MOVEMENT REGULATION OF THE GLIDE KIP IN GYMNASTICS

Abstract
Succesfully performing the glide kip in gymnastics depends on how the feet can pass the ground below the bar. The aim of this study was to examine the perceived size of the space between the bar and the ground operating as an informational source in the regulation of the glide kip in gymnastics. It was hypothesized that parameters that are spatially related to this informational source should vary as a function of the distance between bar and mats. To test this hypothesis, N = 13 gymnasts were asked to perform glide kips, while the size of the space between the bar and the mat was systematically manipulated. Results revealed that the distance of the tiptoes to the ground was regulated in an invariant manner based on the perceived space between the bar and the mat during the glide phase. Regulating the distance of the tiptoes may serve as a visual reference in the performance of a glide kip in a constrained movement situation. It is stated that knowledge about relationships between informational sources in the environment and the resulting regulatory processes in gymnasts may help coaches to develop specific training programmes for the acquisition of complex skills.

Key words: visual perception, constraints, artistic gymnastics, complex skill performance