Stop driving me wild!!! Does the wilderness experience influence archaeopsychic behaviours?

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Abstract
During a six week wilderness expedition in the Caribou Mountains, British Columbia, three participants took part in a research project with the aim of investigating how the wilderness experience affected their archaeopsychic behaviours. These behaviours are a manifestation of the formative transactions experienced throughout our developing years, the main themes of this model being grounded in the workings of Eric Berne (1964). The three participants completed questionnaires, one to one interviews and recorded their reflections in a personal diary. The data highlighted the many variables that potentially influence individual archaeopsychic behaviour. All the participants exhibited a change in the dominant driver traits; a poignant point being that the improvement actually increased with time elapsed after the exposure to the wilderness; with two participants also demonstrating a change in terms of dominance, of their primary and secondary ‘drivers.’ We therefore propose a relationship between the wilderness experience and individual behaviour changes. As professional outdoor educators, the positives are apparent; by understanding the behaviour of those for whom we are responsible and that of our own in more detail, a much more conducive environment for personal development and improved teamwork within organisations might be promoted.

Definition

Child (“archaeopsychic”): a state in which people revert to behaving, feeling and thinking similarly to how they did in childhood. For example, a person who receives a poor evaluation at work may respond as they did in their childhood, by looking at the floor, and feeling shame or anger, as they used to when scolded as a child (Berne, 1964).

Introduction
This study was undertaken concurrently with a collaborative research project based in the Castle Creek-Roberts Glacier area of the Caribou Mountains, British Columbia, Canada. Two staff and three students from Liverpool John Moores University (LJMU) travelled to British Columbia to work on a joint project with a team from the University of Northern British Columbia, lead by Dr Phil Owens. As well as being
an exciting piece of collaborative research, it also provided the opportunity for three LJMU students to undertake fieldwork for their own Level 3 dissertation projects in a remote location for an extended period. The aim of the study was to investigate how this ‘wilderness experience’ influenced the participants’ behavioural driver patterns.

**The benefits of wilderness experiences**

There has been a plethora of literature relating to the effects that outdoor education has on both individuals and groups (Barrett and Greenaway, 1995; Hopkins and Putman 1993; Miles and Priest, 1999) a lot of this has been focused on short lived learning episodes such as one or multi-day residential experiences, which has generated much debate into the value and practical use of such experiences, for example: Garvey, 1999; Puk, 1999 discussed the pros and cons of such experiences. However, as there is a blurred perception of what outdoor education (OE) might be, the authors suggest that OE can be viewed like an old majestic oak, with the boughs and branches representing the multitude of individual, but linked facets of OE which include outdoor pursuits, experiential learning, environmental education, ecological awareness, personal development and wilderness experiences. Personal development through wilderness experiences provides the focus for this research paper. The area of personal and professional growth within the wilderness setting has also been widely researched and reviewed (Barrett and Greenaway, 1995; Hopkins and Putman, 1993; Miles and Priest, 1999; Stott and Hall, 2003). Lawson and Manning (2002) report that there is a generally accepted view that wilderness experiences are defined by three distinct dimensions; social conditions experienced; the resource conditions experienced; and the management conditions imposed. This research project is centred within Lawson and Manning’s first dimension; with a view to exploring how the social conditions influence main behavioural drivers of the three participants.

Outdoor Education is commonly described as a vehicle for changing the individuals’ self belief and therefore self esteem Neill and Richards (1998) with a large proportion of the industry’s commercial activity marketed as personal or corporate developmental programmes. The assumption here is that these programmes can provide the platform for a change in the individual’s approach to life (Hopkins and Putman, 1993: Miles and Priest, 1999). What does seem to be lacking may be research into how these so called life-changing experiences can influence deep seated behaviours that are a product of the individual’s own social paradigm, embedded throughout their formative years. Every human being carries with them, consciously and unconsciously, a set of these values and moral standards, which are essentially behavioural determinants that influence our present behaviour (Berne, 1964). However, in order to continue the journey of personal and professional development, one must accept that not all of these behaviours are beneficial and some of the more compulsive ‘driv-
en’ behaviour is not always appropriate to the situation or conducive to the ongoing development of our potential.

