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What fosters awe-inspiring experiences in nature-based tourism destinations?

Abstract

Awe, an intense, and usually positive emotion often experienced by individuals visiting nature-based tourism destinations, has the potential to nurture strong connections between individuals and their environment. Despite this, awe research has been neglected in the tourism literature, especially in relation to the aspects or features that foster awe-inspiring experiences. This study sought to rectify this by focusing on such experiences in the remote, unique Kimberley region in north-western Australia. A total of 49 tourist interviews were conducted to ascertain their responses to the question “what has been your most awe-inspiring experience and why?” Responses highlighted five distinct facets contributing to respondents’ awe-inspiring experiences: marine fauna, aesthetics, ecological phenomena, vast geological landscapes and reflective/perspective moments. Future research should focus on exploring the applicability of these facets to other nature-based tourism destinations.

Keywords: awe; Kimberley region; nature-based tourism; reflection; tourists; vastness

Introduction

Since the examination of the relationships between humans and their environments began, researchers have noted that descriptions of nature-based tourism experiences are often characterised by the use of terms that relate to mysticism, transcendence and emotion (Williams & Harvey, 2001). It is acknowledge that these affective dimensions (including emotion) are key dimensions of the nature-based tourism experience and they are often seen as crucial to the quality of these experiences (Farber & Hall, 2007). Despite this acknowledgement, there has been little attention to describing these affective elements or factors that cause them (Farber & Hall, 2007).

Emotions are episodes of intense feelings said to result from specific events or stimuli (Farber & Hall, 2007; Floyd, 1997) and there has been relatively little research on the specific nature or causes of differing emotions during tourism experiences (Farber & Hall, 2007).

Initial efforts to examine the emotional aspects of nature-based tourism experiences have focused on experience preferences, motivations, engagement and emotional bonding with a place (Floyd, 1997; Williams & Harvey, 2001). Recently, there has been a push by human-environment researchers to look beyond what causes positive emotions in nature-based tourism experiences, to understanding the stronger emotional outcomes of these types of experiences (Coghlan, Buckley, & Weaver, 2012; Farber & Hall, 2007; Frederickson & Anderson, 1999; Williams & Harvey, 2001). Various referred to as peak, extraordinary, transcendent and awe-inspiring, these strong emotions are used to describe aspects of tourism experiences yet are not as well researched as preferences, motivations and place bonding (Farber & Hall, 2007; Williams & Harvey, 2001).

Peak experiences have been described as being short in duration and include revelations or mystical illuminations that also involve both emotion and cognition (McDonald, Wearing, & Ponting, 2009). Often described as being moments of highest happiness and fulfilment, coupled with some important meaning and/or insight for the individual experiencing them (Curtin, 2009; McDonald et al., 2009). Examination of participants' peak experiences in three Victorian national parks revealed seven core themes – aesthetic qualities, being away, meaningful experience, number of peak experiences, oneness/connectedness, overcoming limitations and heightened awareness (McDonald et al., 2009).

More common is the use of extraordinary experiences, often used interchangeably with transcendent experiences, which describe the experiences that individuals have that hold special meaning and can be associated with personal growth and development of the individual (Jefferies & Lepp, 2012). Extraordinary experiences are highly memorable and emotionally charged and intense. They may be the result of encountering something new or original and are more likely to be triggered by events that are unplanned, spontaneous and

unusual (Farber & Hall, 2007; Jefferies & Lepp, 2012). It is this spontaneity that is said to distinguish extraordinary events from the everyday and forms a large contribution of the perception of the experience as being extraordinary (Farber & Hall, 2007). Reflection is also a chief contributor to these types of experiences, with individuals able to reflect on important events or feel they have the time for introspection when triggered by emotional cues in the environment, such as sunsets, beautiful scenery and vistas (Arnould & Price, 1993; Farber & Hall, 2007; Jefferies & Lepp, 2012).

Sometimes used interchangeably with extraordinary experiences, transcendent experiences entail moments of extreme happiness, freedom and a sense of harmony with the world, which are totally absorbing and feel important to the individual (Davis & Gatersleben, 2013; Williams & Harvey, 2001). These experiences are triggered by natural or wilderness environments and are reported to evoke a sense of inspiration, awe, spirituality and timelessness (Davis & Gatersleben, 2013; Williams & Harvey, 2001). Williams and Harvey (2001) describe the key characteristics of transcendent experiences as those that have a strong positive effect, evoke feelings of overcoming limits of the everyday, sense of connection with the universe or some other form of power/entity, total absorption in and feeling of significance in the moments, and a sense of timelessness.

Finally, awe-inspiring experiences again use similar terms in their definition and explanation, however limited attempts have been made to examine awe in tourism research. Powell, Brownlee, Kellert and Ham (2012) suggest that awe is thought to come about as a result of the interplay of a range of experiences such as peak, spiritual, optimal or extraordinary, while others have included awe as part of research into emotionally laden experiences (Table 1). Generally, awe itself is not explicably studied; rather, awe is often listed as one of many emotions experienced or used interchangeably with other strong emotive descriptors (Table 1). For example, Davis and Gatersleben (2013) use awe as part of

their emotional appraisal of experiences; Hughes (2013) as an emotional response to viewing wildlife; Faber and Hall (2007) as one of a number of affective or emotional states; and Jefferies and Lepp (2012) as a type of spontaneous emotion. Other than Coghlan et al.'s (2012) proposed framework for examining awe in tourism, little research has been conducted that explicitly examines what fosters awe-inspiring experiences in tourism settings. Coghlan et al (2012, pf. 1711) are definitive regarding no tourism studies of awe – “Whilst no tourism studies specifically examine awe, its presence in some attractions has been established, albeit with little consideration of the antecedents or experiential implications”. This paper importantly addresses these antecedents.

