

# **The role of cognitive change in the relationship between actual and perceived motor competence in young children**

Farid Bardid<sup>1,2</sup>, Jacqueline D. Goodway<sup>3</sup>, Matthieu Lenoir<sup>2</sup>

<sup>1</sup> *School of Education, University of Strathclyde, Glasgow, UK*

<sup>2</sup> *Department of Movement and Sports Sciences, Ghent University, Belgium*

<sup>3</sup> *Department of Human Sciences, Kinesiology Division, The Ohio State University, US*

## Abstract

Literature suggests that the relationship between actual and perceived motor competence emerges over time as young children shift to a higher level of cognitive development (Harter, 1998; Stodden et al., 2008). From Piaget's theoretical perspective, this entails a transition from the intuitive, preoperational stage –when children rely heavily on visuospatial experience– to the concrete operational stage –when children start to develop logical thinking and mental representation. The purpose of the present study is to examine the effect of this cognitive change on the relationship between actual and perceived motor competence in the early years. Children ( $N = 349$ ; 51.6% boys) aged 5-7 years took part in the study. Actual motor competence was measured using the Körperkoordinationstest für Kinder (Kiphard & Schilling, 1974, 2007), perceived motor competence was assessed with the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter et al., 2012), and cognitive change was evaluated using three Piagetian conservation tasks (i.e., conservation of number, length and mass; Piaget, 1984). Three moderation analyses were conducted with each conservation task separately. Results showed that – after controlling for sex and age – cognitive change has a moderating effect on the relationship between actual and perceived motor competence ( $p$  values  $< .05$ ). For children who cannot conserve, there is no significant association between actual and perceived motor competence ( $p$  values  $> .05$ ). For children who can conserve, there is a positive relationship between actual and perceived motor competence ( $p$  values  $< .001$ ). These findings provide some proof that cognitive processes play an important role in young children's emerging ability to accurately assess their actual motor competence.