Behavioural drivers are a manifestation of the formative transactions that every individual experiences through the developing years. The main themes of this approach are grounded in the workings of Eric Berne (1964) who was at the forefront of the development of the ‘Transactional Analysis’ (TA) model for understanding human behaviour. Berne’s TA model was originally formulated to raise self-awareness of the controlling internal influences on negative behaviour in his psychiatric patients. However, the model has more recently been employed in the understanding of working relationships and corporate organisational behaviour. The philosophy of TA is based on the view that everyone has the capacity to think, and therefore influence their own destiny, by changing their decisions. There is a fundamental principle that underlies this view, in that the goals of TA, such as autonomy and improved self awareness are only achievable with an intrinsically motivated acceptance of the responsibility required to initiate the change. A central concept to the TA model is the ‘ego state.’ Berne (1964) classified these as Parent, Adult and Child. These states are seen as being fluid and dynamic within any given situation, and even when one is isolated from multiple transactions experienced in the modern society, they can still influence our moods. A parent ego state exhibits behaviours copied or introjected from our parents, an anecdotal example would be a child growing up to realise that they are acting like their own parents, often an enlightening experience. An adult ego state deals with the behaviours, thoughts and feelings in the context of the present moment, thus being the logic or matter of fact part of our being. Any individual who is displaying a child ego state archaeopsychic response is replaying feelings embedded in childhood, this being the store of some of our most powerful feelings which include sadness, anger, joyous feelings and guilt. The interesting point central to TA is that these embedded and powerful experiences can be psychological anchors forming the basis for the development of our own values and standards. If these values and standards are transmitted from our parents and significant others during the early years and that many of these acquired beliefs are deep seated within our personality, any attempt to change them surely requires a modicum of reflection and awareness to not only understand them but perhaps to influence them in order to enhance our experiences. However, one must also accept that they have the potential to influence current behaviour, either positively or negatively (Berne, 1964: Kahler, 1974).

Table 1 illustrates potential links between the ‘transacted’ belief and the individual’s driver behaviour. It provides a brief overview of values and drivers identified by Berne, (1964) and subsequently used by Kahler (1974) allowing one to understand how many people may still be ‘obeying a message’ from their upbringing. There is a view that some behaviours satisfy several needs in a concurrent manner, however
other behaviours often only satisfy one need at the cost of another (Maslow, 1954). For example, the please others driver manifests a trait of saving time for others, whilst a distinct disadvantage of ‘hurrying up’ is important in that work is completed quickly but often lacks the necessary detail, so that the work has to be completed over again, thus wasting time for others. In order to change any behaviour one must be actively reflective (Kolb, 1984) allowing for the evaluation of the benefits and down falls of certain behaviours and beliefs governed by what Berne (1964) classifies as our ego states. These psychological realities are not seen as roles (Berne, 1964), but are part of a repertoire of ego states. According to Berne, each one of us has three distinct categories: (1) states resembling parental figures (exteropsychic); (2) those which are autonomously directed towards objective views of reality (neopsychic); (3) states which represent archaic relics, still active after being fixated in the early childhood years (archaeopsychic). At this point it is appropriate to revisit the research question of how this ‘wilderness experience’ might influence the participant’s behaviour and therefore, the researchers assume, also their attitude towards and effectiveness in completing their own projects. To demonstrate the link between this aim and the TA model, attention is drawn to Table 2, which presents the advantages and disadvantages of the drivers in relation to time management, an essential attribute required by the participants if they were to complete their individual projects within the time constraints of the expedition.

Table 1: Values, standards and associated driver behaviour.

