Approach and avoidance coping during task performance in young men: The role of goal attainment expectancies

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Abstract
The present study investigated approach and avoidance coping strategies as a function of goal attainment expectancies in young men. Twenty-four male students participated in an experiment consisting of two rowing tests. After the initial test, participants were divided into two experimental groups and were assigned to conditions of attainable and unattainable goals for the final test, depending on performance in the initial test and experimental condition. Participants of the two groups reported similar goal attainment expectancies before the start of the final test; however, during the task expectancies for the attainable goal group increased, whereas those for the unattainable goal group decreased. After the conclusion of the task, participants were asked to respond with regard to coping strategies they used during the latest part of the final test, when goal attainment expectancies had been differentiated. The analysis revealed significant effects for effort increase, and mental and behavioural disengagement, whereas a non-significant but considerable effect was identified for planning. The higher goal attainment expectancies group scored higher on effort increase and planning, and lower on behavioural and mental disengagement, than the lower goal attainment expectancies group. The results of the present study are in accordance with the general theoretical assumptions of the control process theory, and more particularly highlight the importance of goal attainment expectancies as a factor influencing the employment of approach and avoidance coping strategies in achievement situations.

Keywords: Coping experiment, approach – avoidance coping, control process model, goal attainment expectancies

Introduction
A rapidly evolving area in the sport psychology literature is coping. Coping has been defined as a dynamic process of cognitive and behavioural attempts to deal with internal or external demands that exceed one’s resources (Lazarus & Folkman, 1984). The ability to cope with stressful events during sport competition is considered an integral part of sport performance (Hardy, Jones, & Gould, 1996). Technical mistakes, misjudgements, team-mates’ errors, opponents’ tactics and referees’ decisions are typical situations athletes have to confront during the course of a competition. The extent to which athletes can successfully face such expected – and, more importantly, unexpected – events is of particular importance in the sport context. Poczwardowski and Conroy (2002, p. 313) argued that “excellence in coping precedes excellence in performance”, whereas Lazarus (2000) suggested that effective coping in competition can facilitate motivation and attention, and enable athletes to reach their standards of performance. Despite its apparent importance, research has rarely focused on coping strategies during performance (e.g. Anshel & Anderson, 2002; Gaudreau, Blondin, & Lapierre, 2002; Haney & Long, 1995).

A significant part of the coping literature has been devoted to the organization of coping structure. Several categorizations have been proposed to identify coping strategies and higher-order coping categories. Nevertheless, as Compas, Connor-Smith, Saltzmann, Thomsen and Wadsworth (2001) noted, there is little consensus about the dimensions that best discriminate among different strategies. In a recent analytic review of the coping structure literature, Skinner, Edge, Altman and Sherwood (2003) identified five core dimensions of coping: problem solving, support seeking, avoidance, distraction and cognitive restructuring. Problem solving refers to active attempts to solve the problem, and includes strategies such as initiation of action and planning. Social support refers to attempts to seek support from external resources to deal with the problem or the resulting emotions, and includes...
strategies such as instrumental and social support. Avoidance refers to attempts to disengage from the stressful situation, and includes strategies such as mental and behavioural disengagement. Distraction refers to attempts to deal with the stressful situation by engaging in other more enjoyable activities, and includes strategies such as distancing and acceptance. Finally, cognitive restructuring refers to attempts to change one’s perceptions of the stressful situation in a more positive way, and includes strategies such as positive thinking and minimization of distress.

In sport psychology, most of the research has followed advances in the mainstream literature. Several frameworks have been adopted and applied to sport settings. In an attempt to address the lack of a sport-specific framework, Anshel and colleagues (Anshel, 2001; Anshel & Anderson, 2002; Anshel & Wells, 2000) developed a model for studying coping responses in sport. They discriminated between approach and avoidance coping strategies. Accordingly, they described approach coping as attempts to resolve the problem, and avoidance coping as attempts to reduce the importance of the problem or disengagement from attempts to solve the problem (Anshel & Anderson, 2002). The two dimensions correspond to the broad categories of problem solving and avoidance identified by Skinner et al. (2003). Anshel, Jamieson and Raviv (2001) speculated that an approach – avoidance framework is most relevant to the sporting context. Even though the model does not consider advances in the coping structure literature, it appears to have some face value, in particular about on-site coping and in relation to performance. The extent to which individuals invest resources to confront the situation or disengage from attempts to overcome the problem has considerable implications for the resulting product. In addition, on-site coping does not always allow for responses such as support seeking, distancing or reconstruction. As the purpose of the present study was to examine coping responses during task performance, the approach – avoidance framework was adopted. Three approach (effort increase, planning and self-talk) and three avoidance (mental disengagement, behavioural disengagement and denial) strategies were examined.

