

A Protocol for Teaching Resilience to High Performance Athletes

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Abstract

Researchers and practitioners interested in elite sport have long considered why some national team athletes are more resilient than others during major games. Over the past decade, researchers at the University of Pennsylvania have created a resilience training protocol to improve the output of staff in insurance companies and students in undergraduate programs. A parallel training program has been devised to enhance the self-esteem and optimism of children in primary school. Preliminary studies indicate promising results. Recently, two of the authors herein have designed parallel training modules for national team athletes and coaching staff. Here we build on one facet of our resilience training program previously overviewed by Schinke and Jerome (2002); optimism skills. Three optimism skills are included this paper: (1) the evaluating of assumptions, (2) disputing, and (3) de-catastrophizing. This paper outlines the chronological steps of the three skills that are currently being taught to our international amateur athletes.

Practitioners working with elite sport populations including coaching staff and mental training consultants have always searched for methods to foster exemplary athlete and team performance. Among the most popular and informative methods used to understand

and then assist athletes with their performances are those that encourage stimulated recall. Interviews, such as those conducted by Orlick and Partington (1988) for instance, are one way of understanding how athletes view their performances and the

factors that affected those performances. On one level, as one of us (Schinke, 2000) noted as a result of doctoral research, elite level athletes provide rich explanations for their performances, probably because they spend so much time thinking about and attempting their athletic pursuits in an ongoing cycle of refinement. As a result, their explanations provide a fascinating and colorful opportunity to understand how athletes explain their past performances and their future expectations as they strive for the highest level of performance (Rettew & Reivich, 1995).

Why are explanations of sport performance so important to consultants interested in working with elite populations? If you listen carefully you will find that not all elite athletes explain performances in the same way, and that their slight nuances are significant (see Peterson, 1980). As Martin Seligman (1991), an eminent psychology researcher and clinician found, some explain their successes and failures in terms of controllable factors. Others tend to explain their performances to uncontrollable factors. Read any large newspaper with a sports section and you will find that these two groups of athletes are identifiable in high profile sport contexts at the amateur and professional sport levels (Schinke & Peterson, 2002a).

In some instances the consistency of entire athletic careers is tied to how athletes habitually explain their performances (Schinke, 2000). Some athletes have difficulty self-evaluating after sub-par performances where others are more willing to critique personal errors. Rettew and Reivich (1995) and Seligman, Nolen-Hoeksema, Thornton and Thornton (1988) suggested that at least some of the reason for contrasting results in elite sport can be traced to the measurable quantity of optimism within each elite athlete. Optimism in turn is understood and refined through each athlete's

style of explanation. Because optimism predicts sport performance in challenging settings, it is worth considering how sport psychology consultants and other support staff can help monitor, and when necessary, optimize their athletes' explanations.

Hence, the purpose of this paper is twofold. The first intention is to outline briefly the types of explanatory patterns prevalent among elite athletes, and then to explain how each one is linked to athletic performance. The second intention is to outline a few cognitive behavioral skills that two of the authors herein are currently encouraging national team athletes and coaching staff to employ, among other elite sport populations.

The Nature of Athletes' Explanations

Athletes explain their performances in a number of discrete ways (Biddle, 1993). Explanations are best considered through the use of an explanatory framework with dimensions and typical causes (Seligman, 1991). As two of us outlined in an earlier installment of this journal (Schinke & Peterson, 2002a), there is a formative framework through which to consider athletes' explanations. This paper outlines an intervention strategy based on Abramson, Seligman and Teasdale's (1978) theory of learned helplessness. The selection of the learned helplessness framework, which happens to be the basis of optimism interventions, is logical given more than three decades of well documented success across a wide number of clinical and motivational settings (Seligman, 1991). The dimensions used in optimism research and practice have been confined to permanence, pervasiveness, and personalization. The main attributions integrated in optimism research are those borrowed from Weiner (1986), mainly ability, effort, task difficulty, and luck. The

consideration of each of these dimensions and main attributions can clarify athletes' future expectations of success or failure providing one listens carefully. This section will outline the importance of an explanatory framework to the practitioner interested in understanding the elite athlete's explanation and what it might imply.

