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Australian Identity and the Effect of an Outdoor Education Program

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Author's note.

This study was supported by a grant from the Queensland University of Technology.

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Australian Identity and the Effect of an Outdoor Education Program

Abstract

In this study we investigated the relationship between adolescents' self-expressed identification with Australia and changes in measures of personal development following an outdoor education program. Social identity theory and stereotype threat theory provided a theoretical framework for the study. Three groups of high school students (high, medium, and low identification with Australia, $N = 177$) completed measures of personal effectiveness and self-concept two weeks prior to the outdoor program, immediately on completion, and eight weeks later. The high identification group made greatest gains on the personal effectiveness scale. The medium group made small gains, and the low identification group made negligible gains. For overall self-concept, gains were smaller and there was little differentiation between the groups. Maintenance of program effects over an eight week period was moderate, though disappointing when compared with previous meta-analytic results showing the effects of outdoor education program continue to increase over time. Strategies to counter the psychological discounting and disengagement processes that are typical of how individuals attempt to cope with stereotype threat are discussed.

Australian Identity and the Effect of an Outdoor Education Program

The underlying question addressed by this study is “What role does one’s cultural identity play in determining the nature of one’s educational experience?” Much research that examines cultural differences in people’s responses to a range of experiences focuses on ethnic differences. There is ample evidence that ethnicity is a factor that helps to explain the ways in which people respond to the world around them, and in particular to the world that is not their everyday world. For instance, we have previously reported on difficulties experienced by Japanese students in an Australian-based outdoor education program (e.g., swimming in a river, and dressing and undressing near fellow students in a coeducational setting, Purdie & Neill, 2000). One of the recommendations of that study was for a closer examination of the cultural relevance of outdoor education activities and methods for people from other cultures. That recommendation was based on an assumption that cultural relevance implies the need to take heed of between-group differences (e.g., between Australian and Japanese students) rather than within-group differences (e.g., cultural differences amongst Australians). It also may be important to consider within-group differences in understanding the role that cultural identity plays in determining the nature of one’s educational experience in the outdoors.

One way of conceptualising cultural identity is in terms of a national identity. The study of national identity frequently draws from social identity

theory (Tajfel & Turner, 1986), which proposes that, in addition to personal experiences, an individual's self-concept derives from knowledge of membership of a social group (or groups) together with the value and emotional significance attached to that membership. Social identity theory also proposes that group identities are prescriptive in that they suggest particular ways of behaving and thinking (Vaughan & Hogg, 1995). For instance, affiliation with a particular political group has been shown to be associated with individuals' endorsement of solutions for a range of social issues (e.g., unemployment, support for Aboriginal benefits, uranium mining, job opportunities for women (Heaven, 1991, 1999).

The concept of stereotype threat also is relevant to explorations of the association between national identity and ways of behaving and thinking. The theory of stereotype threat predicts that the activation of stereotypes may influence task performance, even in the absence of overt prejudicial behaviour (Steele, 1997). For instance, African American students who were asked to indicate their race before taking an exam, achieved significantly more poorly in the exam than did African American students who were not asked to indicate their race (Steele & Aronson, 1995). Most research has considered stereotype threat and academic achievement, although there is evidence that stereotype threat can impact on physical performance (Stone, Lynch, Sjomeling, & Darley, 1999).

Studies of national identity in recent years have challenged earlier attempts to identify a set of common and stable values that provide for social cohesion. Phillips and Smith (2000) noted that critical theorists and post-modernists claim that cultures are multiple and fragmented and that societies

cohere in the absence of common values. In Australia, recent discourses on national identity have repudiated claims of “a radical nationalism about an Australian ethos and iconography” (Phillips & Smith 2000, p. 219) that is centred on traditional values and activities, including those associated with physical pursuits in the outdoors. However, Phillips and Smith have argued that repudiation of traditional experiences and understandings of Australia has been by ‘elites’ and not by ‘ordinary’ Australians. In a study of ‘What is Australian?’, Phillips and Smith (2000) found that the people, places, values, events and activities, and groups that ordinary people spoke of as Australian were consistent with old, traditional or past-oriented understandings of what it means to be an Australian person. Ideas focussing on the conquering of fear, sport, strength of character and achievement, and physical prowess emerged repeatedly in their data. Such findings support earlier conclusions reached by Phillips (1998) following a review of seventeen studies on Australian identity. In this review, Phillips concluded that traditional values and ways of life were still widely embraced by Australians, despite more recent attempts to explore an Australia identity that embodies a range of contemporary and political issues.

The physical aspect of a national identity is a common theme in the literature, particularly as it relates to sporting involvement and prowess and how one conceives of oneself (e.g., Bairner, 1994; Duda & Allison, 1990). In the Australian context, this theme was explored by Mewett (1999) in an examination of the meta-discourse on Australian identity as revealed in a national sporting

event (the Stawell Easter Gift). Mewett concluded that there are consistent themes of athleticism and the bush that feed into ideas about Australian nationhood.

