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To cite this article: Richard J. Butler , Marcus Smith & Ian Irwin (1993) The performance profile in practice, Journal of Applied Sport Psychology, 5:1, 48-63, DOI: [10.1080/10413209308411304](https://doi.org/10.1080/10413209308411304)

To link to this article: <http://dx.doi.org/10.1080/10413209308411304>



Published online: 14 Jan 2008.



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## The Performance Profile in Practice

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Performance Profiling has been proposed as a means of facilitating an understanding of the way an athlete perceives his/her ability and preparation for performance. Essentially derived from Personal Construct Theory, which emphasizes the individuality of each person's understanding of his/herself and his/her outlook, the method of Performance Profiling has invited a broad range of application.

This paper describes the method of Performance Profiling and demonstrates the versatility of the technique through presentation of three applied aspects in the sport of amateur boxing. Individual analysis of one boxer's Performance Profile illustrates the influence this had on the coaching and psychological input. How the Performance Profile helps coach and boxer monitor progress leading to a major championship is depicted with a further case analysis. Finally the variance in perception between coach and boxer is highlighted through individual and group Profiles. This paper also discusses future uses and issues in relation to the application of the Performance Profile.

The Performance Profile (Butler, 1989, 1991; Butler & Hardy, 1992) has recently been formulated and developed within the sporting arena as a means of enhancing the athlete's self-awareness with regard to perfor-

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This work was grant aided by the Sports Council through the Sports Science Support Programme. We are grateful to the Amateur Boxing Association for supporting our work with the National squads and appreciative of the boxers and coaches whose enthusiasm in employing the method encouraged us to pursue its application.

mance preparation and to facilitate the coach's understanding of the athlete's perspective. In the most basic form, a Performance Profile is a visual display of those areas perceived by the athlete to be important in achieving a top performance, and on to this the athlete's current assessment of self is mapped.

As such the Performance Profile addresses two aspects of applied sport psychology often considered fundamental in assisting the enhancement of performance—those of self-awareness and goal setting. Ravizza (1986) suggested that gaining awareness was the first step in raising self-control, and the means of achieving this was through the identification of the ideal performance and a recognition of the contrast between that state and the present one. Such awareness, it is argued, enables the athlete to gain control over performance (Ravizza, 1989), yet there is a failure to provide a theoretical base for such a proposition.

The second aspect with which Performance Profiling integrates is goal setting, which Locke (1969) described as a conscious intention to accomplish something, and Bandura (1969) as a "comparison standard." The concept of goal setting has been widely accepted within sport despite much evidence regarding its effectiveness coming from the laboratory rather than the applied setting, and having a theoretical base within business and management (Ravey & Scully, 1989). Further, there is a growing number of empirical studies which fail to support the beneficial effects of goal setting in sport (Hall & Byrne, 1988).

Of particular importance in this debate is the degree to which goals are set FOR the athlete (which demands acceptance and compliance by the performer) or set BY the athlete. Erez and Kanfer (1983) and Erez and Zideon (1984) provide evidence supporting the view that the most effective goals are self-assigned.

The Performance Profile provides a structure for the development of self-awareness and commitment to achieving performance goals through a process of identification of ideal performance qualities elicited by the athlete, and an assessment of self on these attributes.

Theoretically Performance Profiling is embedded within the framework of the Personal Construct Theory (Kelly, 1955; Bannister & Fransella, 1986). As such it draws on the fundamental tenets of the theory in recognizing the performer's unique construction of what characterizes a top performance, coupled with how the performer perceives him or her self along these dimensions.

As the athlete's perceptions are displayed visually and communicated to the athlete and coach, the Performance Profile reflects two further notions central to the Personal Construct Theory. First, it raises the athlete's awareness of his or her own constructions of self which, as Ravenette (1977) suggests, might otherwise remain at a low level of consciousness. Second, the Performance Profile enables the athlete's construing to be understood by the coach, and, according to the theory, thus engineer a more meaningful relationship to be developed, in which the training program can be tailored to meet both their needs.

To date there are very few reported applications of Personal Construct Theory to sport. The repertory grid (Bannister & Mair, 1976; Fransella & Bannister, 1977; Beail, 1985) is the most noted methodology to arise from the theory, and this seeks to present the mathematical relationships between the person's constructions of events. The Performance Profile is an extension of the repertory grid, designed particularly with the needs of the athlete and coach in mind. In contrast to the repertory grid, the Performance Profile relies not on correlational analysis or principal component analysis, but on presentation of the actual data provided by the athlete or coach. The method of display makes the information easily digestible.

The Performance Profile was originally developed within the sport of amateur boxing and has subsequently been taken up by sport psychologists in a range of sports including archery, field hockey, athletics, gymnastics, ice skating, weight-lifting, swimming, speed skating, cycling, association football, judo, rowing and modern pentathlon.

The method involves eliciting what the athlete considers to be the qualities required for elite performance, a process achieved either individually or in small brain-storming groups. Following the selection of qualities, the performer is then invited to assess him or herself on each of these qualities using a rating scale. The scores are then transferred on to a profile for visual display.