Permanence

Athletes' results can in part be considered in terms of permanence that is whether one or a series of results is believed as likely to occur consistently or inconsistently in the future. Where some athletes believe that their declines in performance will go on forever, others view their setbacks as fleeting (Schinke & Peterson, 2002a). Look no further than Lennox Lewis, the current WBC World Heavyweight Boxing Champion. Lewis has only experienced one loss in a professional boxing career that has spanned fifteen years. Immediately after the loss, Lewis explained his decline in performance to an unusual loss of concentration. Given an explanation of impermanence to his lapse in effort, Lewis returned to form in his next bout, and has not lost another bout since. At the opposite end of the continuum, an athlete's expectation of permanence after a loss can impede performance because no possible solution is anticipated. When considering the athlete's expectation of permanence, then, it is worth remembering that setbacks are not de-motivating providing their associated cause is regarded as short lived and indicative only of a momentary decrease in output. Similarly, success will not inspire future success unless the performer perceives it as resulting from deliberate efforts and abilities at the personal level, support-staff level, or both levels concurrently (Schinke & da Costa, 2001; Schinke & Marshall, 1998).

Personalization

Explanations of athletic performance need also be considered in terms of who and where accountability resides (Seligman, 1991). When athletes explain their wins and losses in terms of personal efforts and abilities, assignments are considered as internal, or personal. If, on the other hand, explanations are directed to other people or environmental circumstances, the assignments are considered as external. Previous research summarized by Biddle (1993) indicates that internal assignments are more common after wins and less common after losses. This premise is especially relevant for athletes of European and North American descent (Myers & Spencer, 2003). The self-serving tendency after winning, and its associated onus on personal efforts and abilities, is believed as contributing to athletic confidence (Bandura, 1997). Considering the typical response after losses, Brawley (1984) found that setbacks in sport tend to be assigned to external causes, thus sustaining the athlete's self-esteem. After all, the performer removes any potential guilt and shame following the diminishment of performance when that diminishment has more to do with someone or something else than personal attributes or actions (Weiner, 1986).

When taken from the vantage of the explanatory framework discussed here, assignments of accountability indicate more than the athlete's tendency to preserve and promote ego. They also offer an opportunity to identify the athlete's expectation of future control over performance. When working with elite athletes, there are expectations of personal control regarding certain sport related responsibilities, and expectations of externally managed control gained from the help of others (Bandura, 1997). As Seligman (1991) found, ego-protective tendencies differ among elite athletes. Some elite athletes are more willing than others to take personal

responsibility after declines in their performance. The first of these two main groups of athletes is more solution oriented after a setback, and so, the athletes are able to retrace success rapidly. The second group of elite athletes tends to be more external in their assignments of accountability and problem oriented in their analysis. With no personal accountability regarding what needs to be controlled, the latter group of elite athletes deter themselves from the intensity of performance needed for an expedited return to success. Thus, coaches and sport psychology consultants alike serve their athletes well when they encourage at least some consideration of personal accountability and potential control, especially after setbacks (Schinke & da Costa, 2001).

Pervasiveness

The third aspect of the elite athlete's explanation is its evaluation on a continuum between a specific situation and a general trait (Seligman, 1991). Qualities that can be confined to one context or span across several contexts include courage and self-confidence (see Peterson, 2000). To illustrate pervasiveness in elite sport, consider the attribute of courage to boxing. For an elite boxer, the attribute of courage can be limited to one bout, one tournament, one season, or an entire amateur athletic career (Schinke & Peterson, 2002a). Expanding further, the boxer's courage can transcend boxing altogether, and resurface in a professional career choice such as opting to become a police officer in a tactical unit. The difference between these levels of courage distinguishes contextually based behavior from courage as an imbedded trait. Though contextual behaviors are of primary interest here given this paper's emphasis on resilience in elite athletics, it needs to be said that explanatory patterns can be learned in one context and transferred to another. This possibility will undoubtedly encourage some coaches and

sport psychology consultants who aspire to make positive life-long impacts on the athletes they work with.

