Determining Sustainable Tourism in Regions

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Abstract: The goal of achieving sustainable tourism is now a priority for many tourism planners. It has been suggested that stakeholder analysis is an essential step in determining sustainable tourism in regions, given its highly contextual nature. However, previous research has tended to focus heavily on stakeholders with the assumption that attitudes within groups are homogeneous. This research questions this assumption and in doing so, takes a critical approach by examining attitudes towards sustainable tourism and then assesses whether attitudes align with stakeholder groups. The study was conducted in the island state of Tasmania, Australia, and utilised the Q-methodology to examine attitudes towards sustainable tourism in the Bay of Fires region. The results concur with recent research, which shows that attitudes do not always align with those of stakeholder groups. The critical and reflexive approach suggests that assumptions regarding stakeholder attitudes need to be reviewed and more attention given to people's contextualised attitudes, rather than the stakeholder group in which they sit.

Keywords: sustainable tourism; critical approach; Q-methodology; stakeholders; Tasmania

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1. Introduction

It is now widely accepted that stakeholders' attitudes must be taken into account in order for sustainable tourism to be achieved [1]. The term "stakeholder" was first defined by Freeman [2] as 'any group or individual who can affect or is affected by the achievement of an organisation's objectives'. Stakeholder methodology generally accepts that the first step in stakeholder consultation is to determine what stakeholder groups exist, then to explore what potential or current power they have and incorporate these attitudes into planning for sustainable tourism [3–5]. However, in recent years, a critical turn has taken place within sustainable tourism research [6,7]. This approach argues that relationships that communities have with tourism change over time and are not static. Moreover, critical theorists question traditional assumptions and call for reflexive and empathetic modes of inquiry that challenge traditional assumptions [8,9]. In response to this approach, recent research has examined whether stakeholders' attitudes align with their traditional stakeholder group [10], as is often postulated within tourism literature. It has found that while some alignment between stakeholders' groups and their individual attitudes occurs, it is not always the case. This paper responds to the calls by critical theorists and examines the issue of stakeholder groups' attitudes from an alternative perspective. Rather than identifying groups first and then examining whether attitudes within them aligned, the aim of this research was to explore the attitudes that individuals had towards sustainable tourism first and following this, examine whether their attitudes aligned with their stakeholder groupings. This was achieved through the use of the pictorial Q-methodology in the Bay of Bay Fires region of Tasmania, Australia. Consequently, the objectives of this paper are to:

(1)   Conduct a critical assessment of the literature related to sustainable tourism and stakeholder analysis;

(2)   Review the socio-political situation within the Bay of Fires region in Tasmania in order to determine issues that may affect individuals' attitudes towards the region and to inform the selection of the research approach;

(3)   Undertake a Q-method analysis of individuals' attitudes towards sustainable tourism and assess whether these align with their behavioural stakeholder group;

(4)   Contribute to a critical review of stakeholder theory regarding individuals' alignment with behavioural stakeholder groups; and

(5)   Identify the key issues of concern regarding sustainable tourism, for those living in the Bay of Fires region of Tasmania, Australia.

In order to meet these objectives, the paper is structured in the following way: It begins by exploring the literature pertaining to sustainability, sustainable tourism and stakeholder involvement and attitudinal research. Following this the paper details the case study region and the Q-methodology as a legitimate means to respond to the theoretical gaps and locational nuances of the case study region. Following the results, the paper makes theoretical contributions to stakeholder theory and specifically individuals' alignment with behavioural stakeholder groups. Finally, it makes recommendations for managers in the case study region and recommendations for further research.

2. Literature Review

As has been well documented, sustainable development was first defined by the Brundtland Commission [11] (p. 43) as that which "meets the needs of the present without compromising the ability of future generations to meet with own needs." Its uptake by the tourism industry, along with other industry sectors was rapid and resulted in it being defined specifically for tourism. For example, the UNEP/WTO [12] (pp. 11–12) defined sustainable tourism as:

" . . . a condition of tourism based on the principles of sustainable development, taking full account of its current and future economic, social and environmental impacts."

Within academic literature a raft of academic definitions has also emerged: It was claimed by Graci and Dodds [13] that over 200 definitions exist. A broad and enduring definition of sustainable tourism was proposed by Muller [14] (p. 132) and is similar to the aforementioned UNEP/WTO definition, as it defined sustainable tourism as an approach to tourism that influences:

(1)   economic health;
(2)   subjective well-being of local peoples;
(3)   protection of natural resources;
(4)   healthy culture; and
(5)   optimum satisfaction of guest requirements.