In relation to the regulation of behaviour, Carver and Scheier (1988) based on extended research (e.g. Carver & Scheier, 1981, 1984, 1986) proposed a control process model of behaviour. They suggested that human behaviour is regulated in a system of feedback control. During the execution of a task, individuals constantly monitor their performance in relation to their goal. When discrepancies between goal and performance are detected, individuals experience worry. Subsequently, if individuals perceive they are in a position to attain the goal, they adjust their action towards the desired goal. However, when discrepancies are perceived as unrecoverable, individuals perceive that they are not in a position to attain the goal and they experience withdrawal symptoms. These symptoms can be mental (i.e. thoughts of escape from the situation, irrelevant thoughts) or behavioural (i.e. withdrawal of effort and actual withdrawal from the task). More contemporary approaches to the control process model of self-regulation have highlighted the role of discrepancy reduction rate on emotional states. In particular, Carver and Scheier (1990, 1998) argued that irrespective of discrepancy levels, perceived rate of progress towards the goal determines affective outcomes. When individuals perceive the rate of progress as adequate, they experience positive emotion, whereas when they perceive the rate of progress as inadequate, they experience negative emotions. In brief, Carver and Scheier highlighted the role of goal attainment expectancies in regulating behaviour and affect, and determining responses to discrepancies between goals and performance. Based on the assumptions of the control process model of self-regulation and the conceptualization of coping, the present study examined the effect of goal attainment expectancies on approach and avoidance coping strategies. In particular, individuals holding higher goal attainment expectancies were expected to adopt more approach and less avoidance coping strategies than individuals holding lower goal attainment expectancies.

In an experiment with college students, Duval, Duval and Mulilis (1992) created conditions of small and large discrepancies between goal and performance and examined the way effort was influenced by progress towards goal attainment, which was manipulated through verbal feedback. Among participants in the small discrepancy condition, those making moderate progress towards the goal persisted more on the task than those making no progress. Furthermore, among participants making no progress towards the goal, those in the large discrepancy condition persisted less than those in the small discrepancy condition. In a subsequent experiment, Duval et al. (1992) reported that increasing the rate of progress for individuals in the large discrepancy condition resulted in increased effort. The results of their study show that when the rate of goal-performance deficiency reduction is adequate, in relation to the magnitude of the perceived incongruence between goal and performance, individuals are likely to increase their efforts towards the goal. In contrast, when the rate is inadequate, avoidance symptoms are likely to be experienced.

Carver and Scheier’s model has received wide recognition in mainstream psychology; however,
despite its apparent appeal, it has been rarely tested in sport. Jones (1995) adapted the control process model to explain directional interpretations of anxiety. In a subsequent investigation, Jones and Hanton (1996) reported that swimmers holding higher expectancies interpreted their cognitive anxiety as facilitative, whereas swimmers holding lower expectancies towards goal attainment interpreted their cognitive anxiety as debilitative. Jones and Hanton (1996) and Swain and Jones (1996) suggested that Carver and Scheier’s propositions should be further considered in sport. A recent attempt to examine coping as a function of discrepancies between goal and performance has been conducted by Gaudreau et al. (2002), who found that goal-performance discrepancies predicted positively behavioural disengagement and negatively active coping and planning during the course of the competition.

Most studies on coping tend to ask participants to recall a stressful situation and indicate the extent to which various coping strategies were employed. Folkman and Lazarus (1985) point out that this paradigm, despite being useful, makes it difficult to control the characteristics of the event with which participants are coping. Folkman and Lazarus went on to suggest that one way to overcome this problem is to choose a particular situation to which participants are exposed and examine coping responses in relation to that situation. Folkman and Lazarus’s (1985) suggestions were endorsed in this study.

