



Press Release

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KIDS CONNECT ALCOHOL ODORS WITH MOM'S EMOTIONS

Young children dislike beer smell when moms drink to escape

PHILADELPHIA (June 24, 2008) -- How children respond to the smell of alcoholic beverages is related to their mothers' reasons for drinking, according to a new study from the Monell Chemical Senses Center. When asked to choose between the odor of beer and an unpleasant odor, children of mothers classified as 'Escape drinkers' were more likely than children of Non-escape drinkers to choose the unpleasant odor.

"Children's responses to odors provide us with a window into their emotions," says study lead author Julie Mennella, PhD, a Monell biopsychologist. "When given a choice between beer and pyridine – the smell of rotten eggs – children of mothers who drink to relieve tension and worry choose pyridine as smelling better. That's pretty powerful."

In the study, which appears in the journal *Alcohol*, 145 children between the ages of 5 and 8 years were presented with seven pairs of odors. One of the odors was always beer; the others were bubblegum, chocolate, cola, coffee, green tea, pyridine, and cigarette smoke. For each pair, the children indicated which odor they liked better.

Mennella notes that because odor information travels directly to areas of the brain that deal with non-verbal aspects of emotion and memory, studying children's responses to odors provides insights into their emotional worlds.

"Like adults, children are not very good at identifying odors," she says. "However, they are good at telling us whether they like an odor or not. This study shows that whether they like the odor of beer depends not just on how often their mother drinks, but on why she drinks."

The children's mothers completed a questionnaire about their drinking habits, including their reasons for drinking; 35 were classified as 'Escape drinkers,' based on their indicating having at least two escape reasons for drinking. These included: helps to relax, need when tense and nervous, helps to cheer up when in a bad mood, helps to forget worries, and helps to forget everything.

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Mothers' reasons for drinking influenced how children responded to the odor of beer. Relative to children of Non-escape drinkers, children whose mothers were Escape drinkers showed greater dislike for the odor of beer, even when beer was compared with unpleasant odors such as pyridine and cigarette smoke.

Questionnaires also revealed that Escape drinkers drink more often than Non-escape drinkers. Because of this, children of Escape drinkers were exposed to alcohol odors more often. These children also experienced alcohol in a different emotional context, as the questionnaires revealed that their mothers were more tense and more likely to worry and feel guilty about their drinking.

“Even before their first taste, young children are learning about alcohol and about why their parents drink. They do this by seeing people drink and hearing them talk about it,” says Mennella. “Our findings show that children are also processing the smell of alcohol with the emotional reasons their mothers, and perhaps fathers, drink.”

Mennella comments that additional research is needed to determine whether children who dislike the odor of alcohol and experience it in a negative emotional context are more or less likely as adolescents or adults to seek out alcohol when stressed.

Also contributing to the study was Catherine Forestell, PhD, currently at the College of William and Mary.

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The Monell Chemical Senses Center is a nonprofit basic research institute based in Philadelphia, Pennsylvania. For 40 years, Monell has been the nation's leading research center focused on understanding the senses of smell and taste: how they function and affect lives from before birth through old age. Using a multidisciplinary approach, scientists collaborate in the areas of: sensation and perception, neuroscience and molecular biology, environmental and occupational health, nutrition and appetite, health and well being, and chemical ecology and communication. For more information about Monell, visit www.monell.org.

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