

# New Research on Self-Talk, Visualization, and Perception: Best Practices for Training and Competition

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In the November issue of Slowinski at-large, I share with readers research on how-to utilize specific self-talk questions, perception of the challenge before you as well as 3rd person visualization to increase success as well as motivation. For any bowler, who wants to take the next big step, this is a must read for you.

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In this month's Slowinski at-large, I provide readers with an overview of recent research on self-talk, visualization, and perception. In each case, these new findings challenge conventional wisdom of how we have used these mental game tools in the past as well as how we should progress forward in most effectively implementing each into practice and competition. The power of self-talk questions Self-talk is the language that you utilize in your mind during practice or competition. This inner voice can either be your best friend or worst enemy. Clearly, how you engage in self-talk will impact your performance. Let's learn about some new revealing research on how to talk to yourself. Senay et al. (2010) explored the impact of self-talk questioning versus making statements that are definitive action. In short, the researchers were interested in the mental impact on motivation when an individual stated self-talk as a declaration of intent such as "I can do it" or asking in a question format "can I do it?" The results are surprising and provide potential insight into how athletes should utilize self-talk. In the first study, 53 college students were assessed on their motivation level when asking a self-talk question about performing a task compared to stating an assertion that they would complete the task. Specifically, participants were asked to simply think, "Will I do an anagram?" versus "I will do an anagram." Immediately following the self-talk thought process, study participants solved the anagram puzzles. The participants who asked themselves whether they would solve the anagrams out-performed those who stated they would solve the puzzles. Specifically, when thinking in question format, participants solved 2.6 anagrams while those who stated they would do it solved 1.84 anagrams. In the second experiment, 50 college students participated in the study. Participants wrote "will I" or "I will" twenty times on a piece of paper before solving a series of anagrams. They were given ten minutes to solve as many puzzles as possible. Those who wrote "will I" out-solved those participants who wrote "I will" prior to attempting to solve the anagrams. These self-talk questioners correctly solved nearly twice as many anagrams, approximately four to two. In the third experiment, 46 college students participated. Researchers were interested in determining the impact of self-talk on intended action. The students wrote either "will I" or "I will" immediately prior to writing down the number of hours each intended to exercise the following week. When writing "will I", participants expected to exercise eight hours the following week compared with five hours for those who wrote "I will." Implications for training and competition As the research overview demonstrates, asking yourself a question leads to significantly more motivation and productivity than making a statement that you will do something. "I think I can!" or "Just do it!" should be replaced with "Can I?" In bowling, the self-talk questioning process will help players during the development of new skills. Often, this is when a player needs the most encouragement and motivation. Specifically, asking "can I" or "will I" leads to more effort and a more positive outlook on achieving the outcome. Be specific with the question in your mind about the skill you want to improve. For competition scenarios, bowlers often engage in negative self-talk situations in critical moments in a game or tournament. These are the moments in which a bowler can use the questioning self-talk. Specifically, in situations such as these in which you need to make an important shot, ask a question. Can I? This will aid you in recalling all of your successful repetitions, evoke positive memories, and keep you focused on all of the times you were successful rather than your failures. Third-party visualization

A staple of the mental game toolbox is visualization. Yet, how one should visualize and what to visualize remains a question mark for many bowlers who want to improve their games. Vasquez and Buehler (2007) explored the relationship of perspective in visualization with three different research projects. In the first test, 47 participants imagined themselves succeeding on an academic task from both the first and third person. In the first person exercise, participants responded to the following prompt: "I plan to put a lot of time and energy into this task." "I intend to do all that I can to ace this task." "I feel very motivated to succeed on this task." "I am eager to get working on this task." "I plan to give this task my very best effort." In the third person perspective, individuals perceived their actions as an observer as well as the details of the surroundings in which they were observing. In the third person exercise, participants were asked to envision the academic task proceeding well. Each individual was told the following prompt: "Please try to picture the upcoming task going extremely well, just as you hope it will actually go. For example, you could picture the steps you are taking to carry out the task effectively, the positive feedback that you receive, people's reactions to you, etc. Try to see the entire task unfolding successfully from beginning to end. The participants responded from 1 (not at all true) to 11 (very true). During the third party perspective, individuals scored an average of 9.18 as compared to 8.38 from the first person perspective. In a second study, 113 college students were assessed. Specifically, the researchers examined achievement motivation and perceived importance of a task from both

the first and third person. In regard to perceived importance, a task envisioned from the third person scored 9.87 versus 8.48. In the study of achievement motivation on an important task, the third person perspective yielded an average of 8.76 compared to a mean of 7.92 for the first person perspective. The third person perspective yields more motivation and increased importance of a task.

