

INTRODUCTION

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Abstract: This is the introductory paper of the special issue of *Hellenic Journal of Psychology* entitled *Self-talk in Sport Psychology*. This paper reviews research on self-talk in sport and exercise settings and identifies five lines of research within this area and discusses how the five papers of this issue fit into these research lines. The first of these lines has examined athletes' use of self-talk. The second one has examined the effect of self-talk on sport performance and has compared different types of self-talk. The third one has focused on potential mechanisms through which self-talk may affect performance. The other two lines of research have dealt with the relations of self-talk to the sport context and have examined how significant others promote the use of self-talk or how the use of self-talk by athletes influences how they are perceived by sport spectators.

Key words: Self-talk.

Sport psychology refers to the scientific study of people and their behaviour in sport contexts. Sport psychology research comprises two general themes: (a) understanding the effects of psychological factors on motor performance, and (b) understanding the effect of physical activity and sport participation on psychological development (Weinberg & Gould, 2003). The first area is related to performance enhancement in sport while the second one is usually related to efforts aiming at improving sport and exercise contexts in order to facilitate participants' development and well being.

Regarding athletes' performance enhancement, sport psychologists have been progressively engaging in psychological skills training with athletes. The term "psychological skills training" refers to the employment of techniques and strategies designed to teach or enhance mental skills

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that aid performance and a positive approach to sport competition (Vealey, 1988). Thus, within applied sport psychology, a distinction is made between techniques and skills. According to Vealey (1998, p. 326), «skills are qualities to be attained, as opposed to methods which are procedures or techniques athletes engage in to develop skills». For example, optimal mental arousal and optimal attention during competition can be considered as skills whereas goal setting, physical relaxation, and self-talk – which according to Hackfort and Schwenkmezger (1993, p. 355) is defined as a «dialogue in which the individual interprets feelings and perceptions, regulates and changes evaluation and convictions, and gives him/herself instructions and reinforcement» – are techniques that may be used to achieve these skills.

Applied sport psychology research examines the effectiveness of the application of these psychological techniques regarding sport performance as well as the context that may facilitate or inhibit the employment of these techniques. For example, research may examine under what conditions what types of goals are effective but also whether coaches endorse and promote the use of self-talk by athletes. Regarding the techniques of goal setting and imagery a substantial body of empirical studies has been accumulated which is summarised in recent publications (Burton & Naylor, 2002; Burton, Naylor, & Holliday, 2001; Hall, 1998; Murphy & Martin, 2002). However, research on self-talk in sport has not been that extensive and this has resulted in the absence of this topic in recent research syntheses (Horn, 2002; Singer, Hausenblas, & Janelle, 2001). Interestingly, in an early content analysis of applied sport psychology books (Vealey, 1988) thought control appeared as a topic in the majority of these books. Nevertheless, there is now a body of research on self-talk in sport. This research has proceeded in four complementary lines which are presented below. Furthermore, we briefly present the papers included in this issue and how they fit in one of these lines of research.

One line of research which has been primarily descriptive in nature has examined the use of self-talk by athletes. Hardy, Gammage, and Hall (2001) provided varsity athletes with a definition of self-talk and asked them four open-ended questions regarding whether they use self-talk and when, where do they use it, what is the content of the self-talk they use, and for what reasons do they use it. Classification of athletes' answers regarding why they use self-talk provide two general main themes: a cognitive and a motivational one. Similarly, Chroni and Kourtesopoulou

(2002) asked sport climbing athletes regarding their use of self-talk. Their data showed that sport climbers used motivational self-talk to a greater extent than instructional self-talk. Other studies have used instruments assessing frequency of use of various psychological techniques. For example, Thiese and Huddleston (1999) reported that the majority of collegiate level swimmers examined used goal setting, positive self-talk and music for psych-up frequently. This line of research has led to the development of self-report instruments which assess athletes' use of self-talk such as the Self-Talk Use Questionnaire (STUQ; Hardy & Hall, 2005; Hardy, Hall, & Hardy, 2005). This instrumentation is helpful in more precise hypothesis testing and for extending self-talk research. Thus, Hardy and Hall (this issue) have employed STUQ in order to examine coach influences on athletes' use of self-talk.

