

Avugos, S., Köppen, J., Czienskowski, U., Raab, M., & Bar-Eli, M. (2012). The “hot hand” reconsidered: A meta-analytic approach. *Psychology of Sport and Exercise, 14(1)*, 21-27. doi: 10.1016/j.psychsport.2012.07.005

Objectives

Extensive searches for the “hot hand” have been performed in a variety of sports since the pioneering study of Gilovich, Vallone, and Tversky (1985), but empirical evidence for the existence of the effect is still fairly limited. The current review reconsiders the hot hand in sports using a meta-analytic approach.

Design

Mean effect size and 95% confidence interval were determined using a random effects model. Heterogeneity of the mean effect size was examined applying Cochran's Q test and the “75 percent rule”.

Method

To be included in the meta-analysis, studies had to provide an empirical investigation of the hot hand phenomenon related to sport and exercise behavior. Approximately 250 papers were located, but the final dataset included only 22 publications that met inclusion criteria, with 30 studies and 56 independent effect sizes. The articles extended over a period of twenty-seven years from 1985 until 2012.

Results

The analysis of the effects yielded a minor positive mean effect size of .02, $p = .49$, using a random effects model, which is sufficient evidence for arguing against the existence of the hot hand. Due to the limited sample of studies available, only a few candidate-variables could be extracted and further examined as potential moderator variables. However, none of the considered variables had the power to explain the heterogeneity of effect sizes.

Conclusions

The present study provides additional support for Gilovich et al.'s claim that a general hot hand effect probably does not exist in sport. The scientific implications of this review for prospect advances in the field are presented and discussed.

Highlights

► This review reconsiders the hot hand in sports using a meta-analytic approach. ► Only 22 articles met inclusion criteria, providing 56 independent effect sizes. ► The analysis of the effects yielded a minor positive mean effect size of .02. ► This is sufficient evidence for arguing against the existence of the hot hand. ► No evidence was found for a moderating effect of the selected variables.