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## Science in Swimming III

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## **Science in Swimming III**

Edited by Krystyna Zaton, Marek Rejman, and Anna Kwasna Published in 2011 by Wydawnictwo Akademii Wychowania Fizycznego, Wrocław, Poland, 160 pages (soft cover), ISBN: 978-83-89156-15-0

*Reviewed by Stephen J. Langendorfer, Ph.D., Bowling Green State University*

Several months back I received a complimentary copy of *Science in Swimming III* from the editors, some of whom have authored articles in the *International Journal of Aquatic Research and Education*. They thought I might be interested in learning more about the scientific work on swimming that has been occurring in Poland as part of an ongoing scientific symposium for which *Science in Swimming* apparently serves as the published proceedings. In turn, I felt this relatively modest compilation of scientific reports on a variety of swimming topics deserved wider international recognition, particularly in the English speaking countries. It is notable that none of the authors are native English speakers or writers so their works have been translated into English, the accuracy of which was edited by several academic reviewers, Professors Tadeusz Bober and Robert Keig Stallman.

This particular volume compiles 15 individual scientific reports on fairly widely divergent swimming topics divided into two sections that the editors have labeled as “chapters.” Chapter I, entitled “didactics in swimming,” features six reports that focus on historical, pedagogical, curricular, and psychological approaches to the teaching and learning of swimming skills. What makes the section both fascinating, but also somewhat bewildering is the reliance on a wide variety of theoretical and philosophical approaches that are not always clearly explained by the translations. The more extensive “chapter II,” titled “biology and biomechanics in competitive swimming,” comprises nine reports which ostensibly relate to competitive swimming topics although at least three of them involve topics not closely related to swim racing (e.g., synchronized swimming, use of monofin kicking, coordination asymmetries in children’s swimming techniques). The chapters in the second section indeed are more empirical in design as indicated by their use of standard statistical analyses, but they tend to come from fairly unique theoretical perspectives with which I am not full conversant.

I would argue that the strongest arguments for readers to explore this small tome are the fact that the questions appear to me to be fairly unique to Polish swimming. I believe they deserve greater international attention while at the same time international attention could provide these authors with a broader and more thorough evidence foundation than observed in some of these papers. For example, I was attracted to the chapter I Antoniak-Lewandowska paper, which intended to illuminate the swim teaching of young children through the use of kinematics measured from underwater video. The author appeared to employ only references drawn from Poland and Europe and failed to recognize foundational work done on infant swimming in the U.S. in the 1930s by Myrtle McGraw and more recently in

Japan. I argue that broader exposure to other international research would certainly benefit these Polish swimming researchers while broader dissemination of these works also would help inform the international community about the research being done locally within the Polish swimming community of scholars.

I found this scientific work to be interesting and potentially useful to me as a scholar, but also limited to a certain extent by a language translation barrier. Much of what I read lacked a strong logical flow of ideas perhaps simply because of the lack of experience in thinking and writing in English. To my reading, many of the stated hypotheses were written too vaguely and as a result were not sufficiently addressed by the specific analyses conducted. Similarly, the discussions of the results did not necessarily draw directly on the analyses performed, at least as translated into English. It was hard to know whether it was a limitation of the science used or simply of the skill in expressing the science into a non-native tongue. Regardless of the cause, the need for greater international collaboration and interchange, as intended by the ongoing swimming symposium organized regularly in Poland, is apparent and welcome. I encourage readers to seek out research works such as *Science in Swimming III* that can broaden our knowledge as well as encourage more international collaboration and communication.