An investigation of the five-factor model of personality and coping behaviour in sport

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Abstract
Coping strategies are important for performance in sport and individual differences may contribute to the coping strategies adopted by athletes. In this study, we explored the main and interactive effects of the big five personality dimensions on sport-related coping and compared personality profiles of discrete groups of athletes. Altogether, 253 athletes (mean age 21.1 years, s = 3.7) completed the NEO-FFI (Costa & McCrae, 1992), and the Coping Function Questionnaire for Sport (Kowalski & Crocker, 2001). Results showed that extraverted athletes, who were also emotionally stable and open to new experiences (a three-way interaction effect), reported a greater use of problem-focused coping strategies. Conscientious athletes (main effect), and athletes displaying high levels of extraversion, openness, and agreeableness (a three-way interaction effect), reported a greater use of emotion-focused coping strategies, and athletes with low levels of openness, or high levels of neuroticism (main effects), reported a greater use of avoidance coping strategies. Different personality characteristics were observed between higher-level and lower-level athletes, between men and women athletes, and between individual and team sport athletes. These findings suggest that the five-factor model of personality can help distinguish various levels of athletic involvement and can help identify the coping strategies athletes are likely to adopt during participation.

Keywords: Sport psychology, five-factor model, NEO-FFI, multiple regression, interaction effects

Introduction
When athletes participate in competitive sport, their underlying personality characteristics inevitably contribute to how they behave. Personality has been defined as “psychological qualities that contribute to an individual’s enduring and distinctive patterns of feeling, thinking and behaving” (Cervone & Pervin, 2010, p. 8). A consensus has emerged among trait theorists regarding a five-factor model of personality (Costa & McCrae, 1992; McCrae & Costa, 2003). The five-factor model provides a dimensional account of the structure of personality. It is a hierarchical model, where more specific personality facets are classified under each trait dimension. The five dimensions are extraversion, neuroticism, openness, agreeableness, and conscientiousness. The extraversion dimension distinguishes between those who are introverted (unsociable, quiet, and passive) and those who are extraverted (sociable, outgoing, and active); the neuroticism dimension distinguishes those who possess emotional stability (calm, controlled, and even-tempered) from those who are emotionally unstable (anxious, hostile, and irritable); the openness dimension distinguishes between those who are open to new experiences (curious, creative, and imaginative) and those who like the familiar (conventional, uncreative, and unimaginative); the agreeableness dimension distinguishes between those who are compassionate (good-natured, unselfish, and forgiving) and those who tend to antagonize (cynical, rude, and uncooperative); and the conscientiousness dimension distinguishes those who are conscientious (organized, punctual, and hardworking) from those who are lackadaisical (unreliable, lazy, and careless).

Much research in competitive sport has focused on identifying personality differences across diverse populations of athletes and non-athletes. Although contentious, it has been shown that athletes tend to have higher levels of extraversion and lower levels of neuroticism than normative samples (Egan &
Coping has been identified as relevant in many athletic contexts and coping strategies have been shown to play an important role in sport performance (Gaudreau, Nicholls, & Levy, 2010; Nicholls & Polman, 2007; Nicholls, Polman, & Levy, 2010). Coping has been defined as constantly changing cognitive and behavioural efforts to manage specific internal or external demands (Lazarus & Folkman, 1984). In competitive sport, research has linked coping behaviour with specific components of personality, including trait anxiety (Barrell & Terry, 2003; Cresswell & Hodge, 2004), dispositional optimism (Nicholls, Polman, Levy, & Backhouse, 2008), and mental toughness (Kaiseler, Polman, & Nicholls, 2009; Nicholls et al., 2008). However, currently little is known of the relationship between higher-order personality dimensions and sport-related coping. Outside the domain of competitive sport, a large body of research has linked coping behaviour with the five dimensions of personality (Carver & Connor-Smith, 2010; Connor-Smith & Flachsbart, 2007). In short, this research suggests that higher levels of extraversion and conscientiousness are associated with more problem-focused coping (coping directed towards resolving the problem itself, such as expending more effort, seeking support, and re-analysing past experiences), whereas higher levels of neuroticism are associated with both emotion-focused coping (coping by ventilating, managing, or palliating emotions) and avoidance coping (removing oneself mentally or physically from the stressor).