The fundamental procedure can be illustrated with the following example from amateur boxing. A squad of 16 boxers assembled for the first camp in preparation for the Olympic Games. This squad contained some boxers familiar to Performance Profiling, but for the majority of boxers this presented something new. Performance Profiling is usually undertaken early in a camp as it serves to integrate new members into the squad and the completed Profile helps the boxer both to set personal goals for the camp and to direct the way training is shaped and organized.

With the coaches present the boxers were introduced to the idea of Profiling and examples of completed Profiles were shown. The reasons for undertaking this exercise were outlined as: a) enabling those of us working with the squad (coaches, exercise physiologist, doctor and psychologist) to understand what each boxer regarded as important in producing a top performance; b) providing a clear outline of how the boxer was currently perceiving his abilities; and c) identifying where the coaching might most usefully be directed in order to meet the boxer's needs.

The boxers were subsequently divided into 3 groups to "brainstorm" what they considered to be the qualities of an elite boxer. After a short time each group shared their vision of what constituted an elite boxer, with over 30 different qualities being generated. Next the boxers were invited individually to select from this pool of qualities the 16 attributes which represented the style they would ideally wish to have. For each quality the boxer was then asked to use a 1-10 rating scale to assess where he would presently judge himself. The 16 ratings were then transferred

on to a Profile to give a visual presentation of the boxer's assessment of self. This paper reports on the versatility of the Performance Profile using examples from the sport of amateur boxing.

### INDIVIDUAL ANALYSIS

At 27 years of age and as National champion, Karl was selected at bantamweight (54 kg) for the European Championships, his first major international competition. Karl entered boxing at 14 years of age after breaking a toe playing soccer. He joined the armed forces at 17 becoming a physical education instructor and had over 100 bouts as an amateur when he won the National championship. However Karl held some reservations about being able to succeed at the top level as he felt his age and lack of international exposure placed him at a disadvantage.

During the first camp in preparation for the Championships, Karl completed a Performance Profile which is shown in Figure 1. Asked what he considered to be the qualities of an elite boxer he produced 22 attributes. He then rated himself twice on these attributes—as I am now, and as I would like to be (ideal).

These attributes appear to fall into six categories:

a. Physical (stamina, suppleness, strength, fitness and reactions). As a member of the armed forces, Karl felt he maintained himself in good physical condition throughout the season. His high ratings reflect this. However, the low score on suppleness alerted the coaching staff to his need for increased flexibility work.

b. Defense (slipping, blocking). The Performance Profile suggests Karl considered the possibility of only minimal improvement in his defense. He had developed a style he described as "technical" which meant not getting involved and making his opponent miss, with the intention of wearing his opponent down. That Karl had been stopped just twice in over a hundred bouts validated the belief that his defense was adequate.

c. Punches (jab, uppercut, straight, hook). Recognition of a need for improvement in the quality of his punching was apparent. Analysis of Karl's punching pattern was undertaken using video analysis of a recent international bout. Interestingly the punch Karl perceived as his best—the uppercut—he used least often. In this bout 61.8% of the punches he threw were jabs, 24.4% were left and right hooks, 10.1% were straight rights and only 3.7% were left and right uppercuts. Karl identified the speed of his jab and power of his hooks and straight punches to be the important aspects to work on. Consequently coaching techniques involving body rotation, throwing with snap and hitting through the target plus psychological techniques involving iconic visualization were built into Karl's training program. Iconic visualization (Syer, 1986; Butler, 1989) involves the identification of an image which portrays the desired quality. For speed, Karl chose the image of lightning and subsequently practiced

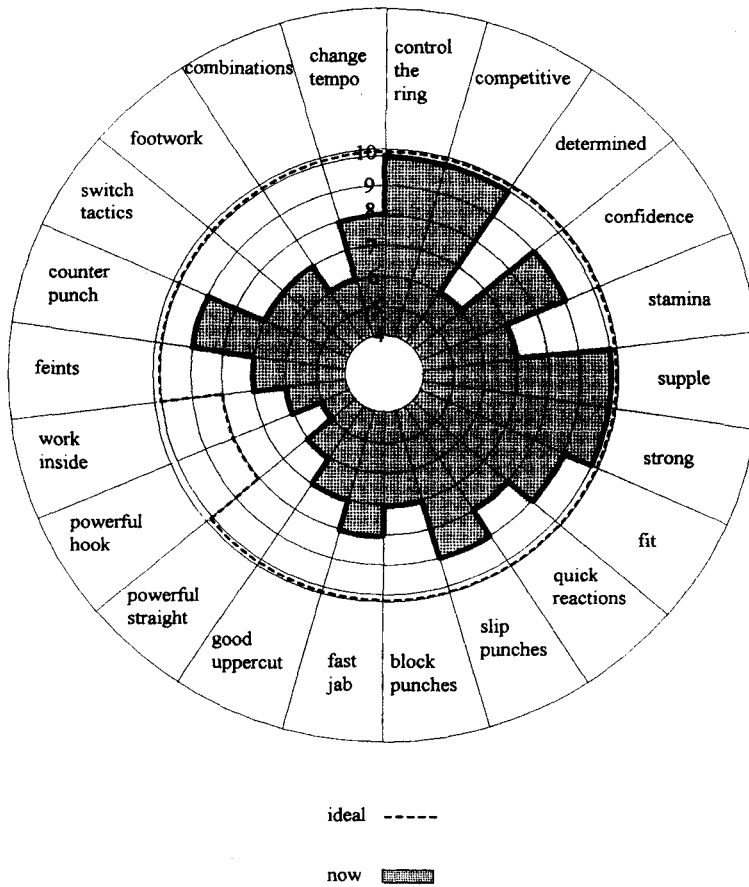


Figure 1. The performance profile of Karl.