INSERT TABLE 1 ABOUT HERE

Awe's place as a discrete emotion has been previously neglected by emotional theorists (Keltner & Haidt, 2003) with more recent efforts to provide a classification or definition. Lazarus (1991) suggests that it is a dynamic mental state with either positive or negative emotional aspects. Shiota, Keltner and Mossman (2007) indicate that awe is a predominantly emotional response to stimuli that challenges an individual's perception of the world around them. Regardless of its description, the meaning of the term “awe” has changed over time as language has evolved (Bonner & Friedman, 2011). Initial meanings involved both positive and negative connotations depending on usage, particularly in religious contexts involving “awe” at the power and majesty of the divine (Shiota et al., 2007). Current usage of “awe” primarily relates to experiences with a positive emotional nuance, although awe may still conjure feelings of fear and dread (Bonner & Friedman, 2011).

Awe can be felt about a number of diverse events and objects – from scenic landscapes to natural processes such as childbirth or the destruction resulting from large

storms (Keltner & Haidt, 2003). In a religious context, awe is apparent in discussion of man's relationship with "God", usually as an outcome of contact with "God" whereby man is transformed and embraces a new perspective as a result of confusion and amazement at His majesty. In philosophy, awe is produced when the stimulus has an aspect of power (potentially causing terror) and obscurity; while in psychology it has received little attention, other than in relation to Maslow's (1964) peak experiences whereby some of the features of peak experiences have similar sentiments to awe (Keltner & Haidt, 2003).

Common across these disciplines, is the presence of something powerful and the associated feeling of submission (Keltner & Haidt, 2003). Thus, awe can arise from difficulties in comprehending an experience and the associated feelings of confusion, surprise and wonder (Keltner & Haidt, 2003). These feelings have led researchers to propose two features, *vastness* and *accommodation*, as central to experiencing awe (Bonner & Friedman, 2011; Coghlan et al., 2012; Keltner & Haidt, 2003; Shiota et al., 2007).

Although the characteristic of *vastness* can imply large or great size, in relation to awe it refers to any stimulus or experience that is perceived as much larger than the individual, or which challenges an individual's frame of reference (Keltner & Haidt, 2003; Shiota et al., 2007). It can be compounded with a sense of power or feeling overwhelmed, which may partially explain how awe and fear can be intertwined (Bonner & Friedman, 2011). *Vastness* can also pertain to social experiences such as encountering fame, authority or prestige (Keltner & Haidt, 2003).

Accommodation refers to the process of adjusting an individual's mental structures in order to absorb and comprehend an experience in instances where their current traditions and knowledge do not suffice (Keltner & Haidt, 2003). It may result in adaptation or even the creation of new mental structures or schemas in order to make sense of, or accommodate, the experience (Keltner & Haidt, 2003; Shiota et al., 2007). This reorganisation of mental

structures may or may not be achieved, again potentially leading to fear and awe becoming intertwined if the reorganisation is not satisfied (Bonner & Friedman, 2011; Keltner & Haidt, 2003).

Bonner and Friedman (2011) attempted to provide further conceptual clarification of awe via secondary analysis of interviews first published in Schneider's (2009) book *Awakening to Awe: Personal Stories of Profound Transformation*. Their purpose was to better define and clarify the concept of awe for use in future theory building and scientific research. They identified 10 themes that helped to explain the concept of awe: profoundness, connectedness, numinous, vastness, existential awareness, openness and acceptance, ineffable wonder, presence, heightened perception and fear. While their work adds to the body of knowledge on the complexity and multifaceted nature of awe, the authors themselves question what it is that actually elicits awe, and how can awe be categorised in relation to other types of experiences.

What relevance does the creation of awe-inspiring experiences hold for managers of nature-based tourism experiences? For the individual, experiencing awe creates and develops stronger connections with the surrounding world, potentially establishing a desire to prolong, memorise or re-live their nature-based tourism experience. This can also lead to behavioural and attitudinal loyalty between the individuals and the experience (Coghlan et al., 2012). Despite this potential to foster loyalty, awe remains poorly studied or investigated (Shiota et al., 2007), especially in natural environments (Coghlan et al., 2012). This is surprising given that nature-based tourism has the strong potential to deliver awe-related experiences Powell et al., (2012).

The analyses reported in this paper identifies what fosters awe-inspiring experiences along the remote Kimberley coast, an iconic nature-based tourism destination. This is one of the first studies to undertake this form of research in a coastal wilderness environment and

the first to do so for a little known but exemplary nature-based tourism destination. It also importantly adds to theory regarding the facets of awe-inspiring experiences in nature-based tourism. Powell et al., (2012, pg. 147) in commenting about researching awe felt by tourists in outdoor environments note “authors struggling to describe these sublime, spiritual, and influential moments” underpinning awe. This paper seeks to fill this gap.