In summary, the purpose of the present study was to investigate self-reported coping strategies under conditions of higher and lower goal attainment expectancies. For that purpose, two groups were created: one pursuing an attainable goal and one pursuing an unattainable goal. It was hypothesized that individuals in the higher goal attainment expectancies condition (attainable goal) would display more approach coping strategies (effort increase, planning and self-talk) than individuals in the lower goal attainment expectancies condition (unattainable goal), who would display more avoidance coping strategies (mental disengagement, behavioural disengagement and denial) than individuals in the higher goal attainment expectancies condition.

**Methods**

**Participants**

Twenty-four male physical education and sport science students aged 20.3 ± 0.8 years (mean ± s) volunteered to participate in the study. Participants were informed about the task requirements and signed consent forms. Class credit was given for their participation. Only male participants were recruited for the study for reasons of homogeneity, as differences in the use of coping strategies have been observed between males and females (Tamres, Janicki, & Helgeson, 2002).

**Task and procedures**

The task involved two tests on a rowing machine (Concept II Indoor Rower). The first involved rowing 500 m in the fastest possible time, whereas the second involved rowing 3000 m for which a time target was set for each participant. During the task, participants were able to observe on a screen in front of them time elapsed, distance covered and rowing tempo (minutes plus seconds/500 m).

At the outset, participants were given instructions about the requirements of the experiment. They were informed that all information would be confidential and were asked to follow the instructions that would be given for each part of the procedure. Subsequently, they were shown how to use the rowing machine and an experienced research assistant demonstrated how they should row. In addition, the screen displays (time, distance and tempo) were explained. Each participant practised for 5 min to warm up and become familiar with the task. During this time a research assistant asked them to follow several different tempos, and they were also asked questions about time elapsed and distance covered to ensure that they had understood and could read the screen displays. After warming up, participants rested for 5 min. For the initial test, participants were asked to cover 500 m in the fastest possible time. The purpose of the initial test was to calculate individual goals for the second test. On completing the initial test, participants’ time and heart rate were recorded.

At this point, participants were randomly assigned to two performance groups. There were no significant differences between the groups in time to complete the first trial ($F_{1,21} = 0.57, P = 0.46$) or in heart rate at the conclusion of the first trial ($F_{1,21} = 0.23, P = 0.63$). Each group was assigned a different experimental condition. Depending on the time of the initial test and the condition, a target time was calculated for each participant for the second test (3000 m). The aim was to create two groups of increasing and decreasing goal attainment expectancies, but which would not differ in their pre-task goal attainment expectancies. In the first condition, the targeted time was the time of the initial 500 m test multiplied by six (to correspond to the length of the second test: 500 m × 6 = 3000 m), multiplied by 115% (to allow adjustment of pace for the length of the second test), and was unattainable. For the second condition, the targeted time was the time of the initial 500 m test multiplied by six, multiplied by...
135%, and was attainable. The choice of the formula for the second trial target was based on previous pilot measures.

Participants were allowed 20 min to rest before undertaking the second trial. Subsequently, to elevate importance and anxiety levels beyond the difficulty of the task, they were informed that class credit would be given depending on their performance on the next test. Before undertaking the second test, they were reminded of their time for the initial test and were informed of the target time for the second trial, both as an absolute time (minutes plus seconds) and as an average tempo (minutes plus seconds 500 m). Finally, before the start of the second trial, participants completed the Mental Readiness Form (Krane, 1994) and the goal attainment expectancies item, and were reminded that during the task they would be asked to respond to a question (‘To what degree do you believe you are going to achieve your goal?’) on two occasions while rowing.

During the task, participants rated their goal attainment expectancies at 1000 m and 2000 m, while heart rate (monitored by Polar watch; Polar S610™, Electro Oy, Finland) and tempo (monitored on the screen display) were recorded at 2000, 2500 and 3000 m. After completing the task, the participants were allowed 5 min to recover and then completed the coping questionnaire referring to coping strategies they used after the 2000 m split. The 2000 m split was selected because by that point the differences in goal attainment expectancies due to the manipulation should have emerged. At the end of the procedure, the participants were thanked for their participation and were asked not to discuss the experiment with anyone else. Each participant was tested separately and the whole procedure lasted approximately 60 min. All participants completed the required tasks. All participants in the attainable goal group achieved their goal, whereas all participants in the unattainable goal group failed to achieve their goal.