throwing his punches during shadow boxing and then on the equipment, as if he was striking like lightning.

d. Technical (work inside, feints, counter punch, switch tactics, footwork, combinations, tempo work, control of the ring). Karl felt confident with regards to his tactical approach, but otherwise sensed the need for technical improvements across most areas. After feedback of the Profile, Karl elected to note down on a card the four aspects most discrepant from his ideal—counterpunching, footwork, combinations and changing tempo—and kept this card in his kit bag to act as a prompt for when he got changed and prepared his focus during equipment sessions, shadow boxing and sparring. The coaching staff kept the Performance Profile in the gym to enable “tech. sessions” and pad work to be focussed on the boxer’s

needs. Such coaching respects the individual's needs and is thus inherently more likely to engage the boxer in complete participation.

On feints and working inside, Karl gave an ideal rating less than the maximum. This may represent a resistance to change (Butler, 1989) on these attributes. Karl did not consider throwing feints and working inside fitted with his style of boxing. Such information assisted the coaches in understanding Karl's attitude to these facets and sensitized them to potential difficulties in coaching such qualities.

e. Attitude (competitive, determined). Karl was keen to invest the effort and commitment required for success.

f. Psychological (confidence). Karl produced only one psychological attribute, on which his low rating suggested the need for further investigation. From discussion it transpired there were three reasons for Karl's lack of confidence.

1) High levels of pre-bout tension led to feelings of fatigue when he stepped into the ring. Progressive muscle relaxation (Davidson & Schwartz, 1976; Martens, 1987) was individually taught by the psychologist to help Karl control the somatic feelings which arose in the build up. During the relaxation exercises, a heart rate monitor was attached (Burton, 1990) and the results were subsequently fed back in the form of a graph following the exercise. On the third session the heart rate dropped from 69 beats/min. to 51 beats/min. within one minute of beginning the exercise. This demonstrated to Karl his ability to control arousal levels through relaxation. Coupled with this training Karl was helped to recognize the need to increase his arousal levels during warm up using energizing cue words and positive affirmations (Gauron, 1984) and make a cognitive shift in interpreting high arousal levels in a positive way (Kerr, 1989). Karl chose to think of the arousal as a sign that his body was energized and ready to fight.

2) Karl's lack of top level exposure precipitated cognitive anxiety in the form of self-doubts about his ability to compete with the best. Using the Performance Profile an attempt was made to enhance Karl's belief in his own ability using two methods. Karl was encouraged to focus on those attributes on which he had given himself a high rating, which enabled him to perceive that his fitness and strength gave him an edge over other competitors. Karl was then asked to complete a second Performance Profile on which he rated his best performance over the last 12 months. In his opinion, this was the National Championship final he had won a month earlier. From this Profile, on which some of the technical attributes were rated quite high, Karl was able to recognize that he was able to perform well under pressure.

3) Karl was concerned about his slow start in contests which occurred because he used the first round to assess his opponent's weaknesses. This meant he often lost the first round, therefore inflicting pressure on himself to have to win the remaining two rounds to secure the contest. Given the importance of goal proximity in affecting performance (Bandura & Schunk,

1981), we decided to split the round into three one-minute segments with sub-goals for each segment. First-minute goals focussed on footwork and countering, second-minute on working the jab, and third-minute on changing tempo. This game plan was practiced with Karl visualizing his strategy, at first with the psychologist cueing the time, and later on his own. Visualization has been found to be a powerful means of enhancing performance, particularly among elite performers (Feltz & Landers, 1983).

On the final day of the camp, Karl was invited to rate himself again on the qualities he considered important. This produced an estimate of progress as perceived by the boxer. Figure 2 shows the difference in ratings between the two occasions.

There were encouraging self-reported improvements in confidence, the quality of 3 of Karl's punches, and all but one of the technical attributes. On 8 qualities Karl had rated himself at the maximum. The Performance Profile proved invaluable in Karl's preparation for the competition both in terms of developing a coaching program to meet his perceived needs and also as a framework to highlight where psychological interventions might be most appropriately directed. Karl approached the European Championships with self-confidence and with assurance that his preparation for the competition had been co-ordinated to meet his perceived needs. Despite narrowly losing on points in his first bout, Karl was not dispirited about his performance, having accomplished some of the goals he had set himself as a result of the Performance Profile.

### MONITORING CHANGE

As the work with Karl illustrated, a repeated Profile can assist in determining what progress has been achieved and whether the athlete is reaching the goals set himself. Recently we have extended the monitoring through to a Championship by completing the Profile on a series of occasions, up to the day of the bout, and where the boxer is successful completing the Profile prior to each bout in the Championship.