Other research has used a typological approach to explore specific combinations of personality dimensions and their relationship with coping responses. Vollrath and Torgersen (2000) explored eight “personality types” characterized by different combinations of extraversion, neuroticism, and conscientiousness. They found that problem- and emotion-focused coping strategies could be predicted by the combined effects of these traits. In particular, of the eight combinations explored, those combining high extraversion with high conscientiousness were associated with greater problem- and emotion-focused coping, whereas those combining high neuroticism with low conscientiousness were associated with lower problem-focused coping. Others have suggested that interaction effects featuring openness and agreeableness might also be important for stress and coping (Grant & Langan-Fox, 2006; Rovik et al., 2007). Grant and Langan-Fox (2006) found an important interaction between neuroticism and conscientiousness (high neuroticism–low conscientiousness) in predicting dysfunctional coping, and also an important interaction between neuroticism and agreeableness (high neuroticism–low agreeableness) in predicting job dissatisfaction.

Past research has tended to explore personality dimensions either independently or interactively (cf. Brebner, 2001; Vollrath & Torgersen, 2000). Thus, it remains unclear whether coping is predicted more adequately by the five personality dimensions independently or by specific combinations of the five dimensions. It is important to clarify the interactive contribution of personality dimensions, as neglect of this contribution may leave psychologists with an
incomplete (or inaccurate) picture of how athletes’ personality relates to the coping strategies adopted during competition.

The main aim of this study was to explore whether the interaction of personality dimensions provides a better approximation of coping responses than the five personality dimensions assessed independently. In contrast to previous work, which included only a selection of three-way interaction typologies, the present study sought to examine all possible main and interaction effects in regression analyses. We chose to examine all possible interaction effects since the combined effects of neuroticism, extraversion, and conscientiousness are still unclear (Røvik et al., 2007) and recent suggestions that interactions featuring agreeableness and openness might also be important for stress and coping (Grant & Langan-Fox, 2006). In addition, we also took the opportunity to build on early research into population-based differences (e.g. Johnson & Morgan, 1981; Lackie, 1962) by comparing personality profiles of male vs. female athletes, team sport vs. individual sport athletes, and high-level vs. low-level athletes. Understanding population-based differences has implications for the design and implementation of interventions within these populations.

Methods

Participants

Altogether, 253 athletes (187 men, 66 women) were recruited to take part in this study. Participants competed in a total of 34 different sports and at a variety of different levels, including university (n = 21), club (n = 90), regional (n = 89), national (n = 27), and international (n = 13). Participants had a mean age of 21.1 years (s = 3.7) and had been involved in their sport for an average of 10.4 years (s = 5.1).

Measures

Personality. Personality was assessed using the NEO-Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992). This 60-item self-report measure assesses five personality dimensions of extraversion, neuroticism, openness, agreeableness, and conscientiousness. Participants were required to indicate, on a 5-point scale (strongly disagree, disagree, neutral, agree, strongly agree), whether the statement was true of them. The NEO-FFI has shown adequate levels of validity and reliability across a range of diverse populations (see McCrae & Costa, 2004). Although validation of a newer NEO-FFI-3 scale has been published (McCrae & Costa, 2007), this questionnaire is not currently available to researchers, and the authors have encouraged researchers to continue using the original NEO-FFI until further validation work has been done on the NEO-FFI-3. Reliability coefficients for the current study sample are reported in Table I.