<table>
<thead>
<tr>
<th>Values / standards.</th>
<th>Driver Belief.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulfilling one's potential, always do the right thing.</td>
<td>I desire to be perfect.</td>
</tr>
<tr>
<td>Consideration for others, co-operation serving others.</td>
<td>I need to please others.</td>
</tr>
<tr>
<td>Independence, courage, reliability.</td>
<td>I have to be strong.</td>
</tr>
<tr>
<td>Efficiency, responsive, hastiness.</td>
<td>I've got to hurry up.</td>
</tr>
<tr>
<td>Persistence in nature, patience, determination.</td>
<td>Must try harder.</td>
</tr>
</tbody>
</table>

Table 2. Potential effects of driver behaviour on the individual’s time management.

<table>
<thead>
<tr>
<th>Type of Driver</th>
<th>Advantage / disadvantage.</th>
<th>Probable behaviour.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be perfect.</td>
<td>Advantage.</td>
<td>Completes tasks competently first time, very orderly, plans carefully.</td>
</tr>
<tr>
<td></td>
<td>Disadvantage.</td>
<td>Spends too much time doing a perfect job on tasks not requiring detailed analysis, can over plan making project longer than necessary.</td>
</tr>
<tr>
<td>Try hard.</td>
<td>Advantage.</td>
<td>Persists in doing tasks even if they are not quick or efficient.</td>
</tr>
<tr>
<td></td>
<td>Disadvantage.</td>
<td>Does not take short cuts, makes decisions slowly, may not take risks.</td>
</tr>
<tr>
<td>Please others.</td>
<td>Advantage.</td>
<td>Accommodates others needs, makes for harmony, saves time for others.</td>
</tr>
<tr>
<td></td>
<td>Disadvantage.</td>
<td>Leaves own work in favour of others, allows others to eat into their own time, then rushes own projects. Desire to please everyone, asks too many questions and hold too many consultations.</td>
</tr>
<tr>
<td>Hurry up.</td>
<td>Advantage.</td>
<td>Completes a lot of work in a short time, excellent for jobs that do not require detail.</td>
</tr>
<tr>
<td></td>
<td>Disadvantage.</td>
<td>Hurries important work missing details, therefore has to do work over again.</td>
</tr>
<tr>
<td></td>
<td>Disadvantage.</td>
<td>Can be poor with human relations—no time for others.</td>
</tr>
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At this juncture the notion of the wilderness experience having some influence over the participant’s driver behaviour, whether short term or long term, should be considered further. It is fairly safe to say that there are advantages in being able to self
regulate one’s dominant counterscript driver (Kahler, 1974), an obvious example being an ability to adapt one’s behaviour to suit a particular situation. For example, an individual who has the counterscript driver of ‘Hurry up’ will be intrinsically driven to do things as fast as possible, often talking rapidly, interrupting conversations, clock watching and generally being impelled to complete everything right now. This may well be advantageous if working to a deadline, or alongside like minded people under the influence of their own ‘Hurry up’ counterscript driver. However, there are always two sides to every coin and the potential for conflict during social (or working) transactions with an opposing driver e.g. ‘Be perfect’ are fairly easy to foresee. During the wilderness experience the respondents would have participated in a great many such transactions, possibly being unaware of the internal driving forces which ultimately are products of their own social paradigm, thus governing how they behave in, and react to, certain social situations. It is therefore arguable, that if one could understand and thereby apply one’s own driver behaviour to particular situations which normally produce negative transactions (e.g. a controlling parent interacting with a vengeful child ego state), the outcomes of these social transactions could be manipulated to provide a much more agreeable and positive experience for all involved. The applications for this are many, not just in the business environment, where improving teamwork within employees pays dividends, but also throughout any adventure activity relationship – e.g. coach to student, team leader to group members. The ultimate aim of the model is the ‘healing’ of negative actions and reactions that are a product of pre programming via our significant influencing figure heads throughout our developing years (Berne, 1964; Kahler, 1974). This view, however, poses certain questions of how a wilderness experience can help to raise awareness or highlight particular patterns of behaviour to oneself. Firstly, during any prolonged trip, the individual will be removed from the normal fabrications of our modern life: telephones, cars, supermarkets etc., so that there will be a great deal of quiet time, often used to reflect, consciously or unconsciously about one's place in the world. This peace and serenity can be a catalyst to review and take stock of our lot in life; which sometimes provides an insight into the opportunities for change and future personal development; healing our destructive behaviours for the good of oneself so to speak. Certain authors (e.g. Borrie and Roggenbuck, 2001) have reviewed various works of outdoor philosophy and document a view within recreational theories, that the whole experience is actually ‘mutli - phasic’ describing the spectrum of experiences throughout the journey. Each phase brings its own pressures, but in the context of the study, there was an apparent time management pressure for the participants, a compromise was needed to complete their own agenda against the pressure of the responsibility for undertaking daily camp duties and personal administration in the field. It is therefore easy to appreciate how the pressures associated with living in the wild, completing individual research projects and balancing these with the teamwork
dynamic required to maintain the camp routine, can provide the social platform for potential crossed transactions and self defeating impulses i.e., the vengeful child ego state (Berne, 1964; Kahler, 1974), which could easily influence the performance and interpersonal relationships within the expedition team; or on taking another perspective, to see the potential for these counterscript drivers to have some positive influences and outcomes.