As National junior champion, Adam was selected at featherweight (57 kg) for the 1990 World Junior Championships. He clearly relished the prospect of displaying his talent at such an event despite failing at the recent European Championships. Adam's disposition was marked by a determination to succeed, high standards and a very self-critical attitude to his performance.

Following a brainstorming session with the team of three boxers for the Championships, they agreed on twenty attributes of a technical nature to make up a Performance Profile. Analysis of Adam's first Profile during the second training camp reflected his self-critical nature, with eight of the qualities rated five or less with a mean rating of 5.80.

As usual feedback of the Profile (illustrated in Figure 3) proved invaluable for the coaches in developing a program to meet Adam's perceived needs. Relatively higher ratings for accuracy, working at long range, speed of punch and counterpunching depicted his boxing style.



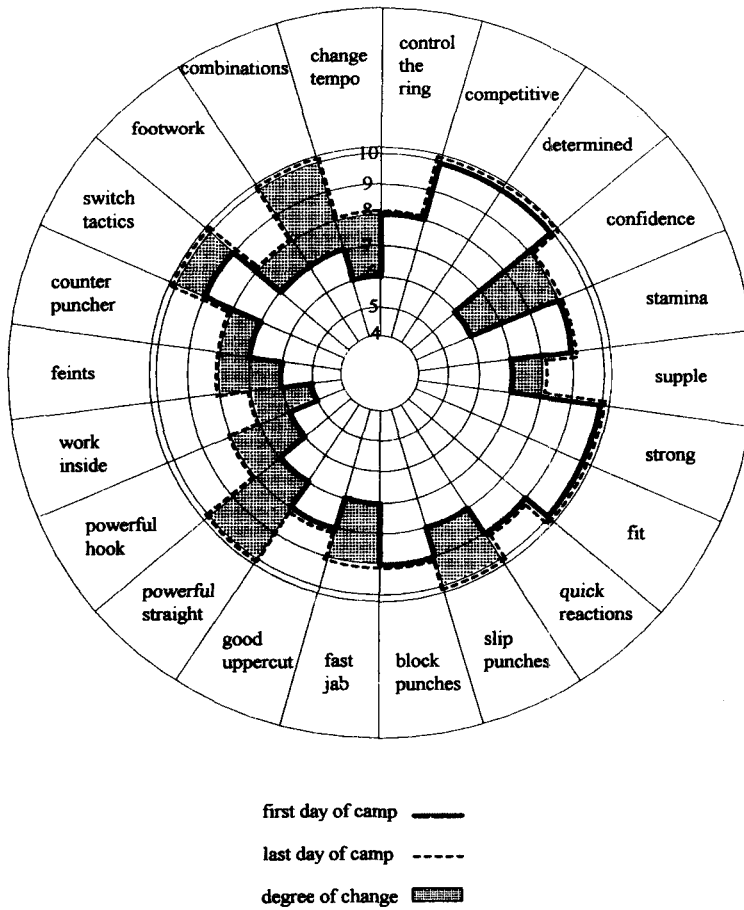


Figure 2. The performance profile of Karl: degree of perceived change during a camp.

The squad arrived in Peru a week before the draw was made and time was devoted to acclimatization, rest and some sharpening work. Prior to each of his bouts, on the morning he was due to box, Adam completed a Profile with the National Coach. Thus progress towards his ideal could be monitored, and for Adam the comparison with previous Profiles illustrated the degree of perceived improvement.

Figure 3 shows the discrepancy between the first Profile taken during the second of three training camps and the Profile completed on the day of the final in Peru. Progress on all attributes occurred with a mean rating of 8.05, representing an improvement of 38.8% on the initial assessment. Reluctance to rate himself at the maximum further illustrated Adam's self-critical nature. He did, however, rate himself at 9 on five attributes,