Another line of research has examined the effect of self-talk on sport performance. Initially, experimental studies confirmed that the use of positive self-talk improved performance on sport skills relative to negative self-talk or no self-talk (Dagrou & Gauvin, 1992; Dagrou, Gauvin, & Halliwell, 1992; Van Raalte et al., 1995). These results were supported by studies in which sport participants were observed while performing and their use of self-talk was found to be positively related to sport performance (Van Raalte, Brewer, Rivera, & Petitpas, 1994), although there have been studies in which athletes' reports regarding use of self-talk was unrelated to sport performance (Dagrou et al., 1992; Highlen & Bennet, 1983). Van Raalte et al. (1994) attributed these inconsistent findings to the difference between experimental and nonexperimental studies suggesting that «negative self-talk may be more detrimental to performance of new skills (as in experimental studies) than to performance of well-learned tasks (as in field and interview studies)» (p. 401).

Further support for the positive effects of self-talk on performance was provided by field intervention studies that employed this technique either solely or in combination with other psychological skills. Johnson, Janelle, Hrycaiko, Johnson, and Halas (2004) employed self-talk with female young soccer players, Perkos, Theodorakis, and Chroni (2002) with novice basketball players, Landin and Hebert (1999) with collegiate tennis players, and Ming and Martin (1996) with novice figure skaters. Moreover, self-talk has been used as a component of psychological skills training interventions in a variety of sports such as tennis (Mamassis & Doganis,

2004), gymnasium triathlon (Thelwell & Greenlees, 2001, 2003), ice hockey (Rogerson & Hrycaiko, 2002), swimming (Hanton & Jones, 1999), and basketball (Kendall, Hrycaiko, Martin, & Kendall, 1990).

Within this line of research, a few studies have examined the relative effectiveness of self-talk as compared to other sport-specific psychological techniques. Masciana, Van Raalte, Brewer, Branton, and Coughlin (2001) showed that self-talk was more beneficial to dart throwing performance than zen, and Papaioannou, Ballon, Theodorakis, and Auwelle (2004) reported that self-talk was equally effective with goal setting regarding performance on a soccer shooting task, although the combination of the two techniques was more effective.

Following the establishment of the positive effects of self-talk on sport performance studies in this line of research examined the relative effectiveness of different types of self-talk with recent experimental studies comparing mainly motivational and instructional self-talk. Thus, in a field-experimental study, Theodorakis, Weinberg, Natsis, Douma, and Kazakas (2000) compared the effect of instructional versus motivational self-talk on performance on precision (a passing accuracy test in soccer and a serving accuracy test in badminton) and gross (a sit-up endurance test and a knee extension power test) motor tasks. They reported that instructional self-talk was more effective for the task requiring precision and technique, whereas for the gross tasks that required power and effort both instructional and motivational self-talk had equally beneficial effects. Hatzigeorgiadis, Theodorakis, and Zourbanos (2004) extended Theodorakis' et al. (2000) study by comparing instructional and motivational self-talk in a precision and in a power water polo task. Regarding the precision task both instructional and motivational self-talk were effective—with the instructional self-talk being more effective—but for the power task only motivational self-talk was beneficial to performance.

Goudas, Hatzidimitriou, and Kikidi (this issue) provide a possible extension of this research strand by examining a possible third type of self-talk, namely kinaesthetic self-talk. They report two field experiments, one with amateur track and field athletes performing a shot put task and one with college students performing a standing long jump. In both studies, Goudas et al. elicited self-talk cues from experienced athletes and selected the most representative ones regarding motivational, instructional, and kinaesthetic self-talk. Their results showed that in the shot put task all

three types of self-talk improved performance whereas none of the three types of self-talk was effective in improving standing long-jump performance. The possible use of kinaesthetic self-talk cues suggested by this study corroborates recently developed consulting models that utilise athletes' generated metaphors (Hanin & Stampulova, 2002).

