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Why England's Soccer Team Keeps Losing on Penalty Shots

ScienceDaily (Jan. 6, 2010) — A new study may explain why the England soccer team keeps losing in penalty shootouts -- and could help the team address the problem in time for the World Cup 2010. Research by the University of Exeter shows for the first time the effect of anxiety on a footballer's eye movements while taking a penalty.

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takers are anxious they are more likely to look at and focus on the centrally positioned goalkeeper. Due to the tight coordination between gaze control and motor control, shots also tend to centralise, making them easier to save. The research is now published in the December 2009 edition of the Journal of Sport and Exercise Psychology.

The study shows that when penalty

The researchers attribute this change in eye movements and focus to anxiety. Author Greg Wood of the University of Exeter's School of Sport and Health Sciences said: "During a highly stressful situation, we are more likely to be distracted by any threatening stimuli and focus on them, rather than the task in hand.

Therefore, in a stressful penalty shootout, a footballer's attention is likely to be directed towards the goalkeeper as opposed to the optimal scoring zones (just inside the post). This disrupts the aiming of the shot and increases the likelihood of subsequently hitting the shot towards the goalkeeper, making it easier to save."

For their study, the researchers focused on 14 members of the University of Exeter football (soccer) team. They asked the players to perform two series of penalty shots. First, they were simply asked to do their best to score. The researchers made the second series more stressful and more akin to a penalty shoot-out. The players were told that the results would be recorded and shared with the other players and there would be a £50 prize for the best penalty taker.

The players wore special glasses which enabled the researchers to record precise eye movements and analyse the focus of each footballer's gaze and the amount of time spent looking at different locations in the goal.

The results showed that when anxious, the footballers looked at the goalkeeper significantly earlier and for longer. This change in eye behaviour made players more likely to shoot towards the centre of the goal, making it easier for the keeper to save. The researchers believe that by being made aware of the impact of anxiety on eye movements, and the affect this has on the accuracy of a player's shot, coaches could address this through training.

Greg Wood continues: "Research shows that the optimum strategy for penalty takers to use is to pick a spot and shoot to it, ignoring the goalkeeper in the process. Training this strategy is likely to build on the tight coordination between eye movements and subsequent actions, making for more accurate shooting. The idea that you cannot recreate the anxiety a penalty taker feels during a shootout is no excuse for not practicing. Do you think other elite performers don't practice basic aiming shots in darts, snooker or golf for the same reasons? These skills need to be ingrained so they are robust under pressure."

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Dr. Mark Wilson (on the left) and a member of University of Exeter soccer team are testing eye movement in penalty shoot outs. (Credit: University of Exeter)

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