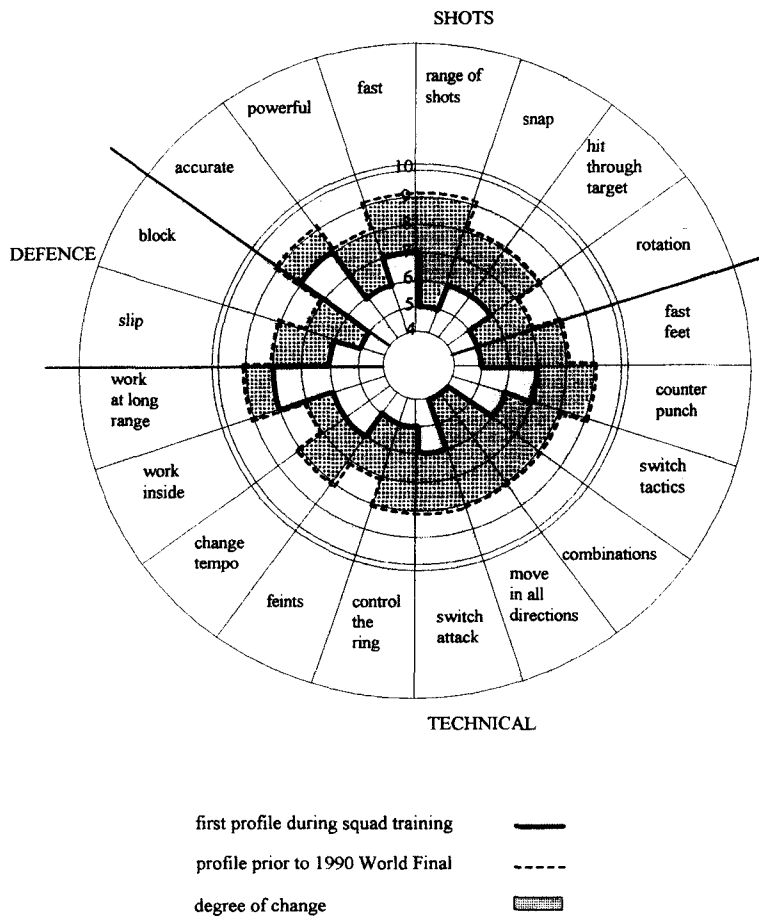


Figure 3. The performance profile of Adam illustrating the degree of perceived change during preparation for competition.

which reflected the style that had proved successful in defeating three opponents. These were accuracy, speed and the use of a range of shots, working at long range and relying on counterpunching.

As might be expected through adopting this style, Adam sensed minimal improvement on the attribute working inside. By examining the Profile he was aware, however, of substantial gains on some dimensions, notably his use of a range of shots, both speed and direction of footwork, delivery of combinations and control of the ring. This evidence of progress further enhanced a belief in himself and confirmed for him the benefits of his training and coaching. Bandura (1977, 1982) has identified performance

accomplishments as one of the principle influences in enhancing self efficacy. Here Performance Profiling enabled the boxer to trace improvements in how he perceived his technique during training and through the competition.

As a result, Adam approached the final confidently. Mahoney and Avenir (1977) and Highlen and Bennett (1979) discovered the importance of self confidence in producing a successful performance. Adam was concerned, however, to do his best which was consistent with his self-judgmental nature. His opponent, a Peruvian, boxing in front of a partisan audience, held no fear for Adam and with a display of controlled boxing he comprehensively outpointed his opponent and stood proudly aloft to receive the gold medal.

### PERFORMER-COACH VARIANCE

The Performance Profile encourages a comparison of a boxer's self evaluations against those of the coach. During the second training camp in preparation for the 1990 Commonwealth Games, a squad of ten boxers completed their second Profile. The three coaches in attendance also independently assessed each boxer on the Profile qualities. The mean of their ratings enabled a direct comparison to be made with that of the boxer.

Figure 4 illustrates the Profile of one boxer, Gary, who was twenty-one years of age and selected to box at welterweight (67 kg). He had boxed many times at International level but the Commonwealth Games represented his first major International tournament.

The Profile represents physical, technical and attitudinal aspects. Interestingly, the greatest discrepancies appear to relate to technical qualities. For the boxer and coaches to work in harmony, large discrepancies need to be confronted, otherwise work considered by the coaching staff to be essential can be viewed by the boxer as unnecessary. Video analysis of Gary's performance during a spar, focussing on the speed of footwork, inside work, tempo changes and combinations, enabled him to view these qualities from the coaches' perspective. Thus the profile, in addition to enhancing the coaches' view of how the boxer sees himself, can reciprocally enable the boxer to discover something of how the coach construes him.

In the main there was a concordance of view regarding physical qualities with agreement that there was still room for improvement in some areas, such as balance, reactions, suppleness and fitness. Because of such agreement, coaching and conditioning designed to improve these qualities is fundamentally driven by compatible notions of change.

It is more unusual for coaches to make ratings higher than the boxer, yet with competitiveness and anticipation of punches this was the case for Gary. Feedback of this information plus the reasons why the coaches felt the way they did encouraged a growing confidence in these areas.