The athleticism theme was explored also by Taylor and Toohey (1995) in the context of a multicultural Australia. They were particularly interested in the intersection of sport with ethnicity and concluded that although ethnic groups in Australia have used sport to maintain their non-Australian cultural identity, sport has also been a means of acculturating themselves into the Australian society. According to Taylor and Toohey, sport helps to develop a national Australian identity which has emerged from the early days of white settlement—a time when living conditions promoted physical toughness, mateship, and the ability to withstand hardship (e.g., Feather, 1994; Phillips, 1998).

Thus, to return both to social identity theory and stereotype threat theory, if an activity requires identification with a specific set of characteristics or values, and it is difficult for individuals to sustain such identification, performance in the designated area may be threatened. There is an emphasis in most outdoor experiential programs on physical and personal qualities that accord with traditional understandings of what it means to be an Australian person as described in some of the recent literature on Australian identity (e.g., Mewett, 1999; Phillips and Smith, 2000; Taylor and Toohey, 1995). Accordingly, the aim of the current study was to investigate whether adolescents' identification with Australia ('Australianness')¹ was associated with their personal development outcomes following an outdoor education program. It was anticipated that adolescents who expressed the greatest identification with Australian would make

greatest gains. In addition, we hypothesised possible interaction with Australian identification of gender, ethnicity, motivation to participate in an outdoor challenge program, and experience in the outdoors.

Method

Participants

One hundred and seventy-seven participants were selected from an already existing database of 721 students from 17 schools who had attended a state-funded outdoor education program in 1998. The starting point for selection was students' responses to a question designed to assess the extent to which they thought of themselves as Australian: "When you think about yourself and the way you live, think, and act, how 'Australian' do you feel?". Students rated themselves on a 10-point scale, with anchors for 1 (not at all Australian) and 10 (totally Australian). Using this information, we created three Australianness groups based on the following criteria. First, we wanted equal numbers of students in the groups (recommended to maximise robustness of analysis; Kirk, 1995). Second, we wanted to avoid inclusion of students for whom there was substantial missing data. Third, we did not want there to be too many groups such that interpretation of results was more complicated than necessary. Finally, we wanted one group of students who rated themselves as 'totally Australian'. The final data set consisted of three groups each of 59 students classified as low (1 to 6); medium (7 to 9); and high (10) identification with Australia. By way of comparison, in the original

sample of 721 students, there were 92, 289, and 340 students in the low, medium, and high groups respectively, thereby indicating a markedly lower proportion of students who rated themselves as low on the Australianness scale.

The final sample of participants indicates there was substantial missing data. There are several reasons for this. First, several schools were concerned about the length of the survey and requested that some of the background information items be deleted. Second, in some cases, students did not complete a survey at Time 1 or Time 3 (see below). This was possibly because classroom teachers collected Time 1 and Time 3 data. Some teachers may have not have been rigorous in following requested procedures because they did not have a vested interest in program evaluation. For instance, Time 1 data was completely missing for two of the schools. Eleven of the schools did not return Time 3 questionnaires. There was less missing data at Time 2 because it was collected by outdoor education program providers who had a greater interest in program evaluation than did teachers in the school settings.

The ages of students ranged from 12 years to 16.8 years; the median age was 14.8. Forty-nine percent of the students were male.

The program

Students had participated in an outdoor education program offered to high schools by a major state-funded outdoor education centre in one Australian state. The residential programs are typically of 5 or 6 days duration and consist of a variety of challenging outdoor activities aimed at enabling students to learn about

themselves and other people. Students are provided with opportunities to engage in activities aimed at developing initiative, trust, cooperation, group participation, self-confidence, and leadership. Activities include rock-climbing, abseiling, canoeing, high ropes, overnight hiking, orienteering, rogaining, and mountain-bike riding. In addition, students engage in bush dancing, pioneering (knots and lashings), and environmental field studies. Students normally work in mixed groups of 12 people with a specialised teacher experienced in instructing outdoor education programs.

Instrumentation

Students provided information about a number of background variables.

Ethnic background. Students were asked to record their country of birth. Initially, we had planned to explore ethnic background more fully by asking questions about students' first language; the languages spoken in the home; English language proficiency in speaking; reading, writing, and listening; country of birth of parents; and number of years living in Australia (if not born here). Because we were only able to collect this data from several schools (see above concerning length of survey), data from these questions were not included in the analyses.

Amount of previous outdoor experience. This was assessed by two variables. Days spent living outdoors was assessed by the question "How many days of your life have you spent living and sleeping out of buildings, in the outdoors (e.g., in tents but not huts, caravans, or other buildings)? Possible

responses were 1 = 0 to 5 days, 2 = 6 to 20 days, 3 = 21 to 50 days, 4 = 51 to 199 days, and 5 = over 199 days. Self-rated outdoor experience was assessed by the question “Compared to other people of your age how experienced do you think you are in the outdoors?” Possible responses were 1 = not very experienced; 2 = moderately experienced; and 3 = very experienced.

