

28th ECSS Anniversary Congress, Paris/France, 4-7 July 2023

Exploring the interplay between elite athletes and sport equipment in the quest for performance: A case study in sailing

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Introduction

From a phenomenological perspective, it is classically assumed that when sport equipment is used by expert athletes, it is so well incorporated to the athlete's body that it becomes transparent, disappearing from the athlete's awareness. However, few studies have investigated the perceptual experiences of expert athletes using their equipment to challenge this assumption. These studies focus on small equipment such as backpacks or ice axes, showing that even these types of equipment can have a significant presence in elite athlete's experience. We pursued this exploration in the sport of windsurfing and more specifically in IQfoil (i.e. the Olympic windsurfing class). Indeed, in IQfoil, the size and characteristics of the equipment contrasts with those of the previous studies, creating a favorable situation of research to contribute to the understanding of the interplay between human and sport equipment.

Methods

We collected data during a training session of two elite IQfoil riders. Both had a long record of international victories and were part of the national team. We collected data in two steps: (a) in-situ audio-video recording of the training session; and (b) individual self-confrontation interviews. We conducted the data analysis using the Course of Experience framework methodologies to identify and categorize the meaningful elements of the riders' own worlds.

Results

The analysis revealed eight typical meaningful elements in the riders' own worlds: flight height, physical effort, position in the fleet, sail movements, sail power, speed variations, transmission balance, wind variations. These findings reveal that when riders try to optimize their speed, their attention is distributed between the environment (i.e., wind variation, position in the fleet), their relation with the equipment (i.e., transmission balance, physical effort), and the relation between the equipment and the environment (i.e., sail power, flight height, speed variation).

Discussion

Our findings contribute to the understanding of expert use of sport equipment in two complementary ways: (a) by contributing to apprehend distinctions between classes of equipment in function of their autonomy of movements in relation to the athletes' activity; and (b) by suggesting a fundamental distinction between the experience of using sport equipment in an activity of performance optimization versus in a daily routine activity.

Topic: Psychology

Presentation Poster

European Database of Sport Science (EDSS)

Supported by SporTools GmbH



34070