At the time of the experiment, participants were blind to the experimental conditions. In a meeting at the end of the experimental procedures, participants were debriefed regarding the objectives of the study. The experimental procedures and the aim of the experiment were explained, and preliminary results were presented. Finally, participants were informed that they would all get the same class credit. Ethical approval for the study was granted by the university’s research committee.

Instruments

Coping strategies. Six coping strategies, which were considered relevant, were assessed. Three referred to approach coping (effort increase, planning and self-talk) and three referred to avoidance coping (mental disengagement, behavioural disengagement and denial). The scales were adopted from the COPE (Carver, Scheier, & Weintraub, 1989), the MCOPE (Crocker & Graham, 1995) and the Test of Performance Strategies (TOPS; Thomas, Murphy, & Hardy, 1999). The instrument comprised 24 items, 4 for each coping strategy: effort (e.g. “I put in more effort”), planning (e.g. “I thought about how to handle the situation”), self-talk (e.g. “I said things to myself to help my performance”), behavioural disengagement (e.g. “I stopped trying to perform my best”), mental disengagement (e.g. “I thought about irrelevant things to stop thinking about my performance”) and denial (e.g. “I pretended nothing really happened”). Confirmatory factor analysis was conducted to test the integrity of the coping instrument, which was administered to a sport sample (n = 342), before the start of the experiment (Hatzigeorgiadis & Chroni, 2004). A six-factor model was tested. The analysis revealed that the data fit the model adequately in accordance with Hu and Bentler’s (1999) contemporary criteria for fit assessment (χ² 237 = 392.12, non-normed fit index = 0.94, comparative fit index = 0.95, incremental fit index = 0.95, standardized root mean squared residual = 0.05, root mean squared error of approximation = 0.04). Correlations between the subscales ranged from 0.01 to 0.66. For the purposes of the present study, participants were asked to respond, on a 5-point scale (1 = “not at all”, 5 = “very much”), to what degree they used the listed strategies after the 2000 m split.

Manipulation check. Two measures were administered to assess the salience of the conditions. To provide indications of whether the conditions induced adequate levels of anxiety, the Mental Readiness Form (Krane, 1994) was administered. Participants were asked to indicate on a 7-point scale their cognitive and somatic anxiety just before the final test. Moderate levels of anxiety were sought to ensure that participants had understood the demands of the situation and were reasonably engaged. To check the effectiveness of the manipulation, goal attainment expectancies were assessed. For that purpose a single-item measure was used, because participants had to reply before as well as during the task. The item was adopted by Jones and Hanton (1996), who similarly assessed goal attainment expectancies. Participants were asked to respond to what extent they believed they were going to achieve their goal on a 7-point scale (1 = “not at all”, 7 = “very much”).

Additional measures. Two additional measures were conducted for purposes of control. First, heart rate
measured by a Polar watch (Polar S610™, Electro Oy, Finland) was recorded at the end of the initial test, as well as at the 2000, 2500 and 3000 m splits of the final test. Second, rowing tempo was recorded at the 2000, 2500 and 3000 m splits of the final test.

Results

Preliminary analysis – manipulation check

Descriptive statistics for the two groups are presented in Table I. Based on the Mental Readiness Form, it was revealed that in accordance with our intentions moderate levels of anxiety were induced. One-way multivariate analysis of variance (MANOVA) revealed that anxiety did not differ significantly between the two conditions ($F_{2,21} = 0.61, P = 0.55$).