Motivation to attend. The level of motivation to participate in the outdoor program was assessed with the question “How much do you want to go on this coming camp?” Students responded on 10-point scale ranging from 1 = not at all to 10 = totally

The Review of Personal Effectiveness scale (ROPE) was used to assess students' responses to the outdoor experiential program. The ROPE is a revised version of the Life Effectiveness Questionnaire (Neill, Marsh, & Richards, 1997) which was developed to tap into key actions and behaviours that indicate a person's effectiveness in a variety of areas. It was specifically designed to be sensitive to the types of effects often produced by experiential learning programs in the outdoors. The ROPE is currently one of the more widely used instruments to examine the types of personal changes being achieved by outdoor programs. The ROPE contains 10 subscales, including personal abilities and beliefs (Self-Confidence, Self-Efficacy, Stress Management, Open Thinking), social abilities (Social Effectiveness, Cooperative Teamwork, Leadership Ability), organisational skills (Time Management, Quality Seeking), and an ‘energy’ subscale called Active Involvement.

In the development of the ROPE, one of the major aims was to produce an instrument that was relatively short (i.e., one page) so that it could be administered quickly and easily to a wide variety of participants in different educational settings. Thus, reliable results can be gained with minimal interference with programming. The instrument can be used with a wide range of people, including, for instance, corporate managers and primary school-aged youth at risk (e.g., see Neill, Richards, & Badenoch, 1997).

The Self-Description Questionnaire (SDQ-II (S)). The original SDQ-II was designed to measure self-concept in younger adolescents. It was based on a multifaceted model of self-concept (Shavelson, Hubner, & Stanton, 1976). The 102-item questionnaire assessed three areas of academic self-concept (Reading, Mathematics, and General School), two areas of physical self-concept (Physical Abilities and Physical Appearance), three areas of relationship self-concept (Same-Sex Relations, Opposite-Sex Relations, and Parent Relations), and three other areas of self-concept (Emotional Stability, Honesty-Trustworthiness, and General Self). These 11 scales can also be summed to produce a total self-concept score. The instrument has been used in a wide variety of applications (see Marsh, 1990), including outdoor education programs (Craigie, 1996; Neill, 1994; Neill, Richards & Badenoch, 1997).

A short version of the SDQ-II has been developed for assessment of self-concept changes in field settings such as outdoor education. The short version, SDQ-II (S), contains 36 items and retains all the original self-concept scales, thereby allowing ready comparison of results with normative data.

Reliability coefficients (Cronbach's alpha) obtained from the Time 1 and Time 2 ROPE and SDQ-II (S) data are presented in Table 1.

Data Collection and Analysis

Students completed the ROPE and the SDQ-II (S) two weeks before commencement of the outdoor program (Time 1), and at the end of the final day of the program (Time 2). In addition, ROPE and SDQ-II (S) data was collected from 128 and 138 students respectively eight weeks after the completion of the program (Time 3). At Time 1, students also completed an information sheet in which they gave details concerning gender, year level at school, and the various personal characteristics (Australianness, outdoor experience, etc) listed in the previous section.

Descriptive statistics were computed to explore characteristics of the three Australianness groups. The chi square statistic (χ^2) was used to determine if the groups differed according to gender, ethnic background, experience in the outdoors, and motivation to participate in the outdoor experiential program.

A doubly multivariate repeated measures design was used to compare changes in the ROPE and SDQ-II (S) subscale scores between Times 1 and 2 (the within-subjects factor) for the three Australianness groups of students as well as for the total group (the between-subjects effects). Because we anticipated a possible moderating effect on Australianness of gender, experience in the outdoors, and motivation to participate in the program, we included these variables in the analyses as independent factors in the Time1-Time 2 analyses (the ethnicity variable was not included because of low numbers on non-Australian

born participants—see below). To simplify analyses, we reduced the number of levels in the motivation variable from 10 to 4 by creating groups based on a percentage division of the total group.

To assess maintenance effects, we conducted separate repeated measures analyses on the Time 2 and Time 3 ROPE and SDQ-II (S) subscale scores on which there had been significant gains at Time 2 for each of the Australianness groups. This was done because there was missing data for some students at Time 3.

Specific research questions addressed in our analyses were:

1. Did students who expressed low, medium, and high levels of identification with Australia differ according to ethnic background, gender, experience in the outdoors, and motivation to participate in the program?
2. Was participation in an outdoor education challenge program associated with changes in scores on the ROPE and SDQ-II (S) for the total group of students?
3. Were program outcomes, as assessed by the ROPE and the SDQ-II, moderated by identification with Australia?
4. Did background variables (gender, motivation to participate, and experience in the outdoors) interact with identification with Australia?
5. Were any significant gains that were noted following participation in the program maintained over an eight-week period?

Results

Group Characteristics

Gender. The three Australianness groups did not differ significantly in gender composition, $\chi^2 = .54$, $p = .76$.