Method

During the research expedition, three male participants completed several qualitative research surveys including, questionnaires, one to one interviews and recording their thoughts and reflections in a personal diary which was submitted to the data bank at the end of the research trip. This non–random sampling approach has drawn some criticisms on the basis of it not being representative across the wider population. However, if employed in a purposive manner it allows the researchers to select participants on the basis of the relevancy to the research in question (Bryman, 2008). In order to limit the amount of error with the data collection methods, the use of three approaches was intended to allow for ‘triangulation’ between the three methods with the purpose of compensating for any error in one method, thus increasing the validity and reliability of the finding (Bryman, 2008; Mason, 2002; Silverman, 2005).

Questionnaires

The questionnaire was designed to explore the potential changes in driver behaviour throughout the expedition and was developed on the ideas of Berne (1964) and Kahler (1974). It contained 60 statements measured on a Likert scale ranging: never; rarely; sometimes; frequently and always. The scores from the respondents were collated into a spreadsheet with the purpose of investigating pre, mid and post expedition changes; data collection was organised into pre expedition, mid expedition and post expedition sampling.

Interviews

Three semi–structured interviews were conducted with each participant; one during the first week of the expedition, the second the day after returning from the wilderness phase and the third, a week later on the day of our return to the U.K. These interviews allowed the researcher to pose selected open questions to each subject and to record the emergent themes. The interviews were recorded using a digital voice recorder. The main advantage of interviews may be that the responses are personalised and may allow the researcher to explore implications from their responses (Cohen and Manion, 1994; Hitchcock and Hughes, 1995). However, as with any research tool one must be aware of the drawbacks and inadequacies; a problem with interviews being that of validity (Cohen and Manion, 1994; Haralambos and Holborn, 2004),
due to the possibility of the respondent not acting naturally, not revealing their true feelings or actually second guessing what the interviewer would like to hear in an attempt to placate them. In this research, this weakness of interviews may actually help to reveal the ‘Please others’ driver which may be dominant in that particular situation. On completion of data collection, the interviews were transcribed and coded into categories for evaluation. Major themes emerging were noted and contributed to the overall picture emerging about coping behaviour from this research.

Expedition diaries

The participants completed a diary throughout the expedition making entries on a daily basis and were given very loose and unstructured guidance on what was required. This allowed the participants to record their feelings free from any shackles of specific criteria, providing data that were based on personal choice made as freely as possible. These data were then grouped and coded in a similar manner to the interview transcripts.