Two groups of goal attainment expectancies were desired. As stated in the Methods, the aim was for the two groups not to differ in their initial goal attainment expectancies. As the task progressed, however, one group would form higher goal attainment expectancies, whereas the other would form lower goal attainment expectancies. Repeated-measures analysis of variance (ANOVA) was conducted to determine whether the progress of goal attainment expectancies was different for the two groups. The analysis revealed a significant group × time interaction ($F_{2,21} = 6.13$, $P < 0.01, \eta^2 = 0.37$). To further examine the nature of the interaction within participants, analyses were performed for each group separately. The analysis for the high goal attainment group revealed that goal attainment expectancies did not change significantly from pre-task to 1000 m ($F_{1,11} = 0.0, P = 1.0$) or from 1000 m to 2000 m ($F_{1,11} = 0.29, P = 0.60$). The analysis for the low goal attainment group revealed that goal attainment expectancies decreased significantly from pre-task to 1000 m ($F_{1,11} = 5.18, P < 0.05, \eta^2 = 0.32$) and from 1000 m to 2000 m ($F_{1,11} = 5.50, P < 0.05, \eta^2 = 0.33$). The interaction effect for goal attainment expectancies is presented in Figure 1. Follow-up MANOVA was calculated to further examine the differences in goal attainment expectancies between the two groups at the three time points. Considering the limited size of the sample and to improve power, a significance level of 0.1 was used. Furthermore, Cohen’s effect size ($D$) was calculated to assess magnitude of effect. The results revealed a significant multivariate effect ($F_{3,20} = 23.97$, $P < 0.01, D = 0.78$). Examination of the univariate effects indicated that there were no significant differences in the pre-task assessment ($F_{1,22} = 0.14, P = 0.71, D = 0.16$); however, significant differences were detected for the 1000 m and 2000 m assessments ($F_{1,22} = 12.57$, $P < 0.01$, $D = 1.18$, and $F_{1,22} = 31.82$, $P < 0.01$, $D = 1.50$, respectively).

Overall, the manipulation of goal attainment expectancies was deemed successful.

Main analysis

One-way MANOVA was conducted to test for differences in coping strategies between the two goal attainment expectancies groups. The analysis

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Table I. Descriptive statistics for the two goal attainment expectancies (GAE) groups (mean ± s).

<table>
<thead>
<tr>
<th>Coping strategies</th>
<th>High GAE</th>
<th>Low GAE</th>
</tr>
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<tbody>
<tr>
<td>Effort increase (0.89)</td>
<td>3.90 ± 0.70</td>
<td>3.06 ± 0.82</td>
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<tr>
<td>Planning (0.90)</td>
<td>3.75 ± 1.09</td>
<td>3.33 ± 0.89</td>
</tr>
<tr>
<td>Self-talk (0.92)</td>
<td>3.38 ± 1.45</td>
<td>3.23 ± 1.01</td>
</tr>
<tr>
<td>Behavioural disengagement (0.73)</td>
<td>1.44 ± 0.53</td>
<td>2.00 ± 0.55</td>
</tr>
<tr>
<td>Mental disengagement (0.84)</td>
<td>1.77 ± 0.97</td>
<td>2.60 ± 0.99</td>
</tr>
<tr>
<td>Denial (0.64)</td>
<td>1.89 ± 0.74</td>
<td>1.75 ± 0.74</td>
</tr>
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<table>
<thead>
<tr>
<th>Mental Readiness Form</th>
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<tbody>
<tr>
<td>Cognitive anxiety</td>
<td>4.50 ± 1.31</td>
<td>4.67 ± 1.15</td>
</tr>
<tr>
<td>Somatic anxiety</td>
<td>4.50 ± 1.00</td>
<td>4.25 ± 0.75</td>
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<tr>
<th>Goal attainment expectancies</th>
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<tbody>
<tr>
<td>Pre-task</td>
<td>5.00 ± 0.85</td>
<td>4.83 ± 1.27</td>
</tr>
<tr>
<td>1000 m</td>
<td>5.00 ± 0.95</td>
<td>3.00 ± 1.71</td>
</tr>
<tr>
<td>2000 m</td>
<td>5.33 ± 1.50</td>
<td>2.33 ± 1.07</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Heart rate</th>
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<tbody>
<tr>
<td>2000 m</td>
<td>181.50 ± 11.79</td>
<td>182.92 ± 6.27</td>
</tr>
<tr>
<td>2500 m</td>
<td>187.33 ± 11.95</td>
<td>184.92 ± 7.80</td>
</tr>
<tr>
<td>3000 m</td>
<td>194.08 ± 8.10</td>
<td>188.42 ± 8.91</td>
</tr>
</tbody>
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<table>
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<tr>
<th>Tempo</th>
<th></th>
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<tbody>
<tr>
<td>2000 m</td>
<td>132.00 ± 8.99</td>
<td>130.00 ± 9.89</td>
</tr>
<tr>
<td>2500 m</td>
<td>129.75 ± 7.03</td>
<td>132.00 ± 10.06</td>
</tr>
<tr>
<td>3000 m</td>
<td>121.33 ± 6.15</td>
<td>130.08 ± 12.87</td>
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Note: Cronbach’s alpha for the coping subscales is shown in parentheses.
revealed a significant multivariate effect ($F_{6.17} = 2.47, P < 0.1, \eta^2 = 0.47$, power = 0.80). Examination of the univariate effects revealed significant differences for effort ($F_{1.22} = 7.15, P < 0.05, D = 0.98$, power = 0.83), behavioural disengagement ($F_{1.22} = 6.41, P < 0.05, D = 0.93$, power = 0.79) and mental disengagement ($F_{1.22} = 4.29, P = 0.05, D = 0.79$, power = 0.64). A non-significant but considerable effect was identified for planning ($F_{1.22} = 1.05, P = 0.31, D = 0.42$, power = 0.26). The effects for self-talk and denial were smaller and non-significant ($F_{1.22} = 0.08, P = 0.78, D = 0.12$, power = 0.06 and $F_{1.22} = 0.25, P = 0.62, D = 0.20$, power = 0.08, respectively). Participants in the high goal attainment expectancies group scored higher on effort and planning, and lower on behavioural and mental disengagement, than the low goal attainment expectancies group.