Moving Toward Athletic Resilience

Until this point, we have addressed the differences between two contrasted groups of athletes based on their explanations. It must be remembered, however, that optimism and pessimism are simply polar opposites of an explanatory pattern continuum that ranges from (+18) to (-18). Moderate optimists and moderate pessimists also exist within the explanatory pattern continuum. Generally speaking, the more positive group, meaning those who are more hopeful in their expectations of self and support-staff have been defined as optimistic athletes. The second group characterized by less expected control over their performance, are generally termed pessimistic athletes. When compared, not only have optimistic and pessimistic athletes differed in explanatory pattern, they have also varied in terms of responses to adversity when placed in more challenging tournaments. Seligman (1991) and Rettew and Reivich (1995) found that under adversity, optimistic athletes are more likely to maintain or improve upon their previous tournament efforts than are pessimists. Taken further, one of us (Schinke, 2000) found that athletes can improve or diminish their optimism regardless of which end of the continuum they typically reside. Thus, it seems reasonable that resilience skills can be borrowed from optimistic elite athletes in their resilient moments, and reinforced with both groups of athletes with the intention that only positive mental skills will be developed. The techniques developed by Gillham, Jaycox, Reivich, Seligman and Silver (2001) for school children, then refined for elite sport by two of us (Schinke and Peterson, 2002b; 2002c) include (1) the assessment of personal assumptions, and afterward, (2)

disputing strategies, and (3) de-catastrophizing techniques.

Assessing Personal Assumptions

An assessment of personal assumptions is the first step to resilience training. Based upon the ABC framework developed by Albert Ellis (1962), this initial step is used as an exercise to teach people, including athletes, the chronology from their initial setbacks, to their initial thoughts, emotions, and resulting behaviors (see also Shatté, Gillham & Reivich, 2000). For example, as one of us witnessed first hand while consulting with professional boxing, the link between an athlete being undermined during a pre-bout press media conference [the incident], the followed perception of being mocked and disrespected by his opponent [the thought], the pending humiliation of the athlete's boxing-related ability and character being questioned [the emotion], and the resulting diminishment of words and body posture in the moments that followed as the press conference proceeded [the behavior]. What is brought to the fore through the boxer's chronology is the understanding that the athlete's behaviors often start with thoughts, and that behaviors are often a resulting manifestation.

Given that causal chains are easily identifiable with the ABC model proposed by Ellis (1962), it follows that a systematic process be implemented to teach athletes how to conduct an effective analysis of their behaviors. In elite sport, Schinke and Peterson refined the five-step process developed at the University of Pennsylvania for students and the corporate sector to suit elite level athletes (2002b) and coaching staff members (2002c)

Table 1

The Evaluation of Assumptions by Stage

Stage 1: Identifying the instigating circumstance

Stage 2: Considering the relationship between the incident and initial thought

Stage 3: Considering how emotions follow from thoughts

Stage 4: Considering how behaviors follow from emotions

Stage 5: Considering positive coping skills

The Disputing Technique by Stage

Stage 1: Identifying the initial evaluation

Stage 2: The evidence used in the evaluation

Stage 3: Errors in the evaluation process

Stage 4: The required thought processes and refined evidence marshalling

Stage 5: Comparing potential outcomes

The De-catastrophizing Technique by Stage

Stage 1: Identifying the potential steps to degeneration

Stage 2: Considering the worst-case scenario and its likelihood

Stage 3: Considering the best-case scenarios as possibilities

Stage 4: Considering the most-likely case scenario as a possibility

The first step is an identification of the instigating circumstance that starts the athlete's causal chain. Often, athletes escalate to heightened - positive or negative behaviors without understanding how they reached their behaviors. Thus, teaching an initial reflective step of incident identification helps clarify personal reactive tendencies in relation the identified circumstance. The second step is a considering of the relationship between the activating incident and the ath-