Coping. Athletes’ coping behaviour was assessed using the Coping Function Questionnaire for Sport (CFQ; Kowalski & Crocker, 2001). This 18-item self-report measure assesses three broad coping dimensions: avoidance-focused coping, emotion-focused coping, and problem-focused coping. Participants were instructed to complete this measure in relation to how they typically respond in competitive sport, rather than how they would like to respond or how they think they should respond to pressure. Responses were provided on a 5-point scale (not at all, a little, somewhat, quite a bit, very much). Although the questionnaire has only been validated in youth sport participants (age 14–18 years; Kowalski & Crocker, 2001), it has been adopted for adult samples (Hanton, Neil, Mellalieu, & Fletcher, 2008), and the use of simple language and few items make the questionnaire appropriate for a variety of athletic populations. Reliability coefficients are reported in Table I.

Procedure

Ethics approval was received from a university ethics committee. Before completing the questionnaires, all athletes provided informed consent and were informed that all answers provided would remain anonymous. Instructions on how to complete the two sets of questionnaires were provided both orally and in written format, and athletes were encouraged to ask questions if they found any of the items unclear or required clarification. Questionnaires were completed where no observable distractions were present. The questionnaires took approximately 20 min to complete and participants did not receive any compensation for taking part in the study. However, as many participants expressed an interest in their personality scores, they were provided with the contact details of the first author to request a breakdown of their individual personality profiles once the data had been collated.

Analyses

One-way multivariate analyses of variance (MANOVAs) were used to identify personality differences across involvement categories in sport. Discriminant function analysis has been proposed as a useful follow-up computation to MANOVA (Tabachnick &
Since it is mathematically equivalent and provides structure (loading) coefficients for each dependent variable. Coefficients above 0.30 are generally considered as contributing meaningfully to the multivariate effect (Pedhazur, 1997, p. 704). Levene’s test of equality of variance was computed for each MANOVA. In all cases, error variances for dependent variables were equal across groups (all \( P > 0.05 \)).

Past research has tended to use cluster analyses or latent classes analyses to identify important personality interactions (the “typological” approach). However, this approach has been criticized for its reduced statistical power and loss of information on continuous data (Irwin & McClelland, 2003; Pittenger, 2004). Accordingly, sequential linear regression analyses were used to explore the main and interactive effects of personality dimensions on coping behaviour. Coping dimensions (emotion-focused coping, problem-focused coping, and avoidance coping) were specified as dependent variables, and independent variables (personality main and interaction effects) were entered into the regression equation in a four-step design. Demographic variables (sex, age, sport type, and years of experience) were added at Step 1, with the five personality dimensions added at Step 2. Two-way interaction effects were added at Step 3 and three-way interaction effects at Step 4. Higher-order interactions were not explored given the difficulties associated with interpretation. In addition, the three-way interactions were also explored without two-way interaction effects included in the model. Similar effects were shown and we report those for the full four-step model.

Interaction terms were computed from standardized scores of personality dimensions. When a significant interaction is identified, it is common to further explore the effect to better understand the structure of the relation. Significant interaction effects were depicted and regions of significance (Preacher, Curran, & Bauer, 2006) were computed to identify the precise value of the modifying variable when the independent variable becomes significant. Because analyses were exploratory, individual regression coefficients (rather than the significance of the increment) were used to identify salient variables. In addition, collinearity diagnostics were computed to ensure the regression analyses were not affected by high correlations between personality main and interaction effects. In all cases, variance inflation factors and associated tolerance values were well within acceptable ranges (see Table II). For each analysis, the data were also checked for multivariate outliers using Cook’s distance. A case was considered a potential outlier if the Cook’s distance value was markedly higher than the rest of the cases. Data were explored both with and excluding outliers (a sensitivity analysis) to check on the robustness of results. Alpha was set at 0.05 throughout.

**Results**

Initial data screening showed that all variables met assumptions of normality (all skewness and kurtosis values were less than ±1.00). Descriptive statistics are reported in Table I. In general, mean scores on extraversion appeared higher, and scores on conscientiousness somewhat lower, than typically reported in normative (non-athletic) populations (Costa & McCrae, 1992).