Supporting analysis

Two further groups of analyses were conducted to cross-check participants’ reports regarding the coping strategies, and in particular effort increase and behavioural disengagement. The first involved heart rate measures recorded during the task, at 2000, 2500 and 3000 m. A repeated-measures ANOVA revealed a significant group effect was identified for planning ($F_{1.11} = 2.29, P = 0.16$), but increased significantly from 2500 to 3000 m ($F_{1.11} = 22.54, P < 0.01$, $\eta^2 = 0.67$). The analysis for the low goal attainment group revealed that tempo did not change significantly from 2000 to 2500 m ($F_{1.11} = 1.83, P = 0.20$) or from 2500 to 3000 m ($F_{1.11} = 1.52, P = 0.24$). Overall, for the high goal attainment expectancy group the tempo increased, whereas for the low goal attainment group the tempo remained stable. The interaction is apparent in Figure 3. In summary, the results of these additional measures supported the results of self-reports regarding coping responses.

Discussion

The present study examined approach and avoidance coping as a function of goal attainment expectancies in young men. The results revealed that the higher goal attainment expectancies group reported more...
approach and less avoidance coping than the lower goal attainment group. In relation to the examined coping dimensions, it was revealed that significant differences between the two expectancy groups were identified for effort increase, mental and behavioural disengagement, and a non-significant but considerable effect for planning. In particular, participants in the higher goal attainment group scored higher on effort and planning, and lower on mental and behavioural disengagement, than participants in the lower goal attainment group. Despite the lack of differences for the self-talk and denial dimensions, the coping patterns were clear, especially in the case of effort, where the high expectancies group scored higher on effort increase, whereas the low expectancies group scored higher on behavioural disengagement. The results of the study are in line with Carver and Scheier’s (1988) control process model of behaviour regarding the role of goal attainment expectancies in relation to coping responses to stressful situations. Carver and Scheier (1988) suggested that in stressful situations, beliefs that effort can lead to the desired outcome will foster an increase in effort. Individuals who expect to be able to cope with the situation at hand, and who are confident of being able to complete the task, respond with renewed effort. In contrast, beliefs that no amount of effort is likely to produce the desired outcome will lead to impulses to disengage from the activity either mentally or behaviourally.

Nevertheless, it should be noted that despite the between-participant differences that were identified in the present study, participants in the lower goal attainment group scored moderately on the approach coping strategies and moderately to low on the avoidance coping strategies, which indicates that they did not totally disengage. In terms of disengagement, adoption of a within-participants design would have provided more precise evidence. Furthermore, the role of the contingent to performance credit, which was presented to raise the importance of the experimental conditions, should be considered. In particular, participants were informed that class credit would be given depending on their performance. It is possible that levels of withdrawal were moderated because participants could still gain some credit depending on how they performed. In the light of this possibility, the considerable effect regarding disengagement seems to be further strengthened.