Recently, debate has centred around the concept of sustainable tourism, including those who have advocated it as inherently contradictory and difficult to achieve [15] and that it places too much emphasis on the macro level, regional to global scale concerns which in turn detract from a focus on local issues [1]. They also suggest that too much scientific, quantifiable focus is given to issues, with only limited attention being given to intangible aspects such as cultural change. Moreover the authors posit that the focus is not necessarily always centred upon local stakeholders, as absent international stakeholders, such as investors, must also be considered. They also argue that if sustainable tourismstudies were to enhance their micro level approaches through active engagement with stakeholders, then this would provide solutions to operationalise the macro goals of sustainable tourism.

Given the requirement for sustainable tourism to address multiple and inherently conflicting issues, including environmental preservation, economic health, satisfying guests and ensuring community wellbeing [13], it appears logical that engagement with those stakeholders who represent the groups is essential in order to achieve sustainable tourism [1,15–22]. Arguably sustainable tourism cannot occur if agreement and collaboration between stakeholders does not exist [23,24].

Within tourism research, stakeholder analysis has been explored from a variety of perspectives. Research has explored engagement methods, classified different stakeholders groups with names that refer to their behaviour such as: visitors; community members; those in regulatory positions; and those in the private or public sector [25,26]. However amongst this research there are methodological trends regarding stakeholder research. The first is a tendency to assess only one stakeholder group at a time, such as residents' attitudes towards development [27–31]; tourists' attitudes [32,33], operators' attitudes [34] and policy makers' attitudes [35]. Very little research compares the attitudes of multiple stakeholder groups concurrently [16,36–40]. While allowing for detailed understandings of different groups' perspectives, this trend runs the risk of not developing a holistic understanding of how the issue is affecting the entire community. Moreover it assumes that specific attitudes are contained within specific stakeholder groups and are not shared by others.

The second trend is related to the first. That is, the tendency for researchers to propose that stakeholders' attitudes align with their fellow stakeholder group members [18,37] even across regions [41]. This approach assumes homogeneity exists within the groups, which is a notion that has become increasingly challenged in recent years [26].

A third issue is a tendency to focus on identifying stakeholder groups first and then assessing if synergies occur within those groups [41]. Leading critical thinkers suggest that the assumptions of approaches in research should be not be taken for granted. Given recent research that suggests that stakeholders' attitudes may not align with their behavioural group, it would appear that this approach warrants examination. The critical theory approach has been embraced by many researchers in sustainable tourism. In addition to questioning approaches and assumptions, it advocates the selection of research approaches that empower those who have not had their voices heard, through reflexive and culturally appropriate methods [8]. This has synergies with a growing movement within sustainable tourism research to reverse the tendency to overlook minority groups and disadvantaged populations [42]. Consequently, with this in mind, this research sought to challenge traditional approaches to stakeholder analysis by assessing a wide variety of individuals and categorising them by their attitudes first, rather than their stakeholder group. This approach has rarely been used in tourism research before with the exception of Ryan [43], who categorised stakeholders by their attitudes not their behavioural group; and Hunter [44] who categorised tourists by their subjective opinions. In doing so, it challenges assumptions regarding the alignment of individual stakeholder attitudes with their behavioural group.

3. Methods

3.1. Study Region

The Bay of Fires region is a coastal region, made up largely of white sandy beaches separated by occasional granite rocky outcrops that are covered in orange lichen. The region's boundaries are unclear but it is often referred to as stretching from Binalong Bay in the south to Eddystone Point, 30 km to the north, including Mount William National Park. The region was named in 1773 by Captain Tobias Furneaux who sighted many fires along the coast, which were created by the Larapauna Family Group [45]. The region is rich in cultural heritage, containing many Aboriginal middens (shell and bone deposits).

The region is largely made up of dry coastal land and low land vegetation. It does however stretch inland to the west, including the wetter and elevated region of Ben Lomond and Mount Pearson (Figure 1) [46]. Three distinct zones have been recognised within the region:

(1)   The northern section from Ansons Bay to Eddystone Point. This section is located within Mt William National Park and has camping facilities but only limited public access;

(2)   The middle section, which is located around and to the south of Ansons Bay. There are no shops or other facilities in this area;

