

Athletes employ imagery that services the achievement of their goals; some imagery content is more related to task and ego achievement goals than others. In addition, the effective use of imagery is moderated by imagery ability. The aim of the present study was to determine the relationship between goal orientations and imagery ability, as image quality may be cognitively regulated by motivational states and it is important to assess this relationship. 272 male and female athletes, representing nine sports, participated in the study. Cognitive imagery ability was assessed by the Vividness of Movement Imagery Questionnaire-2. The Motivational Imagery Ability Measure for Sport was used to assess motivational imagery ability. Goal orientations were assessed with the Perceptions of Success Questionnaire. A two-step cluster analysis identified four distinct task and ego orientation clusters. Following identification and validation of the various clusters, two separate multivariate analyses of covariance (Bonferroni-adjusted $p = .025$) were conducted to assess differences in cognitive imagery ability and motivational imagery ability for the clusters, with gender and sport type (i.e., team and individual) entered as covariates. For cognitive imagery ability gender was a significant covariate (Bonferroni-adjusted $p = .025$), and when gender was controlled for clusters did not differ on cognitive imagery ability ($p = .04$). Regarding motivational imagery ability, sport type was a significant covariate; however, even with it controlled for, cluster membership demonstrated a significant multivariate effect ($p = .0001$). Univariate analysis indicated that the four clusters differed on each of the four motivational imagery subscales ($p = .0001$ for each). It was concluded that goal orientations have an important relationship with motivational imagery ability but this same relationship is not evident with cognitive imagery ability.

The relationship between the quiet eye period and occipital lobe activity during the act of golf putting

Guadagnoli, Mark A., UNLV; Michael A. Gaetz, University of the Fraser Valley; Chris Bertram, University of the Fraser Valley; Kristina Lindquist, PFI; Valeria Martinez, UNLV; Danika Dickson, University of the Fraser Valley

Neuroscience is now suggesting that the notion of the eyes being the window to the soul may be truer than once thought. More specifically, the concept of the eyes as an index of performance has been investigated in a paradigm known as 'quiet eye'. The paradigm, pioneered by Joan Vickers and others, suggests that eye movement immediately prior to performance, or lack thereof, is "a potential predictor of elite athlete performance." In the currently study we investigated the relationship between the quiet eye period and occipital lobe activity during the act of golf putting. Eight individuals participated in the study. The data revealed significant results between all three potential correlations [(quiet eye to putting accuracy $r = .789$), (quiet eye to occipital lobe activity $r = -.897$), (occipital lobe activity to accuracy $r = -.735$). We interpret these results to suggest that the quiet eye effect is related to both upstream (n eurolological) and downstream (p erformance) effects.

The relationship between the physical self-description in bodybuilding members and intensity level

Guillen, Felix, University of Las Palmas de Gran Canaria; Rosa Lopez, University of Las Palmas de Gran Canaria

The overall purpose of this study was to examine the physical self-description of the members of a bodybuilding center. It was also the purpose to explore their physical self-description, attending to the characteristics of the exercises they do. Participants were 206 bodybuilding

members (76 females and 130 males) and ranged in age from 16 to 35 years old ($M = 25$; $SD = 6$). The Physical Self-Description Questionnaire (PSDQ; Marsh, & Sutherland, 1994) was used in its Spanish version (Gracia, Marcó, Fernández, & Trujano, 1998) and demographic information was also collected. The results show the existence of positive correlations between the number of times a week the participants practice exercise, the length of each session and the years they have been practicing and one of the two dimensions, specifically the physical fitness self-description. And there's also a positive correlation between the above mentioned variables and all the subdimensions that constitute this first dimension (coordination, physical activity, sports condition, strength, flexibility and endurance). As for the subdimensions belonging to the second dimension, physical self-description, there's a highly positive correlation between the variables presented and health and self-esteem and a highly negative one between them and body fat. There is also a highly positive correlation between the number of times a week the participants practice exercise, the length of each session and the years they have been practicing and the subdimensions of health and self-esteem. No differences were found between male and female participants. The results are discussed in terms of their implications theoretical and practical utility.

Unconscious priming in sequential movement perception

Güldenpenning, Iris, Bielefeld University; Dirk Koester, Bielefeld University; Wilfried Kunde, Dortmund University; Thomas Schack, Bielefeld University

Perceptual superiority is a fundamental component of expertise in different domains such as chess or sport. At present, it is unclear whether these perceptual skills are necessary to process information unconsciously. Is it possible to bias expert behaviour without awareness? In a recent priming study it was found that expertise is an important prerequisite of unconscious processing of chess scenarios. However, to accentuate the debate about the cognitive prerequisites of unconscious processing we decided to do a further study in another domain, in motor expertise. Therefore we applied the subliminal priming paradigm with stimuli of the high jump movement. Sixteen novices and sixteen experts had to categorise photographic pictures of the high jump movement, i.e. whether they belong to the approach or the flight phase. Each target picture was preceded by a briefly presented and masked prime picture. The prime pictures were not consciously perceivable. In a second experiment, prime pictures were mirrored at the vertical axis. Experts as well as novices showed the priming effect which means faster response times if prime and target are of the same category (e.g., flight) and slower response times if prime and target are of different categories. The priming effect was not modulated by changing the visual properties (i.e. mirroring the primes). These results indicate that expertise is not an essential prerequisite for unconscious information processing in a categorisation task with pictures of a complex movement. Moreover, the priming effect appears to reflect a processing stage beyond sensory processing. Further research might focus on the relevant features of a movement posture (e.g. kinematic features), which are relevant for unconscious categorisation.

Gender variations in physical activity and well-being in individuals diagnosed with osteoporosis

Gunnell, Katie E., The University of British Columbia; Diane E. Mack, Brock University; Philip M. Wilson, Brock University; Peter R. E. Crocker, The University of British Columbia
Health-enhancing physical activity (HEPA) is associated with psychological well-being in older adults (Chodzko-Zajko, Schwingel, & Park, 2009). However, the relationship is