#### Implications for training and competition

Visualize your intended goals from a third party perspective. This will lead to higher levels of motivation and an increased work ethic to achieve your goals. Be detailed in your third party perspective. See yourself realizing what you want to achieve. Be detailed and specific about the surroundings. The earlier prompt can be altered to be the following: Picture the upcoming tournament going extremely well, just as you hope it will actually go. For example, you could picture each shot you are executing and adjust to the lane transitions effectively, the positive feedback that you receive after performing well, people's reactions to you, etc. Try to see the entire tournament unfolding successfully from beginning to end.

#### Perception and performance

Researchers at the University of Virginia have found a strong correlation between perception and performance levels. In a number of different studies, more proficient athletes perceive the size of the sport's ball, or hole, or goal post as larger compared to those who were less proficient. In a study of softball players, hitters who saw a softball as larger were better hitters, with higher batting averages, while those who perceived the ball as smaller performed more poorly. Researchers observed games and immediately after the game asked players to identify the size of the ball among eight circles of various sizes. Those who excelled in hitting perceived the ball much larger than those who didn't perform well. After further review, batters with higher batting averages perceived the ball as larger. Moreover, it was revealed that when a hitter was hitting well, they perceived the ball to be bigger and when hitting poorly the ball was perceived as smaller. An evaluation of 46 golfers also demonstrated that skilled golfers perceive the cup larger when putting than compared with less skilled golfers. The actual diameter of a golf hole is 10.8 centimeters (just over 4.5 inches). Golfers could choose circles that ranged from 9 to 13 centimeters (just over 3.5 inches to just over 5 inches). Golfers who played well on the day of the study chose larger holes. In a study of football kicking, Witt and Dorsch (2009) examined kicking performance and the perception of the goal posts width. Those who perceived the width of the goal posts as wider performed better.

#### Implication for training and competition

As is illustrated from the research findings, perception and performance are interlinked. Higher performers perceive more margin for error and an easier playing field. This allows them to feel more at ease and not to see the playing environment as more difficult than it actually is. In bowling, players are often influenced by others discussing the difficulty level of the pattern. Without conscious awareness, the discussions can act as a catalyst to perceive that there is less margin of error on the lanes than in actuality. This can work in reverse as well. If a player begins to hear conversations suggesting that the pattern is playing easily and he is not seeing this, the player can begin to engage in self-doubt or negative self-talk. Your training environment can also lend itself to a negative perception. Specifically, players who train on difficult lane conditions frequently will perceive all lane conditions to have more margin of error than bowlers who are only familiar with house conditions. To improve the influence of your perception, increase the challenge of your training regimen. Moreover, don't listen to others who are discussing how easy or difficult the lane conditions are.

#### Conclusion

The type of self-talk and visualization a player engages in can either increase motivation, achievement, and performance or hinder it. Ask questions in your self-talk, visualize from a third person perspective, and see the lanes as always having a margin of error and you will succeed more.

#### References

Noelia A. Vasquez, N.A. & Buehler R. (2007). Seeing Future Success: Does Imagery Perspective Influence Achievement Motivation? *Personality and Social Psychology Bulletin*, 1392 – 1405.

ScienceDaily (Dec. 14, 2005). See The Ball, Hit The Ball: Study Correlates Perceived Ball Size With Batting Average.

ScienceDaily (July 8, 2008). Good Golf Players See The Hole As Larger Than Poor Players.

Senay, I, Albarracín, D. and Noguchi, K (2010). Motivating Goal-Directed Behavior Through Introspective Self-Talk: The Role of the Interrogative Form of Simple Future Tense. *Psychological Science* 21(4) 499 – 504

Witt J K, Dorsch T E (2009) "Kicking to bigger uprights: Field goal kicking performance influences perceived size"; *Perception* 38(9) 1328 – 1340.