(3)   The southern section, between Binalong Bay and The Gardens. This section contains houses, caravan and tent camping sites, and relatively good road access to facilities in the south of the section, such as Binalong Bay, and St Helens.
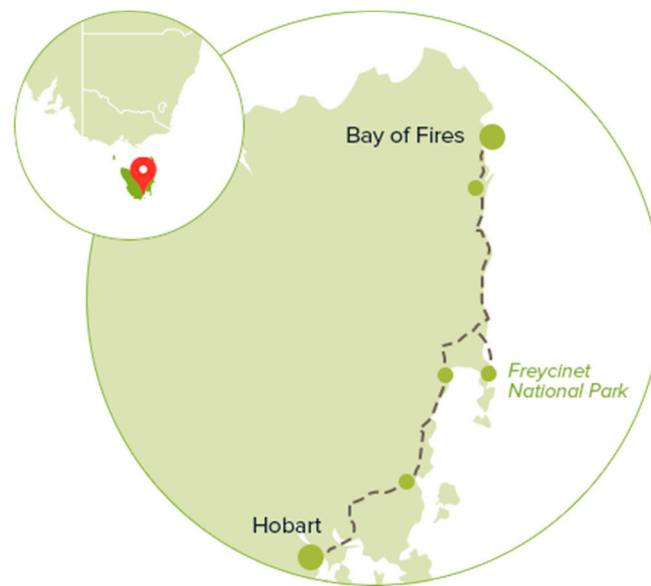

Figure 1. The location of the Bay of Fires Region in Tasmania, Australia [47].

A variety of threatened flora and fauna is located within all three zones in the region, which was articulated in a proposal to increase the region from conservation to National Park status in 2009 [46].

Since 1950 and most recently following the listing of the region as "The World's Hottest Travel Destination" in 2009 [48], there has been a large degree of tourism development in Binalong Bay and the Bay of Fires region. At the time of writing there were around 200 shacks/dwellings within the Bay of Fires region; 100 of which were permanent residences and 100 that were holiday residences/tourist accommodations [49]. Apart from a small community at Binalong Bay, where a café and fire station is located, there were no other services, apart from at St Helens, located 11 km to the south east of Binalong Bay.

3.2. The Research Experience

A key component of critical thinking research approaches is that researchers would take care to understand participants' contextualised meanings and beliefs, such that the research may have the opportunity to contribute towards positive changes in society [8]. With this in mind, the research team took time during the planning phase to become sensitised to the major socio-political issues facing the region, as well as current tensions that may exist within the local community. Local media sources and local radio were consulted and a regional visit was undertaken prior to the research commencing to determine where the research should be undertaken and to determine the socio-political sensitivities within the region that were relevant to tourism. This process identified that there were concerns that had been voiced in local media about the growth of tourism, local recreational use and the development of tourism infrastructure.

During the research-planning phase, information sheets that outlined the goals of the project were sent to regional tourism bodies and local councils. Media releases were also made and a small amount of local radio exposure resulted from these.

The planning phase also identified who were to be the interviewees. This is a difficult issue in tourism-based communities, where owners of holiday shacks and rental properties often live outside of the region. Given our budgetary and timing constraints, a decision was made to limit the local community interviews to the residents of the towns of Binalong Bay, and St Helens.

Following the planning stage, interviews were arranged. Interviews of tourism operators, those in regulatory positions and members of community groups were arranged through a process of purposive sampling that used email and phone calls to make the first point of contact.

3.3. The Research Approach

The aim of this research was to explore the attitudes that individuals had towards sustainable tourism in the first instance and following this, examine whether their attitudes aligned with their stakeholder groupings. The critical theory approach that underpinned this research sought to address intangible aspects, such as attitudes, in order to respond to the critique of Dangi and Jamal [1] (2016) that research related to sustainability often overlooks local, intangible issues such as cultural change. Consequently, a mixed methods approach was taken, including that which involved quantitative analysis, but also placed a heavy emphasis on the attitudes and preferences of local people. In addition to this, in order to ensure that the voices of those who may have been overlooked in previous studies were heard, the researchers sought a design that would enhance discussion and be inclusive, by not relying on written responses. A focus on the use of photographs instead of written surveys was chosen, particularly given its credence by methodological researchers as a technique that is often considered as a surrogate for reality; its ability to standardise the 'question' as every participant views the same picture; and its ability to enhance response validity by keeping variables, such as crowding, in the photograph constant [50,51].

The pictorial technique utilised was the Q-methodology. A technique that has evolved from factor analysis, Q was first applied by Stephenson in 1935. It allows participants to sort through a variety of options, depicted by photographs or statements and then subjects their assessments to factor analysis, thus deciphering their individual subjectivities, as well as the relationships of their attitudes to other participants [52]. Q-methodology as applied in this study required no level of literacy and its lack of use in our study region meant it was also a novel approach that the research team hoped would interest participants.

