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Dispositional goal orientations, motivational climate, and psychobiosocial states in youth sport

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ABSTRACT

The objective of the study was to examine the relation of individuals' dispositional goal orientation (task/ego) and perceived sport motivational climate (mastery/performance) to pleasant or unpleasant psychobiosocial (PBS) states (i.e., emotion, cognition, motivation, bodily reactions, movement, performance, and communication) as assumed by the Individual Zones of Optimal Functioning (IZOF) model. Participants were 473 Italian youngsters (217 girls and 256 boys, aged 13–14 years) who took part in individual or team sports. The assessment was conducted through a goal orientation questionnaire, a motivational climate inventory, and pleasant and unpleasant PBS descriptors. Moderated hierarchical regression analysis showed that task orientation and a perceived mastery-involving climate were related positively to most components of pleasant PBS states. Task orientation was also negatively associated with most of the unpleasant states. Ego orientation was positively associated with the cognitive, bodily, movement, and performance components of pleasant PBS states, whereas performance climate was positively related to most of the unpleasant states. Interaction results provided additional insights into the interplay of achievement goals, motivational climate, and PBS states. Overall findings supported the feasibility and utility of adopting the IZOF framework to examine achievement goal theory predictions in youth sport.

1. Introduction

Achievement goal theory is a widespread theoretical perspective for studying motivation (Ames, 1992; Nicholls, 1984). Two constructs of the theory have received special attention in sport literature, namely task orientation and ego orientation (Roberts, Treasure, & Conroy, 2007). In certain situations, a person might be interested in the mastery of a task, self-improvement, and effort, thereby reflecting a task goal orientation; perception of ability is typically based on achieving a personal standard of performance. In contrast, an individual's focus may be on winning, or demonstrating superior ability through performing better than others or performing equally to others with less effort, thus reflecting an ego goal orientation; perceived ability is usually normatively referenced. Research on youth has demonstrated that a high task orientation, either singly or in combination with a high ego orientation, is related to adaptive cognitive, affective, and behavioural patterns (e.g., Papaioannou, Ampatzoglou, Kalogiannis, & Sagovits, 2008). Task oriented children are more likely to persist in the face of failure, exert effort, select challenging tasks, be interested in self-improvement, and be intrinsically motivated regardless of their perceived or actual ability.

Individual goal orientation has been suggested as a dispositional variable that determines the probability of adopting a certain goal of action (i.e., task or ego state of goal involvement) and a particular behaviour pattern in achievement contexts (Dweck & Leggett, 1988). The perception of motivational climate is proposed as a situational variable that moderates the influence of individual goal orientation. It is one's perception of the situational cues or motivational emphases of other influential persons, such as the coach and teammates. Similar to goal orientations, motivational climate perceptions reflect task or ego involving norms of success and failure. Ames (1992) proposed the "mastery" and "performance" labels to distinguish between task-involvement motivational climate and ego-involvement motivational climate, respectively. A mastery climate underscores learning, skill mastery, effort, and social relations. Participants are evaluated on task mastery and skill development rather than on ability. Performance mistakes are viewed as inherently associated with the learning process and individuals are encouraged to persist in overcoming difficulties. Conversely, a performance climate emphasizes social

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comparison, normative-based evaluation, and competition rather than cooperation. Performance outcomes are valued more than effort and skill improvement, mistakes are disapproved, and participants are criticized or punished for committing errors or underperforming. Reviews (e.g., Ntoumanis & Biddle, 1999) indicate that a mastery climate is related to adaptive cognitions, emotions, and behaviours (i.e., well-being, sportspersonship, satisfaction, motivation, task perseverance, achievement strategies), whereas a performance climate is associated with less adaptive or maladaptive cognitive, motivational, and affective responses (i.e., dissatisfaction, amotivation, task avoidance, reduced effort and persistence).

Researchers have adopted a variety of measures to assess constructs related to emotional states, including enjoyment, satisfaction, interest, positive affect, and flow as regards pleasant states, and anxiety, distress, negative thoughts, negative affect, and boredom with respect to unpleasant states (Biddle, Wang, Kavussanu, & Spray, 2003). Yet, to our knowledge no sport-specific research grounded on achievement goal theory has so far examined in a single study pleasant and unpleasant psychobiosocial (PBS) states beyond emotion and motivation. The study of PBS states in sport has provided insights into the athletes' experience (e.g., Ruiz & Hanin, 2004). Therefore, the main purpose of our study was to examine the usefulness of investigating PBS states as related to achievement goals and motivational climate in youth sport. To this purpose we adopted the Individual Zones of Optimal Functioning (IZOF; Hanin, 2000) model as a conceptual framework, because it provides a comprehensive conceptualization of PBS states related to performance. The IZOF model incorporates a vast array of idiosyncratic emotions and performance-related PBS states in which the emotional experience is conceived of as fundamental (see Hanin, 2007; Robazza, 2006). In short, PBS states are defined as situational, multimodal, and dynamic manifestations of total human functioning. They consist of seven pleasant or unpleasant interactive components included in psychological (cognitive, emotional, motivational), biological (bodily, kinesthetic), and social (performance, communicative) states.