Examining awe in the Kimberley coastal wilderness

The Kimberley region in north-western Australia is a unique place. Considered one of the world’s last coastal wilderness areas (Collins, 2008; Scherrer, Smith, & Dowling, 2008), the Kimberley is remote from major towns and centres, lacks facilities and retains a high degree of naturalness. A plethora of natural and cultural attractions make this region a popular tourist destination for those seeking once in a lifetime nature-based tourism experiences. The Kimberley coast’s rugged beauty, superlative natural phenomena and largely ‘untouched’ nature sets it apart from other coastal areas and fosters its characterisation as a wilderness area (Lonely Planet, 2013; Scherrer et al., 2008). For some, the notion of being in a wilderness-like environment can enhance an individual’s level of mindfulness (Frederickson & Anderson, 1999). As such, the Kimberley coastline has the potential to foster experiences that many visitors would describe as extraordinary, awe-inspiring or invoking a sense of awe and wonderment.

Overview of the Kimberley region

The Kimberley region is located in far north Western Australia and is over 423,000km² in size (Fig. 1). This is one-sixth of the Western Australian landmass or the equivalent of three times the size of England (Australia's North West, 2015). The region is largely underdeveloped due to remoteness from major population and economic centres (Scherrer et al., 2008). The major regional centre, Broome, is approximately 2,400km from the Western

Australian capital city of Perth. With a population of approximately 34,000 people living in six towns and over 200 small, largely Aboriginal settlements, the Kimberley region is regarded as sparsely populated (Australian Bureau of Statistics, 2013). Approximately 40% of the region's population are Aboriginal (Australian Bureau of Statistics, 2013). There are fewer people per square kilometre in the Kimberley than almost any other location on the planet (Australia's North West, 2015).

The study area focused on the coastline from the western end of Eighty Mile Beach to the Northern Territory border (Fig. 1). This equates to approximately 13,290km of coastline, which includes the thousands of small islands found off the coast. The coastline itself is highly variable but can be broadly divided in to two main zones. From Broome to Cape Leveque low sandy beaches dominate with occasional coastal cliffs; and from Cape Leveque to the Northern Territory border, the coastline is more rugged with sandstone and dolerite escarpments (Scherrer et al., 2008). The northern part of the Kimberley region is an example of a large-scale ria ('drowned) coastline with associated geomorphical features such as gorges, sea cliffs and water falls flowing directly into the ocean (Brocx & Semeniuk, 2011).

INSERT FIGURE 1 ABOUT HERE

Tourism, and in particular nature-based and marine tourism, is an important component of the Kimberley economy generating over \$327 million dollars (AUS) per annum (Collins, 2008; Department of Regional Development, 2014). There are a number of natural and cultural attractions within the region. Key natural attractions include marine fauna such as whales, saltwater crocodiles, barramundi, turtles and seabirds; as well as iconic landscape attractions such as the Montgomery Reef, Mitchell and King George Rivers and Falls, Kings Cascades and the Horizontal Falls (Hercock, 1999; Scherrer et al., 2008).

Cultural drawcards include Aboriginal sites such as burial and rock art locations, which provide evidence of Aboriginal occupation of the region for some 30-40,000 years (Morwood, 2002; O'Connor, 1999). Contemporary Aboriginal culture continues to lure visitors to the region, as does opportunities to witness remnants of early European missionaries from the early 1900s (Strickland-Munro, Moore, Kobryn, & Palmer, 2015).

Around 330,000 to 350,000 tourists visit the Kimberley region each year (Scherrer et al., 2008; Tourism Western Australia, 2014), mainly during March to October (i.e. austral winter). This is during the region's "dry" season where there is less risk of cyclones or flash flooding from monsoonal rains (Hercok, 1999; Scherrer et al., 2008; Scherrer, Smith, Randall, & Dowling, 2011). The region's extreme isolation, lack of established access and rough condition of existing access tracks restrict tourist numbers and where they can visit (Collins, 2008). Consequently, most tourists are largely terrestrially-based with the more remote coastal and marine areas accessed by light aircraft or small cruise ships and boats out of the centres of Broome, Derby and Wyndham (Collins, 2008). Tourists can partake in a range of activities including four-wheel (off-road) driving, beach camping, sea-kayaking, wildlife observation, fishing, sightseeing, and expedition cruising (Collins, 2008; Scherrer et al., 2008).

Methodology

This research investigated the affective aspects associated with living and visiting the Kimberley region. Awe was of specific interest for two reasons. One, the Kimberley boasts an array of exceptional cultural and natural attractions. Visiting the region is often described as life changing and descriptions of the experience often include the term "awe" in both visitor descriptions and marketing material of tour organisations (e.g. Trip Advisor reviews). A desire to address the paucity of literature investigating awe-inspiring experiences in iconic nature-based tourism destinations provided a second motivation for the focus on awe. Factors

fostering the achievement of awe-inspiring experiences were explored through asking tourists the question “*What has been your most awe-inspiring experience and why?*” Further perspectives on awe were sources from tourist responses to other interview questions.

The analyses reported here were undertaken as part of a broader science initiative involving the Kimberley coastline (<http://www.wamsi.org.au/kimberley-marine-research-program-0>). This initiative, supported by the State Government of Western Australia, recognised the increasing potential for development in the Kimberley region and associated concerns regarding sustainability, due to the Kimberley’s rich resource base (especially oil and gas), expanding international profile and increasing numbers of visitors. Research programs to-date have addressed ecological concerns relating to reefs and marine fauna, as well as social research focused on human-environment relations. The results reported here form part of a larger social research program describing and mapping the social values held by people for the Kimberley coast and marine environments (Strickland-Munro et al., 2015).

