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The effect of attention for choking under pressure in football players

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Introduction

The paradoxical performance effect, or “choking under pressure,” has been defined as the occurrence of sub-optimal performance despite individual motivation and situational demands for superior performance (Reeves, 2007). Baumeister (1984) and Wang (2002) have proposed definitions of choking, with each appearing to be limited in scope. Mesagno (2008) states that choking is a critical deterioration in the execution of habitual processes as a result of an elevation in anxiety levels under perceived pressure. Two mechanisms have been proposed to account for this effect—distraction, wherein pressure distracts attention from the task, and self-focus, wherein attention shifts inward interfering with performance (Lewis & Linder, 1997).

Baumeister (1984) suggested that the pressure increases the conscious attention to the performer's own process of performance and that this increased conscious attention disrupts the automatic execution. Lewis and Linder (1997) asserted that Individuals who become highly anxious during test situations, are thought to divide their attention between task-relevant and task-irrelevant thoughts in high-pressure situations. The automate skills may not require constant on-line attentional control during execution; such skills should be able to withstand the attentional demands of a dual-task environment in that explicit attention to step-by-step skill procedures is not mandatory for successful performance (Beilock & Carr, 2001). Choking occurred in the simple task, but not the complex task (Reeves, 2007). Under increased cognitive anxiety putting performance deteriorated, whereas performance did not deteriorate in the task-irrelevant conditions (Gucciardi, 2008).

Methods

The method of this study was semi experimental and the statistical group include 45 male expert football players. The players were those who have playing experience of three to ten years and are part of a clubs professional league (ageM=16.93, SD=0.88). subjects selected sample randomly and put into three groups: control, relevant attention (part of the skill that must be focused on) and irrelevant attention (focusing on crowd noise while skill performance) conditions. Performance was measured by the number of goals scored (i.e., the number of balls that crossed over the goal line into the back of the net), with 20 being the total possible number of points scored. Participants took penalty kicks in soccer. Participants were asked to shoot on goal as accurately as possible and score.

There was no manipulation for the low-pressure condition. External evaluation, videotaping, and competition were used to induce high-pressure. Participants performed the simple task under low-pressure and high-pressure conditions, consisting of 20 penalty kicks.

Results

A manipulation check for the effect of attention was performed using repeated measures ANOVA with attention condition as between-subjects factors and pressure condition as within-subjects. A significant main effect for pressure was observed, F=163.376, (see table1). Participants performed the simple task better under low-pressure (M = 9.53, SD = 3.42) than under high-pressure conditions (M = 6.67, SD = 4.11). Significance for pressure condition by attention condition interaction on performance was revealed. A significant main effect for attention condition as between-subjects factors, F=36.882, was revealed.
A planned comparison examining performance under pressure during the attention condition revealed that irrelevant-attention participants made significantly performed the simple task better under high-pressure manipulation ($M = 10.83$, $SE = 0.58$) compared to relevant-attention ($M=4.10$, $SE=0.58$) and control ($M=9.37$, $SE=0.58$) condition.

Table 1: RM ANOVA results for attention aspects of performance using skill and pressure condition.

<table>
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<th>Within-subjects effects</th>
<th>Effect</th>
<th>Type III sum of squares</th>
<th>df</th>
<th>F</th>
<th>sig</th>
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<tr>
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<td>Error</td>
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</table>

**Discussion**

The purpose of the present study was to determine the efficacy of attention condition to prevent choking under pressure. The self-focus theory suggests that the mechanisms underlying this phenomenon results from performance pressure heightening self-focused awareness, which leads to an increased focus on the step-by-step processes of skill execution (Baumeister, 1984; Beilock & Carr, 2001; Lewis & Linder, 1997). Participants in the irrelevant-attention group outperformed better than relevant-attention and control groups. This finding is in accord with the current literature on attention and performance: the distraction was effective in focusing participants’ attention away from the step-by-step processes of the proceduralized skill.

**References**