The research team followed Q-methodology outlined by Stergiou and Airey [52] and Hunter [44] which involved the following five steps: The initial step of Q-methodology requires the research team to develop a concourse of issues that underpin the rationale for the study and the subsequent choice of photographs that study participants will be asked to sort and rank. The concourse may be developed from existing scales, literature reviews or interviews that elicit major issues [52]. Given the research team's desire to explore attitudes towards sustainable tourism, the research team selected Boyd and Butler's [53] Ecotourism Spectrum (ECOS), that was derived from Clark and Stankey's [54] visitor experience (Recreation Opportunity Spectrum) framework. This was most relevant to the largely nature based tourism experiences on offer within the case study region. The spectrum was augmented to conceptualise not only the existing, but also a possible, range of tourism development in the region. This meant that four defining attributes of sustainable tourism development options were present within the concourse: access; accommodation; impacts and management; and visitor experiences. These focused on the attributes, not the impact of tourism, to align with the focus of the study (Table 1).

Table 1. The sustainable tourism concourse.

Defining Attributes		Type of Sustainable Tourism Development		
		Strong	**Moderate**	**Weak**
		Descriptors		
1. Access	Difficulty of Access Type of Transport	Challenging and/or expensive Trails and specialist aircraft	Vigorous and/or economical Vehicles for Gravel and Paved roads	Easy and/or economical Large capacity transport
2. Accommodation	Size of Accommodation	No development, or facilities, little is visible	Isolated areas, natural aesthetics, rustic	Moderate to resort style development
3. Impacts and Management	Infrastructure and Facilities Level of Control and Management Crowding	None No control Avoid or little contact	Moderate facilities Minimum control Some contact, travel in small groups	Many comforts Moderate to strict control Frequent contact, large groups
4. Visitor Experiences	Impacts Use of energy Group activity	Low Low human carbon Educative/Appreciative	Moderate Moderate energy Facilitated nature activity	Consumptive Fossil fuels Activity and Comfort

A final Q set of photographs was selected following several iterations of pilot tests with a variety of stakeholders. The set included 33 photographs, which was in line with conventional expectations for small-sample Q-studies [55]. It should be noted that the same set of photographs were also used in two other regions in Tasmania, which will be analysed in future publications. The set of photographs included a variety of options for each of the defining attributes, to allow stakeholders to be very specific about their preferences (Figure 2). Random numbers were assigned to each of the photographs, which facilitated ease of data recording [52].

Figure 2. Photographs used for the Q Sort.

The second step of the Q-methodology was to identify and recruit the P set or interview participants. The critical approach of this study was also demonstrated by the selection of participants. The research team took into account the criticism by Dangi and Jamal [1] that sustainable tourism research, given its global focus, tends to place emphasis on non-local stakeholders such as absent investors. To counteract this issue and ensure a local focus was given to this research, the team decided only to include stakeholders living in our study region. As such a theory driven purposive sampling strategy was utilised [44]. The P set consisted of 43 respondents from three tourism stakeholder groups: operators (9 respondents), regulators (5 respondents), community group members (2 respondents from local development or advocacy groups) and locals (27 respondents). The size of the P set was appropriate for Q-studies as the emphasis is on individual subjectivity, thus allowing for a small number of participants [54] as has been the case with many previous studies where the size of P sets has been 34 [44], 30 [55–58] and 27 [59].

The third step involved the 43 participants conducting a Q sort, by arranging the 32 photographs into three piles (most preferred, least preferred, unsure/undecided) and then ranking the photographs across 9 distribution columns that were printed out on a large poster (Figure 3) [60,61]. The Q sort interview was audio recorded and later transcribed to add depth to the data analysis.
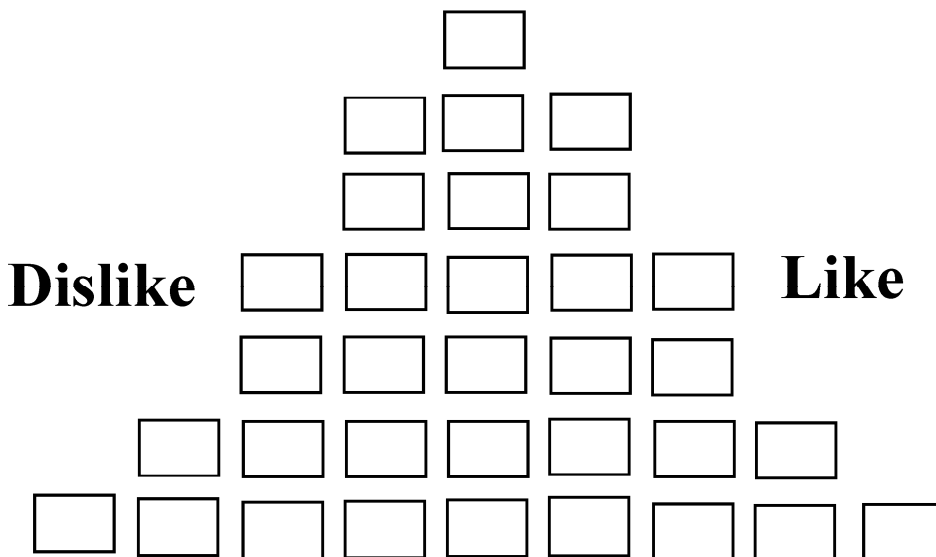

