

Youth is apparently responsible for a "substantial and disproportionate" amount of U.S. crime and juvenile courts have not stemmed the tide, the President's Crime Commission points out.

In its fifth task force report, released last week, the Commission estimates that if present arrest rates continue, 40 percent of all male children living in the United States today will be arrested for a non-traffic offense sometime in their lives. "For boys living in cities," says the Commission, "the figure is on the order of 60 percent; for Negro boys living in cities, it is about 90 percent."

The figures are heavily weighted by high arrest rates for such offenses as drunkenness and car theft. Nevertheless, the Commission believes the best hope for reducing overall crime is to reduce juvenile delinquency and youth crime.

A step in that direction was taken last week when some 200 professionals met in Washington to exchange ideas for using new money that would be available under the Juvenile Delinquency Act of 1967.

That Act, now pending in Congress, authorizes spending \$475 million over five years for new local and state programs aimed at preventing delinquency and rehabilitating young people already in trouble. It follows six years and \$47 million worth of demonstration projects, developed under the Federal delinquency act of 1961.

The new tack on delinquency bears close resemblance to War on Poverty programs, and, in fact, those in the delinquency field claim credit for many concepts central to poverty programs.

A key concept is youth participation. The idea is to prevent delinquency by rerouting teenage energies into community action and using young people in the planning of recreation and training programs. When adults forget youth participation, the young are reminding them of its importance, as the Washington conference made clear.

"Get back to your area and talk to the kids. They have something to tell you. Ask them what they need to stay out of jail," Leroy Washington, a young Negro from the District of Columbia, told the conference. Washington was one of 50 young people invited to join the professionals in the exchange of ideas. That they were there at all indicate the changes that have taken place in delinquency treatment over the past six years.

A second concept is treatment within the community instead of incarceration. Though the juvenile court system was designed to keep delinquents out of jails, it has often failed to do so. Of 400,000 juveniles detained in

1965, two-thirds were held for an average of 12 days, usually in the local lock-up for want of a better place. Moreover the promise of rehabilitation was left largely unfulfilled, generally for lack of money and facilities.

The 1967 Act calls for new juvenile facilities and community centers for handling the large number of young people detained for offenses that are not crime in the adult sense—truancy and minor types of misbehavior.

Also, research has generally established the advantage of treating even hardcore delinquents in the community, rather than in institutions.

Not all the conference participants, however, struck an optimistic note. Milton Rector, director of the independent, nonprofit National Council on Crime and Delinquency in New York, lamented the unfairness of the system of juvenile justice.

A juvenile may be institutionalized for acts that are not crimes. Moreover he can be transferred from a juvenile facility to an adult prison without trial or due process, said Rector. Referrals to juvenile court depend on the whims of police officers. Some refer 90 to 95 percent of their cases; others only five percent.

Rector, whose group did much of the delinquency research for the Crime Commission, warned the conference that without major changes in juvenile justice, "what we're trying to do at the community level will be for naught."

Protein Polices Genes

The mechanism that controls gene activity in living cells long has been a major biological puzzle.

Scientists have known genes transmit hereditary characteristics by dividing. Instructions to cells to become skin, bone, muscle, or other tissue cells, come from dividing genes. But when a gene divides, it make an exact replica of itself.

The question scientists asked themselves was, how, since every cell gets the same genes, can self-replicating genes from a single fertilized egg produce so many different kinds of cells.

In 1961 a Nobel Prize was awarded to two French scientists who proposed an answer. Drs. Francois Jacob and Jacques Monod, in studies with bacterial cells, discovered a set of genes which, they theorized, produced molecules that control the activity of other genes by turning them off.

Up to six months ago, scientists were conducting numerous experiments to prove or disprove this hypothesis—all without success.

Now, however, isolation of a protein that controls gene functioning by

switching it off is proof of the Jacob-Monod theory.

The newly identified regulator protein, known as a repressor, probably represents a new class of molecules, according to Dr. Mark Ptashne of Harvard University, who isolated a repressor in experiments with common E. coli bacteria. His experiment has been called "an elegant proof" of theories advanced by Drs. Walter Gilbert and Benno Müller-Hill of Harvard. "The repressor acts quite simply by turning off single target genes," Dr. Ptashne says.

In order to turn off a specific gene, the repressor attaches itself directly to the DNA at a position adjacent to the target gene. Explaining the probable mode of action, Dr. Ptashne says the repressor blocks the transcription of DNA into RNA and thereby prevents the gene from complete functioning.

Anti-evolution Upheld

Among the many state laws forbidding the teaching of evolution passed during the 1920's, the law in Arkansas was unique—the issue was decided by the general electorate rather than the state legislature.

The anti-evolution law was overwhelmingly approved by Arkansas voters, 108,991 to 63,406, on Oct. 6, 1928.

Last week, the Arkansas Supreme Court upheld the law, terming it a "valid exercise of the state's power to specify the curriculum in its public schools."

The ruling which reversed the 1966 decision of a lower court, resulted from the first serious challenge to the Arkansas law, initiated in December 1965 by Mrs. Susan Epperson, then a 24-year-old biology teacher at Little Rock's Central High School.

The State Supreme Court ruling will be appealed immediately to the U.S. Supreme Court, and the Epperson case could become as well known as the Scopes case in Tennessee in 1925. In that trial, Clarence Darrow defended a Tennessee school teacher's right to teach evolution. The biology teacher, John Thomas Scopes, who was then 24 years old, was convicted and the law upheld, although he later won an appeal on a technicality.

Ironically, the Tennessee law under which Scopes was convicted was repealed by the Tennessee legislature less than two weeks before the Arkansas high court handed down its decision.

If the U.S. Supreme Court overturns the decision of the Arkansas court, it would affect not only Arkansas but also Mississippi, the only other state that still forbids the teaching of evolution.



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THE CHANGING EARTH

By Judith Viorst of SCIENCE SERVICE

Introduction by Frank C. Whitmore, Jr., U. S. Geological Survey

Preface

The planet we live upon seems changeless and eternal, but it is neither. It was born some four or five billion years ago, and between that time and the present it has turned many very different faces to the sun. What is more, it continues to change even now, and will do so until it no longer spins in the sky.

This book describes the forces that mold the earth's changing face—water, wind, glaciers, vulcanism, diastrophism. It explains the making of our mountains and valleys and canyons, our beaches and caves and dunes, our waterfalls and geysers and springs. It also traces earth's history from its ambiguous beginnings through the shaping and reshaping of its continental features, telling—in rich detail—the awesome story of the evolution of life.

37 photographs and 30 drawings accompany the text, which is written for both the aspiring young geologist and anyone—of any age—curious about the planet on which he lives. The book abounds in facts about earth's past and present, but it also tempts the curious with the many unsolved questions that make geology a living, growing, ever-intriguing science.

By Watson Davis
 Director Emeritus, SCIENCE SERVICE

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Although the anti-evolution law was ruled valid, the Arkansas court did not express any opinion concerning whether or not the law prohibits explaining evolutionary theory to students. However, since the law itself expressly prohibits any discussion of evolution as either theory or fact, the status of textbooks now in use is uncertain. Dozens of textbook editions used in Arkansas include chapters on evolution as factual science.

Your Address Label

Some of you may have noticed that the typeface on the address label of your copy of SCIENCE NEWS has recently changed. This is because we have just converted our mailing list and subscription records to computer.

During the process of switching over, we were introduced to a term "GIGO"—which we found stands for "Garbage In, Garbage Out." It implies that the mistakes you put into a computer will come out.

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