**VMBR Research May Be Flawed**

These authors raised six experimental design and methodological concerns that affect the conclusions of research involving visuo-motor behavioral rehearsal (VMBR) with basketball. The discussed concerns include (a) one-group pretest-posttest design, (b) computing simple main effects tests with no significant interaction, (c) data analysis for completely within-subject design, (d) test order effect, (e) lack of control of modeling and social facilitation effects, and (f) number of free throws imagined during treatment. More rigorous control of extraneous variables, experimental design, and methodological procedures must be completed before prematurely concluding that VMBR facilitates free throw shooting accuracy.


**Football Players Don’t Recall Warning**

Football helmets contain a label designed to warn players of the potentially catastrophic hazards of using a helmet as a point of contact. These researchers assessed the effectiveness of the label by asking high school football players to reproduce the label’s contents from memory under three conditions: preseason recall, postseason recall, and postseason recall with verbal priming. Results indicated that only 26% of the preseason condition recalled the warning label and the behavioral guidelines. The recall of the postseason group was no better, indicating that season-long exposure to the label did not enhance retention. The postseason with verbal priming condition had improved recall of the injury consequences, but did not affect recall of the behavioral guidelines. These findings indicate that the warning label may not have a noticeable effect on the reduction of injury. The authors suggest that more conspicuous key words, pictorial representations of the information, and occasional verbal prompts from coaches may improve retention of information.


**To Be Aware or Not Aware**

The effectiveness of three learning strategies on skill acquisition was compared in the learning of a novel self-paced motor task: (a) awareness (consciously attend to the act and to what one is doing during execution), (b) nonawareness (preplan the movement and perform the task without conscious attention to it),
and (c) five-step approach (ready oneself, image the action, focus attention on cue, execute without thought, and evaluate process). Results indicated that the five-step approach and nonawareness strategies resulted in greater performance than the awareness strategy and the control condition.


**Hank Had A Hammer**

Who has the record for the most total bases for a career in Major League Baseball? Pete Rose, Ty Cobb, or Ted Williams? The answer is Hank Aaron. Yes, the all-time MLB home run leader is also the total bases leader. Aaron’s accomplishments are astounding, and they prompted Tom Hanson to seek an interview with Aaron to help answer the question, “How’d Hank do it?” The substance of the interview provides a number of insights into why Aaron was one of the greatest hitters ever. Aaron shared his philosophy on the mental aspects of hitting, which included visualizing facing the next game’s pitcher in a variety of situations beginning the night before and continuing throughout game day. During the game, Aaron would study the motion and release of the pitcher, looking for cues to tip off his pitches. When on deck, Aaron would continue to visualize, keeping his eyes on the pitcher. Finally, while in the batter’s box, he would focus on the pitcher as if looking down a tunnel, watch the ball constantly, see the ball coming out of the release point, allow the mind to tell the hands to swing or not, and try to put the ball in play. These insights are synthesized from the interview that Aaron indicated was a first to focus on the mental aspects of his hitting.


**Special Performance Enhancement**

What do you do with a hurdler who is having a performance block? What if the person in question is a 21-year-old, Down syndrome male who has a social age equivalence of 2 years? This is the challenge the two authors took on to help an aspiring Special Olympian, “C,” compete in the state meet. The intervention included establishing a baseline, implementing an 11-step training program, and concluding with a follow-up assessment. The terminal objective was for “C” to leap 4 hurdles, 12 feet apart, and 12 inches high. The first challenge determined through the baseline was a recognition that “C” would only leap while holding someone’s hand. The 11-step process began with 4 hurdles lying on the floor 12 feet apart. “C” was taken by the hand and instructed through the hurdles. Step 2 involved modeling with no physical assistance. This stimulus-control shaping program progressed to the terminal objective, Step 11. The program was successful with “C” reaching the objective in 4 weeks. The follow-up evaluation determined success at the state meet in which “C” won a silver medal on hurdles 17 inches high.
Bored on the Beam