**Personality across involvement categories**

A one-way MANOVA was computed to identify any differences on personality dimensions between those competing in individual sports (\( n = 58 \)) and those competing in team sports (\( n = 195 \)). The overall MANOVA was significant (\( F_{5,247} = 4.54, P < 0.01, \eta^2 = 0.08 \)). Follow-up discriminant function analysis was computed to identify salient variables (structure coefficients ≥ 0.30). Compared
with team sport athletes, individual sport athletes demonstrated higher levels of conscientiousness (structure coefficient = 0.68) and openness (structure coefficient = 0.30), and lower levels of extraversion (structure coefficient = —0.41) and neuroticism (structure coefficient = —0.39). A second MANOVA was computed to identify any sex differences on personality dimensions. Again, the MANOVA was significant (F5,247 = 6.80, P < 0.01, η2 = 0.12). Follow-up discriminant function analysis demonstrated that, compared with men, women reported higher levels of neuroticism (structure coefficient = 0.46), agreeableness (structure coefficient = 0.46), and conscientiousness (structure coefficient = 0.42). A final MANOVA was computed to identify any personality differences between higher-level (competing at national and international level) and lower-level (competing at university and club level) athletes. The overall MANOVA was significant (F5,145 = 2.71, P < 0.05, η2 = 0.09). Follow-up discriminant function analysis indicated that higher-level athletes had lower levels of neuroticism (structure coefficient = 0.85), and higher levels of conscientiousness (structure coefficient = —0.57) and agreeableness (structure coefficient = —0.31), than lower-level athletes.

### Personality and coping

#### Problem-focused coping

At Step 1, demographic variables (age, sex, experience, sport) did not predict problem-focused coping (R2adj = 0.019). The inclusion of the five personality dimensions at Step 2 (R2adj = 0.036) showed a significant effect for extraversion only (β = 0.15, P < 0.05). The positive regression coefficient indicates that higher levels of extraversion were associated with more problem-focused coping. No significant two-way interaction effects were shown at Step 3 (R2adj = 0.038). The inclusion of three-way interaction effects at Step 4 (R2adj = 0.046) showed a significant effect for the interaction of extraversion, neuroticism, and openness (β = —0.21, P < 0.05). The form of this

### Table II. Summary of regression analyses.

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<td>Neuroticism (N)</td>
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<td>0.297**</td>
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<td>Extraversion (E)</td>
<td>0.154*</td>
<td>0.024 (0.010)</td>
<td>0.030</td>
<td>0.005 (0.010)</td>
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<td>—0.017 (0.010)</td>
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<td>Openness (O)</td>
<td>0.086</td>
<td>0.014 (0.010)</td>
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<td>0.017 (0.010)</td>
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<td>Agreeableness (A)</td>
<td>—0.038</td>
<td>—0.005 (0.010)</td>
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<td>Conscientiousness (C)</td>
<td>0.041</td>
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Note: Demographic variables (controlled for at Step 1) are not included in the summary table. For problem-focused coping, Step 2 R2adj = 0.036, Step 3 R2adj = 0.038, and Step 4 R2adj = 0.046. For emotion-focused coping, Step 2 R2adj = 0.033, Step 3 R2adj = 0.027, and Step 4 R2adj = 0.046. For avoidance coping, Step 2 R2adj = 0.124, Step 3 R2adj = 0.111, and Step 4 R2adj = 0.112. *P < 0.05, **P < 0.01.
interaction is depicted in Figure 1. Because a significant main effect was shown for extraversion at Step 2, extraversion was specified as the moderating variable in computations, with openness designated as the independent variable. At low levels of extraversion (1 standard deviation below the mean), there was no significant region of significance for the interaction of neuroticism and openness. At high levels of extraversion (1 standard deviation above the mean), openness was non-significant between –4.84 and –0.13 standard deviations in the level of neuroticism. Thus, at low levels of extraversion, openness and neuroticism are unimportant for problem-focused coping. However, at high levels of extraversion, people who display both emotional stability and an openness to new experiences are more likely to adopt problem focused-coping strategies. The extraversion main effect did not remain significant at Step 4. A sensitivity analysis involving the removal of two potential outliers produced a similar pattern of results but with slightly stronger effects evident for extraversion (β = 0.17, P < 0.01) and the three-way interaction effect (β = −0.24, P < 0.01).

