



Bridging Motor Control and Biomechanics

by

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Foreword

Bridging motor control and biomechanics

One can assume that motor control and biomechanics are united by a common goal to understand the basic mechanisms of the coordinated movements. Relationships between motor control and biomechanics are natural and the interdisciplinary research on that field has a long tradition in Poland. The origin can be delineated by the seminar entitled School of Biomechanics and Teaching Techniques of the Movement organized by prof. Tadeusz Bober and prof. Bogdan Czabański in the years 1969-1974. Unfortunately, over the years these two research directions diverged. That happened not only in Poland, but around the World. However, above all since it is difficult to conceive of motor control without biomechanics and vice versa, the mutual penetration topics of these two different domains of knowledge about human movement might be recently noticed again.

This is the first time in our country considering the last four decades that two conferences by themes have cooperated in arranging the conference program. During the just completed conference "Biomechanics 2016", held on the 5th -7th September in Biała Podlaska, one session was devoted to the issue in the area of motor control. On a mutual basis, in the program of the 5th International Scientific Conference "Motor Control 2016", organized in Wisła between the 14th and 16th of September, the Scientific Committee have proposed two sessions to the issue of clinical and sport biomechanics.

What is more, the official subtitle of the 5th edition of "Motor Control 2016" is "Bridging motor control and biomechanics". That is to remind us of the common bases of these independent nowadays scientific disciplines and to emphasize the interdisciplinary character of the motor control area. At the same time, the scope of themes presented during the conference has noticeably increased. It might be reasonable not only to observe a phenomenon, but also to try to understand the mechanism of movement. From another perspective, it might be also considerable not only to build a conceptual model or to provide a sophisticated theoretical analysis, but also to verify it in vivo.

We desire that the two conferences dedicated to biomechanics and motor control, arranged one after another in September this year, will have a substantial impact on Polish researchers and will allow to improve research activities and international exchanges. In summation, our cooperation between the Polish Society of Biomechanics and motor control research teams deliver the mission of cutting through the gap between practitioners and scientists as well as combining related fields of cognition.

The current special issue of the Journal of Human Kinetics is in the first place the result of the two International Scientific Conferences: "Biomechanics" and "Motor Control", which were organized in Poland

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on September, 2016. This volume contains nine papers presented by invited speakers in Wisła, the best four selected papers written by participants of the conference held in Biała Podlaska and two other manuscripts focused on motor control submitted to the editorial board.

Ultimately, we consider that participants of these two conference will bring home a bit of exciting scientific experiences and aspirations. Our hope is that the special issue of the Journal of Human Kinetics together with conference materials will contribute to the dissemination and enrichment of knowledge about motor control and biomechanics.

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