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## **The Interpersonal Hot Hand Fallacy: How Similarity With Previous Winners Increases Subjective Probability of Winning**

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Organizers of promotional or state lotteries often feature a recent winner in their advertisements, depicted by a photograph and some personal information. We show that potential participants estimate they have higher odds of winning the next drawing when featured previous winners are similar to them (on age, gender or educational background). This effect, referred to herein as the “Interpersonal Hot Hand” fallacy, then increases their participation likelihood. It disappears when respondents are given objective information on their probability of winning—rare information in the context of real-world lotteries. We identify moderating variables.

### **[to cite]:**

Sandra Laporte and Gilles Laurent (2010) , "The Interpersonal Hot Hand Fallacy: How Similarity With Previous Winners Increases Subjective Probability of Winning " , in NA - Advances in Consumer Research Volume 37, eds. Margaret C. Campbell, Jeff Inman, and Rik Pieters, Duluth, MN : Association for Consumer Research, Pages: 628-629 .

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# The Interpersonal Hot Hand Fallacy: How Similarity with Previous Winners Increases Subjective Probability of Winning

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## EXTENDED ABSTRACT

This paper tries to explain a prevailing advertising practice for promotional and state lotteries. Organizers often showcase a photograph of a recent winner together with some personal information (e.g. name, age, place of living, occupation). Further, the profile of the featured winner is similar to the typical profile of potential participants. The repeated use of this technique by multiple lotteries in different countries suggests it must be an efficient tool to increase participation in the next drawing. We propose that the underlying mechanism is based on what we call the “interpersonal hot hand” fallacy. In the hot hand fallacy, basketball fans believe (contrary to objective evidence) that a specific player has a higher chance to hit the basket if he was successful in his previous attempt (Gilovich et al. 1985). In the Interpersonal Hot Hand Fallacy, consumers believe that they have higher odds of winning the next drawing if they are similar to the previous winner than if they are dissimilar. This effect induces a greater participation intention.

The entry decision is made under uncertainty since most of the real-life advertisements for these lotteries do not state explicitly the probability of winning. Moreover, the entry decision is likely to be low-involving because of the minimal costs at stake. As a consequence, consumers may rely on heuristics to estimate their probability of winning. A highly accessible heuristic attribute appears in the similarity information that the advertisement implicitly offers by providing very basic, general demographic information about previous winners. Regarding the direction of the similarity effect, we propose that advertisements, by showcasing “lucky” previous winners, focus on a potential human cause, while they overlook the inanimate random character of the lottery by not mentioning the probability of winning. According to the literature about the antecedents of the hot hand and the gambler’s fallacies (Ayton and Fischer 2004, Burn and Corpus 2004, Sundali and Croson 2006), we hypothesize that this focus leads potential participants to attribute the outcome of the drawing to the previous winners’ luck and, in the absence of objective information about their chances to win, estimate they have higher chances if they feel similar to these “lucky” previous winners.

Study 1 aims at testing the impact of the similarity with previous winners on the intention to participate in a sweepstake, and at contrasting it with the effect of the number of prizes to win. We manipulate both factors in a 2x2 between-subject design. In the similar condition, the advertisement for the sweepstake shows the picture of a couple of previous winners with about the same age as the respondents (college students), while in the dissimilar condition, featured previous winners are much older. In the ‘high number of prizes’ condition, ten week-ends are offered as prizes, while there is only one week-end to win in the ‘small number of prizes’ condition. Age similarity has a significant positive effect on how much time respondents are willing to spend to enter the sweepstake measured by a 7-point scale ( $F(1,113)=5.02, p<.03$ ), while multiplying the number of prizes by ten has no significant impact.

In Study 2, we test directly the interpersonal hot hand fallacy by manipulating interpersonal similarity using gender to rule out an attractiveness alternative explanation. The scenario indicates that a social network website for students regularly organizes a random drawing among its members, and features two previous winners with their photographs and verbal legends. Respondents estimate

their probability to win the impending drawing (open-ended answer) to be higher when the last two winners have the same gender as them rather than the opposite gender ( $t(48)=1.817, p(\text{one-tailed})<.05$ ). We also rule out the simulation heuristic (Kahneman and Tversky 1982) as an alternative explanation.

Study 3 replicates this result with educational background as a new similarity manipulation: participants evaluate their chances of winning to be higher when the two previous winners pursue the same kind of academic studies as they do ( $t(60)=2.643; p(\text{one-tailed})<.05$ ).

In Study 4, we show that featuring a similar winner is particularly effective for people who are not particularly attracted by promotional games. Respondents with a high sweepstakes proneness (Lichtenstein et al. 1995) have the same high probability to participate whatever their similarity with previous winners ( $\beta=-.557; t=-1.265; p(\text{one-tailed})>.10$ ), while respondents with a low sweepstakes proneness will be more likely to participate if they are similar to previous winners ( $\beta=.861; t=1.934; p(\text{one-tailed})<.05$ ). Most importantly, the estimated probability of winning mediates the impact of similarity on participation likelihood, while the similarity has no impact on the attitude towards the organizing brand ruling out another alternative possible mechanism.

If the impact of similarity with the previous winner on the respondent’s intention to participate is mediated by the respondent’s estimated probability to win, the effect of similarity should disappear if respondents benefit from objective information on their probability to win. In Study 5, we compare two conditions: One in which respondents are only given (as in real life) indications on the number of prizes to be won, and one in which they are also given indications on the number of participants, allowing them to do an objective estimation of the probability to win. Indeed, in the first condition, we replicate the preceding results on the impact of similarity on participation intention ( $F(1,52)=8.227; p<.01$ ), while, in the second condition, there is no impact of similarity on intention to participate.

The main contribution of this research is to show a new kind of hot hand fallacy caused by a similarity judgment. This explains why the widespread technique consisting in presenting a recent winner may boost the participation of similar consumers. It also adds a new result to the vast literature on interpersonal similarity that has already emphasized how similarity with others can affect our attitudes, beliefs and behaviours. This paper shows that, when making judgments under uncertainty, what just happened to similar others can impact our estimated probability of benefiting from the same random positive outcome.

## REFERENCES

- Ayton, Peter, and Ilan Fischer (2004), “The Hot Hand Fallacy and the Gambler’s Fallacy: Two Faces of Subjective Randomness?” *Memory and Cognition*, 32 (8), 1369-78.
- Burns, Bruce D. and Bryan Corpus (2004), “Randomness and Inductions from Streaks: ‘Gambler’s Fallacy’ versus ‘Hot Hand,’” *Psychonomic Bulletin & Review*, 11 (1), 179-84.
- Gilovich, Thomas, Robert Vallone, and Amos Tversky (1985), “The Hot Hand in Basketball: on the Misperception of Random Sequences,” *Cognitive Psychology*, 17, 295-314.

- Kahneman, Daniel, and Amos Tversky (1982), "The Simulation Heuristic," in *Judgment Under Uncertainty: Heuristics and Biases*, D. Kahneman, P. Slovic and A. Tversky, eds. New York: Cambridge University Press, 201-208.
- Lichtenstein, Donald R., Richard G. Netemeyer, and Scott Burton (1995), "Assessing the Domain Specificity of Deal Proneness: A Field Study," *Journal of Consumer Research*, 22 (December), 314-26.
- Sundali, James and Rachel Croson (2006), "Biases in Casino Gambling: The Hot Hand and the Gambler's Fallacy," *Judgment and Decision Making*, 1 (1), 1-12.