

BEHAVIOR

Joel Greenberg reports from Hartford, Conn., at the annual meeting of the Eastern Psychological Association

The brain's 'memory chemicals'

The brain's catecholamine system has been implicated in many forms of behavior, including certain emotional disturbances. Now, animal study results indicate that catecholamines play a major role in memory functioning.

In a study done at the New York University School of Medicine, mice learned to obtain water from spigots attached to the walls of their cages; in the next stage of the experiment, the mice received an electric shock when they came in contact with the spigots. The animals were then injected with a drug known to produce amnesia, and subsequently continued to attempt to drink from the spigots — forgetting, in effect, their previous shock experiences.

This was followed by the direct injection of one of three substances of the catecholamine family — d-amphetamine, norepinephrine or dopamine — into the brain ventricles, or cavities. Researcher Harvey J. Altman reports that all three chemicals were effective "at certain levels" in reversing the drug-induced amnesia and in motivating the mice to keep away from the spigots. The results, he says, "suggest that the central [catecholamine] receptors are mediators" in memory.

However, Altman concedes he cannot explain that while 70 percent of the mice appeared to recover their memories, the other 30 percent did not. Possible factors, he hypothesizes, are possible side effects of the amnesia-inducing drug or the dissipation of the catecholamine injection somewhere in the brain before it had a chance to enhance memory.

Your foot's on fire . . . Nice shoes

Giving someone — particularly a friend or relative — bad news isn't easy. While some people may just blurt out the cold, hard truth, others try to soften it in some way, usually by adding some piece of good news or trying to induce a good mood in the recipient before letting the other shoe drop. But, ask Boston University psychologists Linda Marshall and Robert Kidd, "is there a good way to deliver bad news?"

Kidd and Marshall guessed that using the "milk and cookies after . . . study" approach might offer the most success. "In general," they say, "rewards follow completion of unpleasant or difficult tasks."

So, the researchers, in three separate experiments, offered subjects the choice of receiving bad or good news first. The results "clearly demonstrate that, given a choice, people prefer to hear bad news before good news," they report.

Based on theories suggested by social scientists in the mid-1960s, Marshall and Kidd offer two possible explanations for their findings: First, according to the "gain-loss" hypothesis, people tend to like other people who they first view negatively, then come to view positively; second, according to the "adaptation-level theory," feelings are experienced as more pleasant or unpleasant "the greater the discrepancy or distance of the initial effect from the present one." In other words, the good news may seem all the better on the heels of bad news.

The bad news? Say the researchers: "There is no clear rationale, however, why the bad news/good news ordering should be inherently more pleasing. . . . Unfortunately, there is no direct evidence to suggest which of these interpretations offers the most compelling account of the data."

The hands of babes

Carolyn J. Mebert of the University of New Hampshire reports that infants do not develop handedness until about 10 months of age, but external factors do contribute — including visual-hand contact with toys and means of obtaining the toys.

The mental health of working women

Over the years, various observers have suggested that men had higher heart attack rates than women primarily because men underwent considerable stress from their jobs. That theory lost some credibility recently when federal researchers reported that working women — about 50 percent of all women have joined the work force — appear to be at no greater risk for heart disease than non-working women (SN: 2/9/80, p. 87).

Now, a study of the "psychological well-being" of women in the labor force indicates that working women may be emotionally stronger than those who do not work. In the study, researchers at three universities and colleges compared "working" women who are or ever have been married with those who were housewives. The employed women (mean age 33) ranged from secretaries to professionals and executives. Most of the women in both groups were college educated and, for purposes of another part of the study, were in consciousness-raising groups.

Analyses of several different psychological measurements revealed that "though housewives generally experienced lower levels of stressful life events than employed women, they seemed to react to life crises with more psychological distress than the employed women did," report Jeanne Marecek of Swarthmore College, Diane Kravetz of the University of Wisconsin at Madison and Stephen Finn of the University of Minnesota. One of their major tools was the Hopkins Symptom Checklist, which included five categories of psychological symptoms: depression, anxiety, irritability, somatic complaints and problems in thinking and concentration.

The researchers found that employed women were subject to more stress not only on the job but in relation to marital conflicts as well. "To the extent that stressful life events generate symptoms, we would expect employed women to report more symptoms than housewives," they say. "What we found, however, was the opposite. . . . These data imply that employment may equip women better for coping with stressful life events than does staying at home." However, they caution, other factors, such as social class and job status, may contribute to such differences, and the results may apply only to certain types of women in certain situations.

Pigging out in America

Binge eating for emotional reasons has long been considered characteristic of obese persons. According to psychosomatic theory, early maladaptive experiences can cause persons to use overeating as a way to deal with psychological stress.

But following a study of 80 male and female employees of the U.S. Army Natick (Mass.) Research and Development Command, researcher Barbara Edelman reports that binge eating is not restricted to the obese. "Notably, in this sample," she says, "there was no relation between the degree of overweight and either binging or external eating." (External eating involves eating when one is not really hungry but at a certain time of day or in a place — such as a restaurant — conducive to eating.)

An individual was defined as a "binger" if he or she reported eating because of a particular mood at least twice a month. Binging at this level was reported by 40 percent of all the respondents. "Interestingly, both non-overweight and overweights reported eating when upset," says Edelman. "However, in contrast to overweights, non-overweights typically reported compensating for a binge by reducing subsequent intake." In addition, the rate of binging reported by females was higher than that reported by males — 51 percent to 29 percent. The reasons for binging varied. They included: anxiety, tiredness, loneliness, being on a diet for a long time, feeling sorry for oneself and frustration.