Emotion-focused coping. At Step 1, demographic variables were not predictive of athletes’ emotion-focused coping strategies ($R_{adj}^2 = 0.015$). The inclusion of personality dimension main effects at Step 2 ($R_{adj}^2 = 0.033$) revealed a significant effect for conscientiousness only (β = 0.19, P < 0.01). The positive regression coefficient indicates that high levels of conscientiousness were associated with more emotion-focused coping strategies. The inclusion of two-way interaction effects at Step 3 showed no significant effects ($R_{adj}^2 = 0.027$). The inclusion of three-way interaction effects at Step 4 ($R_{adj}^2 = 0.046$) showed a significant effect for the interaction of extraversion, openness, and agreeableness (β = 0.24, P < 0.01). The form of this interaction is depicted in Figure 2. Consistent with analyses on problem-focused coping, and because no significant interaction was shown with conscientiousness, extraversion was set as the moderating variable with openness set as the independent variable. At low levels of extraversion (1 standard deviation below the mean), openness was non-significant between –2.19 and 7.43 standard deviations of the mean on agreeableness. At high levels of extraversion (1 standard deviation above the mean), openness was non-significant between –3.64 and 0.34 standard deviations in the level of agreeableness. Thus, at low levels

Figure 1. Three-way interaction plot for the relationship between problem-focused coping and openness to new experiences, for those emotionally unstable (solid line) and those emotionally stable (dashed line), at 1 standard deviation above the mean for extraversion (a) and 1 standard deviation below the mean for extraversion (b).

Figure 2. Three-way interaction plot for the relationship between emotion-focused coping and openness to new experiences, for high (solid line) and low (dashed line) levels of agreeableness, at 1 standard deviation above the mean for extraversion (a) and 1 standard deviation below the mean for extraversion (b).
of extraversion the interaction between openness and agreeableness is relatively unimportant. However, at high levels of extraversion, people who are both compassionate and show an openness to new experiences are more likely to adopt emotion-focused coping strategies. The conscientiousness main effect remained significant at Step 4 ($\beta = 0.20$, $P < 0.01$). A sensitivity analysis involving the removal of one potential outlier produced a similar pattern of results.

**Avoidance coping.** At Step 1, demographic variables were not predictive of avoidance coping behaviour ($R^2_{adj} = 0.008$). The inclusion of personality main effects at Step 2 ($R^2_{adj} = 0.124$) showed a significant effect for both neuroticism ($\beta = 0.33$, $P < 0.01$) and openness ($\beta = -0.14$, $P < 0.05$). The regression coefficients indicate that higher levels of emotional instability and lower levels of openness were associated with more avoidance coping behaviour. The inclusion of two-way interaction effects at Step 3 showed no significant effects ($R^2_{adj} = 0.111$), as did the inclusion of three-way interaction effects at Step 4 ($R^2_{adj} = 0.112$). The removal of one potential outlier produced similar results.

**Discussion**

In this study, we sought to explore the main and interactive effects of personality dimensions on athletes’ reported coping styles, and to compare personality profiles of discrete groups of athletes. Our findings outline specific dimensions of personality (and their interaction) as important for the types of coping strategies adopted by athletes and implicate all five dimensions of personality as important for distinguishing various levels of athletic involvement.