Semi-structured interviews were used to investigate tourists’ social values including their awe-inspiring experiences. These interviews consisted of 10 open-ended questions and associated probes. Pilot testing of the interview questions occurred prior to fieldwork, involving laypersons and academic colleagues. Minor clarifications and amendments were made to the questions as a result. A series of face to face, semi-structured interviews with tourists were conducted over a five month period from June to October 2013. Interviews were typically conducted in a respondent’s campsite or yacht and ranged in duration from 20 minutes through to 1.5 hours. All interviews were recorded to ensure accuracy. A convenience sample of respondents was targeted at popular tourist destinations along the coast including campsites along the Dampier Peninsula and Eighty Mile Beach. Tourists disembarking from Broome (Fig 1) from expedition cruises of the Kimberley coastline were specifically sought. Independent travellers in yachts were also convenience sampled by one

of the researchers in the waters around the Dampier Peninsula and northwards to Camden Sound (Fig 1).

Interviewers endeavoured to recruit a wide range of tourists in terms of their age, gender and life-cycle stage. Being exploratory research, the interviews sought to gain an understanding of tourist's awe-inspiring experiences, rather than generalise to the larger population. As such, theoretical saturation was used to determine the number of interviews. This meant that interviews were conducted until no new themes or concepts informing a theoretical understanding of social values (the larger research program) or awe (analyses reported here) arose (Guest, Bunce, & Johnson, 2006).

Analysis

The interviews were transcribed verbatim. An interpretivist, grounded theory approach was used to analyse the transcripts. This approach facilitates the generation of themes and concepts from within the data rather than the imposition of predetermined ones (Cresswell, 2003). Blocks of interview text were analysed using the qualitative data analysis software *QSR NVivo* (version 10) (QSR International, 2013) as is standard practice using grounded theory. Analysis involved the generation of emergent themes ("codes") from within and between the transcripts. These codes related to facets of respondents' expressions of the contributors to their awe-inspiring experiences, for example "animal interaction", "sense of respect" and "physical landscape". They were refined through subsequent and ongoing analysis of text, e.g. "physical landscape" was further refined to distinguish facets of geology, scale, and water movement. Data analysis was undertaken by two of the authors. Inter-coder reliability was ensured through ongoing refinement of a shared set of codes (Kurasaki, 2000). This was achieved by the authors discussing coding where there was discrepancy and resolving until an inter-coder reliability level of 90% was achieved, meaning agreement regarding 90% of codes and their supporting quotes and description.

Results

A total of 49 tourist interviews were conducted, while most of these were one-on-one, a number involved multiple respondents (range 2 - 7) giving a total number of 79 respondents. These multiple respondents typically included partners, families and friends travelling together, where all people expressed an interest in participating. Approximately equal numbers of males and females were interviewed (Table 2). Almost half of the respondents were in the 55-64 age range (42%) with a vocational (33%) or tertiary (29%) level of education. A third of respondents were from Western Australia (33%), with just under a quarter of respondents from Queensland (24%, Table 2).

INSERT TABLE 2 ABOUT HERE

The results presented below are primarily based on responses to the question “*What has been your most awe-inspiring experience and why?*”, with not all respondents providing a response to this question. Data stemming from spontaneous reference to feelings of awe and awe-inspiring experiences noted in other parts of the interview, e.g. related to the aspects of vastness and accommodation, supplement these direct responses. Analysis of interview data identified five aspects that helped foster respondent’s awe-inspiring experiences: marine fauna; aesthetics; ecological phenomena; vast geological landscapes; and reflective/perspective moments. Each of these is described below with further context provided by illustrative quotes from the interviews.

Marine fauna

The presence of charismatic marine fauna contributed to respondents’ awe-inspiring experiences. A number of respondents commented on the thrill and excitement they experienced at being able to see and interact with these animals. This included large species

such as migrating humpback whales, which often travelled with new calves in tow, as well as smaller animals such as dolphins, sharks and turtles.

“Seeing the whales was quite a thrilling event, [I’ve] never seen whales up here before and just seeing them...” [Couple, 65+years]

Awe inspiring experiences were described as not only involving excitement at seeing these charismatic species, especially if it was for the first time, but in a number of instances the experience was predicated on being able to interact and touch the animals.

*“Seeing the lemon head sharks, they are enormous and they just float around your boat. They’re quite harmless and they liked getting their backs scratched.”
[Male & female group, 4 people, 55-64 years]*

Respondents also commented that they chose to stay at a particular location in order to interact with marine fauna, and nature more generally.

“Respondent: Maybe seeing the whales, what about the whales? So many whales, I forgot about the whales, or the dolphins...”

Interviewer: So it sounds like the most awe inspiring parts for you are interacting with nature?

Respondent: Yes it is, that’s all it’s about for us, yeah. If it didn’t have the nature there we’d find somewhere else to go.” [Male & female group, 4 people, 55-64 years]

Opportunities to see and interact with marine animals, including large and iconic marine mammals, were central to respondents’ choice of camping location. This was particularly true for those interested in viewing migrating whales. Many respondents professing such an interest linked their choice to visit the Dampier Peninsula and Camden Sound to their ability to see whales, with Camden Sound being the principal calving habitat for one of the largest populations of humpback whales (*Megaptera novaeangliae*) in the world (Department of Parks and Wildlife, 2013). Indeed, some respondents would choose to stay or visit elsewhere if this interaction was not available to them.

Aesthetics

The aesthetics of the Kimberley coast was another aspect contributing to respondents' awe-inspiring experiences. Contributing to this aspect were the Kimberley's unique landscape, its vibrant and contrasting colours, and evocative and memorable sunsets. Each of these features is discussed below.

