

The ability of runners to identify spatial and temporal variables of speed during endurance running

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Abstract

This study aimed to evaluate spatial and temporal perception in endurance runners as a mechanism of pacing control in comparison with other athletes (soccer players). A group of 38 endurance runners and 32 soccer players participated in this study. Runners displayed lower time differences and lower error than soccer players. Taking the athletic levels of endurance runners into consideration, significant differences ($p = .011$, Cohen's $d = 1.042$) were found in the time differences (higher level group = 33.43 ± 29.43 vs. lower level group = 123.53 ± 102.61). Significant correlations were found between time differences and performance in a Cooper test ($r = -.546$) and with the best time in a half marathon ($r = .597$). Temporal and spatial perception can be considered as a cognitive skill of endurance runners.

Author keywords

Pacing
Performance
Soccer