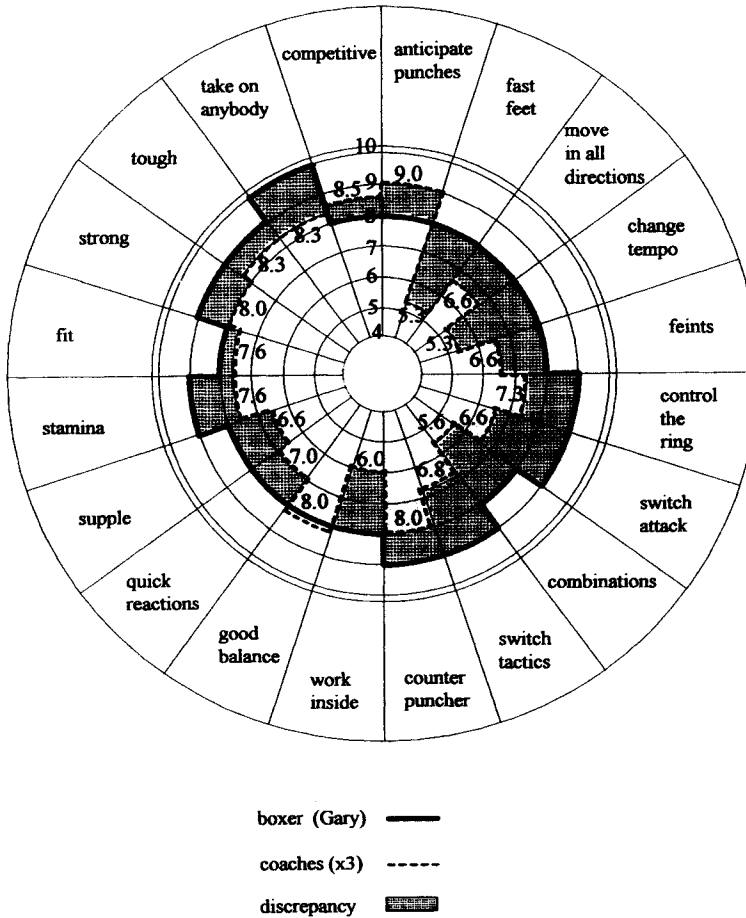


Figure 4. Comparison of coach-boxer ratings.

As each of the ten boxers selected for the Commonwealth Games had completed a Profile and the three coaches had also made independent ratings, a measure of mismatch between boxer and coach was available. The mean discrepancy between coach's and boxer's ratings can be represented as in Figure 5, which shows the extent of mismatch for each boxer on physical qualities.

Only two boxers (A, B) had mean ratings for physical attributes lower than those of the coaches. Interestingly, these were the two boxers with most International experience, both having competed at the 1988 Olympic Games and the 1989 World Championships. They were perhaps more aware of the demands of such competition, the physical condition they

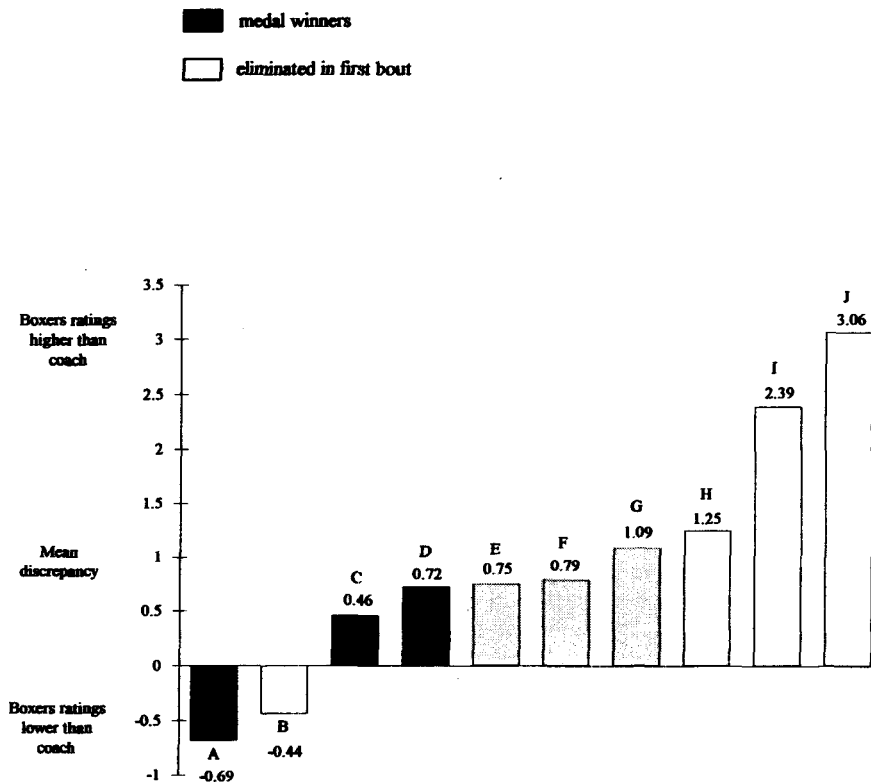


Figure 5. Mean discrepancy of ratings on physical qualities for each boxer.

would have to be in and sensitive to what was still required to meet these needs.

As Figure 5 illustrates, the subsequent medal winners (A and D gold medals, C bronze) were generally in agreement with the coaches. However, those most discrepant with the views of the coaches were the boxers who lost their first bout. Boxer B, who also lost his first bout but whose ratings matched those of his coaches, met an old adversary whom he had beaten on three previous occasions but this time, largely because of a failure to adapt to the "slippery" surface of the ring, narrowly lost on points.

Why the degree of mismatch was so great for boxers I and J raises an important question, because such discrepancies appear to predict failure. For boxer I, the misplaced confidence in his physical condition, which matched other large discrepancies in technical, punching and defense, seemed based on a rationalization that to gain selection for a major competition implied that he possessed the necessary qualities to succeed. While not undermining confidence, it would, in retrospect, seem impor-

tant to challenge the athlete to consider the possibility for further improvement. At an early stage in preparation for a competition this might be achieved through raising the athlete's awareness of the difference, discussing the possible reasons and understanding the basis for the athlete's rating, analysis and video feedback of the techniques under question and the identification of further goals by dissecting the attributes into their component parts.

