

NatureNews

Booze binges are catching

Hard-drinking culture might be down to people copying others' drunken antics.

[John Whitfield](#)

Under the influence: you're more likely to binge if your friends do too. *Getty*

Britain's binge-drinking boom might be due not to moral decline or the availability of cheap drink, but just to people's tendency to copy their friends, say two researchers.

They have shown that computer models can simulate a sudden upswing in binge drinking by using the effects of social networks alone — without taking into account, say, longer licensing hours or cut-price booze.

"Fashion is sufficient to explain the spread of binge drinking," says economist Paul Ormerod of Volterra Consulting in London, UK. "If you don't take account of this while trying to reverse this trend, there'll be a high chance of failure."

To measure the prevalence of binge drinking and its social structure, Ormerod and his colleague Greg Wiltshire commissioned an online survey of 504 people aged between 18 and 24, split almost equally between men and women.

The authors defined binge drinkers as those who went out specifically to get drunk, or those who reported having 10 or more drinks in a session, at least once a week.

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*Paul Ormerod
Volterra Consulting*

That turned out to cover 16.2% of the people surveyed — which extrapolates to 950,000 binge drinkers aged 18–24 in Britain. Most of the bingers also reported drunken mishaps such as vomiting or fighting in the street.

Most also said that their friends were like them. More than half of binge drinkers reported that all or nearly all of their friends behaved likewise, whereas only 15% of non-bingers thought that bingers made up the large majority of their friends.

With friends like these

It's already been shown that obesity and smoking are strongly influenced by social contacts. People who smoke or are obese are more likely to have friends who also smoke or suffer from obesity.

To see what type of social network best explained this pattern of drinking, Ormerod and Wiltshire built a computer model.

The two researchers simulated a population with an initial random 2% of binge drinkers. A person was converted to bingeing if the proportion of their social contacts that bingeed passed a randomly assigned threshold — so some people would be easily swayed, others much more resistant.

They then tinkered with the network structure to see how different social structures affected how drinking spread through the population, and how it clustered. The results are published as a preprint on the physical sciences server arXiv¹.

Small world

The real-world data, they found, was matched best by a small-world network. Such networks are cliquy, in that people tend to belong to groups of mutual acquaintances.

They can also show sudden cascades of behaviour, when something spreads across the network without any particular external influences. Binge-drinking might be such a phenomenon, says Ormerod.

“There have been periods when Britain behaved more soberly, and times when it behaved more drunkenly,” he says. “You can see clear waves of fashion, regardless of licensing laws and income.”

How to manipulate such networks is still unclear, says Ormerod — “we still don’t know how you break in”. He hopes to extend his model by adding data on how susceptible people are to copycat bingeing and how the price of alcohol affects behaviour, and by including the capacity for people to go from bingeing to non-bingeing.

Eventually, such a model might guide policy, by, for example, showing whether the spread of binge drinking is curbed more by targeting binge drinkers to reform their behaviour or by raising non-bingers’ resistance to persuasion.

The influence of peer pressure on drinking behaviour is well known, says Martin Plant, who studies alcohol and health at the University of the West of England in Bristol, although few studies have tried to model drinking behaviour.

But Plant believes that other things are also important. “It’s important not to be reductionist. The recent rise in heavy drinking is due to a combination of factors, of which one is certainly the vastly reduced cost of alcohol.”

• **References**

1. Ormerod, P. & Wiltshire, G. <http://arxiv.org/abs/0806.3176> (2008).