Gymnastics, ice skating, diving, and other individual sports, share a common problem: motivation to practice. Due to the necessity of practicing repetitive skill drills in each of these sports, performers lose their motivation and become bored. With boredom, the athletes spend more time in off-task activities. This study assessed the use of three conditions on the practice behavior of 5 gymnasts aged 10–13, specifically, the frequency of beam skills performed during 40-minute beam practices. The baseline condition consisted of standard coaching (SD) involving the coach providing verbal goal setting, corrective feedback, encouragement, reprimanding, and spotting. T1 consisted of SD and public self-regulation involving coach-written goal setting, public self-recording and graphing of progress, and reward contingent on goal attainment. T2 consisted of SD and private self-regulation involving privately written goals, private self-recording and graphing, and reward contingent on goal attainment. The conditions were varied over the 8 weeks of the study. Findings indicated that the addition of self-management was effective in improving practice performance but was not immediate (effect seen in about 5 weeks). The gymnasts liked the self-regulation and the reward opportunities. Three of the gymnasts preferred the coach-written goals, and 2 preferred the self-written goals.


Goal-Belief Dimensions Among Wheelchair Basketball Players

Despite the increasing number of individuals with physical disabilities who engage in competitive sport, limited research has investigated psychological factors related to participation with these athletes. This study examined dispositional goal orientations and beliefs about the causes of success within the framework of goal perspective theories of achievement motivation. The sample comprised 59 adolescent athletes with physical disabilities who competed in wheelchair basketball. Results revealed that both task- and ego-oriented goals exist among athletes with disabilities. With task-oriented goals, success is defined in self-referent terms such as doing one's best. With ego-oriented goals, success is defined in norm-referenced terms such as beating others. Athletes who defined success in self-referent terms believed that success in wheelchair basketball was associated with the motivation to improve, with effort, and to a lesser extent, with external factors such as having the right equipment. In contrast, athletes who defined success in norm-referenced terms believed superior ability, luck, and taking illegal advantage (e.g., cheating) would lead to athletic success. These findings were often consistent with previous observations of sport participants without physical disabilities.

**Preschool Motor Development and Perceived Competence**

The different domains in which children develop are thought to be interactive. It is believed that motor development influences children’s self-conceptions, and children’s self-conceptions influence motor development. Therefore, this study examined the bidirectional relationship between motor development and perceived competence with 31 preschool children. Perceived competence represented the combination of perceived physical and cognitive competence, as young children tend not to differentiate competence in the physical and cognitive domains. Age was also included in the analyses to take into account the influence of maturation. The results revealed that age and perceived competence predicted motor development, but age and motor development did not predict perceived competence. The authors concluded that professionals will be more likely to facilitate children’s motor development if they not only provide maturationally appropriate motor experiences but also enhance children’s self-conceptions.


**Hooked on Dance**

Eating disorders are well recognized among dancers and can be attributed to the physical and technical demands of dance, as well as the expectation that dancers maintain an aesthetically appealing appearance. Given the recognized relationship between eating disorders and exercise dependence, the purpose of this study was to investigate the exercise dependence of performing dancers in relation to athletes outside the performing arts. A total of 47 ballet and modern dancers were compared to 39 endurance athletes (distance runners) and 16 nonendurance athletes (field hockey players) on the psychological aspects of exercise dependency. Dancers reported significantly higher exercise dependence scores than endurance and nonendurance athletes did, and endurance athletes reported significantly higher scores than nonendurance athletes did. The authors concluded that these findings suggest a need to monitor dancers, given the psychophysiological concerns associated with exercise dependency.


**The Many Faces of Anxiety**

This review article discusses the many issues concerning the investigation of anxiety in sport. Problems in research with the use of different terms such as arousal, stress, and anxiety to define the same phenomenon are discussed. The inverted-U, multidimensional anxiety, and catastrophe theories are analyzed. Studies of the popular inverted-U theory are criticized in terms of five conceptual problems. Methodological, statistical, and practical problems with this theory are presented. Multidimensional anxiety theory is briefly discussed in terms of its limitations. Finally, a newer approach, catastrophe theory, is presented as a viable alternative. This three-dimensional model is suggested as a more complete method of investigating the relationship of anxiety in sport. It is suggested that future studies of anxiety need to be performed with catastrophe theory as the foundation.

**Is Your Mind Tired?**

Tennis psychologist Jim Loehr states that a tennis player’s body and emotions give signals that may indicate that an athlete is overtraining (training too much). Too much training may cause mental fatigue. Loehr gives “ten classic signs” of the problem: (a) unmotivated, (b) easily distracted, (c) physically unhealthy, (d) irritable, (e) moody, (f) negative, (g) nervous, (h) less fun, (i) play is unusually poor, and (j) tired. According to Loehr, if a tennis athlete is experiencing any combination of four of these symptoms, then the athlete is overtraining. It is suggested that an athlete must be able to determine the “fine line” between pushing too hard and too little. Loehr’s tips to doing this are take a complete break from the activity, follow strenuous days of training with light training days, vary the training regimen as much as possible, eat a well balanced diet, get proper rest, and start back slowly.


