Self-Talk Theory, Research, and Applications: Some Personal Reflections

Robert Weinberg
Miami University

I am honored to have the opportunity to comment on the eight articles that make up the first Special Issue of an international journal focusing on self-talk in sport. The introductory article does an excellent job of tracing some of the important historical developments (theoretically, empirically, and practically) in the self-talk literature so I will not provide any historical perspective on the extant self-talk research. Rather, first I will comment on each article, noting what I perceive to be an important contribution to the self-talk literature (and sometimes the sport psychology literature in general). Then, based on my academic and practical knowledge in the area of self-talk, I will offer some suggestions for future research from conceptual, empirical, and methodological perspectives. In addition, I also offer some practical suggestions that coaches, athletes, and personal trainers/exercise leaders could use when working with athletes and exercisers. Before getting into these research and practical suggestions, a brief review of some of the unique and interesting parts of some of the articles within the Special Issue will be discussed.

Unique Aspects of the Self-Talk Studies

The study by Abdoli, Hardy, Riyahi, and Farsi (2018), entitled “A Closer Look at How Self-Talk Influences Skilled Basketball Performance,” adds to the self-talk literature by focusing on highly skilled (professional) athletes as much of the previous research on self-talk has used more convenient samples, such as university students. Results revealed that skilled basketball players were able to especially use instructional self-talk (as opposed to motivational self-talk) to enhance their performance. This is contrary to what some researchers (Hardy, Begley, & Blanchfield, 2015; Zourbanos, Hatzigeorgiadis, Bardas, & Theodorakis, 2013) have suggested who have doubted that the benefit of instructional self-talk over motivational self-talk will hold for skilled performers, as consciously attending to the requirements of task execution can get in the way (i.e., overload the system) of automatic attentional processing. In essence, it has been argued that highly skilled athletes do not need to think too much to perform as they can usually perform on “automatic pilot.” However, in the present investigation, it should be noted that instructional self-talk was short (e.g., follow-through, bend) so as not to disrupt the automaticity that is typical of highly skilled athletes. In addition, these instructional cues came from expert basketball coaches as well as empirically supported kinematic principles of basketball free throws, thus enhancing the effectiveness of these brief instructional cues.

Van Dyke, VanRaalte, Mullin, and Brewer (2018) also studied elite athletes (gymnasts in this case) to provide needed research on this very skilled population. One of the important contributions of this study was to investigate the relationship of different types of self-talk (e.g., instructional, motivational, positive, negative) to consistency of performance over a competitive season. Results found positive self-talk to be the best predictor of success and thus, from a practical point of view, an autonomy-supportive coaching style was recommended because it is conducive to positive self-talk. Specifically, coaches can foster autonomy-supportive environments by acknowledging negative feelings that sometimes occur when athletes have to perform difficult tasks, minimizing external forms of control (e.g., contingent rewards and punishment), providing informational feedback, and including athletes in decision-making (Ryan & Deci, 2006). Finally, the authors chose to assess self-talk via self-talk questionnaires (i.e., self-talk questionnaire for sports; automatic self-talk questionnaire for sports) which are trait-like measures of self-talk. However, future research might consider more qualitative, interview-based self-talk assessments after the competitions, to get gymnasts’ thinking (self-talk) in a time-sensitive manner although care would be needed to limit competition outcome bias.

In a series of six studies, entitled “I Will Use Declarative Self-Talk . . . Or Will I? Replication, Extension, and Meta-analyses,” Van Raalte et al. (2018) compared self-posed interrogative questions (e.g., “Will I?”) to declarative (“I will”) and control self-talk finding no significant differences between interrogative and declarative self-talk, although they both were better in terms of motivation and performance than control conditions. However, the really important part of these studies was the focus on replication. This is not particular to self-talk studies, but it does highlight replication as one of the essential aspects of the scientific method. Especially for graduate students just starting out, but also for more seasoned and experienced researchers, it is important that we do not forget the important role that replication makes to the scientific literature. Of course the focus is typically on new and innovative research that adds to the extant literature in a particular area. But we need to be confident when we teach our students or consult with athletes that our information is reliable and consistent. I like to refer to the goal-setting literature in the industrial/organizational area where there are over 500 studies testing different aspects of the goal-setting performance relationship (Locke & Latham, 2002). When I started to conduct research on goal-setting and sport performance in around 1983 there was only five empirical studies (at least that was all I could find at the time) but over 30 years later we are approaching 100 studies. Although research has increased on self-talk in recent years, as noted in the introduction, we still need a lot of replication to feel more confident on the effects of

Weinberg is with Dept. of Kinesiology and Health, Phillips Hall, Miami University, Oxford, OH. Address author correspondence to Robert Weinberg at weinber@miamioh.edu.
different types of self-talk on different tasks, cognitions, and emotional responses.

Another aspect of the Van Raalte et al. (2018) article that has relevance for sport psychology research in general and self-talk in particular is the idea of performing multiple experiments in investigating a specific question. With the pressure to publish (especially in journals with high impact factors) oftentimes researchers try to get two, three or even four articles out of a data set instead of putting these studies together into one coherent paper. I would like researchers to focus on quality rather than quantity. In response to colleagues going up for tenure who ask, “How many publications do I need to get tenure/promotion?”, I often reply that it should be quality over quantity. Albert Einstein only had a few studies published, but they were of very high quality.

