

# Experts help fans to 'see' the science behind those football kicks

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(PhysOrg.com) -- For the football player who manages to save his team's postseason or clinch a victory by kicking an extra point or field goal, chances are the goalposts looked pretty big, according to two Purdue University experts.

"For those who do score, whether it's kicking a regular extra point early in the game or scoring the game-winning field goal, their successful performance will help them to see the goalposts as larger and wider," said Jessica K. Witt, an assistant professor of psychological sciences who studies perception in sports. "Our research shows that people who successfully kick a [football](#) through goalposts will see them as farther apart and the crossbar lower to the ground than people who continue to not kick well. Those who do not kick well report seeing a much smaller goal."

Witt's research, which looks at perception in golf, softball, football and tennis, is inspired by the anecdote that when an athlete plays well, the target looks bigger. Witt has found that the success and failure of athletes affects their perception.

The football study, which was co-authored by Travis Dorsch, a doctoral student and former NFL and college player, appeared in October 2009 in the journal [Perception](#). The football findings are based on the kicking performance of 23 non-football athletes who kicked from the center of the field at the 10-yard line. Study participants who missed because they kicked the ball too wide judged the goal to be narrower, and those who

missed because they kicked the ball too short judged the goal to be taller.

The study participants were asked to estimate the size of the goalposts before and after kicking. There was no correlation between performance and how the goalposts were viewed before kicking, however, the perceived size of the goalposts after kicking was positively correlated with kicking performances. Witt and Dorsch will continue their work by studying college and professional kickers.

"Even when looking at novices, this does answer some basic questions about how the body and brain work together on the football field," said Dorsch, who was a kicker on Purdue's football team from 1998-2001. "As an athlete you don't always think about how these mechanisms operate, but the more you can learn about yourself the better off you will be."

Dorsch, who is working on a doctoral degree in the Department of Health and Kinesiology, was named an All-American kicker in 2001 and set Big Ten Conference career records for points scored and field goals. He was drafted by the Cincinnati Bengals in 2002.

Provided by Purdue University

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