For boxer J, competing at light flyweight, the issue concerned over-compensation. Because of his small size and consequent struggle to compete and keep up with some of the stronger members of the squad on some exercises, he tended to rate himself high on the physical attributes as a means of increasing his own self-confidence. Bandura's (1977) model of self-efficacy, where performance accomplishments, vicarious information, physiological changes and verbal persuasion are proposed as instrumental in increasing self-confidence, offers an additional and alternative route to establishing self-belief with such an athlete.

## DISCUSSION

Gould (1990) has highlighted the increased importance of qualitative research methodology in the advancement of applied sport psychology. Performance Profiling offers the psychologist a structure for just such enquiry and investigation to take place.

Although the appropriateness of working as a sports psychologist with amateur boxing has been questioned (Heyman, 1990), the sport afforded the stage on which the Performance Profile was conceived and developed. A consideration of the application of the technique to the sport has illustrated the flexibility and versatility of the approach. For the coach and competitor engaged in the pursuit of improved functioning, the Performance Profile has an important place. It has rapidly been taken up by psychologists and coaches in a wide range of sports in Great Britain as the fundamental means of exploring and assessing the athlete's perception of his or her performance needs.

Theoretically, the Performance Profile is embedded within Personal Construct Theory (Bannister & Fransella, 1986). It emphasizes the individuality of each athlete's perception of his or her performance and thus essentially respects the notions a performer has regarding his or her self. As Ravenette (1977) suggests, because a person's constructs may operate at a low level of consciousness, the undertaking of a Profile may heighten self-awareness and a realization of a need for improvement. For the coach and the psychologist, the Performance Profile assists in an understanding of how the athlete is thinking about his or her preparation and performance. With such information the coach and the psychologist are able to construct and develop interventions which are closely allied to the athlete's perceived needs.

Knowledge of results has been known to have a facilitative effect on

motor skill learning and performance (Newell, 1974; Schmidt, 1982), particularly in the context of goals being set (Locke, Shaw, Saari, & Latham, 1981). Performance Profiling essentially reverses the process of information giving in that athletes are invited to feed back their opinions and perceptions of their own attributes and performance, and in plotting an ideal they are fundamentally self-setting goals which may or may not meet those of the coach. Much goal setting has traditionally been of the assigned type (Locke & Latham, 1985), but the recent move towards bringing the athlete and coach together to negotiate over agreed goals (Beggs, 1990) can be facilitated by the Performance Profile.

For monitoring progress, the Performance Profile has further proved invaluable. Boxers now complete profiles at intervals leading up to competition, and the feedback generally enhances the boxer's confidence in that improvement reinforces a belief in the preparation. It also indicates to the coaches the perceived strengths to focus on close to competition and where sharpening work might be addressed. To date this has been undertaken during competitions such as the European, World and World Junior Championships plus the Olympic Qualifying tournaments. Although it has proved to be a valuable indicator of how boxers are perceiving themselves up to and including the day of competition, there is the possibility that a low rating close to a contest might reinforce self-doubts. One possibility now under consideration is to seek the boxer's evaluation only on those qualities he tends usually to rate himself high on. This models the coaching input at this stage whereby sharpening work is directed towards his strongest qualities.

Seeking the coach's assessment of the boxer on the Profile only occurs during training camps and can help identify major discrepancies in perception. A close correspondence between their views suggests they are essentially working towards the same goal, where in Personal Construct Theory terms the coach is construing the construction processes of the boxer and thus able to relate to him in a more effective way (Button, 1985). As major differences between boxer and coach on the Performance Profile seems to result in poorer performances such discrepancies require addressing. This might involve a discussion over the differing perceptions and what this means to the athlete, clarification of the desired attribute and goal and an exploration of options to overcome the discrepancy. This approach fits with the Kellyan view that if we wish to know something about a person, then the best approach is to ask the person (Kelly, 1955). A final extension of the use of the Performance Profile is its completion during a debriefing. Here the boxer can sketch how he felt the performance went and match this with his expectation or ideal and use the information to begin to map out some goals for future performances.

Performance Profiling essentially differs from other sport psychology approaches in that whereas the typical process outlined by Boutcher and Rotella (1987) is one driven by the psychologist in negotiating the aims, assessing the requirements, implementing techniques and evaluating out-

come, Performance Profiling is athlete driven. The psychologist seeks to understand the athlete's perspective as regards preparation and performance and subsequently employs this as a basis for coaching and psychological interventions. It thus sits comfortably with the empowering ideologies of many psychology skills training programs (Gauron, 1984; Orlick, 1990).