The article by Galanis, Hatzigeorgiadis, Comnoutos, Charachousi, and Sanchez (2018), entitled “From the Lab to the Field: Effects of Self-Talk on Task Performance Under Distracting Conditions,” provides a model for putting together laboratory and field research into one neat package. An intervention over six weeks was implemented for the field aspect of the study focusing on using self-talk to more effectively cope with distractions. Research on self-talk should strive for more intervention research as this eventually has more practical value for coaches and athletes. Just like when athletes train with numerous repetitions to improve physically, if they want to improve mentally, this needs to be practiced over a period of time before being put into action during actual competition. One-time assessments often miss the mark and thus interventions in applied settings over a period of time where athletes can learn a specific technique, will likely have a much more important impact on actual performance in competition.

The study by Latinjak, Maso, and Comnoutos (2018) entitled “Goal-directed self-talk used during technical skill acquisition: The case of novice Ultimate Frisbee players” provides an interesting look at self-talk before and after task execution. Specifically, before task execution, athletes gave themselves technical instructions (e.g., extend your arm) whereas between task executions, instructions were frequently transformed into both error descriptions (e.g., you’ve bent your arm) and technical adjustment following errors (e.g., extend your arm further), or into technical transference following success (e.g., keep extending your arm). The focus in the past has been primarily on self-talk before performance but how athletes respond to success and failures in terms of self-talk is also critical.

In another study by Latinjak (2018) entitled “Goal-directed, spontaneous and stimulus-independent thoughts and mind-wandering in a competitive context,” goal-directed self-talk (thinking towards solving a problem or making progress on a task) and three types of automatic self-talk known as mind-wandering (unrelated to the task at hand—“I have a big meeting tomorrow”), stimulus-independent (related to the content of the activity, yet unrelated to the specific actions required—“I love playing soccer”) and spontaneous (unintended, and non-instrumental but are linked to the task at hand—“I can win this match”) were studied. One interesting aspect of this study was obtaining participants’ self-talk just prior to and in-between performances instead of relying on retrospective recall of self-talk, which has been typical of most previous studies. This allows for a more contemporaneous recording of one’s self-talk, relying less on memory, which can often be problematic (Nisbett & Wilson, 1977).

Another interesting aspect of this study was the fact that goal-directed self-talk (e.g., instructional and motivational) was autonomous instead of being manipulated by the experimenter. As the author notes, this autonomous self-talk revealed that athletes appear to have their own set of psychological interventions already embedded in their minds consisting of such strategies as cognitive reappraisal, focus of attention instructions, self-efficacy promotion, and effort regulation. Coaches and personal trainers should therefore encourage participants to prepare for difficult situations and setbacks with goal-directed self-talk that focuses on planning and problem solving (i.e., what they would do if presented with these difficult situations).

The study by Dickens, Van Raalte, and Hurlburt (2018) entitled “On investigating self-talk: A Descriptive Experience Sampling study of inner experience during golf performance” offers a new (alternative) way in which to study the self-talk phenomenon. The technique is called Descriptive Experience Sampling (DES) and it uses a random beeper in participants’ environments and instructs them to respond to the beeps immediately noting the characteristics of their inner experience that was ongoing at the moment of the beep. Thus, this method is similar to, but somewhat different from, the Experience Sampling Method used to assess behaviors related to the study of flow (Csikszentmihalyi, 1990). Most self-talk studies in real-world environments tend to rely on athlete memories of what they were thinking/saying and this recollection can be problematic. This method holds potential but it appears it would be most effective when there is sufficient time between performance, such as in golf. Unfortunately, most sports are more continuous (e.g., soccer, basketball) or with only short periods between performances (e.g., football, tennis) which would make DES extremely difficult to employ in those sports.

McCormick, Meijen, and Marcora (2018) studied the “Effects of a motivational self-talk intervention for endurance athletes completing an Ultramarathon”. Although there were no significant effects of motivational self-talk on performance; the study also assessed the use of the self-talk intervention six months after the research study. Results revealed that most participants found the intervention helpful and used it in their training as well as in other competitive endurance events. This underscores the idea that performance is not the only variable of importance when conducting studies. The effective use of self-talk psychological interventions over time is something that should be incorporated into more self-talk studies.

Research Ideas and Practical Applications

Because the interest in self-talk research is relatively new, it leaves a number of areas open for future research. One area where there appears to be a dearth of research is the use of self-talk in exercise settings. For example, the data is overwhelming regarding the number of individuals who are either overweight (two-thirds of American adults) or obese (one-third of American adults; 17% of children 6–11) with over 50% of adults not meeting the minimum requirement of 150 minutes of moderate exercise per week (Centers for Disease Control and Prevention, 2013; Physical Activity Advisory Committee, 2008). Research has indicated that many individuals start exercise programs but around 50% drop-out within six months (Dishman & Buckworth, 1997).

Self-Talk and Exercise. It would seem a great opportunity to employ self-talk in a systematic way to help improve the frequency and intensity of exercise. For example, adhering to exercise for individuals just starting an exercise program after years of sedentary behavior can be a difficult task. In addition, the stage where