Ethnic background and Australianness. There were no significant differences between the three Australianness groups in terms of ethnic background, $\chi^2 = 37.81$, $p = .10$. There were only 12 students who were not born in Australia. Nine of these students were in the low Australianness group, three were in the medium group, and none were in the high group. This proportion is lower than expected when compared with Australian Bureau of Statistics Year 1998 figures showing that 23 per cent of the total population was not born in Australia. The low proportion found in this study is not surprising because many Outdoor Educators report that many overseas and migrant students, particularly from some of the Asian nations, choose not to participate in outdoor education programs of the type presented in this study. Because of the low numbers of students who were not born in Australia, this variable was dropped from subsequent analyses.

Days spent living outdoors. There were significant differences between the three Australianness groups in the amount of time spent living outdoors, $\chi^2 = 17.94$, $p = .022$. The low group had spent less time than the high and medium groups living outdoors (See Table 2).

Self-rated outdoor experience. Although the groups did not differ significantly in terms of their self-rated experience in the outdoors, $\chi^2 = 8.01$, $p = .09$, the Linear-by-Linear statistic, 7.45, $p = .02$ is indicative of a significant trend that can be seen in Table 2. That is, moving from low to high experience, in the high and medium Australianness group there was an increasing number of students in each level, whereas in the low Australianness group there was a decreasing number of students at each level of experience (see Table 2).

Motivation to attend. There were no significant differences between the three Australianness groups in terms of the numbers expressing low, medium, and high motivation to participate in the outdoor program, $\chi^2 = 18.65$, $p = .29$.

Program Effects

Personal effectiveness. Using the subscales of the ROPE as the dependent variables, a series of MANOVAs were performed to explore the possible confounding effects on Australianness of gender, outdoor experience (days out, and self-rating), and motivation (multiple MANOVAs, rather than a single MANOVA, were performed because of empty cells or low cell numbers obtained when analysis involved more than two independent variables). Using Wilks' lambda criterion ($p = .05$), a non-significant result was obtained for all interactions with Australianness. Non-significant multivariate main effects also were found for gender, the two outdoor experience variables, and motivation. The main effect for the Australianness factor was significant in each MANOVA. Accordingly, a subsequent MANOVA involving only the Australianness factor

was performed. A significant multivariate result was obtained, both for the Time factor, $F(10, 161) = 5.62, p < .001$, and for the interaction with Australianness, $F(20, 322) = 2.01, p < .01$. Table 3 presents the Time 1 and Time 2 mean difference scores (Time 2 minus Time 1) for the ROPE subscales for the total group, and for the three Australianness groups. As a total group, univariate results showed that students made significant gains on all of the subscales except for Cooperative Teamwork. These results are shown in Table 3 in bold type. However, these results were moderated by the Australianness factor on five of the subscales: Open Thinking, Self-Confidence, Self-Efficacy, Time Efficiency, and Stress Management. Post hoc Scheffé tests ($p = .05$) were performed to ascertain which pairs of group means differed significantly. In each instance the high Australianness group differed significantly from the low Australianness group, with their mean gain score being higher. The high group also differed significantly from the medium group on the Stress Management subscale.

Repeated measures analyses conducted on each Australianness group further show the differences in program effects for the groups. There were no significant differences between Time 1 and Time 2 scores on any of the ROPE subscales for the low group. There were significant differences on five of the subscale scores for the medium group (Open Thinking, Self-Confidence, Self-Efficacy, Social Effectiveness, and Time Efficiency). For the high group, differences between Time 1 and Time 2 scores were significantly different for all of the subscales.

By dividing the mean difference scores by their respective standard deviations, standardised mean change effect sizes can be computed (Gibbons, Hedeker, & Davis, 1993). Effect sizes are shown in the last column of Table 3. The average ROPE effect size for low Australianness students was .07 ($CI_{.95} = -.23; .22$), for medium Australianness students .25 ($CI_{.95} = .01; .73$), and for high Australianness students was .54 ($CI_{.95} = .30; 1.59$). These average effect sizes dramatically illustrate the differential outcomes, ranging from virtually no effects for the low group, small effects for the medium group, and moderate effects for the high group. Another interpretation is that, on average, the outcomes for the high group are twice as large as those for the medium group and eight times as large as those for the low group. An estimated total group effect size of .36, power = .91, for the ROPE scales was computed (based on proportional weighting of .13 low, .40 medium, and .47 high from the original population of 721 students).

