

Growing up: An adult connection

Father—and mother—may know best after all. A new national study of teenagers finds that adolescents' values and social roles are largely shaped by their parents and the communities where they live. Peers and a pervasive "youth culture" are far less influential, says the director of the study, Francis A. J. Ianni, a psychoanalyst and anthropologist at Teachers College of Columbia University in New York City.

The eight-year study of 2,000 adolescents examined their attitudes and the external forces affecting them in urban, suburban and rural settings. Preliminary findings published by the National Institute of Education indicate that the attitudes of parents and their teenage children are often more consistent than those of teenagers and their peers. Most of the adolescents in the study were seeking consistent rules in families, schools and communities. "They are often desperately seeking those rules," says Ianni. Role variations created different opportunities and risks in growing up in each setting. No national pattern of common attitudes and behavior was uncovered.

From the larger sample, a research team selected 200 teenagers who lived either in an inner city, an upper middle class suburb or a rural neighborhood in New York state. The youngsters were observed in the home, school and community, and interviews were conducted with parents, teachers, police officers, ministers, social workers and other adults who deal with young people. The same was done for 100 teenagers in eight communities in four other states. Ianni conducted in-depth psychological interviews with each adolescent.

In urban settings, the researchers found that families and institutions set conflicting rules for teenagers. Adolescents often responded by rejecting societal rules and creating their own, as exemplified by street gangs. Community attitudes were more consistent for middle-class suburban teenagers. At times, however, the researchers observed a "competitive and unrealistic" emphasis on achievement. Community attitudes were the most stable in rural settings, but many adolescents in those locations said they wanted to leave because of a sense of isolation and frustration with limited opportunities.

Going to pot: Peer group connection

Hard-core marijuana use has been falling off recently among high-school seniors (see related story, page 103), but social factors associated with teenage and young adult users are the same now as they were 10 years ago. Among the 18-to-25-year-old set, however, lifetime experience with marijuana rocketed from 5 percent in 1972 to 64 percent in 1982. In that time, marijuana users were consistently found to have a network of friends involved with the drug and to be less attached to social institutions, says Denise B. Kandel, a psychologist at Columbia University in New York City.

Kandel gathered drug and life histories of 1,325 young adults aged 24 and 25 who had taken a 1971 New York state drug use questionnaire. She then compared her results with several national surveys of teenage drug use conducted during the 1970s. Her conclusion: Young adults who smoke marijuana are different from non-users, and the differences increase with the degree of drug involvement. She reports in the February *ARCHIVES OF GENERAL PSYCHIATRY* that marijuana users also were marked by a higher use of other drugs, greater discomfort with and lower participation in conventional adult roles, lower scores on tests of psychological well-being and a tendency toward delinquent behavior.

National surveys also indicate that marijuana use tapers off after the mid-20s. For teenagers and young adults, says Kandel, its use is largely maintained by the combination of a social climate and peer group, especially a spouse or partner, that promotes marijuana use.

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Sample the Antarctic's seas for free

It's possible to net exotic Antarctic sea life without leaving home, thanks to the Smithsonian Oceanographic Sorting Center. It currently has some 21 million specimens that have been preserved and classified into taxonomic groups. All are available—at no charge—to qualified scientists for study.

Expeditions seeking specific flora and fauna could end up discarding zooplankton, algae, deep-sea invertebrates and fish that don't meet their needs. "That's why we try to process these—to ensure valuable collections don't go to waste," explains the center's Gordon Hendler. Interested researchers can find out more by contacting Betty Landrum at the center, care of the Smithsonian Institution, Washington, D.C., 20560.

Two new institutes

- Best known as "the father of the U.S. nuclear navy," Admiral Hyman Rickover will this summer begin active service in steering science education when his Rickover Foundation brings 60 high-school juniors with "demonstrated academic excellence in mathematics, the sciences, and the verbal arts" hands-on experience in conducting laboratory research.

Students will begin their six weeks at the Rickover Science Institute with two weeks of intensive classroom study in mathematics and a choice of either biological or physical sciences. Then for three weeks, each will commute daily to work on research in the laboratory of a scientist in government, industry or academia; nights and weekends, students will study with a tutor back at the institute—this year located at the Xerox management training center in Leesburg, Va. The final week, students will work on communicating results of their labors—orally and in writing.

- The study of technical, social and economic aspects of the disposal of both hazardous and nontoxic wastes is the focus of the new Environmental Institute for Waste Management Studies at the University of Alabama in Tuscaloosa. Using National Academy of Sciences expert panels as a model, the institute's director, Philip E. LaMoreaux, has assembled a team of scientists with a broad range of expertise and representing several of the nation's research institutions. Although these researchers will remain affiliated with their original schools, they will spend part of their time, as members of the institute, meeting periodically, conducting special studies and issuing reports on significant waste-management issues. The group's first task, to be completed early next year, is development of a strategy for handling used solvents and solvent-contaminated wastes. Funding for the institute's first year is coming from the University of Alabama and a \$390,000 grant from Waste Management, Inc., an international waste-services company based in Oak Brook, Ill.

DOD 'chip' facility open to students

College students studying design and architecture of integrated-circuit chips—particularly the subminiaturization of electronic systems known as VLSI (very large scale integration)—will be able to have chips they design manufactured free of charge at the Defense Advanced Research Projects Agency (DARPA) VLSI fabrication center. The program is restricted to U.S. universities, and applications to use the facility are made through the National Science Foundation in Washington, D.C. This program accelerates the "professional learning cycle," explains NSF's Andrew Molnar, by giving undergraduates and graduate students access to the type of state-of-the-art facility they would not ordinarily encounter outside of private industry. Once chip-design instructions are relayed to the DARPA center on one of three computer-communications networks, Molnar says it usually takes no more than three or four weeks to receive the completed chips.

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