A number of respondents described how the scenery of the Kimberley was unlike anything they had experienced before. "Spectacular", "incredible" and "beautiful" were common descriptors, for example: "*there's rock formations that are unbelievably incredible*" [Male, 35-44 years]. Others were awed by the fact that the coast provided seemingly endless opportunities to experience superlative and ever-changing vistas. For example:

"You go to each place and there's always something that you can find that inspires you or something that you have never seen before.

The entire coastline is awe-inspiring. There's nothing that hasn't been "wow!" It's fantastic, every single thing we look at its always jaw-droppingly beautiful."
[Male & female group, 5 persons, 55-64 years]

The latter quote highlights the dissonance between respondents' everyday landscapes and the stunning vistas that characterise the Kimberley coast. Reflecting on the aesthetics of the coast, respondents often remarked upon their experience as engendering a sense of awe at the 'majesty of nature'. This sense of awe in turn translated into a feeling of privilege at having had the opportunity to experience this coastal landscape for themselves, to be fully immersed in it. The sense of awe was heightened for those respondents who had been involved in an expedition cruise to the more inaccessible areas of the coastline:

" [It] was an absolute privilege to see it from that perspective rather than just heading out for the day, [we were] sort of living amongst it for nearly 10 days, really just seeing [the Kimberley] in its raw beauty, it's incredible...I'm absolutely blessed...this is the sort of thing you see in tourist ads you know. I am very privileged to see all of that area..." [Female, 45-54 years]

The vibrant and contrasting colours indicative of the Kimberley coastal landscape were the second awe-inspiring feature of aesthetics. Respondents repeatedly referenced the vivid intensity of colours associated with the Kimberley's iconic red dirt, luminous clear blue waters and sparkling white sands, drawing attention to the contrast between these distinct yet complementary elements.

“Sitting here with the white sand, the rocks, the snorkelling, the swimming...It's the colour of the blue water compared to the white sand...and the other side, the red rocks, just spectacular coastal scenery.” [Male, 65+ years]

For many, the juxtaposition of red rocks, white sand and blue water typifies the Kimberley coast. The visual impact of such striking colour elements was described as a key defining feature of the aesthetic experience, and one that left a lasting impression in respondents' minds. As noted by one respondent, *“the colours, the red and the blue. You know, when I think of the Kimberley, I think of red and blue, so that is awe-inspiring”* [Couple, 55-64 years]. The contrast between colours within the coastal landscape inspired many to feelings of awe. These feelings were compounded by reflection on the vibrancy of colours characterising the Kimberley coast versus the colours present in the respondent's home environment.

“It was the most delicious turquoise aquamarine and as it got deeper it again, it was a different blue to our normal seas at home. And then there were these islands that had dark marks on them where the water had risen to, and then the top is creamy. So then again, this amazing view, the huge horizon of variation. And it was a beautiful sunny day so it's all glinting off the water too.” [Couple, 65+ years]

Kimberley sunsets were a third awe-inspiring feature of aesthetics. Within this, colours were again a focal point. Respondents emphasised the beauty of watching the setting sun sink into the open ocean, with the attendant reflections and silhouettes emphasising the ethereal beauty of the coast. This was particularly moving and awe-inspiring for those

respondents from the eastern coast of Australia, for whom a sun setting over water is a novel experience.

“The colours you get when the sun sets and the magical colours that reflect on both the water and on the cliffs and that, I would say the beauty of the place would be the most awe-inspiring of all.” [Female, 65+ years]

The aesthetic appeal of coastal sunsets also allowed tourists the opportunity to “take stock” and reflect. For some, the melding of the fiery red sun into the deepening shadows of the blue ocean offered a space for meditative contemplation. This was summarised by one respondent as:

“For the first visit we took, no exaggeration, a thousand photos of sunsets, we don’t do that any longer but we still reflect [on] the fact that when we go up onto to the ridge [the sunset] is beautiful to watch... we still stand and watch the sunset.” [Couple, 65+ years]

Thus, despite repeated visits to the Kimberley, the spectacle of the setting sun remains a key draw-card for many and a central component of the aesthetic experience.

Ecological phenomena

Ecological phenomena exclusive to the Kimberley coast were another aspect contributing to awe-inspiring experiences. Two in particular – Montgomery Reef and the Horizontal Falls – are iconic nature-based tourism destinations whose appeal is largely predicated on the large tidal fluctuations (semi-diurnal tides of up to 10m; (Cresswell & Badcock, 2000)) that characterise the Kimberley. Montgomery Reef, with an area of 400km² is exposed at low tide through a spectacular display of water running off the reef, thereby appearing to rise from the surface of the ocean. The receding tide isolates marine animals in a series of small lagoons and rock pools (Wilson & Blake, 2011) offering tourists the opportunity to view species such as turtles and colourful fish at close range. The Horizontal Falls is a highly publicised

location made famous by a large tidal interchange through two narrow gorges, creating the “only” horizontal waterfall in the world (Brocx & Semeniuk, 2011).

Both locations are unique phenomena arising from the Kimberley’s extreme tidal fluctuations. This uniqueness, and the opportunity to witness such remarkable sights, contributed to respondents’ awe-inspiring experiences. The rareness of Montgomery Reef and its apparent rise from the ocean as the tide falls was particularly awe-inspiring for several respondents. The following quote illustrates that even for respondents who had travelled regularly, the rareness of Montgomery Reef inspired awe as it was unlike anything they had encountered elsewhere in the world.