A third group of studies have focused on examining potential mechanisms through which self-talk affects sport performance. Within this group, some studies have examined the relationship of self-talk to important cognitive and affective constructs while others have asked athletes about their perceptions regarding how self-talk works. Hardy, Hall, and Alexander (2001) examined the relationship between self-talk and affect with a sample of high school athletes. They reported that the valence dimension (pleasant–unpleasant) was positively correlated with the positive–negative dimension of self-talk, and further, that the intensity dimension of affect correlated with the intensity dimension of self-talk. Conroy and Metzler (2004) examined university recreational athletes' state-specific self-talk patterns in four situations (while failing, while succeeding, wished for, and feared) and correlated them with athletes' sport anxiety, fear of failure and fear of success. Their results showed that specific self-talk patterns were related more strongly to fear of failure than to fear of success. In a third study that can be categorised within this group, Hatzigeorgiadis et al. (2004) had university physical education students performing water-polo tasks employing self-talk and assessed students' interfering thoughts while performing. Their results indicated that the use of self-talk reduced the occurrence of interfering thoughts.

Another source of information regarding the issue of “how” self-talk works can be the athletes' perceptions regarding the functions of self-talk. To this end, Theodorakis, Hatzigeorgiadis, and Chroni (2005) have developed the Functions of Self-Talk Questionnaire (FSTQ), which assesses five dimensions of self-talk functions: (a) to increase confidence, (b) to trigger automatic execution, (c) to control anxiety levels, (d) to direct attentional focus, and (e) to enhance effort. The study of Hatzigeorgiadis (this issue) falls within this line of research. In this study, university physical education students participated in a five-day field experiment practicing a swimming drill using a motivational and an instructional self-talk cue. Then, using the FSTQ, they recorded their perceptions regarding the functions of self-talk.

A fourth emerging line of research, which is still relatively limited

compared to the three ones described above has examined contextual influences on the use of self-talk. Van Raalte, Cornelius, Hatten, and Brewer (2000) assessed young tennis players' use of self-talk using an observation-rating system. Their results showed that the frequency of athletes' observable self-talk was influenced by match circumstances such as point outcome or serving status. Two papers of the present special issue extend this line of research. Hardy and Hall (this issue) have examined athletes' perceptions of coaches' promotion of self-talk as well as frequency and type of self-talk using the STUQ. Their results showed that, in general, coaches promoted self-talk for multiple reasons similar to those athletes report using self-talk. Also, Zourbanos, Theodorakis, and Hatzigeorgiadis (this issue) examined the relations of coaches' supportiveness, coaches' esteem support and athletes' use of positive self-talk using structural equation modelling. Results showed that the influence of supportiveness on positive self-talk use was mediated by coaches' support of self-esteem. Taken together, these two studies relate the important role of the coach to self-talk patterns used by the athletes. As the coach is perhaps the most important agent on influencing athletes' affect and cognitions, this is clearly an important line of research to follow.

Finally, one paper in this special issue initiates a new potential line of research on self-talk in sport psychology. Van Raalte, Brewer, Cornelius, and Petitpas (this issue) showed undergraduate students videotapes with tennis matches in which dubbed positive, negative or no self-talk was audible, and then asked them to evaluate the ability of the athletes. Their results showed that dubbed self-talk significantly affected the observers' ratings of players' ability. This self-presentational effect of self-talk is a new finding which indicates that the use of this skill, not only may affect an athlete's performance but also may influence the image he or she projects to the spectators. As the spectators' effect on sport performance is now well documented and since the athletes' public image is frequently under public scrutiny, this potential line of research seems very promising.

Overall, the five papers included in this special issue not only fit well with existing lines of research on self-talk in sport psychology but also provide potential advancement and extensions of this area. Thus, the current issue contributes to the advancement of knowledge, to the stimulation of new research and to the potential informing of applied practice regarding the specific technique of self-talk but also for sport psychology.

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