## REFERENCES

- Bandura, A. (1969). *Principles of behaviour modification*. New York: Holt, Rinehart & Winston.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behaviour change. *Psychological Review*, *84*, 191–215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*, 122–147.
- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self efficacy and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, *41*, 546–598.
- Bannister, D., & Fransella, F. (1986). *Inquiring man: The theory of personal constructs*. London: Croom Helm.
- Bannister, D., & Mair, J. M. M. (1976). *The evaluation of personal constructs*. London: Academic Press.
- Beail, N. (1985). *Repertory grid technique and personal constructs: Applications in clinical and educational settings*. London: Croom Helm.
- Beggs, W. D. A. (1990). Goal setting in sport. In J. G. Jones & L. Hardy (Eds.), *Stress and performance in sport* (pp. 135–170). Chichester: Wiley.
- Boutcher, S. H., & Rotella, R. J. (1987). A psychological skills educational program for closed skill performance enhancement. *The Sport Psychologist*, *1*, 127–137.
- Burton, D. (1990). Multimodal stress management in sport: Current status and future directions. In J. G. Jones & L. Hardy (Eds.), *Stress and performance in sport* (pp. 171–202). Chichester: Wiley.
- Butler, R. J. (1989). Psychological preparation of Olympic boxers. In J. Kremer & W. Crawford (Eds.), *The psychology of sport: Theory and practice* (pp. 74–84). BPS Northern Ireland Branch, Occasional Paper.
- Butler, R. J. (1991). Amateur boxing and sports science II: Psychology. *Coaching Focus*, *18*, 14–15.
- Butler, R. J., & Hardy, L. (1992). The performance profile: Theory and application. *The Sport Psychologist*. (in press).
- Button, E. (1985). *Personal construct theory and mental health*. Beckenham, Croom Helm.
- Davidson, R. J., & Schwartz, G. E. (1976). The psychobiology of relaxation and related states: A multi-process theory. In D. Mostofsky (Ed.), *Behavioural control and modification of physiological activity*. Englewood Cliffs, NJ: Prentice Hall.
- Erez, M., & Kanfer, F. H. (1983). The role of goal acceptance in goal setting and task performance. *Academy of Management Review*, *8*, 454–463.
- Erez, M., & Zideon, I. (1984). Effects of goal acceptance on the relationship of goal difficulty to performance. *Journal of Applied Psychology*, *69*, 69–78.
- Feltz, D. L., & Landers, D. M. (1983). The effects of mental practice on motor skill learning and performance: A meta analysis. *Journal of Sport Psychology*, *5*, 25–57.
- Fransella, F., & Bannister, D. (1977). *A manual for repertory grid technique*. London: Academic Press.
- Gauron, E. F. (1984). *Mental training for peak performance*. Lansing, NY: Sport Science Associates.



- Gould, D. (1990). AAASP: A vision for the 1990's. *Journal of Applied Sport Psychology*, 2, 99-116.
- Hall, H. K., & Byrne, T. J. (1988). Goal setting in sport: Clarifying recent anomalies. *Journal of Sport Psychology*, 10, 184-198.
- Heyman, S. R. (1990). Ethical issues in performance enhancement approaches with amateur boxers. *The Sport Psychologist*, 4, 48-54.
- Highlen, P. S., & Bennett, B. B. (1979). Psychological characteristics of successful and non successful elite wrestlers: An exploratory study. *Journal of Sport Psychology*, 1, 123-137.
- Kelly, G. A. (1955). *The psychology of personal constructs*. Vols. I & II. New York: Norton.
- Kerr, J. H. (1989). Anxiety, arousal and sport performance: An application of reversal theory. In D. Hackfort & C. D. Spielberger (Eds.), *Anxiety in sports: An international perspective*. New York: Hemisphere.
- Locke, E. A. (1969). Purpose without consciousness: A contradiction. *Psychological Reports*, 25, 991-1009.
- Locke, E. A., & Latham, G. P. (1985). The application of goal setting to sports. *Journal of Sport Psychology*, 7, 205-222.
- Locke, E. A., Shaw, K. N., Saari, L. M., & Latham, G. P. (1981). Goal setting and task performance: 1969-1980. *Psychological Bulletin*, 90, 125-152.
- Mahoney, M. J., & Avenier, M. (1977). Psychology and the elite athlete: An exploratory study. *Cognitive Therapy and Research*, 1, 135-141.
- Martens, R. (1987). *Coaches' guide to sport psychology*. Champaign, IL: Human Kinetics.
- Newell, K. M. (1974). Knowledge of results and motor learning. *Journal of Motor Behaviour*, 6, 235-244.
- Orlick, T. (1990). *In pursuit of excellence*. Champaign, IL: Leisure Press.
- Ravenette, A. T. (1977). PCT: An approach to the psychological investigation of children and young people. In D. Bannister (Ed.), *New perspectives in personal construct theory*. London: Academic Press.
- Ravey, J., & Scully, D. (1989). The cognitive psychology of sport. In J. Kremer & W. Crawford (Eds.), *The psychology of sport: Theory and practice* (pp. 37-48). BPS Northern Ireland Branch, Occasional Paper.
- Ravizza, K. (1986). Increasing awareness for sport performance. In J. M. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance*. Palo Alto, CA: Mayfield.
- Ravizza, K. (1989). Applying sports psychology. In J. Kremer & W. Crawford (Eds.), *The psychology of sport: Theory and practice* (pp. 5-15). BPS Northern Ireland Branch, Occasional Paper.
- Schmidt, R. (1982). *Motor control and learning: A behavioural emphasis*. Champaign, IL: Human Kinetics.
- Syer, J. (1986). *Team spirit*. London: Simon & Schuster.

Manuscript received July 29, 1991