“Montgomery Reef... It’s so unique, it is different from anything we have ever seen in the world... we have seen a lot of the world... [it’s] very unique.”
[Couple, 55-64 years]

With the Horizontal Falls, respondents grappled with the idea of a horizontal as opposed to vertical waterfall, struggling to reconcile the concept within their minds. Respondents had preconceived notions of what a waterfall should look like based on previous experiences. The process of visiting and experiencing the Horizontal Falls challenged this notion, it required an accommodation to their thinking in order to understand and comprehend the experience. As described by one respondent:

“It was – it was not what I expected. I mean you think of falls, you’d think falls would drop. Horizontal, I still couldn’t get the concept.”
[Male & female group, 5 people, 55-64 years]

Respondents described the experience of travelling through the narrow gorges of the Horizontal Falls as one of contrasts and power. For example:

“For me, it would have to be the Horizontal Falls...Just the way he could manoeuvre such a piece of machinery [boat] in against the huge cliff face was just so breath-taking and then the scenery...” [Male, 65+years]

The raw power of nature and the challenge involved in creating this tourism experience were also mentioned. Respondents also identified human insignificance in relation to the sheer scale and power of the Falls. This power also created excitement in a number of the respondents, leading to an awe-inspiring experience.

“Horizontal Falls was awesome because it was one of, the other things [we’ve seen] were more like beauty and scenery and those types of things, but [the Falls were] probably one of the few things that was a thrill-seeker type of thing.”
[Couple, 55-64 years]

Vast geological landscape

The Kimberley coast’s vast geological landscape contributed to awe-inspiring experiences through its sheer size and relative untouched nature. The precipitous size of coastal and gorge cliff formations was hard to comprehend for many, as were the endless expanses of land stretching off into the distance. Here, the vastness and grandeur that characterises the Kimberley coast is a factor in inspiring awe. The following quote highlights the role of size and scale of the geological formations of the Kimberley in contributing to awe:

“The size of the cliffs as you entered certain places but particularly going up Prince Frederick Harbour, the Hunter River and the absolute size of the place. And you look at it on the chart and you go “that’s miles across” and it looks huge from here and you get closer and closer or further and further in and it is even more huge, and I just didn’t realise that Western Australia did that.” *[Female, 35-44 years]*

The latter part of this quote also illustrates how the Kimberley’s coastal geology challenges existing notions of the Western Australian landscape. Once experienced, the landscape is seen to be of a grander scale than previously comprehended, prompting respondents to reconfigure their mental perceptions of the area. This accommodation of new information further contributed to feelings of awe.

Respondents used a range of descriptors to describe the vastness of the Kimberley coastal landscape. Terms included “wilderness”, “pristine”, “untouched”, “remote”, “ruggedness” and “isolation”. Collectively, the repeated use of these terms highlights the effect the coastal landscape had on the respondent psyche and their sense of being in a rare environment, with this contributing to the generation of a sense of awe. For some, their feelings of awe stemmed from their own reflections on the vastness of the world around them:

“I love that coastline, the [King] Cascades... it is just incredible how rugged that was, just amazing. I had never really given that area much thought, about how much is out there.” [Couple, 45-54 years]

Again, this quote illustrates the role of the Kimberley coastal landscape in prompting an adjustment in respondents’ thinking and mental perceptions. Through reflection, respondents became more cognisant of the vastness of the world around them and in relation to their everyday lives. Such landscape descriptors indicate that respondents perceive the Kimberley as an environment largely in its original unspoilt condition. Interviews revealed that respondents see the coast as remote from their everyday lives in both a literal and figurative sense, with its isolation and ruggedness being factors that both instil a sense of respect as well as trepidation for the Kimberley coast. Both of these feelings contribute to perceptions of awe.

“As an area that is difficult to get to, that’s remote, that’s wild and reminds you that humans are fairly small creatures in this world and we’ve got to look after ourselves.” [Female, 35-44 years]

Reflective/Perspective Moments

A final aspect involved in fostering awe-inspiring experiences was the opportunity to reflect on and obtain a different perspective of the world through experiencing the Kimberley coasts’ myriad ecological and geological attractions. Accompanying this reflection was the added

possibility of structuring and challenging of perceptions. Respondents described a number of nature experiences whose essence centred on the ability to stop and take their time, and to reflect on the beauty and the majesty of the landscape around them. For instance:

“Respondent: We literally sailed at probably... two knots or something like that, but it was beautiful because we were sailing along and we could hear all the birds and they were echoing, you know ricocheting across the cliff, it was beautiful. And then some tourist boats sped through, they actually stopped and said “you know you are going pretty slow?” and we said “yeah, have a listen”.

Interviewer: So if I understand you correctly that it is about experiencing it, not just seeing it?

Respondent: Yeah it is, true. And sailing slowly with slight winds can be really magic and as I said, you couldn't encapsulate the birds.” [Female, 35-44 years]

In this particular example, the lived experience of slowly sailing through a gorge and listening to bird calls reverberating off the cliffs provided the respondents with an opportunity for reflection. This pausing or ‘slowing down’ fostered a more nuanced appreciation of the landscape and the place of humans within it, thus enriching their experience. This opportunity for reflection allowed this respondent to have an awe-inspiring experience and feel a sense of connectedness to the natural world.

Discussion

The unique natural environment of the Kimberley region in north-western Australia provides numerous opportunities for tourists to have awe-inspiring experiences. The presence of large, charismatic marine fauna; breathtaking, colourful and contrasting aesthetic features; and vast geological landscapes offers individuals space for personal reflection and the formulation of new perceptions of the world. Experiencing the Kimberley’s vastness requires an accommodation or schema shift on behalf of the individual. A schema shift as contributing to awe adds to Coghlan et al.’s (2012, pg. 1712) perspective that this is part of awe itself, i.e. awe has a “future-orientated schema-changing component”.