lete's resulting thought. Understanding how personal thoughts intertwine with the circumstance encourages an identification of thinking error and a reaffirmation of better suited future responses given similar circumstances. Understanding is framed in relation to each explanation's identifiable dimensions and attributions. Third, athletes are encouraged to consider how their personal emotions follow logically from their thoughts. This crucial step allows for a potential increase in self-control given that thoughts can be monitored through increased personal awareness and somatic responses. Fourth, athletes are asked to consider behaviors as sequential from the three easily identifiable steps that precede their actions. The analysis of self-control at each stage of the behavior can facilitate the consideration of better choices in comparable future incidents. Assuming the causal chain is negative, a fifth step can also be added. During this final step athletes can be encouraged to consider potential optimized coping skills such as the self-talk strategies proposed by Orlick (2000) in preparation for future similar adversities. Though each of the five ABC steps is worthwhile as its own skill, the ABC process allows elite athletes an opportunity to analyze and improve upon their entire self-control process in future challenging circumstances starting with momentary interpretations and leading to longer-term behaviors.

Disputing

Following from an assessment of causal chains, it is clear that athletes can create their own adversities based on the interpretation of events when those interpretations are negative and regarded as uncontrollable and permanent. Many a national team athlete has approached one of us with the belief that it is impossible to perform at his or her best when surrounded by a national team support-system. It is during instances of

long-term negative thought on the part of athletes that we suggest disputing skills. As two of us (Schinke & Peterson, 2002a) pointed out earlier, athletes' negative interpretations facilitate investments in positions that are often undermining of hope and effort. Given that negative interpretations create negative solutions to adversity such as avoidance, constructive problem-solving techniques are often overlooked (Shatté, Gillham & Reivich, 2000).

Disputing is defined as the garnering of positive arguments to counter the negative thoughts that end in reduced effort (Seligman, 1991). For athletes, two of us (Schinke & Peterson, 2002b) have refined disputing into a five-step intervention (Insert Table 2). The first step in the process, identical to the previous skill of examining assumptions, is to identify how athletes evaluate their circumstances based on dimensions and attributions. For instance, does the national team athlete who distrusts his team staff believe that their inadequacies are permanent or impermanent? It is also worth considering whether the inadequacies are regarded as caused by a lack of ability, or perhaps, a lack of effort. During the second step, the athletes are encouraged to identify the evidence used in their evaluation. If the initial evaluation is one of support-staff inability or disinterest, then the evidence used might include one or a series of previous experiences. A consideration of circumstances surrounding recollections encourages more accurate appraisals, and leads to a third step in the disputing process; the identification of potential inaccuracies in the athlete's evaluation. Possible evidence that would undermine the athlete's belief of permanent support-staff inadequacy would include instances where support-staff previously assisted the athlete and enhanced performance. Initially this step might require the guidance of a mental training consultant to act as

devil's advocate. However, with time, the athlete can follow through on this process autonomously and challenge personal evidence with personally garnered contradictory evidence. When athletes have identified their errors in appraisal, it follows that they consider a more positive thought process as the fourth step. During this step, the athlete is encouraged to find a more optimistic evaluating procedure to replace initial negative evaluations. One example of an optimistic countering to concerns about assistance could be the recall of previous support-staff facilitative actions. Finally, we suggest that athletes be encouraged to maintain a logbook and compare performance outcomes given their typical evaluation and newly acquired disputing techniques. The comparison between typical and more constructive interpreting will often foster some necessary persistence given that optimism might be a newly forming habit.

De-catastrophizing

Bandura (1997) noted that it is not unusual for athletes to detract from their own confidence by considering a potential inability and the likelihood of magnified negative outcomes, and then performing to expectation. Shatté, Gillham and Reivich (2000) suggested that thoughts of inability and negative case scenarios develop in a causal chain with smaller concerns evolving into larger ones. For a national team figure skater, one escalating concern might begin with the possibility of missing a triple-axel during a quickly approaching world cup competition. The concern might increase if the skater pursues a negative line of thinking and begins to believe that a personal loss of focus would ensue from the missed jump, and lead to a complete degeneration of the entire skating routine. The athlete's related negative imagery leading up to the competition might include an entire skating program filled with four minutes and thirty seconds

of missed jumps and poor footwork as a large audience of eighteen thousand spectators look on. Among optimism researchers such as Seligman (1991), this phenomenon is termed catastrophic thinking.