Results

Table 3 illustrates the changes in the dominancy and rank order of the driver behaviour recorded by the three participants. According to Berne (1964) any score within the range of 15 – 25 can be deemed to indicate no apparent driver behaviour. A score ranging 25 – 30 indicates some degree of energy being employed inappropriately, and scores of 30+ indicate that the participant has very high driver behaviour indeed.

The interview and diary data for participant A highlight particular patterns of behaviour, with a consistent theme developing whereby a series of negative comments were recorded with the stimulus for this train of thought borne out of a lack of organisation and timekeeping. Participant A would regularly ‘under perform’ in their own view; thus, their diary entries were quite strong in the chastisement of themselves and this became more prevalent as the expedition went along. This posed the question: “is this situation a manifestation of the internal conflict created by ‘hurry up’ behaviour opposing ‘be strong’ behaviour?” Another interesting point was the change in the dominancy of the ‘Be perfect’ behaviour from having no apparent driver behaviour pre- and mid-expedition (24 and 23 respectively), to having a high score of 33 post-expedition, a trend that was reflected in the diary, with the participant consistently exploring and devising ways to improve not only their own project methodology, but also their own performance in several contexts, operationally, socially and intellectually as the expedition progressed.
Participant B demonstrated some driver dominated behaviour at the beginning of the journey, however this was limited to ‘Being strong.’ This was mirrored by the data collated from the interviews; with the participant answering every question with a very strong self affirmation of their positive performance in relation to the question. Combine this with the consistent dominance of this particular driver and the theme developing from other data sources of ‘being able to cope and complete the tasks’ adds further support to the inference that this is signalling that the participant ‘mel-lows’ with the realisation during the final interview that one of the things learnt was the acceptance that at times ‘being patient and just relaxing just seems to make things better.’ This statement not only, be it consciously or unconsciously, links to a reduc-tion in driver behaviour, but one could also argue that the strongest influence on this could possibly have been the serenity and peace of the wilderness itself.

Table 3 illustrates the very strong dominancy presented by the ‘hurry up driver’ in participant C. The coded data from the interviews and diary also reflect this domi-nancy. A point to note here is that in the vast majority of interactions with this sub-ject, there was a noticeable inner compulsion just to get everything done as quickly as possible in order to get home. Bearing in mind that this participant was very inexpe-
rienced in working or travelling in the outdoor environment, let alone such a remote location, this journey was a personal challenge for participant C to say the least.

**Discussion**

It is interesting to note that all driver behaviour had increased throughout the period for participant A, with themes from his own reflections, diary and interview data suggesting that there was consistently an internal parent-child transaction taking place, constantly chastising and being critical of their performance. In the early stages of the project there was an obvious conflict between the ‘Hurry up’ and ‘Be strong’ influences; when questioned about coping with the rigours of the expedition and completing their own projects, the answer was “*I do not really find it conflicting because I kind of enjoy the jobs we have to do anyway I did it well with the Scouts … so I’ve got no qualms of doing it all*”. The participant continually strove to reinforce their stoicism, which together with being driven on are identified as advantageous traits of being strong (Berne, 1964; Kahler, 1974), the latter having the potential to exacerbate an already high ‘hurry up’ driver, leading to tasks being overcomplicated and then ultimately hurried, a trend reflected in the early part of the expedition. It is certainly worth noting the emerging trend of being more and more self-critical during the expedition, coinciding with a recorded change in the driver behaviour. This situation has the potential danger of creating a negative belief cycle, where the individual is constantly striving for perfection and not achieving Kahler (1974). This can lead to a position of overload followed by breakdown. This cycle has been apparent in participant A’s recent personal history, as recorded in the research data. When this situation is in the acute stage it will undoubtedly be easier to adapt their behaviour. However, once it reaches the chronic stage it is very easy for the individual to be swallowed up into a negatively fuelled self-fulfilling prophecy.

