

addressed to the power and strength development. The specialists states that for the highest performance there are not enough only the upper physical and motrics qualities, but also personality features consistent with exactingness and mental tension generated by the competition. Purpose: Our study focused on evidentiating the possible corelations between physiological aspects of the nervous system, respective bioelectric activity of the brain, and varied abilities or characteristics relative invariablies of the sportsman. Stuff and methode: EEG band was recorded on a EEG machine (Pegasus Digital EEG-EMS GmbH - Austria) according to international standards. For the psychological testing we used The R. B. Cattell 16. P.F. Questionary. Subjects: Sample I: 24 judo sportsman (average age 18,5 years) and Sample II: 28 nonsportsfellows (average age 19 years). Setting: Romania. Results: All average values of the energetical index was higher at judo sportsmen. The average values of the Catel Test 16 PF suggests that the judo sportsmen tend to have an expansive, enthusiast, jovial, direct and attached behavior, even judo is an individual sport.

### **62. Intuitive physics in experts: Misconceptions about the balls momentum in football professionals**

Jan Rauch\*, Moritz M. Daum, & Friedrich Wilkening

*\*University of Zurich, Department of Psychology, Cognitive and Developmental Psychology, Switzerland*

The area of intuitive physics in psychology has shown that already infants often show a quite sophisticated knowledge about physical events. However, adults - even experts - often show astonishing misconceptions about physical laws. When asked to redirect a moving object in order to hit a target, adults often failed, and the object missed the target on the far side. These findings were interpreted that participants ignored the object's momentum. In the present study, this misconception was investigated in professional football players. The 64 games of the 2006 FIFA World Cup in Germany were analyzed regarding situations in which cross balls were redirected by an attacking player to score a goal. We hypothesized that even professional football players often ignore the ball's momentum when trying to score and that the ball will more often miss the goal on the far than on the near side of the goal. Analyses of the ball's direction after its deflection showed that when heading the ball, a significantly larger amount of the headers went wide off the far post than off the near post. In contrast, redirecting or shooting by foot resulted in a normal distribution of the directions of the shots. Further results showed that the angle of redirection was larger when heading than when shooting the ball by foot. Thus, even the world's best experts in redirecting balls, football professionals participating in the FIFA World Cup, show a naive misconception about the laws of physics when trying to score by head.

### **63. Patterns of dream of the basketball female players of the Spanish national team in the preparation for the Athens' Olympic Games**

Felix Guillen\*, Mauricio Bara, & Rosi Sanchez

*\*University Of Las Palmas De Gran Canaria, Spain*

The present study analyzes the patterns of the dream in the female players of the Spanish National Team of Basketball in three different moments from Olympics Games of Athens. The Questionnaire of Dream in the Sport (CSD) of García-Mas et al (2003) was used. They were carried out descriptive analysis, ANOVA and correlations. The hours of dream they diminish in M2 and also the satisfaction with the dream. 70% needed to sleep from eight to ten hours. They took between 15 and 30 minutes to sleep and only of the 10 to 20% thought of sport before sleeping. 50% woke up 1 or 2 times in the night. 30% dreamt of sport topics. The moments of more fatigue were for the morning and evening in M1 and M2 and tomorrow and noon in M3. The yield the following day, for 40% was quite satisfactory in M1 and 90% in M2. The activation was half for most. The concentration levels and implication in the competition / training, they varied among high in M1 and half in M2. 70% prefers to train in the afternoon, 90% needs nap and they consider that they sleep the necessary hours. The correlations showed significant relationships among satisfaction with night of dream and time that take in sleeping, and yield the following day. Relationships exist between yield and activation level and concentration and between activation and concentration.

### **64. The effects of modelling and imagery type on performance and learning of the volleyball simple serve**

Masoumeh Shojaei\* & Tahere Bagher Poor

*\*School of Physical Education, Al-Zahra University, Iran*

Imagery and modelling are similar cognitive processes that have been found to enhance performance. However, some imagery studies have shown a model of correct performance before beginning imagery to ensure that subjects are imagining the skill correctly; thus, confounding modelling and imagery. In