

# Can I buy you a drink? Genetics may determine sensitivity to other people's drinking behavior

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Your friend walks into a bar to meet you for happy hour. He sidles up to the bar and orders a drink — does that make you more likely to get a drink yourself? According to new findings reported in *Psychological Science*, a journal of the Association for Psychological Science, genetics may determine the extent to which you are influenced by social drinking cues — signals such as advertisements, drinks placed on a bar, and seeing other people around you drinking.

Drinking alcohol increases levels of dopamine — a [brain chemical](#) that causes pleasure and makes us feel good. The dopamine D4 receptor gene (DRD4) has been shown to be involved in motivation of seeking out rewards. Research has suggested that carrying a specific form (or variant) of this gene — one that includes seven or more repeats of a certain section of the gene — may be associated with craving caused by alcohol-related cues. Psychological scientist Helle Larsen from Radboud University in The Netherlands and her colleagues wanted to investigate if this 7-repeat [gene variant](#) plays a role in how an individual responds to alcohol-related cues.

For this experiment, volunteers were brought into a laboratory bar (a room set up to look like a Dutch pub) to supposedly rate a series of commercials. After the volunteers rated a number of them, they were told there would be a 30-minute break — and that during this break, they could help themselves to any of the alcoholic and nonalcoholic drinks

that were available at the bar. Confederates (participants who knew what the study was about) were trained to order drinks immediately — they were to initiate drink ordering and the researchers observed which volunteers followed their lead. In addition, saliva samples were obtained from the participants for [DNA analysis](#).

The results showed an effect between how much the confederate drank and the gene variant on volunteers' [alcohol consumption](#): When the confederate was seen consuming three or four drinks, carriers of the 7-repeat form of the gene drank more than twice as many glasses of alcohol than did noncarriers of the gene variant. However, when the confederate consumed only one drink, there was no difference in alcohol consumption between carriers and noncarriers. These findings suggest that individuals carrying this form of the DRD4 gene may be more sensitive than noncarriers to other people's drinking behavior.

The authors note, "Carrying the DRD4 7-repeat genotype may increase the risk for extensive alcohol use or abuse when spending time with heavy-drinking peers." They conclude, "Whether or not people are wired to adapt their drinking to the choice and pace of others may partly depend on their [genetic](#) susceptibility to drinking cues."

Provided by Association for Psychological Science

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