Self-concept. Using the subscales of the SDQ II (S) as the dependent variables, another series of MANOVAs was performed to explore interactions with Australianness of gender, outdoor experience, and motivation. Using Wilks' lambda criterion ($p = .05$), a non-significant result was obtained for all interactions with Australianness. Non-significant multivariate main effects were found for gender, days in the outdoors, and motivation. There was a significant multivariate main effect for self-rated outdoor experience, $F(22, 296) = 2.01, p < .01$. Univariate results showed that the groups were significantly different on the Physical Abilities subscale, $F(2, 158) = 5.29, p < .01$. Post hoc Scheffé tests indicated that the high group had made a significantly greater gain than had the

other two groups on this subscale. A subsequent MANOVA involving only the Australianness factor was performed. There was a significant time effect for the total group, $F(11, 159) = 3.93, p < .001$. Univariate results showed that, overall, students gained significantly on the Physical Appearance, Opposite-Sex Relations, Parent Relations, Math, General School, and General Self subscales. With respect to the Australianness factor, a non-significant multivariate result was obtained, $F(22, 318) = 1.3, p > .05$. This non-significant result is reflected in the univariate results (see Table 4) whereby only one significant group difference was found. The high Australianness group gained significantly more than the low and medium Australianness groups on Same-Sex Relations.

Repeated measures analyses conducted on the each of the Australianness groups again show differences in program effects for the groups. For the low group, Time 2 scores were significantly higher than Time 1 scores on General School, Math, and Parent Relations. For the medium group, Time 2 scores were significantly higher than Time 1 scores on Honesty, General Self, and Opposite-Sex Relations. For the high group, Time 2 scores were significantly higher than Time 1 scores on General Self, General School, Same-Sex Relations, and Emotional Stability.

The average SDQ-II (S) effect size for low Australianness students was .15 ($CI_{.95} = -.09; .45$), for medium Australianness students .18 ($CI_{.95} = .01; .54$), and for high Australianness students was .19 ($CI_{.95} = -.02; .59$). The overall effect size for self-concept change in the total group was estimated to be .18, power =

.40, (based on proportional weighting of .13 low, .40 medium, and .47 high from the original population of 721 students).

Maintenance

Repeated measures MANOVAs were conducted on the relevant Time 2 and Time 3 ROPE and SDQ-II (S) subscale scores to assess the extent to which program effects had been maintained. With respect to the ROPE, a non-significant multivariate result was obtained for the high Australianness group, $F(10, 48) = 2.29, p > .05$, suggesting that, overall, gains had been maintained over an eight week-period for these students. Univariate results showed that high Australianness students maintained gains on five of the ten ROPE subscales: Active Involvement, Cooperative Teamwork, Leadership Ability, Social Effectiveness, and Time Efficiency. Gains were not maintained for Open Thinking, Self-Confidence, Self-Efficacy, Quality Seeking, and Stress Management. Similarly, for the medium group, a non-significant multivariate result was obtained, $F(5, 53) = 2.14, p > .05$, indicating that overall gains for these students had not dissipated over time. Univariate results showed that gains were maintained on four of the five subscales (Self-Confidence, Self-Efficacy, Social Effectiveness, and Time Efficiency). Gains were not maintained for Open Thinking.

With respect to the SDQ-II, a significant multivariate result was obtained for the high Australianness group, $F(4, 55) = 13.01, p < .001$, suggesting that, overall, gains had not been maintained for these students. This result was confirmed by the significant univariate results obtained on the four relevant

subscales. Thus, gains made on General Self, General School, Same-Sex Relations, and Emotional Stability dissipated over time for the high group. For the medium Australianness group, a non-significant multivariate result was obtained, $F(3, 56) = .48, p > .05$, suggesting that overall gains were maintained. Univariate results indicated that gains made on the three relevant subscales (Honesty, General Self, and Opposite-Sex Relations) were maintained over time. Similarly, for the low Australianness group, a non-significant multivariate result was obtained, $F(3, 51) = 2.45, p > .05$. Univariate results indicated that gains were maintained on Math and Parent Relations. The gain on General School was not maintained over time for this group of students.

Discussion and Conclusion

The findings of this study must be interpreted in light of several limitations. First, the study did not measure the representations of Australian identity held by the young people who participated in this study. It is possible that study participants did not uphold the stereotype of an Australian identity that focuses on images of toughness, mateship, and physical prowess in the outdoors. However, despite arguments to the contrary, recent studies support the continuing belief in an Australian identity associated with these characteristics (Mewett, 1999; Phillips & Smith, 2000), and it was from this perspective that our study was conducted. It is highly likely that there are multiple stereotypes of an Australian identity and future studies should explore these in greater detail.

We have already noted the limitations associated with the data set. There was considerable missing data, thereby creating the possibility of self-selection by participants. Much of the data was missing because some schools did not return Time 1 or Time 3 surveys. It is possible that other missing data resulted from the non-response of students who did not think they fitted the stereotype required for success in an outdoor challenge program. Thus, the skewed distribution of low, medium and high Australianness students in the original sample may have been somewhat remedied with more rigorous data collection methods. Another limitation of the data set relates to its lack of ethnic representativeness. Whether non-Australian-born students were contained in the cohort for whom there was missing data or whether these students did not participate in the program is not clear. It is unlikely that the seventeen schools from which the sample was drawn had such a low proportion of non-Australian-born students as indicated in our sample. It is important for future studies to explore ethnicity as a factor in the social identities held by Australian youth.