Based on youth sport research on the relation of achievement goals to affect (Biddle et al., 2003), and recent studies in the educational context (e.g., Mouratidis, Vansteenkiste, Lens, & Vanden Auweele, 2009), we expected to find task orientation and mastery climate positively associated with emotional and motivational components of pleasant PBS states, and negatively related to emotional and motivational components of unpleasant PBS states (first hypothesis). Given the exploratory nature of the topic, no specific expectations were postulated with respect to the additional components of PBS states. We also expected to find ego orientation and performance climate either unrelated to emotional and motivational pleasant states or negatively associated with them, and positively related to emotional and motivational unpleasant states (second hypothesis). Ego goals, indeed, were shown to relate to both pleasant and unpleasant affect (Biddle et al., 2003).

Interactions between dispositional orientation and perceived motivational climate were also examined. Findings of the limited research in this area are consistent with Dweck and Leggett's (1988) claim that situational variables may moderate the influence of goal orientation (e.g., Standage, Duda, & Ntoumanis, 2003). When mastery or performance environmental cues are not pronounced, an individual's disposition should predominate. Conversely, if situational cues are salient, they may override dispositional goals and be stronger predictors of motivational processes. Roberts and Treasure (1992) proposed that youngsters may be more susceptible to the influence of situational variables than adults. Accordingly, situational variables might be expected to moderate youngsters' dispositional goal orientations to predict their PBS states (third hypothesis).

2. Method

2.1. Participants

The sample consisted of 473 youngsters, 217 girls and 256 boys, aged 13–14 years (M = 13.4, SD = 0.5), who took part either in team sports (n = 240), such as basketball, soccer, volleyball, and rugby, or in individual sports (n = 233), such as track and field, gymnastics, martial arts, swimming, and tennis. They had been involved in organized sport from two to five years. Participants were recruited from youth sport organizations in different towns located in north eastern Italy. Agreement to conduct the study was obtained from sport managers and coaches after we explained to them the general purpose of the study. Following standard ethical procedures, children provided written assent and one of their parents signed an informed consent.

2.2. Procedure

The protocol used received institutional approval from our university. Assessment was conducted in small groups of four or five participants in a secluded location close to training facilities. An investigator administered a multi-section questionnaire before a regular practice section. None of the youngsters refused to participate. To assess motivational climate perceptions elicited by a variety of coaching styles, no more than five youngsters of the same coach took part in the study. Consequently, youngsters coached by about 90 different coaches were involved in the investigation. Actual coaching style was not assessed. Participants were assured of the confidentiality of individual responses and presented with the anti-social desirability instructions emphasizing the need for honesty. Assessment lasted approximately 30 minutes after which participants were debriefed about the purpose of the study.

2.3. Measures

2.3.1. Goal orientations

The Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda & Nicholls, 1992) consists of 13 items loading into a seven item task orientation scale (e.g., "I feel successful in sport when I work really hard") and a six-item ego orientation scale (e.g., "I feel successful in sport when I can do better than my friends"). Item responses are ranked on a five-point Likert-type scale ranging from 1, *strongly disagree*, to 5, *strongly agree*. Mean scale scores were calculated for the task orientation and the ego orientation scales. In an Italian sample of boys and girls aged 8 to 14 years, the two-factor structure of the translated questionnaire was supported and the Cronbach α value of the scales ranged from 0.73 to 0.85 across gender and age (Bortoli & Robazza, 2005).

2.3.2. Perceived motivational climate

The Perceived Motivational Climate in Sport Questionnaire (PMCSQ; drawn from Newton, Duda, & Yin, 2000) consists of 12 items including a six-item mastery climate scale (e.g., "In this sport, the coach makes sure participants improve on skills they're not good at") and a six-item performance climate scale (e.g., "In this sport, participants are encouraged to outplay the other participants"). Item responses are rated on a five-point scale ranging from 1, *strongly disagree*, to 5, *strongly agree*. Mean scale scores were computed for the mastery climate and performance climate scales. A study with an Italian sample confirmed the two-factor structure of the translated questionnaire (Bortoli & Robazza, 2004). Internal consistency α was 0.76 on mastery scale scores and α = 0.70 on performance scale scores.