Figure 3. The Q sort distribution table.

The fourth step of Q-methodology involved analysis via the program PQMethod, Version 2.33 [62]. This process assessed the correlation between each individual's Q sort and other participants' Q sort. Principal Components Analysis was used to create factors, or clusters of participants who sorted photographs in similar ways. This resulted in a list of participants with a nominal loading and in the first instance it revealed that most participants were loaded on the first factor. A Varimax rotation was then conducted to spread variance and participants' loading on more than one factor. This resulted in identifying and counting significant loaders on each factor. The team used Brown's [61] (p. 222) method of including factors that had at least two significant loaders on the unrotated factor matrix. The team derived the significant level from the standard error formula of $1/\sqrt{N}$, where N equals the number of items in the Q-method. The derived value for the 32 items in this study was 0.17, and at the 0.01 level of confidence this value was multiplied to 2.58 to set the significant level at 0.45. Loadings had to be 0.45 or above before they were determined as being significant. The research team also used traditional scree plots to assess where factor cut-offs should exist, to ensure a minimum sufficient set of factors that represented the data [63]. The analysis resulted in three factors that accounted for 43 of the 45 sorts, with levels of significance ranging from 0.89 to 0.42. Only two sorts were statistically

insignificant in any factor and excluded. The 43 sorts, their scores in relation to each factor and the explained variance are presented in Table 1.

This analysis focused on the core factors and particularly on participants who loaded heavily on each factor. This resulted in the development of a rich knowledge set for each factor. Those participants that loaded strongly on a factor had a proportionately greater influence on the factor's characteristics. Following this, the research team could then determine the images that were highly positively or negatively significant for each factor, along with the images that could be regarded as exemplifying each factor. As with any factor analysis, it was determined that not every person would load on the identified factors.

The analysis of the Q-methods also involved the transcription of participants' responses while they sorted their photographs. This process revealed participants' rationale for their preferences. The analysis process involved matching the comments made with each of the corresponding photographs and emergent thematic analysis. Comparisons were then made of individuals' reactions to each of the photographs as well as their reasoning.

The fifth and final step involved the creation of descriptive names for each of the factors that would accurately reflect the predominant attitudes of the factors. Following this, the team determined the implications of their findings for both sustainable tourism development and the local tourism industry.

4. Results

The data analysis identified three factors of attitudes towards sustainable tourism development. These factors were based on three characteristics. First, they included consensus images, whereby all respondents in the Bay of Fires agreed with a significance rating of $p > 0.05$ (all p set). The second was that they included distinguishing images for each factor where all respondents within the factor agreed. Finally the factors contained qualitative defining statements gained through interview transcripts and thematic analysis, for each factor.

For the Bay of Fires region there were five consensus images that every respondent agreed upon ($p > 0.05$). Two of these were preferred images: a lone horse-rider; and a lone group of walkers. The remaining images were disliked by all respondents: an airplane hangar; a road with green edges and an image of several resorts.

In addition there were many words commonly used to describe the Bay of Fires by all three factors including; beautiful, spectacular, picturesque, clean, pristine, peaceful, and relaxed. However, when respondents were describing tourism in the Bay of Fires the following words were used: Underutilised, missed opportunities, not enough options for tourists, and enjoyment of driving, walking, being on the beach.

These consensual images and words for the area did not underlie the varying attitudes that respondents had for the region. Rather, they could be found to sit clearly around three factors that were determined to exist (Table 2).

Table 2. Q sort factor analysis results. 43 Q sorts accounted for in 3 factors, with sorts 18 and 44 excluded, due to not loading on any of the identified factors.