The problems associated with self-report data are well known, and in this respect, there are at least two possible limitations to our study. First, the distinction between participants who classified themselves as totally Australian and those who rated themselves between 7 and 9 may simply have reflected a response bias, or confidence. Instead of a single measure being used to create groups, a more comprehensive exploration of the stereotypes of Australian identity held by participants could result in a more reliable grouping procedure. Second, although there were significant gains found on a number of the ROPE

and SDQ-II (S) subscales, these program effects may not have been evident at a behavioural level. Data that supplements self-report data, such as observations from teachers and parents, could provide stronger evidence of program effectiveness.

Limitations notwithstanding, the findings of this study inform our understanding of outdoor education programs in several ways. One of the most heartening findings is that the aims of an outdoor experiential program appear largely to have been met for the total group of adolescent participants who were the focus of this study. When assessed by the ROPE, an instrument designed specifically to assess change in personal qualities that are the focus of many outdoor experiential programs, significant gains were recorded on 9 of the 10 subscales. An estimated overall Cohen's *d* of .36 suggests results are comparable to other published outdoor education outcome studies (Hattie, Marsh, Neill, & Richards, 1997). A closer inspection of the results, however, reveals a more telling story. Most of the gains were made by students who rated themselves as totally Australian, and not by students who expressed somewhat of a lesser affiliation with an Australian identity, particularly those who were low in expressed levels of Australianness.

In some respects this is not surprising when we reflect on the literature on Australian national identity. Despite attempts to portray the 'Australian' as an intellectual construct that is continually presented to members of Australian society by elites (Walter, 1989), there is an enduring notion that what it means to be Australian concerns toughness, and the physical prowess necessary to survive

the hardships often imposed by nature (Mewett, 1999; Phillips & Smith, 2000). Such notions have also come to be associated with more organised or contrived experiences in the outdoors such as those available through participation in Australian outdoor education programs. Thus, it is possible that participants in the current study who interpreted Australianness as reflecting qualities of toughness, physical prowess, and mateship, but who did not see themselves as fitting this stereotype, were not likely to value and gain from an experience that was socially constructed to emphasise related personal characteristics.

This interpretation is supported by research on stereotype threat (Steele, 1997), which would suggest that if the goals and intended outcomes of the outdoor education program were inconsistent with a participant's salient identity or self-stereotype, the outcome would be less favourable. One clear implication of such a possibility is that outdoor educators must give attention to the stereotype that is activated by their promotional material. If there is not a fit between a participant's personal notion of what it means to be Australian and what appears to be on offer in an outdoor education program, then chances of successfully achieving program aims may be reduced.

It is also notable that, in general, it was participants' sense of Australianness that was related to program outcomes, and not the other background variables of gender, motivation to attend the program, and previous experience in the outdoors. There was a small main effect for the Physical Ability subscale of the SDQ-II, which is perhaps not surprising given the physical nature of the outdoor education program. The findings in relation to gender were

surprising for several reasons. First, given the masculine bias inherent in the characteristics of a traditional Australian identity, we might have expected the high Australianness group to contain more males. Second, such an understanding might reasonably have led to the prediction that high Australianness would be associated with greater gains by students matching this stereotype (i.e., males). This was not the case. On reflection, these findings could be interpreted in light of research on gender stereotypes which suggests that, when compared with earlier generations, males and females now define themselves less along such traditional lines (Nesbitt & Penn, 2000).

There was no consistent pattern of maintenance of program effects over an eight-week period. Students tended to maintain gains on the ROPE subscales more than on the SDQ-II (S) subscales. Although the maintenance of gains on some scores appears encouraging, it is less so when seen in the light of previous meta-analytic results of outdoor education programs (Hattie, et al., (1997) that show the effects of such programs continue to increase over time. Thus, findings in the current study are more similar to those found in most non-outdoor education programs, where gains quickly fade.

With respect to the assessment of program outcomes, one could argue convincingly that the ROPE is a better measure than the SDQ-II (S) for assessing changes in the behaviours, attitudes and self-beliefs of participants in outdoor experiential programs because it was specifically designed for this purpose. Even though the SDQ-II (S) was modified from the original to facilitate multiple administrations in field settings, it is still based on multiple dimensions of self-

concept in younger adolescents that are not linked specifically with outdoor education program aims. There is no reason, for instance, to surmise that the verbal or math self-concept of adolescents will change significantly following participation in a 5 to 6 day outdoor program, although that is what appeared to have happened in this case with respect to Math self-concept. Perhaps this result, which has been found previously (Neill, 1994), is a by-product of positive changes in areas such as personal confidence and emotional control which contributes to an enhanced sense of ability to do mathematics.

