# **Behavior**

Bruce Bower reports from Los Angeles at the annual meeting of the American Psychological Association

#### In the mood for a smoke

A new study indicates that cigarette smokers trying to kick the habit often undergo a slight drop in mood just before they succumb to the urge to light up once more, a decision that usually leads them to abandon their nonsmoking vows. Yet the same failed abstainers often describe their initial return to smoking as an unpleasant experience.

"My impression is that nicotine has effects in the brain that don't rely on positive [emotions] to be strongly reinforcing," contends Saul Shiffman of the University of Pittsburgh.

Shiffman's investigation focused on 275 cigarette smokers who entered a 28-day program in which they learned techniques for quitting. During the course and for 2 weeks before it began, participants used a small computer strapped to the back of one hand to record when and where they smoked or felt tempted to smoke and their feelings at the time.

By the end of the program, two-thirds of these relatively heavy smokers had used cigarettes at least once, in most cases smoking one cigarette or taking a few puffs.

Bad moods preceded relapses more than twice as often as they preceded unacted-on cigarette cravings, participants reported. Cues associated with smoking, such as drinking a cup of coffee, as well as the easy availability of cigarettes also appeared more often before relapses, Shiffman says.

Boredom and being between activities played the strongest role in fueling cigarette cravings.

Both temptations and lapses tended to occur in social groups where others smoked, but not when participants saw strangers smoking, Shiffman notes.

Smokers who felt guilty after their first relapse and used mental strategies to quell cigarette cravings stood the best chance of staying nicotinefree. Still, almost all volunteers who relapsed once had smoked again by the end of the program.

Physical withdrawal symptoms in dependent smokers trying to quit sensitize them to social temptations to smoke, according to Shiffman. This double whammy may wear down both mood and the resolve to resist cigarettes, he suggests.

## Deceptive veneer of child abuse

Some children who appear to have been sexually abused nonetheless deny that any abuse has occurred and show no signs of trauma-related problems, researchers find. These cases defy the widespread view that sexual abuse invariably produces an obvious psychological aftermath (SN: 9/25/93, p.202).

"Symptom lists can't always distinguish cases of sexual abuse in children," asserts Diana M. Elliott of the University of California, Los Angeles, Medical Center.

Elliott and her coworkers administered a 54-item trauma questionnaire to 399 children, age 8 to 15, evaluated for evidence of sexual abuse by a team of physicians and clinicians experienced in interviewing abuse victims.

Half of the youngsters provided full or partial disclosure of what the team considered actual sexual abuse, based on evidence such as physical signs and recovery of pornographic pictures taken of the child. About 7 percent made no mention of sexual abuse, even though evidence for such abuse existed. Another 5 percent recanted past reports of sexual abuse despite what the team considered to be the presence of abuse.

The rest of the children either had not been sexually abused or showed what the team called "unclear" evidence of abuse.

Children who did not cite their apparent sexual abuse exhibited virtually no traumatic symptoms, in stark contrast to those who disclosed their abuse.

"I don't think we'll ever find a litmus test for identifying victims of sexual abuse," contends coinvestigator John Briere of the University of Southern California School of Medicine in Los Angeles.

# Tuning up young brains

Music lessons crank up the volume of spatial reasoning skills employed by preschool children, according to a study directed by Frances H. Rauscher of the University of California, Irvine. Early musical training may strengthen communication among brain areas involved in music as well as endeavors such as complex mathematics, sculpting, and navigation, Rauscher proposes.

"Music instruction can improve a child's spatial intelligence for a long time, perhaps permanently," she asserts.

Rauscher's team studied 19 preschoolers who had weekly keyboard lessons taught by a professional piano instructor and daily singing sessions led by a professional vocal instructor; another 15 preschoolers had no musical training. Participants, ranging in age from 3 to 5, completed five spatial reasoning tasks at the start, middle, and end of the 8-month study.

Scores on an "object assembly task," in which a child arranges pieces of a puzzle to form a picture of an object or animal, improved markedly after 4 months of music training, Rauscher says. Children who completed musical training dramatically outscored controls on this task, although both groups started out with roughly the same scores. An earlier study conducted by Rauscher yielded comparable results for 10 preschoolers who took music lessons.

The object assembly task was the only one that required youngsters to form an ideal mental image of an entity and orient tangible items to reproduce it, the Irvine researcher argues. Music lessons improved the ability of several brain areas to work together and orchestrate this ability, she theorizes.

Further research must examine whether keyboard or singing lessons alone elevate spatial reasoning, how long such effects last, and whether children in elementary school respond similarly to music lessons, Rauscher notes.

### Wife abusers' volatile brew

Married men who mix heavy alcohol consumption with an unsatisfying marriage or recent stressful experiences, such as losing a job, prove particularly prone to abusing their wives physically and emotionally, reports Gayla Margolin of the University of Southern California.

"The distinction between physical and emotional abuse may be more artificial than real," Margolin argues. "Even when physical abuse ceases, emotional abuse may play a significant role in sustaining terror in the victim."

Margolin and her colleagues administered a series of questionnaires to 179 married couples. Husbands ranged in age from 24 to 57 and most had been married at least 10 years. A majority were white and had completed high school.

Based on responses from both partners about behavior and experiences during the past year, the researchers classified 54 men as engaging in one or more emotionally abusive behaviors, including intimidation and isolation of the wife from others; 47 husbands had been both emotionally and physically abusive (including shoving and hitting) at least once; 65 had not been abusive; and 13 were physically abusive only. The last group was too small to include in the statistical analysis.

Both groups of abusive men reported a greater number of stressful events in their lives, lower marital satisfaction, more hostility, and slightly more exposure to abuse as children. Stressful events and marital dissatisfaction sometimes represent risks for wife abuse and at other times are its consequences, Margolin asserts.

Heavy alcohol use by itself did not show a link to wife abuse, but in combination with stressful events or marital unhappiness, it substantially increased the likelihood of emotional and physical abuse, Margolin maintains.

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