Sort	Respondents *	A (27)	B (12)	C (4)
36	Loc58	0.8986		
29	Loc1181	0.8543		
27	Loc0979	0.8399		
22	Loc0374	0.8124		
23	Loc0675	0.8055		
34	Loc56	0.7935		
24	Loc0776	0.7880		
15	Reg29	0.7818		

Table 2. *Cont.*

Sort	Respondents *	A (27)	B (12)	C (4)
45	Loc67	0.7791		
6	Op13	0.7483		
16	Reg30	0.7466		
37	Loc59	0.7463		
5	Op23	0.7462		
40	Loc62	0.7455		
39	Loc61	0.7369		
9	Op99	0.7204		
28	Loc1080	0.7200		
17	Loc32	0.7035		
19	Loc70	0.6991		
7	Op12	0.6890		
11	Comm47	0.6428		
31	Loc53	0.6063		
43	Loc65	0.5909		
2	Op28	0.5796		
10	Comm11	0.5337		
38	Loc60	0.5138		
33	Loc55	0.5008		
3	Op25		0.8158	
14	Reg44		0.7805	
4	Op31		0.6778	
21	Loc73		0.6458	
30	Loc52		0.6454	
8	Op43		0.6320	
13	Reg46		0.6291	
32	Loc54		0.6251	
26	Loc0978		0.6129	
1	Op27		0.5828	
12	Reg51		0.5798	
42	Loc64		0.4346	
35	Loc57			0.8519
20	Loc72			0.7996
25	Loc0877			0.7418
41	Loc63			0.4210
Variance explained (%)		36	17	8

Notes: * Respondents key: Loc = locals; Reg = regulator; Comm = member of a community group; and Op = tourism operators.

The three factors that emerged from the analysis may be described in the following ways:

4.1. Factor 1: Engagers with Nature

Engagers with Nature described the region as being characterised by its spectacular natural environment, its famous white sand, turquoise water and orange lichen covered rocks. They also described the region as being almost pristine. Participants in this factor also regarded the region as being relatively undeveloped and had a desire for tourists to be able to experience its isolation and peacefulness, and to see more wildlife than people. They also recognised the Bay of Fires as being a region with a significant Indigenous history.

The photographs that were ranked most highly in this group were an undeveloped track through rainforest, an image of a guided bushwalk and a hardened campsite (Table 3).

Table 3. Factor A: Engagers with Nature, with statistically significant distinguishing statements ($p < 0.01$).

Image No.	Description	Rank
24	Undeveloped track	4
20	Guided bushwalk	3
19	Hardened campsite	2
30	Foot	2
13	Caravans	−2
17	Eco looking lodge	−2

Engagers with Nature believed that tourism experiences in the region should be immersive tranquil experiences that encourage tourists to engage with the natural surroundings and be of minimal impact.

> [Member of a Community Group #11] " . . . to me (it's about) minimal impact on the environment . . . People walking through like that have minimal impact on the environment."

> [Regulator #29] " . . . I like the eco-looking lodge, it provides interpretation of the area and makes people better informed . . . they're built so their impact on the landscape is minimal."

Participants in this factor believed that there was a need for increased tourism opportunities for the free independent tourists in the region. Suggestions for new opportunities included activities such as guided walking experiences that would prevent it from becoming a 'mass tourism' destination.

> [Member of a Community Group #47] "When interpretation with guide is paid it creates employment."

However, not all Engagers with Nature wanted an increase in tourism visitation. Indeed, this was the only factor that included some participants who wanted lower amounts of tourism than the current numbers.

The analysis also determined the photographs that Engagers with Nature did not like. These included a photograph of several high-rise resorts; an extensive resort with swimming pool; and several quad bikes. Engagers with Nature disliked these because they felt that large-scale accommodation was inappropriate for the Bay of Fires area. They also disliked high impact and noisy activities, believing that they were inappropriate to the region.

4.2. Factor 2: Environmental Accommodators

Environmental Accommodators described the Bay of Fires region as a remote place with unspoilt natural beauty. Participants in this factor valued a diversity of activities for tourists to engage in, but only on the condition that they encouraged an appreciation of the environment (fishing was the only consumptive activity mentioned). They placed importance on increasing opportunities that encouraged overnight stays in environmentally sensitive accommodation. Environmental Accommodators valued the region's Indigenous cultural heritage, and saw tourism as an opportunity to create custodians of the land:

> [Operator #43] " . . . tourism requires respect for the area and its values of course. I think you need to be aware of your role as a custodian, you can't take the place for granted."

Analysis of this factor also revealed the photographs that Environmental Accommodators liked, including various forms of accommodation such as the eco-looking lodge, glamping and many cabins, as well as the indigenous canoes (Table 4). This focus on accommodation options is clearly the defining attitude of this factorial group.

