Predicted, Actual, and Recalled Affect in Olympic-Level Soccer Players: Idiographic Assessments on Individualized Scales

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Subjective emotional experiences related to performance play an important role in competitive and elite sport, and the impact of these experiences on performance is typically examined using self-reports. These measures have several advantages: They are brief, simple, and relatively quick in administration and scoring. However, the limitations of self-reports are also well documented, particularly regarding application of actual assessments (Hanin, 1986, 1995; Hanin & Syrjä, 1995b). For instance, actual self-ratings are inappropriate for assessments during task performance, and they may be invasive immediately prior to important competitions by distracting athletes or disturbing their routines and preparation strategies (Hager & Raglin, 1994). The intrusive nature of actual measurements is well illustrated by a study in which more than 50% of elite cyclists did not agree to complete an anxiety questionnaire prior to competing (McCann, Murphy, & Raedeke, 1992). A more serious limitation of actual measures in competitive and elite sports, where important and demanding tasks are performed repeatedly, is that athletes’ past performance histories and subjective experiences are either underestimated or completely ignored. Furthermore, repeated actual assessments, if used, for instance, to identify optimal and nonoptimal patterns of emotions, are usually time consuming and cost ineffective.

The need for predicted and recalled affective measures is particularly important for researchers and practitioners attempting to understand relationships between emotional states and performance processes and outcomes in elite sports. The systematic prediction and recall can also enhance athletes’ awareness of subjective experiences that are helpful for consistently successful performances. These issues were addressed conceptually, methodologically, and experimentally within the framework of the individual zones of optimal functioning (IZOF) model (Hanin, 1986, 1989, 1995).

The IZOF model was developed in the naturalistic setting of elite sports and combines the intra- and interindividual analysis of emotional experiences related to athletes’ successful and unsuccessful performances. This approach was initially
used to study individually optimal precompetition anxiety in top Russian athletes (Hanin, 1986, 1989, 1995). Later, the IZOF model was extended to the analysis of positive and negative emotions or affect (PNA) in different sports (Hanin, 1993, 1994, 1995; Hanin & Syrjä, 1995a, 1995b).

As applied to precompetition anxiety, the IZOF model proposes that each athlete has an individually optimal level (high, moderate, and low) and zone of anxiety. Successful performance, particularly in short-duration tasks, occurs when current precompetition anxiety is near or within the optimal zones. When precompetition anxiety falls outside the zones (i.e., higher or lower), performance usually deteriorates. Several studies demonstrated that intraindividual comparisons provided a more meaningful picture of the anxiety–performance relationship (Gould, Tuffey, Hardy, & Lochbaum, 1993; Hanin, 1986, 1989, 1995; Krane, 1993; Morgan, O’Connor, Elickson, & Bradley, 1988; Prapavessis & Grove, 1991; Raglin, Morgan, & Wise, 1990; Raglin & Turner, 1993; Salminen, Liukkonen, Hanin, & Hyvänen, 1995).

An individualized technique of recall and anticipatory measures, based on reflected subjective experiences of skilled performers to supplement their actual ratings of performance affect, was developed (Hanin, 1986, 1989, 1993). Specifically, athletes used recall to rate their emotional states based on the experiences in most successful (“best ever”) or unsuccessful (“worst ever”) performance situations. The athletes then rated their anticipated feelings based on their perception of the forthcoming performance situation and past experiences in similar situations. Research, initially using Spielberger’s State-Trait Anxiety Inventory, has shown that skilled athletes were accurate in recalling their anxiety before successful and unsuccessful competitions. For instance, high accuracy of 2-day recall in female ($r = .97$) and male ($r = .96$) track and field athletes was not influenced by their relative success (Harger & Raglin, 1994). Also, significant correlations in the range of .75 to .89 were found between actual and recalled levels of precompetition anxiety when the interval between the assessments was up to 3 or 4 months (Hanin, 1986; Raglin & Morris, 1994; Raglin & Turner, 1993). Furthermore, other standardized scales, such as the Competitive State Anxiety Inventory-2 (CSAI-2), Profile of Mood States (POMS), and the Body Awareness Scale, were used successfully to identify retrospectively optimal precompetition affect (Gould et al., 1993; Krane, 1993; Prapavessis & Grove, 1991; Raglin et al., 1990).

Research contrasting anticipated and actual self-ratings also demonstrated that skilled athletes in different sports were able to predict quite accurately their anticipated emotions and performance. Significant correlations in the range of .49 to .98 were found between anticipatory and actual measures of precompetition anxiety. The time interval between the anticipatory and actual assessments was from 24 hours to 2–3 weeks (Hanin, 1986; Raglin et al., 1990; Salminen et al., 1995). Additionally, irrespective of the instruments used, the findings provided empirical support for the validity of the individual-oriented and multidimensional conception of anxiety–performance relationships. Thus, theoretical and practical utility of the “in–out of the zone” concept for predicting individual performance was also demonstrated.

However, the studies of precompetition anxiety were idiographic to the extent that individual levels of optimal anxiety were identified for each athlete. A strong nomothetic element was still retained, since an identical set of researcher-generated anxiety items was presented to all participants, and its content was im-