Of the changes that were noted in the SDQ-II (S) results, those in Same Sex for the high Australianness group, and in Physical Appearance, Opposite-Sex Relations, and General Self for the total group are the most understandable. The Same and Opposite Sex improvements are mirrored in changes in the Social Effectiveness subscale of the ROPE, and it is likely that these gains reflect the formation of specific friendships during the 5 to 6 day period rather than a more generalised improved ability to get on with other people. The failure to gain significantly on the Cooperative Teamwork subscale strengthens this interpretation. In some respects the formation of specific friendships among adolescents could be counter to the development of cooperative teamwork because cliques and gangs become competitive rather than interdependent (Sherif, 1998). The General Self gains evident for the total group on the SDQ-II (S) are mirrored in the Self-Efficacy and Self-Confidence gains on the ROPE. Together with gains in the self-concept of Physical Appearance, these gains are indicative

of the successful meeting of program aims with respect to the development of self-approval and belief in one's own capabilities.

In considering the practical implications of this study for improving the quality of outdoor education programs, we return to the concept of stereotype threat. It is clear that expectations about one's likely performance on a task are jointly influenced by one's self-efficacy for the task, as well as by one's perceptions of the stereotypical characteristics of the task or situation in which the task is to be performed (Stangor & Sechrist, 1998). Individuals may avoid tasks if they perceive either the task, or the group who will perform the task, as stereotypical. Furthermore, individuals with initial high task confidence are not immune from the impact of stereotype threat. Steele and Aronson (1995) proposed that impaired performance resulting from stereotype threat could manifest itself through distraction, narrowed attention, anxiety, self-consciousness, withdrawal of effort, and excessive effort.

It appears that contextual factors, such as the way in which performance is framed and cues that distract people from thinking about the negative stereotype, can reduce the harmful impact of a salient negative stereotype. Thus, one of the challenges for outdoor educators is to devise strategies to counter the psychological discounting and disengagement processes that are typical of how individuals attempt to cope with stereotype threat (Major & Schmader, 1998). Steele (1997) made a number of 'wise strategy' suggestions for dealing with stereotype threat in the context of academic performance. Some of these strategies could be tailored for use in the context of outdoor education. In particular, three

strategies are worthy of note. First, we need to affirm an individual's belonging in a domain (in this instance, the outdoor context), as long as this affirmation is based on the individuals' potential rather than on their current domain stereotype (i.e., a non-outdoor person). Second, there should be a public valuing of multiple perspectives to reduce the belief of stereotype threatened individuals that they do not 'fit'. Third, role models, in the form of people from the stereotype threatened group who have been successful in the domain, can promote the message that stereotype threat is not an insurmountable barrier. Other strategies suggested by Steele include non-judgemental responsiveness, (which involves little direct praise, Socratic direction of effort, and minimal attention to right and wrong behaviours), and the building of self-efficacy. The devising of workable strategies is a task that needs to be undertaken by outdoor educators and school staff working together because it is the period prior to undertaking the program, when students are in the context of the school, that is critical in the formation of stereotypes about the nature of the outdoor program and the personal characteristics needed for success.

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Table 1

Reliability Coefficients for the ROPE and SDQ-II (S) Subscales for Time 1 and Time 2

Subscale (No. of Items)	Description	Reliability	
		Time 1	Time 2
<u>ROPE</u>			
Active Involvement (3)	Use action and energy to make things happen	.82	.83
Cooperative Teamwork (3)	Cooperation in team situations	.89	.88
Leadership Ability (4)	Leadership capability	.95	.95
Open Thinking (3)	Openness and adaptability in thinking and ideas	.73	.79
Quality Seeking (3)	Put effort into achieving the best possible results	.84	.78
Self Confidence (3)	Confidence and belief in personal ability to be successful	.89	.88
Self Efficacy (3)	Ability to handle things and find solutions in difficult situations	.90	.92
Social Effectiveness (4)	Competence and effectiveness in communicating and operating in social situations	.88	.91
Stress Management (3)	Self-control and calmness in stressful situations	.91	.87
Time Efficiency (3)	Efficient planning and utilization of time	.85	.91
<u>SDQ-II (S)</u>			
Physical Abilities (3)	Skills and interest in sports and physical activities	.86	.84
Physical Appearance (3)	Physical attractiveness	.90	.90

Opposite-Sex Relations (3)	Interactions with peers of the opposite sex	.71	.69
Same-Sex Relations (3)	Interactions with peers of the same sex	.79	.66
Parent Relations (3)	Interactions with parents	.87	.87
Honesty-Trustworthiness (4)	Truthfulness and dependability	.70	.75
Emotional Stability (4)	Emotional well-being and freedom from psychopathology	.83	.86
Math (3)	Ability, enjoyment, and interest in mathematics and reasoning	.91	.88
Verbal (3)	Ability, enjoyment, and interest in English and reading	.80	.75
General School (3)	Ability, enjoyment, and interest in school subjects	.82	.85
General Self (4)	Self-worth, self-confidence, self-satisfaction	.75	.77