In relation to Participant B, the questionnaire data indicated that the ‘be strong’ driver was the most dominant, however not to an excessive extent. The most interesting line of enquiry to follow here, as there are many emerging from the data that would certainly warrant further investigation in their own right, is the emergence of a pattern during the interviews and personal diary entries of the participant’s opening statement being that of a positively strong self-affirmation e.g. -

**Q.** How would you describe your ability to be self reliant and deal with the rigours of an extended wilderness expedition?

**A.** I am self reliant erm, I think there is only a couple of things that were really, really even bothered me in the slightest.

When reviewing the trend in the self reported questionnaire, Table 3, the ‘be strong’ driver remained the most dominant throughout the expedition. However, during
what Borrie and Roggenbuck (2001) describe as the ‘on-site phase’ there was a reduction in the recorded driver behaviour. This reduction was sustained after the initial stages of the recollection phase (Borrie and Roggenbuck, 2001) of the wilderness experience. This pattern of reduction was supported by a statement made in the final interview, when questioned on the topic of the expedition influencing their self development.

**Q. How do you feel that the wilderness expedition has influenced or enhanced your personal development?**

**A.** I’ve learnt that just being patient and just relaxing yeh, just seems to make things a little better

There was an observable drive to continually be strong from this particular participant, coinciding with a reluctance or phobia of being interviewed, and fairly spartan and superficial documentary evidence recorded in their diary. Taking all these variables into consideration, and combining them with the disadvantages of being strong (‘no time for others,’ see Table 2), it can be perceived that this approach of spilling out your feelings in public, was deemed a risky one by the participant. However, challenging these inner fears will go some way to help change or control these deep seated behaviours. The emotional risks are real and not only central but fundamental to one’s ability to change. Nichols (2000) views the most important risks in adventure education as those involving experiments of self concept. This offers some insight into the stoic behavioural patterns displayed by Participant B and the limited recording, both verbally or written, of their deeper views and emotions throughout the expedition.

Participant C consistently displayed very dominant ‘hurry up’ driver behaviour throughout the expedition, which became more dominant as the trip progressed. A reflection of this was demonstrated in the interviews, when the participant would regularly miss the point of the question and begin a detailed and rather rapid dialogue of what was important to them – in this case completing the task quickly and getting it over-with. Another interesting line of enquiry is one that demonstrates a relatively high ‘please others’ behaviour, which was supported by reference to “getting back to camp in time – as others were relying on me to cook (or wash up)”. A further example related to getting up in the mornings to prepare breakfast. This also highlighted the inner willingness to ensure that the other team members were not let down by the participant’s lack of concern for the overall operational effectiveness. Participant C was the least experienced expedition member, who displayed some ‘be strong’ behaviour traits during the initially diagnostic assessment of their driver tendencies. This member continually battled with homesickness and a desire just to get the work done and go home (hurry up) whilst in the field. It is noteworthy that Participant C’s ‘be
strong’ behaviour actually overtook and displaced his ‘be perfect’ behaviour as time went on. There was a desire to get through at all costs, as the pressures of isolation from their normal environment mounted. This view is supported by Neill and Dias (2001) who found that adventure education increased psychological resilience.

So what can we decipher from the findings? It can be noted that all the participants demonstrated a change in their preferred behavioural driver, whether it be of an order of magnitude or in ranking against other drivers. There were also times when the individual participants were in conflict with their own behaviour drivers and controlling attributes. For instance, participant A started by ‘hurrying up’ but tried to ‘be perfect’ in the later stages of the expedition. Alongside this there is also a suggestion of crossed transactions in the documentary and interview evidence, but was this a conscious or unconscious decision? This is a very contentious point, we are essentially dealing with the affective domain of the brain: feelings and values and perceptions, which are very personal and difficult to assess or evaluate from an external stance, and certainly one of the challenges of this kind of research. This, we believe, highlights the importance of the researcher understanding the complex perceptions which ultimately influence the interpretation of the social interactions and experiences in which they are participating in (Schwartz and Jacobs, 1979).

