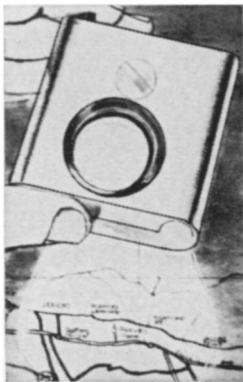
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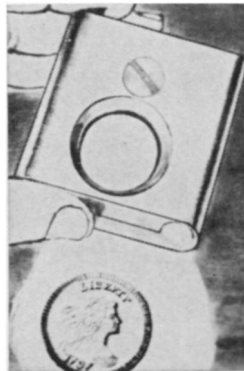


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*Letters from p. 445*

children's I.Q. scores were raised dramatically when their teacher's believed certain children were capable of better work, having been told by Rosenthal that these randomly selected students were "intellectual bloomers." (This is reported in "Pygmalion in the Classroom.")

The important point then is that some failures in applying social science knowledge may not be due to the inaccuracy of that knowledge but rather to its misapplication or misemphasis. Or, as Rosenthal's research illustrates by counterexample, a failure to believe that conditions can be changed by environmental alteration may be a self-fulfilling prophecy which inhibits possible improvements. Thus we find a return to a pessimistic and "dismal" science based on explanations using "unchanging" variables such as "needs," "heredity," and "genetic endowments." Hopefully this pessimism will prove to be temporary.

*Richard P. Devine  
Department of Sociology  
Saint John's University  
Collegetown, Minn.*

**Identical bills**

The article entitled "Implementing the NSB Proposals" (SN: 3/29, p. 306) may foster a misunderstanding.

The article suggests that the Harris bill in the Senate "may sidestep objections to the Miller bill." In fact, the Harris proposal is identical with the Miller bill which was introduced at the beginning of this year.

*Emilio Q. Daddario  
Chairman, Subcommittee on Science,  
Research and Development  
House of Representatives  
Washington, D.C.*

**Appreciated**

I particularly appreciate your fine material concerning human behavior, social trends and ecology.

Water, air and soil pollution are going to render our great technology meaningless unless man swiftly decides to spend his billions on life instead of endless military death.

However, your journal has a good balance, considering the vast scope needing coverage.

*W. F. Hadel, Instructor  
The Bible Study Chapel  
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