

## In search of . . . normal teens

Some parents might agree with the traditional psychiatric and social science theory about adolescence that stresses the turmoil and emotional unrest marking healthy development during teenage years. But a growing body of research disputes this concept. Empirical studies of adolescents have revealed that mood swings and poor interpersonal and family relationships during adolescence are not inevitable ingredients of "normal" growth.

Daniel Offer, Eric Ostrov and Kenneth I. Howard of the Michael Reese Hospital and Medical Center in Chicago report in the February *ARCHIVES OF GENERAL PSYCHIATRY* that most mental health professionals have a skewed view of the adolescent. They administered a self-image questionnaire, containing 130 items in 11 content areas, to a group of adolescents with no severe developmental problems. Data were also collected from emotionally disturbed adolescents in psychiatric hospitals and from juvenile delinquents in state institutions. Sixty-two mental health professionals then completed the questionnaire the way they believed a normal, mentally healthy adolescent would complete it. For comparison, 30 psychology graduate students also completed the test as if they were "normal" adolescents. "The most striking finding," say the researchers, "is that mental health professionals were not able to predict how normal teenagers would describe themselves." On seven scales, the professionals saw the normal adolescent as significantly more disturbed than the normal adolescents saw themselves. The disturbed and delinquent adolescents reported fewer problems than the professionals assigned to normal adolescents. The graduate students came closer to what normal adolescents reported about themselves.

What does this poor showing by the mental health workers mean? The investigators suggest that because clinicians deal with mental disturbances all the time, they view normality as an extension of those disturbances. A better way to study normal development would be to collect data from normal populations. There are difficulties in diagnosing major affective and thought disorders, developmental lags and borderline states among adolescents. "The question," conclude the investigators, "is whether we can use the data of the behavior of normal persons both to guide our concepts and expectations and to advance the differentiations the field awaits."

## Finding safety in numbers

Support for several theories of the effect of stage fright on performers is reported by Jeffrey M. Jackson and Bibb Latané of Ohio State University in the January *JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*. In a laboratory experiment, performance apprehension increased in proportion to audience size and status increases, but was reduced as the number of performers increased. A study of performers in a university Greek Week talent show found that members of large acts reported less nervousness and tension than did performers in small acts. The researchers were unable to predict the effect of co-performer ability on nervousness, but they did find evidence that people feel there is safety in numbers. The results support the theory that when people perceive others, such as audience members, evaluating them, arousal is heightened. When co-actors reduce the extent to which they are evaluated, arousal is reduced. It may be, though, that co-performers increase the positive aspects of the environment through social support, rather than reducing the aversiveness of performing. The performers under study were amateurs, and the investigators suggest that stage fright is different for professionals, who need to stand out from other performers in order to succeed.

MARCH 7, 1981

## Muscle dystrophy and membrane firing

The physiological abnormality or abnormalities underlying myotonic muscular dystrophy may have been pinpointed. Muscle fibers cultured from myotonic muscular dystrophy patients possess altered membrane electrical properties, report Michael Merickel and colleagues at the Baylor College of Medicine in Houston in the January *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES*.

Because the major symptoms of myotonic muscular dystrophy affect voluntary muscles Merickel and his co-workers grew voluntary muscle from myotonic muscle dystrophy patients as well as from healthy persons, then compared the two. Although muscle fibers from both patients and controls showed no difference in appearance, rate of development and some other features, the fibers from patients, but not from controls, were found to possess certain electrical properties, notably the tendency of membranes in the muscle fibers to fire repetitively after electrical stimulation.

## Lump removal plus radiation

The news for women with breast cancer grows increasingly better. A National Cancer Institute panel of breast cancer authorities decided in 1979 that modified radical mastectomy should replace radical mastectomy as the choice of surgery for cancer in the early stages and even for some breast cancers that have spread to underarm lymph nodes (SN: 6/16/79, p. 389). And now, according to a report in the Feb. 20 *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*, Samuel Hellman of Harvard Medical School, Samuel Prosnitz of Yale University School of Medicine and other breast cancer therapists are finding that removing a cancerous lump from the breast then following this up with radiation treatments is as effective as is radical or modified radical mastectomy for treating the early stages of breast cancer.

## CCK: The satiety signal

One of the most interesting findings in obesity research is that the body's satiety signal is a chemical called cholecystokinin (CCK) that acts on the hypothalamus (SN: 1/19/80, p.42). Now in the Feb. 12 *NATURE* A. Saito, J.A. Williams and I.D. Goldfine of Mount Zion Hospital and Medical Center in San Francisco say they have found that fasting significantly alters the binding of CCK to nerve receptors in animals' hypothalami and olfactory bulbs, but not to receptors in other brain regions.

## Van Gogh and digitalis

Illness influences art more than most of us realize. The 17th century Flemish artist Peter Paul Rubens was recently found to have painted a number of subjects, including himself, with rheumatoid arthritis hands (SN: 2/21/81, p. 117), suggesting that he was a sufferer of the disease. And now the hypothesis is proposed in the Feb. 20 *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* by Thomas Courtney Lee of Georgetown University School of Medicine in Washington that the 19th century Dutch painter Vincent van Gogh favored the color yellow and the use of halos in his paintings because he was taking the drug digitalis for his epilepsy.

Lee's hypothesis is based on van Gogh's having twice painted his physician holding a foxglove plant (the source of digitalis), van Gogh's probably having suffered from epilepsy, the use of digitalis during the 19th century to treat epilepsy, and the tendency of digitalis to cause yellow vision and visions of yellow rings, as well as other visual and psychic disturbances.

153