

The body's defense against crowding

While it is known that severe crowding can produce adverse psychological effects, it now also appears that crowding may trigger physical changes that might ultimately lessen the population—at least in mice. Researchers Adrienne Massey and John G. Vandenberg of North Carolina State University's department of zoology confined female house mice to either high- or low-density areas within a cloverleaf of an interstate highway near Raleigh.

Urine specimens from the mice revealed that only the females in dense populations at their maximum density appeared to "produce a urinary component that delays the onset of puberty," the scientists report in the Aug. 15 *SCIENCE*. "Urine collected when the population was less dense [than the maximum], or from a population that remained sparse, failed to delay puberty," they report.

The effect of such a delay, they say, may "help to slow further population growth . . . It now remains to be discovered whether females in the wild" react in a similar way to changes in density. "If so," say Massey and Vandenberg, "isolation and identification of urinary compounds influencing puberty might yield substances useful in the development of programs designed to control rodent pest populations."

Baseball, apple pie and 'hedonic bias'

"Well, it was, ah, you know, total team effort, and like, ah, coach here says, there are no stars on this team. The individual is, you know, only as good as the rest of the team. I tell you what, though, I was really poppin' those suckers out there today." The speaker, a hypothetical linebacker of a winning football team, is unwittingly creating some sticky problems for social science researchers. His gracious complimenting of his teammates could be considered an external attribution, but since football is a team sport, it may also be an internal attribution; however, there is no question that because the first part of the statement refers to an entire season, rather than just one game, it should be coded as stable, along the stable-unstable dimension. In the second part, the speaker's acknowledgement of his own uncanny ability to inflict harm on the bodies of opposition team members is undeniably an internal attribution; however, his obvious reference to the particular game just played would qualify that portion of his comments as unstable.

Applying these and other criteria to 594 published explanations in 107 articles about 33 major sporting events, social scientists Richard R. Lau of UCLA and Dan Russell of the University of Iowa have completed probably one of the most extensive investigations ever of "hedonic bias"—"the tendency to make internal attributions [to self, teammates, etc.] for success and external attributions [to weather, luck, the other team, etc.] for failure."

As expected, four of five attributions by players and coaches following winning games were attributed to internal factors, while only slightly more than half the attributions were internal after a loss. Sportswriters, however, appeared somewhat more evenhanded, attributing wins to internal (involving the home team) causes 69 percent of the time after wins and 57 percent of the time after losses.

But perhaps the real value of the study, according to the researchers, lies in its demonstration that "it is possible, and we might argue more appropriate, to study the attribution process in natural settings" rather than with college students in the laboratory. "[T]he current study will hopefully encourage future researchers to investigate the attribution process in the real world [in this case, sports] contexts where it naturally occurs . . ." The report appeared in the July *JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*.

Some DES abnormalities found to fade

There's a new twist to the diethylstilbestrol (DES) story—researchers from Beth Israel Hospital in Boston report seeing a disappearance of tissue abnormalities in some of the daughters of women who took DES to prevent miscarriages. These tissue abnormalities had been thought to be precancerous.

In a five-year study reported in the Aug. 1 *AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY*, 31 percent of 121 women with cervical ectopy—an abnormal tissue growth in the uterine area—showed a complete disappearance of abnormal tissue, and 44 percent showed an extensive decrease. Cervicovaginal hoods—excess tissue partially encircling the uterus—disappeared in 28 percent of 123 women monitored, and decreased in 53 percent, the researchers found.

This does not mean, though, that these women are completely out of danger. "These women should still be checked regularly," said Louis Burke, one of the study's authors. "All we know is what happens up to age 32; we don't know what will happen to these women at 40 and 50."

Alcohol and miscarriages

Not only heavy but even light alcohol intake during pregnancy can hurt the human fetus, medical research shows. In 1977 Seattle investigators reported that drinking as little as two ounces of alcohol daily during pregnancy increased a woman's risk of giving birth to infants with defects (*SN*: 3/26/77, p. 205). And now Jennie Kline and her team at the New York State Psychiatric Institute and at Columbia University report in the July 26 *LANCET* that if a pregnant woman drinks alcohol twice a week or more, she risks miscarrying her fetus.

Kline and her co-workers studied the frequency of alcohol intake during pregnancy among 616 women who had miscarried and among 632 women who had not. Seventeen percent of the women who miscarried reported that they had drunk twice or more weekly while pregnant, compared with only eight percent of those who didn't miscarry. This difference also held up when potentially confounding variables, such as maternal age, prior miscarriages and smoking, were controlled for in the analysis.

A second, prospective study of 32,000 women, conducted by the National Institute of Child Health and Human Development, reported in the same issue of *LANCET* that women who have one or more drinks daily during pregnancy are at nearly twice the risk of aborting during their second trimester as women who have less than one drink daily.

Health as a company fringe benefit

Although disease prevention is still a frontier area of clinical and experimental medicine, it has already made its debut into the business world. For instance, some U.S. companies are screening and even treating their employees for high blood pressure (*SN*: 12/11/76, p. 377). A few corporations offer health promotion programs to their upper management. And now Life Extension Institute, a pioneer preventive medicine organization located in Minneapolis, has developed a StayWell program for employees. The program is already available to 1,500 persons working for Control Data Corp., of which LEI is a division.

Employees provide medical histories and are given physical exams. Both history and results are fed into a computer that compares the information with known disease risk factors and decides which diseases, if any, endanger a particular employee. The computer also advises employees on how to modify behavior in order to reduce the danger of succumbing to disease, and health professionals at the work site then help bring about the desired behavioral changes.