As a solution, the final skill to be addressed in this paper, de-catastrophizing, can be implemented. De-catastrophizing has been defined by Shatté, Gillham and Reivich (2000) as the ability to accurately examine a negative scenario, and then consider a wider number of potential outcomes. De-catastrophizing, like the previously discussed cognitive skills, is most effective when implemented in steps. The first step in the process is to identify the potential degeneration from the athlete's current events through to the identified worst-case scenario. For the concerned figure skater, the current event might be an inconsistency in triple-axel attempts during recent practices. The remaining fears in the causal chain would end with a degenerated tournament performance, a loss of confidence, and perhaps, the de-selection from a national team. As a second step, the athlete examines the likelihood of the worst possible scenario occurrence. More times than not, the athlete's worst-case scenario will be evaluated as improbable, or at least, not as a certainty given current skills. The third step in the process is a considering of best-case scenarios that hold some possibility of materializing. Typically, elite athletes who question their own capacities do not consider their likelihood of success as reasonable. Thus, just contemplating a potential success story will encourage positive thoughts, emotions, and behaviors. As a fourth step, the athlete ought to consider one more option: a most-likely case scenario. The most-likely scenario is a circumstance situated between the most positive and negative of outcomes. Through this four-step process, the athlete learns to alter thoughts, emotions, and behaviors, while

developing a complete mental skills package with mastery and coping strategies for increased resilience for broadened possibilities.

A Guideline to Teach Resilience Skills

The three skills discussed here may not be exhaustive, but they are certainly critical. On one level, as noted by Seligman (1991) and Shatté, Gillham and Reivich (2000), each resilience skill provides formalized suggestions of how to increase constructive thought under adversity. Though the skills proposed in this paper develop with practice (Peterson, 2000), they begin working immediately by providing hope to athletes through improved cognitive and emotional control. Thus it is essential that elite athletes practice their newly acquired resilience skills daily.

Second, based on refinements from our elite athlete (Schinke & Peterson, 2002b) and coaching manuals (2002c), the resilience skills proposed herein are useful because they provide several methodical step-by-step roadmaps of how elite athletes and those who are assisting them can work through adversity. Our suggestion is that the steps to each skill be followed with no shortcuts. A quick reference to the steps provided in Table 1 might be sufficient to alter thoughts, emotions and behaviors in the short- and eventually the long-term. If athletes were to overlook the emotion aspect for each skill, however, there would be some chance that their typical emotional responses could undermine appropriate thoughts, and decrease the chance of improved behaviors.

Third, perhaps the largest merit of the resilience skills outlined in this paper is their intention, an eventual shift toward athlete self-monitored resilience. Far too often, elite athletes become discouraged because they

are unable to exhibit their athletic skills under adversity. To ensure ongoing improvements of resilience, then, it is necessary that support-staff decrease their involvement in the suggested skills to the point of invisibility and monitoring. Only then will resilience be likely to withstand the test of adverse performance environments given that support-staff changes occur frequently among national teams.

There are also additional steps that need to be taken in order to ensure the success of the skills we propose. At first blush it could easily be argued a support-staff member's responsibility is to identify the least resilient among their talented athletes, and then help improve upon their explanatory patterns. Appealing as that approach might seem, we believe that a broader educational initiative is better for athletes and their support-staff. Schinke's (2000) earlier research about athlete resilience, mirroring earlier evidence from Seligman (1991), suggests that explanatory patterns are learned from significant others, and thus need to be monitored in training environments. Just as a pessimistic athlete can learn positive attributes from an optimistic coach or athlete, the opposite can also happen. When acting as a practitioner, one of us recently witnessed an instance where one athlete's pessimism affected negative change in an entire national team, most of whom were previously optimistic and solution focused. The outcome was negative reflection en masse, and subsequently, a group re-attribution intervention. Hence, educational strategies require a broader sweep with athletes, their coaching staff, and optimally, their family members receiving parallel training. This more comprehensive intervention will increase the possibility of well maintained explanatory habits leading to consistent resilience in challenging sport settings.

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