For respondents, being able to see, hear and even touch fauna were also significant contributors to their awe-inspiring experiences. Viewing rare and endangered species is an exceptional and extraordinary experience which is far removed from the everyday for most individuals (Newsome, Dowling, & Moore, 2005; Schänzel & McIntosh, 2000). The thrill or enjoyment at seeing or even simply hearing wildlife can add to the excitement of wilderness experiences (Curtin, 2005; Frederickson & Anderson, 1999), such that encounters with fauna often invoke peak, extraordinary or highly emotive experiences.

These emotions and the attendant feelings of awe often stem from the sense of authenticity associated with observing fauna in their natural environment, rather than in a contrived setting (Curtin, 2009; Newsome et al., 2005; Schänzel & McIntosh, 2000). Experiencing fauna, including marine fauna, can foster a sense of feeling humbled and insignificant in the presence of large and charismatic animals, elucidating a sense of wonder and awe at nature's design (Curtin, 2009; DeMares, 2000). It can also cultivate or reawaken spiritual connections with nature and stimulate consideration of the place of humans in the natural world (Powell et al., 2012). Individuals can become so captivated with the animal being seen that the boundary between human and animal can begin to subside leading to a newer appreciation of others and ultimately the self (DeMares, 2000).

The aesthetics of the Kimberley coast were a key element contributing to awe-inspiring experiences, with the region's superlative natural beauty, vibrant colour and magnificent sunsets being key components. Descriptions of these components evidenced a heightened awareness of the sensations and perceptions stemming from the aesthetic experience. Indeed, awe-inspiring experiences often heighten an individuals' awareness of their surroundings, providing a greater degree of clarity of the stimulus or environmental cue that provoked the experience (Bonner & Friedman, 2011). Others have similarly noted previously that wilderness environs can heighten sensory awareness, creating more

meaningful and deeper affective experiences (Frederickson & Anderson, 1999; McDonald et al., 2009).

References to aesthetic elements, including landscape colour and light (e.g. from sunrises or sunsets), are common in many studies of affective experiences. For example, in McDonald et al.'s (2009) study of peak experiences, respondents' descriptions of the landscape mentioned specific colours, as did Faber and Hall's (2007) examination of extraordinary experiences. Similarly, in this study of the Kimberley coastal landscape, colours assumed an important role in the facilitation and recall of awe-inspiring experiences. Others have indicated that transitory aspects including colour, contrast and weather all affect the experiences that individuals consider to be extraordinary and special (Farber & Hall, 2007; McDonald et al., 2009). Indeed, for many the contrast between red, blue and white served as a defining element of their Kimberley coastal experience. Environmental cues are often responsible for triggering reflective moments, which in turn may catalyse many extraordinary and awe-inspiring experiences (Jefferies & Lepp, 2012).

Vast land and seascapes invoked opportunities for individuals to pause and reflect on the world of which they were part. Mountain ranges, glacial valleys and large cliff faces for example seem to invoke a sense of existential awareness and heighten perceptions, providing individuals with a stimulus to reflect and clarify life goals in the face of something vast and expansive (Bonner & Friedman, 2011; Farber & Hall, 2007; Jepson & Sharpley, 2015; McDonald et al., 2009; Powell et al., 2012). Coastal landscapes have long been seen as avenues for contemplation of the human purpose in the world (Picard, 2012; Stocker & Kennedy, 2009). Writings from the Romantic era discuss oceans and seascapes as an escape from the human condition, providing a redemptive image of a cleansing sea (Stocker & Kennedy, 2009). Such landscapes also philosophically juxtapose the image of the human condition, as taming the natural world with an acute awareness of human insignificance

within the wider realms of space and time (Picard, 2012). These strong moral and spiritual relationships with nature are still relevant in current times, as evidenced in this study.

Similarly, the coast is also seen as an object of physical beauty and inspiration, an unmatched landscape for people to explore and uncover natural wonders (Kellert, 2005). However, the expansiveness of coastal landscapes can also be perceived as being beyond the influence of humans and therefore a testament to the power of “God” (Thompson, 2007). The perception of God and of the sacred and sacred places also invokes feelings of awe (Levi & Kocher, 2012; Sharpley, 2010). Imposing physical characteristics, architecture and religious symbols can overwhelm the onlooker, creating the sense of being a small aspect of a larger spiritual consciousness (Keltner & Haidt, 2003; Levi & Kocher, 2012).

This perception of vastness, whether in the relation to sacredness, including the powerfulness of God, or the physical environment, can often be accompanied by a perception of fear of the unknown or of power that is beyond an individual’s control (Bonner & Friedman, 2011). This certainly applied to many respondents’ experiences of the powerful Horizontal Falls, which conjured a certain level of trepidation, however, this was interpreted as a positive, rather than as a negative, with no predominantly negative experiences noted in this study. Again, Romantic writings of the 18th and 19th centuries, particularly in western Europe and North America, described the emotions of encountering the “fearful beauty” and “sublime magic” of natural environments (Picard, 2012) – re-emphasising the link between feelings of being overwhelmed and vastness as key components of awe (Bonner & Friedman, 2011). It may also partially clarify how the emotional outcomes of fear and awe were initially intertwined (Bonner & Friedman, 2011). While fear is often viewed as a negative emotion, it can be articulated as a positive aspect relating to excitement and challenge (Robinson, 2012), which is evidently the case for

respondents in this study and those in Shiota et al.'s (2007) study where they also noted that all awe-inspiring events described were interpreted as being positive.