Table 4. Factor B: Environmental Accommodators, with statistically significant distinguishing statements ($p < 0.01$).

Image No.	Description	Rank
17	Eco looking lodge	4
27	Glamping	3
32	Many cabins	3
4	Indigenous Tourism Canoe	2

This selection of images revealed that Environmental Accommodators disliked large-scale resort style developments, believing that they would lead to an overtly commercial type of tourism in the region and that their environmental and visual impacts would be too great. Rather, Environmental Accommodators wanted to promote and provide access to the natural values of the area in a way that minimises harm to the environment. They were very keen to ensure that the tourism opportunities would be accessible to a spectrum of people.

> [Operator #25] " ... I don't want it (tourism) all to be for the people with lots of money. You can have your high-end stuff but still make it accessible for people who want more budget options. Permanent tents are quite good for that."
>
> [Regulator #44] " ... These provide for a suite of opportunities to people who aren't high end or in the market for a guided standing camp experience to have access to the site (Bay of Fires) and provides a suite of opportunities in accommodation, whether they are tent, caravan or cabins."

Like Engagers with Nature, Environmental Accommodators were divided over how much tourism the Bay of Fires should have.

4.3. Factor 3: Outdoor Recreationists

This factor group was small and included only local stakeholders (Table 5), thus making it the only factor that aligned with a single stakeholder group. While this group did not represent the breadth of attitudes for all local people in the region, the alignment of attitudes warranted it to be included as its own factor. Outdoor Recreationists believed that the region should offer opportunities for relaxation and activities including fishing, walking and picnics. Their views were exemplified in the following quotes:

> [Local #63] " ... driving/walking and enjoying it. People need more information about the area so they can engage with it, for example, walking along Binalong Bay sand with bare feet."

> [Local #72] " ... underutilised, not enough options for tourism."

The photographs that characterised Outdoor Recreationists' attitudes towards tourism centred around outdoor activities included: a photograph of a man fishing; several horse–riders; and several quad bikes.

Table 5. Factor 3: Outdoor recreationists, with statistically significant distinguishing statements ($p < 0.01$).

Image No.	Description	Rank
21	Fishing	4
11	Horse-riding several	3
28	Quad bikes several	3
14	Motorised vehicle	2
29	Lone motorbike	2
4	Indigenous Tourism Canoe	−2
17	Eco looking lodge	−3

Interestingly, there was a contradiction between what members of this group liked and disliked. While the photographs that they liked included quad biking, which is often considered environmentally destructive, members of this group expressed a desire to ensure that tourism activities would not negatively upon the environment. They had a strong desire to ensure that any future development did not impede on their own recreational opportunities within the region.

Outdoor Recreationists supported an increase in tourism, but emphasised their desire for small-scale tourism and were wary of tourism that had large visual and environmental impacts. In particular they did not want to see high-density accommodation in the region, as they believed it was not needed, would impact negatively on the environment and was not in keeping with the values of their region, particularly that which was listed as a protected area. They believed that the natural environment and heritage values were more relevant for future tourism development than cultural heritage.

Other forms of tourism development that Outdoor Recreationists supported included: more visitor information; more promotion; and an increased range of tourism activities for visitors to engage in.

4.4. Alignment of Stakeholder Groups to Factors

The analysis illustrated that stakeholders' attitudes in the Bay of Fires could be neatly grouped into three factors focused around: Engagers with Nature (1), Environmental Accommodators (2) and Outdoor Recreationists (3). All individual respondents (except for 2 participants) loaded cleanly onto the three preferences factors (Table 3). This finding indicates that peoples' attitudes could be clearly differentiated into three groups and that these factors illustrated the breadth of attitudes within the community.

In order to determine whether there was any relationship between factors, we investigated the correlation that the factors had with each other. The correlation coefficient (a value between −1 and +1) illustrated the strength between two variables and the analysis identified that the three factors were highly correlated (Table 6).

Table 6. Correlation between Factor scores.

Factor No.	Factor 1: Engagers with Nature	Factor 2: Environmental Accommodators	Factor 3: Outdoor Recreationists
Factor 1	1		
Factor 2	0.5967	1	
Factor 3	0.4316	0.2192	1

Table 6 illustrates the high correlation between Factors 1 (Engagers with Nature) and 2 (Environmental Accommodators), indicating shared attitudes over some issues. Their similarities lay in their desire for the region to have a strong nature based focus and for its values to be preserved. The differences were that Environmental Accommodators preferred an increase in built accommodation options and did not place such a great emphasis on highly immersive activities like bushwalking and camping. Consequently Factors 2 and 3 had a low correlation score and shared very few attitudes towards tourism development.

