EMOTIONS AND ATHLETIC PERFORMANCE: AN APPLICATION OF THE IZOF MODEL TO SPORTS PARTICIPATION

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INTRODUCTION

Sports participation as an interdisciplinary topic can be addressed from sociological, psychological, pedagogical, physiological, or biomechanical perspectives. Psychological aspects of sport participation include a system of multidimensional factors affecting athlete's personal growth and achievement level. This paper will focus on the role of subjective emotional experiences helpful or harmful to performance in elite sports. It is surprising that so little empirical research has actually been conducted on the topic, despite an increased interest in emotion-performance relationships. The emphasis until quite recently was primarily on examining the relationship between pre-competition anxiety and performance. Several nomothetic (group-based) models, initially developed in other than sport setting, contend that anxiety exerts a uniform effect on performance in different athletes. However, there is a growing consensus in sport psychology that most of these models fail to recognize the multidimensional nature of anxiety or arousal and do not provide an acceptable explanation of anxiety-performance relationships. Furthermore, the application of findings based on these models to individual performers is often ineffective and even misleading. An alternative idiographic (individual-oriented) approach to the study of emotions as an important component of sports participation will be presented. First, the individual zones of optimal functioning (IZOF) model and assessment procedures using individualized scales will be briefly described (Hanin, 1995). Then empirical findings on optimal and nonoptimal emotions and emotion-performance relationships in elite athletes across different sports will be summarized. Finally, future directions of research extending the IZOF model to other components of mental state will be discussed.

THE INDIVIDUAL ZONES OF OPTIMAL FUNCTIONING (IZOF) MODEL

The IZOF model, developed in top sports setting, combines the within- and between-subjects analysis of emotional experiences related to individually optimal and nonoptimal performances. The main emphasis in the model is on enhancing consistency of athlete's successful performance. The IZOF model was used to study optimal pre-competition anxiety and patterns of positive and negative emotions or affect (PNA) in different sports (Hanin, 1995; Hanin, Syrja, 1995 a, b). As applied to pre-competition anxiety, this approach indicates that each athlete has individually optimal level (high, moderate and low) and the zones of anxiety facilitating an athlete's performance. Successful performance occurs when current precompetition anxiety is near or within the optimal zones. When precompetition anxiety falls outside the zones, that is higher or lower, performance usually deteriorates. In the IZOF model extended to the study of PNA facilitating and harmful for individual performance several new features were developed. First, the framework of five basic dimensions (form, content, intensity, time and context) for the systemic description of emotions as a part of an individual's mental state was proposed. Second, the emotion content was conceptualized within the four global categories: positive, pleasant, facilitating emotions (P+); negative, unpleasant, facilitating emotions (N+); positive, pleasant, debilitating emotions (P-); and negative, unpleasant, debilitating emotions (N-).
Third, the prediction of successful, average or poor performance was based on the "in-out of the zone" principle contrasting athlete's current (or anticipatory) emotional state with optimal and nonoptimal emotions. High probability of success is expected when PNA is within the optimal zones and outside nonoptimal ranges. Additionally, a step-wise assessment procedures were developed to generate: (a) optimal and nonoptimal PNA profiles and (b) recall, current, and anticipatory measures on individualized self-rating scales with athlete-generated items. These provided tools for the accurate prediction of individual PNA- performance relationships and post- performance analysis.

EMOTION PATTERNS AND EMOTION-PERFORMANCE RELATIONSHIPS

Most of the IZOF research at this point is focused on the prototype analysis of the content and intensity of positive and negative emotions that are helpful and harmful for athletic performance. This line of empirical studies tests and validates the theoretical and practical utility of the IZOF model. Specifically, it was shown that optimal and nonoptimal patterns of PNA in different athletes were individual and that facilitating or debilitating impact of emotions was related to their idiosyncratic meaning, intensity, and function. These data were consistent across different sports (ice-hockey, soccer, skiing, squash, badminton, triathlon, swimming, and orienteering), settings (competitions and practices), and specific tasks (Hanin, Syrja, 1995 a, b). The second direction of the IZOF research aims to test the in-out of the zone principle by examining the within-individual dynamics of emotions before, during, and after performance in top athletes representing different sports. Both directions of research are aiming to get a more complete and holistic picture of the participation in elite sports and to make it an enjoyable and fulfilling experience.

FUTURE DIRECTIONS

Several new developments related to the dynamics of sports participation can be suggested within the framework of the IZOF model. First, other forms of mental state (cognitive, motivational, bodily somatic, psycho-motor functioning) can be examined through the IZOF approach empirically tested in the analysis of athletes' emotional experiences. Second, a more detailed and complete functional explanation of the impact of emotions on performance can be provided by using the concepts of energy mobilization (de-mobilization) and energy utilization (mis-use). Finally, the IZOF model might be useful to integrate interdisciplinary data characterizing the dynamics of sport participation.

REFERENCES