**Main and interactive effects of personality dimensions on coping**

The relationship between higher-order personality dimensions and coping has received little attention in the domain of competitive sport. The finding that extraverted athletes (athletes with a preference for social interactions) use more problem-focused coping is consistent with research conducted in non-athletic populations (Connor-Smith & Flachsbart, 2007). However, we also saw that problem-focused coping was better predicted by the interaction of extraversion with neuroticism and openness. Specifically, extraverted athletes were more likely to adopt problem-focused coping strategies if they were also emotionally stable and open to new experiences. Someone who falls into this category would be socially skilled, cool headed, and happy to try new things. This finding bears some resemblance to those of Vollrath and Torgersen (2000), who found that the relationship between extraversion and problem-focused coping depended on specific combinations of other personality dimensions. In particular, that extraversion reinforces the positive effects of low neuroticism. Our findings agree with this contention but also suggest that this may only be the case when openness is relatively high. Thus, extraverted/emotionally stable people who prefer the familiar (low openness) are less likely to report problem-focused coping strategies than extraverted/emotionally stable people who are open to new experiences.

Conscientious individuals were also more likely to use emotion-focused coping strategies. This finding differs somewhat from research in non-athletic populations where conscientiousness has been shown to have a small but negative correlation with emotion-focused coping (e.g. Brebner, 2001). This finding may be explained by the nature of the coping dimension assessed. Emotion-focused coping strategies include techniques such as emotional control, relaxation, and cognitive restructuring. In the meta-analysis by Connor-Smith and Flachsbart (2007), specific emotion-based coping strategies were broken down and correlated with personality dimensions. Although expressing negative emotions was negatively related to conscientiousness (effect size $= -0.15$), emotion regulation (ES $= 0.08$) and cognitive restructuring (ES $= 0.20$) were positively associated. It could be argued that items on the CFQ more closely resemble emotion regulation and cognitive restructuring than emotional expression. If so, the positive relationship found in the current study would seem to reflect that shown in other domains. We also saw that emotion-focused coping could be further predicted by the interaction of extraversion, openness, and agreeableness. That is, extraverted athletes were more likely to use emotion-focused coping strategies if they were compassionate and open to new experiences. People in this category would generally be considered socially secure, kind, empathetic, and imaginative. It would seem reasonable that someone displaying these characteristics would cope with stress by attempting to regulate, or cognitively reinterpret, their emotions. Each of these dimensions (when assessed independently) has been shown to correlate positively with cognitive restructuring components of emotion-focused coping (Connor-Smith & Flachsbart, 2007).

Avoidance coping is generally considered the least desirable coping strategy used by athletes (Nicholls & Polman, 2007). The current findings suggest that athletes who are less open to new experiences are more likely to cope by avoiding the problem. This differs from research in non-athletic populations...
where openness tends to be unrelated to avoidance-coping behaviour (Carver & Connor-Smith, 2010). However, it would seem reasonable that athletes who prefer the familiar (low openness) would cope with stress by trying to avoid the stressor (particularly if stress is considered unfamiliar/infrequent). Our findings also show that emotionally unstable athletes use more avoidance-coping behaviour. This supports the general body of literature that has shown a strong link between disengagement/avoidance coping and neuroticism (Connor-Smith & Flachsbart, 2007).

**Personality across involvement categories in sport**

With few studies available on personality differences across discrete groups of athletes, we also explored whether the five-factor model was able to distinguish between athletes on three features (male vs. female athletes, team vs. individual sports, and high-level vs. low-level participation). The finding that women had higher levels of neuroticism, agreeableness, and conscientiousness directly mirrors that found in non-athletic populations (Feingold, 1994; Schmitt, Realo, Voracek, & Allik, 2008). Our findings also demonstrated that higher-level athletes were more conscientious, compassionate, and emotionally stable than lower-level athletes. This finding differs somewhat from early research in sport that demonstrated a link between extraversion and level of participation (Egloff & Gruhn, 1996; Kirkcaldy, 1982). Our findings do however support the suggestion that conscientiousness might be a characteristic of high-level performers, since it can act as a control or suppressor of tough-mindedness (Ogilvie, 1968).