Having the opportunity to reflect and obtain perspective was the final contributing aspect. Reflecting on the place of humans in the world, and feeling connected with the natural environment have been described as part of Antarctic tourism, another iconic wilderness destination (Powell et al., 2012). Having time to reflect suggests the possibility for change in schemas and ways of thinking (Coghlan et al., 2012). This could potentially be as a result of the “tourist gaze” whereby individuals have the opportunity to see and discover aspects beyond their everyday, normal experiences (Urry & Larsen, 2011). Tourists have a greater awareness of the aesthetic aspects of the natural environment in comparison to their lived environment thereby providing the individual an opportunity to stop and speculate, organise and categorise the world around them (Rojek, 1997; Urry & Larsen, 2011). Being in an unfamiliar environment, or through experiencing a part of life not created by humans (Hassell, Moore, & Macbeth, 2015), individuals were provided with the opportunity to explore and connect with the natural environment without the “noise” of everyday life (Bonner & Friedman, 2011; Frederickson & Anderson, 1999).

Conclusion

Awe is an inherently complex concept. This research has contributed to elucidating some of this complexity, particularly regarding the factors that foster the emotional outcome of awe as a result of nature-based tourism experiences in a coastal wilderness. Undertones of *vastness* and *accommodation* were clearly evident in interview data, as were inherent qualities of the coastal environs and the Kimberley region, which were also influential in fostering awe-inspiring experiences. Also important was the opportunity to reflect on nature and the place of humans (and the tourists themselves) in that environment.

For those responsible for managing spectacular, remote nature-based tourism destinations such as the Kimberley coastline, the results of this study are particularly important. Maintaining the wilderness qualities of the Kimberley coast seems central to awe-inspiring experiences with concomitant focus on careful infrastructure placement (such as ports, oil and gas installations) to ensure that the critical elements of vast physical landscapes, geological aspects and other aesthetic qualities remain uncompromised. Enabling tourists to move slowly through the landscape, a critical part of having time for reflection, is important information for expedition cruising. Important next steps include further research into these facets of awe and their applicability to other spectacular, remote nature-based tourism destinations such as the Kimberley coastline. Comparisons between sites must be an integral part of this research endeavour.

Acknowledgements

TO BE ADDED POST REVIEW

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Table 1: Use and definitions of “awe” in tourism related studies

Study	Study context	“Awe” explicitly used?	Definition of awe	How awe is used
Faber & Hall (2007)	Examination of the differing emotions encountered during a “high quality (extraordinary) experience.	Yes	No specific definition provided. One of a set of emotions used in study.	An emotional result/outcome of experience (number of mentions within illustrative quotes).
Curtin (2009)	Interviews to ascertain the intangible and psychological benefits obtained from wildlife tourism.	No	No specific definition provided. Awe arose from analysis of interview transcripts.	Emergent theme identified in response to question: “describe how watching wildlife makes you feel?”. Neither definition nor explanation of awe provided.
Coghlan et al., (2012)	Development of framework for examining awe in tourism experiences.	Yes	“elicited through sense of perceptual vastness and requires cognitive accommodation to fit novel, unfamiliar information” (pg. 1711)	Affective state as a result of an experience.
Jefferies & Lepp (2012)	Investigation of what constitutes and results from “extraordinary experiences”.	No	No specific definition provided. Awe arose from analysis of qualitative survey transcripts.	Awe 1 of 9 emotions grouped under “spontaneity” theme associated with experiences in familiar settings. Also 1 of 9 emotions grouped under “outdoor adventure” and “reflections” themes associated with experiences in novel settings.
Powell et al., 2012	Examination of the emotional effects of Antarctic tourism.	Yes	“arise from interplay of a range of types of experiences...” (pg.147) Five possible sub-dimensions: 1) spiritual connection; 2) transformative experience; 3) goal clarification; 4) refinement of human-nature relationship; 5) sense of feeling humbled. These arose through examination of studies researching emotion-laden experiences (e.g. extraordinary experiences, transcendent experiences, etc).	Outcome of experience. Five sub-dimensions (listed in previous column) were used to code responses to question: “how did this tourism experience affect you?” (number of mentions within illustrative quotes).
Davis & Gatersleben, (2013)	How “connectedness to nature” influences experiences in manicured and wild environments.	Yes	No specific definition provided. Used as part of a suite of items for an emotional appraisal of experiences.	Two instances: measure of diminutive transcendence and as part of emotional appraisal of an experience.
Hughes (2013)	How behavioral intentions and actual behaviors are influenced by visitors emotional engagement in experience	No	No specific definition provided. Used as part of a list of items measuring emotional responses to viewing wildlife.	As 1 of 8 emotional responses to viewing wildlife – “we felt a sense of wonder or awe”

Table 2: Socio-demographic information of interview respondents (n = 79)

Socio-demographic variable	N	%
<i>Gender</i>		
Males	39	49
Females	40	51
<i>Age range</i>		
18-24	0	0
25-34	3	4
35-44	9	12
45-54	17	21
55-64	33	42
65+	17	21
<i>Level of education attained</i>		
Primary/some secondary	2	3
Secondary	12	15
Vocational	26	33
Tertiary	23	29
Not given	16	20
<i>Place of residence</i>		
Western Australia	26	33
New South Wales	12	15
Victoria	12	15
Queensland	19	24
South Australia	6	8
Tasmania	1	1
Overseas	3	4

Figure 1: Map of study location showing key tourist locations