

The WAGER, Vol. 18(7) - Gambling, groupthink, and emotional security blankets

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Generally

speaking, people tend to follow others' behavior to avoid conflict (Cialdini & Goldstein, 2004). In addition to helping us avoid conflict, social conformity may help us deal with negative emotions when things go awry (Berns et al., 2011). Is it true for gambling losses? This week's WAGER reviews an experiment that examined whether social conformity acts as an emotional buffer in response to bad outcomes from gambling (Yu & Sun, 2013).

Methods

- The researchers paired 21 participants (10 male, mean age = 20.23 years) with two other people in a group gambling task. Unbeknownst to the subjects, these two people were experiment-related [confederates](#).
- The task required participants to choose one of two options for a chance to win a cash prize.
 - Participants were not told, but the actual chance of winning was always 50%.
- After making a choice, participants were informed about whether they won or lost, and the confederates' choices.
 - The participant might **win alone, lose alone, win with others, or lose**

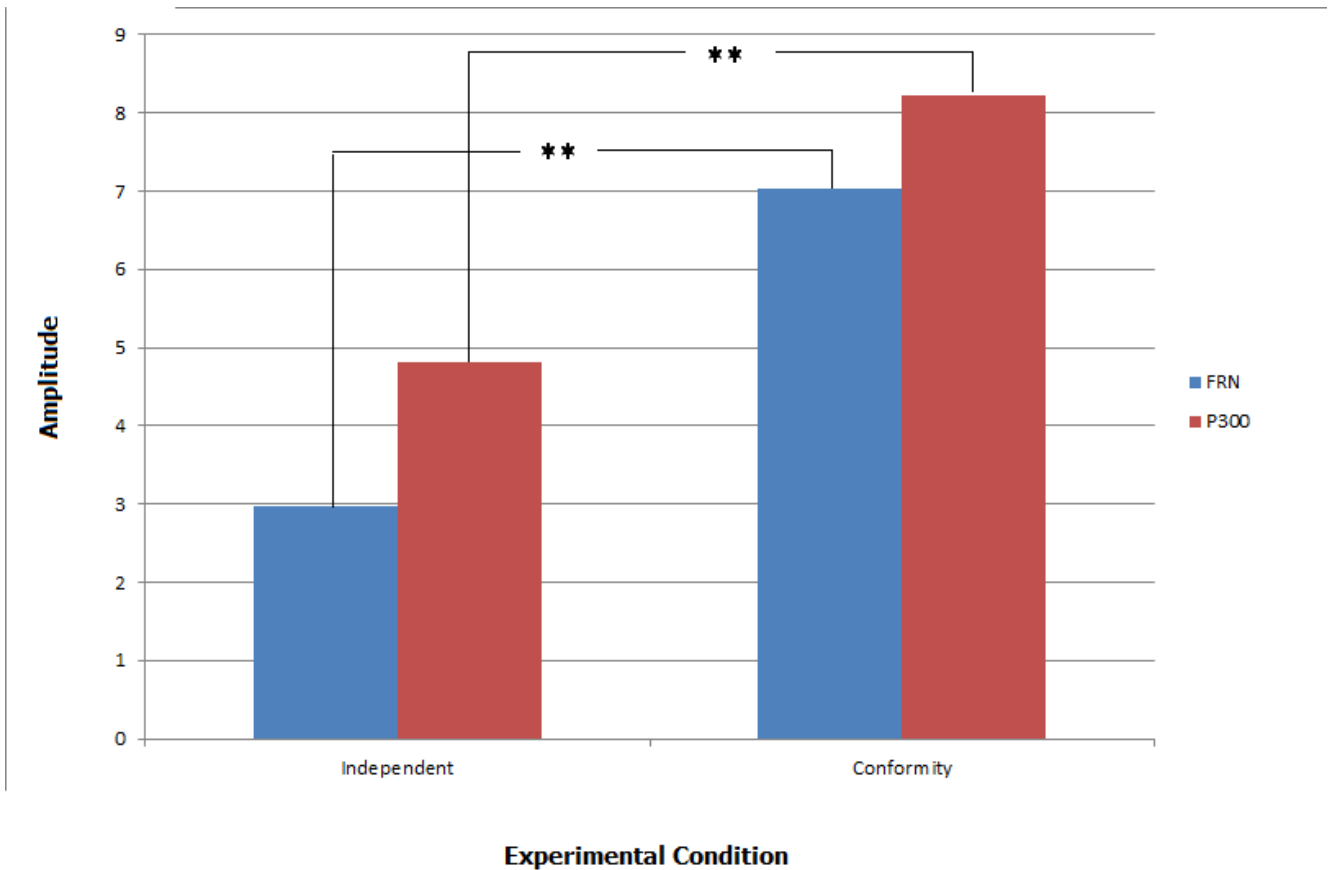
with others.

- During the gambling task, the researchers used an electroencephalogram (EEG) to measure subjects' brain response to the specific events of the task.
 - EEG measurements were for two types of brain activity related to monitoring negative outcomes and rewards. [\[1\]](#)

Results

- Across all trials, participants' choices tended to mirror that of the confederates, even though this strategy did not produce more wins. This suggests that they conformed to a social norm, even though it did not lead to more monetary rewards.
- When participants either won alone or lost alone, they tended to show more negative deflection in one of the measures of brain activity, suggesting increased conflict detection and stress response. See Figure 1.
- The EEG activity suggested that participants were less sensitive to monetary outcomes during conforming choices (i.e., win with others and lose with others); compared to non-conforming choices (i.e., win alone and lose alone).

Figure 1: Averaged waveform amplitudes between conforming, independent, and baseline conditions (adapted from Yu & Sun, 2013)



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$p < .001$

Limitations

- These EEG measurements are used when researchers want to get precise information about the timing of brain activity; they are not used to measure specific areas located within the brain. Other kinds of measurement (e.g., fMRI) might give additional information about brain areas and patterns associated with emotion regulation and stress response.
- We cannot entirely rule out the possibility that the subjects did not learn rules and succumb to normative pressure, rather than primarily seek to avoid negative emotions.

Conclusions

When

they chose differently from their confederates, participants showed brain activity associated with detecting errors and registering negative emotions from loss. People who followed the crowd showed reduced sensitivity to outcomes,

even when they lost, which implies that conformity reduced the emotional impact of bad outcomes. People might learn to conform to others' behavior because of risk aversion and to mitigate the sting of losing. This might be adaptive in some ways, but over time, might lead to bad decisions. People who are risk-averse and prone to conforming might make poor financial choices when gambling in the company of others.

- Kat Belkin

What do you think? Please use the comment link below to provide feedback on this article.

References

Berns

G.S., Chappelow J., Zink C.F., Pagnoni G., Martin-Skurski M.E., et al. (2005). Neurobiological correlates of social conformity and independence during mental rotation. *Biological Psychiatry*, 58, 245-253.

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R.B., Goldstein, N.J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology*, 55, 591-621.

Yu,

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[1]

The two brain circuits were the FRN, which performs a role in encoding reward error prediction, conflict detection, and emotional response and peaks between

250-300 ms post onset of outcome feedback; and the P300, which performs a role in encoding reward valence and reward magnitude, and peaks around 300-600 ms after stimulus presentation.