The results are comparable to those of Duval et al. (1992), who conducted a similar study employing cognitive tasks. They used verbal feedback to manipulate discrepancy between performance and goal, but also progress towards the goal, and reported that persistence and effort depended on the rate of progress in relation to discrepancy. In the present study, progress towards the goal depended on discrepancy and participants were able to monitor the rate of their progress towards the goal by themselves. Individuals in the attainable goal group perceived their progress towards the goal as adequate and reported greater increased effort during the latter part of the task, whereas participants in the unattainable goal group perceived their progress as inadequate and reported greater disengagement (both mental and behavioural).

Similar findings have been reported in sport by Gaudreau et al. (2002), who assessed discrepancies between goal and performance, but not goal attainment expectancies. In a field study with golfers they calculated goal-performance discrepancies by subtracting the target score (assessed before the start of a tournament) from the score obtained after the 18-hole competition. Goal-performance discrepancies positively predicted behavioural disengagement and negatively predicted active coping and planning during the course of the competition. Also in the sport setting, Hartzig and Biddle (2001) examined the relationship between in-competition worry and effort input. Goal attainment expectancies were found to be a significant moderator of the relationship. In particular, for the high expectancy group, worry positively predicted effort, whereas for the low expectancy group, worry negatively predicted effort.

Carver et al. (1989) suggested that avoidance coping is likely to occur when individuals perceive that approach coping will not alter the outcome of the situation. When individuals are not in a position to attain their goal, persistence can lead to perceptions of helplessness, which may have detrimental effects on perceived ability and self-esteem. Furthermore, Kaisidis-Rodafinos, Anshel and Porter (1997) supported the notion that avoidance coping may be more effective than approach coping in reducing stress. Nevertheless, one should be aware that avoidance coping restrains more active ways of coping (Aldwin & Revenon, 1987). Lazarus and Folkman (1984) suggested that coping effectiveness should be examined in relation to both short- and long-term outcomes. According to Carver et al. (1989), avoidance coping strategies can be effective in the short term, but can prove dysfunctional if they are used extensively. In line with Carver and colleagues’ assumptions, Kim and Duda (2003) reported that approach and avoidance coping strategies were perceived by athletes to be effective immediately in the competitive context. However, approach coping was positively correlated with parameters related to long-term involvement, such as satisfaction, enjoyment and desire to continue, whereas avoidance coping was negatively correlated. The present study showed that pursuing unattainable goals was related to avoidance coping. Thus, ideally, in exercise and sport settings, carefully selected
attainable goals should be sought, so that more adaptive approach coping strategies are adopted.

More contemporary research has addressed the issue of disengagement. Carver and Scheier (1990, 1998) highlighted the role of commitment. They argued that reducing attempts towards goal attainment while remaining committed to the goal generates distress. In contrast, disengaging from commitment to the goal and from further attempts towards goal attainment should not have distressing effects. Wrosch, Scheier, Carver and Schulz (2003) considered that some goals are out of reach irrespective of investment in effort. In such instances they argued that disengagement is a potentially adaptive response if alternative goals are sought instead, or commitment to other goals increases, because disengagement from unattainable goals releases additional resources for the attainment of other goals. Future research in sport should consider these advances and further explore coping responses in relation to commitment and the importance of goals.

The present study examined coping strategies in young men as a function of goal attainment expectations in relation to specific performance goals. It should be acknowledged that the adoption of a between-participants design limited the examination of individual variability in the use of coping strategies. Considering the important role of individual differences in the adoption of coping strategies, the use of within-participants designs in future research will provide further information, for example, of levels of disengagement from goal attainment. Furthermore, it should be stressed that in the manipulation context, the goals were set by the experimenters. Studies to confirm the present findings in female populations should be considered.

Moreover, research is warranted in an attempt to replicate the present results in field studies and to strengthen the ecological validity of the findings. Finally, an examination of coping in relation to several types of goals (outcome, performance, process) set by performers would enhance our understanding of goal-related coping processes.

References