Our data also showed that athletes participating in team sports were more extraverted and emotionally unstable, and less conscientious and open to new experiences, than those competing in individual sports. Past research has shown little difference in personality characteristics between athletes competing in diverse sports such as rowing, wrestling, and running (Morgan & Pollock, 1977), and personality scores may not be able to distinguish between individual sports. Nevertheless, the type of sport an individual participates in (team or individual) can be determined by the five dimensions of personality. Unfortunately, it is not possible to infer cause and effect when interpreting these findings. For the relationship between personality and level of participation, the largest effect size was shown on neuroticism. It is conceivable that emotionally stable athletes progress further in their sport because this is a desirable characteristic valued by coaches. It is also possible that emotional instability simply leads to a greater probability of drop-out, or that participating in sport at an elite level helps to develop an emotionally stable character. A number of hypotheses could also be generated for why team and individual sport athletes differ in personality. The most obvious suggestion is that people with certain personalities choose to take part in sports that require behaviours manifest in their personality. For instance, team sports generally involve much communication and cooperation and are therefore best suited to extraverted individuals. On the other hand, participating in team sports (and being compelled to communicate and cooperate with others) may help develop desirable personality characteristics such as extraversion. Future longitudinal research may help to shed light on the underlying causes of these group-based differences.

**Limitations and future research**

The current findings need to be considered with some caution given the large number of interaction terms entered into the regression models and the corresponding likelihood of a Type I error. Traditionally, it has been suggested that researchers use a Bonferroni-corrected alpha for multiple comparisons. However, this correction comes at the cost of substantially decreased statistical power and increased probability of making a Type II error (Nakagawa, 2004). This has led many psychologists to abandon the Bonferroni correction procedure in favour of using a standard alpha, with effect sizes the main criteria for interpreting findings. In the current study, the significant interaction effects were accompanied by a relatively small proportion of explained variance. This seems to mimic research in other domains where interaction effects only contribute minimal explained variance over personality main effects (Korotkov & Hannah, 2004; Røvik et al., 2007). It is therefore possible that the effects shown in the current study represent a false-positive finding attributable to the large number of interaction terms. Alternatively, the relatively broad conceptualization of coping may have hidden larger effects. In the current study, we chose to use broad dimensions of coping to keep dependent variables (and corresponding analyses) to a minimum. However, research has often been criticized for combining discrete coping strategies into overly broad dimensions (Connor-Smith & Flachsbart, 2007). In sport, athletes have been shown to use a number of discrete coping strategies including thought control, mental imagery, relaxation, effort expenditure, logical analysis, seeking support, and expressing emotions (Gaudreau & Blondin, 2002). Since personality can relate to specific facets of coping strategies in different ways (Connor-Smith & Flachsbart, 2007), a broad assessment method may have weakened or masked...
meanings between team and individual sport athletes, this study also show interesting personality differences across involvement categories in sport. If coaches do tend to favour certain personality characteristics (allowing people with certain personalities to progress further in their sport), this may have implications for sport teams and organizations. The personality characteristics of higher-level athletes seem to reflect those found in leaders (Judge, Bono, Ilies, & Gerhardt, 2002), and there may be an issue with having too many leaders in a group. Future research might look to explore the relationship between team success and the level of variation in group members’ personality.

Conclusions

This study has shown that higher-order personality dimensions are associated with the coping strategies adopted by athletes. Small effects were shown for extraversion on problem-focused coping, and conscientiousness on emotion-focused coping, with a large effect shown for neuroticism and openness on avoidance coping behaviour. The significant interaction effects must be considered with some caution given the heightened probability of a Type I error, but suggest that extraverted athletes, who are also emotionally stable and open to new experiences are more likely to use problem-focused coping strategies, whereas athletes displaying high levels of extraversion, openness, and agreeableness are more likely to use emotion-focused coping strategies. Data from this study also show interesting personality differences between team and individual sport athletes, between men and women athletes, and between higher- and lower-level athletes. In light of the current findings, sport psychology consultants might consider using personality tests to identify those athletes more likely to adopt undesirable coping strategies (typically avoidance coping behaviour) and identify strategies that help such athletes develop a more desirable coping response.

References