Table 2

Crosstabulation of Australianness with Outdoor Experience

<u>Outdoor Experience</u>	<u>Australianness</u>		
	Low	Medium	High
<u>Days Out</u>			
0-5	11	12	4
6-20	14	11	6
21-50	9	17	15
51-199	9	8	20
Over 199	6	5	9
Total	49	53	54
<u>Self-Rating</u>			
Low	21	17	10
Medium	17	21	20
High	16	21	29
Total	54	59	59

Table 3

Mean Difference Scores^a and Standard Deviations, Univariate F-Ratios and Effect sizes for ROPE Subscales

ROPE Scale	Group	Mean	<u>SD</u>	<u>F</u>	<u>d</u>
Active Involvement	Low	.04	1.08	1.58	.04
	Medium	.19	1.00		.19
	High	.37	.86		.43
	Total	.20	.99	7.43**	.20
Cooperative Teamwork	Low	.01	1.39	1.93	.01
	Medium	-.10	.90		-.11
	High	.29	.80		.36
	Total	.06	1.07	.77	.06
Leadership Ability	Low	.09	1.21	1.07	.07
	Medium	.21	.94		.22
	High	.38	.98		.39
	Total	.23	1.05	8.02**	.22
Open Thinking	Low	.06	1.02	3.10*	.06
	Medium	.39	.79		.49
	High	.44	.85		.52
	Total	.29	.90	18.74***	.32
Self-Confidence	Low	.05	1.25	4.21*	.04
	Medium	.33	.89		.37
	High	.60	.85		.71
	Total	.32	1.04	17.12***	.31
Self-Efficacy	Low	.10	1.09	6.49**	.09
	Medium	.35	.78		.45
	High	.68	.88		.77
	Total	.38	.95	29.29***	.40
Social Effectiveness	Low	.34	1.36	.19	.25

	Medium	.30	1.12		.27
	High	.40	1.01		.40
	Total	.35	1.17	13.81***	.30
Quality Seeking	Low	.20	1.16	1.60	.17
	Medium	.10	.82		.12
	High	.43	.83		.52
	Total	.24	.95	11.27**	.25
Time Efficiency	Low	.18	1.13	3.37*	.16
	Medium	.30	1.08		.28
	High	.70	1.23		.57
	Total	.39	1.16	20.08***	.34
Stress Management	Low	-.19	1.29	9.09***	.15
	Medium	.23	1.18		.19
	High	.77	1.06		.73
	Total	.26	1.24	9.04**	.21

Note

^a Mean difference scores = Time 2 mean minus Time 1 mean.

* $p < .05$; *** $p < .01$; **** $p < .001$.

Table 4
Mean Difference Scores^a and Standard Deviations, Univariate F-Ratios, and
Effect Sizes for SDQ-II (S) Subscales

SDQ Scale	Group	Mean	<u>SD</u>	<u>F</u>	<u>d</u>
Physical Abilities	Low	.16	1.10	.18	.15
	Medium	.07	.84		.08
	High	.08	.69		.12
	Total	.10	.88	2.14	.01
Physical Appearance	Low	.16	.81	.18	.20
	Medium	.14	.72		.19
	High	.19	.79		.24
	Total	.16	.77	7.55**	.04
Opposite-Sex Relations	Low	.16	.82	.36	.20
	Medium	.20	.60		.33
	High	.09	.77		.12
	Total	.15	.73	6.97**	.04
Same-Sex Relations	Low	-.14	1.18	3.21*	-.12
	Medium	.04	1.03		.04
	High	.34	.87		.39
	Total	.07	1.04	1.04	.01
Parent Relations	Low	.36	1.11	.89	.32
	Medium	.15	.67		.22
	High	.20	.69		.29
	Total	.23	.84	13.77***	.08
Honesty-Trustworthiness	Low	.01	.79	.46	.01
	Medium	.13	.50		.26
	High	.09	.72		.13
	Total	.08	.68	2.28	.01

Emotional Stability	Low	.10	.95	1.26	.11
	Medium	-.02	1.10		-.02
	High	.19	.93		.20
	Total	.02	1.00	.08	<.01
Math	Low	.41	1.14	1.97	.36
	Medium	.08	.89		.09
	High	.06	.98		.06
	Total	.18	1.01	5.66*	.03
Verbal	Low	-.02	.91	1.11	-.02
	Medium	.18	.69		.26
	High	-.18	.83		-.22
	Total	.11	.81	3.21	.02
General School	Low	.33	.86	1.30	.38
	Medium	.10	.66		.15
	High	.23	.78		.29
	Total	.21	.77	13.62***	.08
General Self	Low	.08	.85	1.73	.09
	Medium	.20	.52		.38
	High	.34	.80		.43
	Total	.21	.74	13.75***	.08

Note

^a Mean difference scores = Time 2 mean minus Time 1 mean.

* $p < .05$; *** $p < .01$; **** $p < .001$.

Notes

¹ Although not a psychological construct, we have use the term ‘Australianness’ elsewhere in the article (rather than the term ‘Australian identity’) to signify our caution about the specific features of that affiliation.