From the chapter

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H1. Implications

Two sets of practical applications can be discussed based on the findings that have been presented in this chapter: one concerning the control and regulation of inherent self-talk, and one concerning the use of self-talk strategies to enhance performance. The former involves preventing unwanted self-talk and fostering facilitative self-talk, whereas the latter involves developing effective self-talk plans to address athletes' specific needs.

H2. Regulation of inherent self-talk

From the perspective of personal and situational factors, goal orientations/involvement and anxiety can help control inherent self-talk. The philosophy but also the achievability of the goals that are pursued seem an important issue. The findings suggest that task and ego oriented athletes are likely to experience similar levels of performance related worries, nevertheless the adoption of self-referenced goals will prevent impulses of disengagement due to the control athletes have over their goals. The progress of a game or a competition and the quality of performance in relation to the goal is probably the most decisive factor in shaping athletes' self-talk. Therefore, goals should be personal, self-referenced, and controllable. Such goals will reduce the likelihood of large discrepancies between goals and performance therefore preventing unwanted and disengagement thoughts.

Anxiety is another personal factor that should be considered. Intensity and direction of competitive anxiety has been linked to experiencing negative self-talk. Even though such negative thoughts may not necessarily harm performance, it is preferred that they do not

occur. With regard to the intensity of anxiety, regulation strategies can help reduce anxiety symptoms and subsequently reduce negative thoughts, whereas with regard to anxiety direction, athletes should be trained to accept anxiety symptoms as a normal reaction to competition and interpret it as a sign of readiness. Lowering the intensity and controlling the interpretation of anxiety can help regulate inherent self-talk.

From the perspective of social factors, the role of the coach seems of particular importance. The findings so far suggest that athletes' negative self-talk is more vulnerable to social influences. Supportive coaching behavior has been linked to reduced negative self-talk, whereas coaching behavior endorsing negative approaches is related to athletes' negative self-talk. Coaches can therefore assist the regulation of self-talk through the adoption of a positive stance, reinforcing, giving contingent feedback, providing social support, especially support related to athletes' esteem, but mostly avoiding becoming negative and using negative statements and irrational criticism when addressing to their athletes.

Finally, using self-talk plans has been found to reduce the occurrence of intrusive thoughts. Therefore apart from facilitating performance, an issue addressed more thoroughly in the following section, the use of facilitative self-talk can also be useful in preventing unwanted self-talk.

H2. Self-talk strategies

The findings emphatically support the effectiveness of self-talk on facilitating learning and enhancing task performance. Therefore, the development of self-talk strategies and plans should be strongly encouraged. Apart from the two purposes identified above, several other effects are likely to be achieved. Even though research has not yet supported all of the possible functions self-talk serves, it is possible that self-talk, when designed carefully and in accordance with an individual's needs, can serve to enhance attention, regulate

cognitive and emotional reactions, boost confidence, trigger automatic performance, and increase motivation, drive, and effort.

With regard to the characteristics of the task, self-talk seems to be more effective for novel compared to learned tasks. This is a reasonable finding, because improving on novel tasks is generally easier than improving on learned tasks. Nevertheless, self-talk has also proven effective for learned tasks, where even small improvements may be very meaningful and important for athletes. Also in relation to the characteristics of the task, fine motor tasks seem to benefit more from self-talk strategies. Research into self-talk functions has revealed that the key mechanism explaining the effectiveness of self-talk seem to be the enhancement of attention to the task. Considering that fine motor tasks may benefit more from increases in attention, compared to gross motor tasks, it makes sense that the use of self-talk can be more effective for such tasks.

Considering age and experience of participants, the guidelines coincide with those concerning novel and learned tasks. The use of self-talk can have an immediate impact for learning, therefore it should be particularly effective for youngsters and beginner athletes, for learning skills, improving technique and correcting mistakes. The use of instructional self-talk would seem more suitable for these purposes. In contrast, for more experienced and higher level athletes, for whom skills are well mastered, it may be more appropriate to use plans aimed at developing performance routines, psyching-up, and triggering automatic, unconscious performance.

Of particular significance is the selection of appropriate self-talk type and cues.

Considering that the matching hypothesis has received considerable support, it is very important that self-talk cues, plans, and strategies are developed on the basis of individual needs and task characteristics, thus only general recommendation can be made. Instructional cues should be more appropriate for learning or improving technique, particularly in finer

tasks characterized by precision and accuracy. In contrast, for tasks involving gross skills (power, strength and endurance) the use of motivational self-talk can be more effective, because physical effort, drive and confidence may be more critical for performance. Having made this suggestion, it is necessary to stress again that different types of self-talk may operate and be effective through different mechanisms and therefore the selection of self-talk should be based on the mechanisms that need to be activated according to the specific situation.

The decision regarding the choice of the particular cues and the way these cues will be expressed, is recommended to be made collectively by athlete and coach or sport psychologist, because athletes' preferences should be seriously taken into account. In addition, going through the process of trial and error may give even better results for finalizing the selection of cues and self-talk plans.

Most importantly, athletes should encompass self-talk in their training routines. Practicing will maximize gains especially in the case of more experienced and higher level athletes. At that level, improvement is hard to achieve and even small performance gains can make a big difference, therefore training self-talk is imperative. As mentioned before, for younger and beginner athletes self-talk can have more immediate effects. Observing such performance changes will foster the belief in self-talk, and encourage its use in practice, which in turn should enhance the effectiveness of self-talk strategies. As for every performance, so for self-talk, practice will make perfect.