**90 Seconds to Greatness**

Have you ever wondered what most professional tennis players are doing or thinking during the time between games when they are seated? Tennis psychologist Jim Loehr says that most top professionals utilize a three-step routine to make the most of this brief pit stop. Step 1 involves simply taking care of physical and equipment needs such as drying off the body and racquet grip, drinking water or another beverage, and making changes in any equipment. The second step involves getting to the most appropriate arousal playing level. One may use deep breathing, imagery, smiling at a spectator, or laughter to deal with too much arousal. If the player wants to maintain the proper intensity level or “rearouse” him- or herself, then “pumping” the fists or simply challenging oneself for the next game can be very helpful. The third step of the routine is devoted to concentrating on the specific playing strategy to be used in the next game. It is suggested that a player may wish to take written notes on the court to review during this brief time period. Loehr suggests that having a specific routine for these small breaks may serve as a valuable mental weapon during competition.


**Life Stress, Social Support, and Injury**

The effects of social support and playing status (starter vs. nonstarter) were examined as potential moderators of the life stress–injury relationship in collegiate football players. During the competitive season, 65% of the athletes experienced at least a minor injury. There were no differences in life stress, social support, or injury rates between the starters and nonstarters. Consistent with previous research, negative life stress was related to the severity and incidence of injury. Playing status moderated the relationship between negative life stress and social
support as predictors of injury. Results also revealed a significant Life Stress x Social Support interaction. Low social support players experienced greater incidence of injury with high life stress, whereas low social support players exhibited a negative relationship between life stress and injury.


**Running Anxious**

Consistent with Hanin’s zone of optimal functioning hypothesis, collegiate runners were investigated to determine whether performance was related to their optimal zone of anxiety. The athletes completed retrospective measures of cognitive and somatic anxiety after each race during the competitive season. Then their performances were compared to whether anxiety was within their zones of optimal anxiety. The results supported the notion that best performances will be observed when anxiety is within an athlete’s zone of optimal functioning. Additionally, zones based on the multidimensional anxiety theory showed a stronger relationship with performance than did zones based on the inverted-U hypothesis.


**Burned Out Coaches**

Burnout was investigated in collegiate dual-role teacher–head basketball coaches. Specifically, this study tested Smith’s model of stress and burnout, which predicted personal and situational variables would impact stress appraisal, which, in turn, would impact burnout. Coaches completed a packet of questionnaires during February, the most stressful month in the college basketball season. As predicted, the personal variables of social support, gender, and experience influenced stress appraisal. Lower social support and fewer years of experience were related to higher levels of stress and coaching issues and problems. Additionally, female teacher-coaches exhibited greater stress and problems than male teacher-coaches did. Subsequently, stress appraisal variables were related to burnout. Greater stress and more coaching issues and problems indicated greater levels of burnout. While supporting Smith’s model of burnout, this study also revealed that burnout is a significant problem in these coaches since most of them experienced moderate to high levels of burnout.


**Coping at the Olympics**

All members of the 1988 US Olympic wrestling team were interviewed concerning coping strategies and techniques used during the Olympic Games. Four
general dimensions of coping strategies were revealed: thought control, task focus, emotional control, and behavioral strategies. Thought control strategies, the most often cited dimension, consisted of five categories of techniques: (a) blocking or efforts to repress distracting, irrelevant, or irritating thoughts; (b) taking a perspective that included placing the event in a comfortable mental framework; (c) positive thinking that involved placing potentially negative events in a positive light; (d) coping thoughts that used adversity to place the situation in the context of past experiences; and (e) prayer. The wrestlers also used task focus strategies to obtain a narrow, goal-oriented focus of attention. Emotional control strategies included management of arousal and use of imagery, whereas behavioral control strategies were used to control or change the environment or to follow a set routine to obtain optimal mental readiness. Although these wrestlers admitted to facing a great deal of adversity during the Olympics, they also employed many coping strategies to deal with this adversity.


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