Neill and Richards (1998) identified small to medium impacts on self concept, self confidence together with the development of a locus of control, which are reflected in the research findings. Therefore, within the context of this research on the effects of a wilderness experience on behavioural drivers, it seems that the cutting edge of challenge can, and does make people stronger, as demonstrated in participants A and C. However, for the individual to benefit or even recognise this development there is a need for a phase of reflection or as Borrie and Roggenbuck (2001) put it ‘a recollection phase’. A poignant issue here is that the improvement in the aforementioned ‘states’ actually increased with time elapsed after the exposure to the wilderness experience.

Wilderness expeditions have often be described as ‘significant’ in changing patterns of behaviour or opening doors to new opportunities, so these events can often come with some perceived ‘outcomes’ which are anchored to the goal of self development (Miles and Priest, 1999). One could argue that certain outcomes or character changes could even expected, by whom and for what purpose may be the topic of another paper. This highlights a problem with this kind of research approach, that prior expectations may illicit prescribed responses (not unlike the impulses generated by a ‘please others dominancy’). Therefore, although one must accept that sufficient evidence exists in support of wilderness expeditions invoking some degree of behavioural or self perception change, there is an inherent problem in the fact that all the data generated, it could be argued, are affected by an emotional contract between the researchers and
their subjects. There could be a case of subservient or reciprocal behaviour of some kind in return for a place on the expedition. A way around this may have been not to reveal the true purpose of the psychological experiment within the geographical investigation until after the expedition. In this instance, the practicalities of ‘hiding’ the intent of the psychological experiment during the trip might have been socially problematic so it is acknowledged that the researcher-observer may have an impact on the behaviour of subjects, merely by their presence. Becker (2007) talks of just enjoying the journey, a state of mind that would be a revelation to study. However, it has one inherent fault: that is, by studying an individual’s interaction with nature and how it affects their behaviour you have to interact with them, posing the question; are they really enjoying the journey?

Regardless of this problem, we still claim that there are benefits to be gained by investigating how the wilderness experience can be influential in providing the impetus required for any behavioural transformation. Daniel (2007) discussed significant life experiences in the context of spirituality. Indeed, there are links to this study in that he proposed the view that research into this area attempts to understand how past events continue to influence people's feelings, attitudes, beliefs and behaviours. With reference to a 20 day discovery expedition, most of his informants viewed the experience as significant and it helped redefine their own perception of themselves and their circumstances. Consequently, we as researchers can still learn valuable lessons from this kind of investigation; about how the stark and beautiful wild places of our world can have such a powerful impact on our own life experiences, and provide an understanding of not only how we and others behave, but also in clarifying the effects on humans reconnecting with nature and its effect on how we behave.

Conclusions

A problem with any theoretical model is one of pigeonholing the subject. It would be easy to assume that the wilderness itself was the only factor responsible for the change in driver behaviour. This however, would be quite wrong and demonstrates a very simplistic interpretation of the research findings. It is obvious that many variables have the potential to influence individual behaviour; but what we can conclude is the notion that these internal drivers are dynamic and fluid, being manifestations influenced by the various states of mind. Accepting this alongside the view of Borrie and Roggenbuck (2001) that experiences borne out of the interaction with the wilderness involve multiple states of mind; one can imagine the difficulty of singularly attributing any transformation to the sole factor of the wilderness; this being a precarious path of inquiry to follow. However, there were inferences throughout the data leading the researchers to believe that the driver states were influenced by the wilderness experience in some way, eliciting changes in all participants. What is evi-
dent is the notion of exposure, the longer the participants were exposed to the wild, the more noticeable the effects on their individual driver behaviour seemed to be.

What can be taken from the findings in terms of practical application? As professional outdoor educators there seems to be some intrinsic value to having knowledge about some social behaviour developments whilst being in the outdoors/wilderness with people for the purposes of personal or social development. Further longitudinal research is seemingly required to establish if there are any long-term effects from the wilderness experience upon personal character traits. It is hoped that this investigation and the model utilised within it might contribute to such an understanding.

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