A final issue to resolve was the relationship of the stakeholder groups to attitudinal factors. While there is a mixture of stakeholder groups for two of the factors, Factor 3 consisted only of local people (Table 7).

The analysis revealed that operators and regulators were spread across two factors (1 and 2), while locals were spread across all three factors (1, 2 and 3) and members of community groups were only found in Factor 1 (Engagers with Nature). This indicates that the alignment of individuals' attitudes to their behavioural stakeholder groups is not clear. The other issue this highlights is while there is a

purely 'local' attitude factor that exists, it would be remiss to argue that this factor represents the view of all locals, as it was determined that another clear group of locals existed in Factor 1.

Table 7. Count of stakeholder categories in each Bay of Fires factor.

Stakeholder Group	Engagers with Nature (1)	Environmental Accommodators (2)	Outdoor Recreationists (3)
Operators	5	4	
Regulators	2	3	
Member of Community Group	2		
Locals	13	5	4
Total	27	12	4

5. Conclusions

This research took a critical perspective and examined individuals' attitudes towards sustainable tourism first and following this, assessed whether their attitudes aligned with their stakeholder groupings. This was achieved through the use of the pictorial Q-methodology in the Bay of Fires region of Tasmania, Australia.

The analysis of the Q sort results revealed three tourism development factors for the Bay of Fires. Significantly, one of these factors, the Outdoor Recreationists, was made up only of local people. However this did not represent all locals' views; a significant number of locals were also present in other groups, particularly Engagers with Nature. The other factor clusters that emerged from the analysis had a mix of stakeholders within them. Environmental Accommodators had respondents from three of the four stakeholder categories within it: operators, regulators and locals. Additionally, the factor group called Engagers with Nature, had individuals from each of the stakeholder groups within it, including all those who were representatives in community groups; and most of the local community members.

Traditional approaches to stakeholder research have tended to identify the stakeholder groups in the first instance, then assess their attitudes; and only then focus on the differences between these groups [64,65]. This research has demonstrated that assumptions that individuals within stakeholders groups have similar attitudes, requires revision. While their primary behaviour on a day-to-day basis, such as being an operator or a person in a regulatory position may be similar, this does not necessarily determine their attitudes. Moreover, this study demonstrated that individuals within stakeholder groups often had vastly divergent views. The results determined that locals in particular had very divergent views: some were identified in Factor 1, 'Engagers of Nature', and these individuals did not engage in recreational activities such as quad biking or horse riding. Locals with the opposite preferences for recreation were subsequently found in Factor 3, Outdoor Recreationists. These findings illustrate that there is a risk that research that uses stakeholders groups as its starting point runs the risk of artificially creating boundaries around behavioural groups, when in fact they should be around attitudinal groups.

This research also determined that attitudes towards sustainable tourism are contextual and that the concept is perceived differently by different attitudinal groups. This finding aligns with previous work in this space [26]. The factor that was made up entirely of local people coined Outdoor Recreationists illustrated this clearly: their preferences for the style of tourism development that should occur within the Bay of Fires region was informed by the activities that they undertook during their own leisure time. As a consequence, their preferred style of tourism included horse riding, quad bikes and fishing. Relatively speaking these activities have a higher impact on the environment than other options that were depicted in the photographs, such as bushwalking. But Outdoor Recreationists did not select these as preferred options. This was not because they had no regard for the environment; indeed this group of participants expressed their concerns for ensuring that environmental impacts were minimised and valued the region's untouched beauty. They also disliked a larger style development such as eco lodges, due to their larger visual impacts. Rather,

their vision of a sustainable tourism future was one which was informed by their own livelihoods and recreational values.

A critical turn that has occurred within the broader field of tourism studies and more recently, studies of sustainable tourism, questions norms, assumptions and power relationships that may exist within the tourism industry and whilst undertaking research [8,9]. This study has demonstrated the value of this approach by questioning the assumption of stakeholder groups' attitudinal homogeneity. Moreover the photographic, participatory approach has highlighted the importance of conducting research that focuses on the inclusion of those who may have been underrepresented by traditional means of research, due to their low levels of perceived power.

Further research is now needed to compare the attitudes of individuals across entire regions. This research was part of a broader study that examined the attitudes of stakeholders across three regions in Tasmania, Australia. The next step is to examine whether commonalities in attitudes exist across entire regions or whether they remain contextually bound. There is also a need to continue critically bound appraisal of the norms underpinning stakeholder research, in order to examine the issue of attitudinal alignment of individual stakeholders, vis-à-vis their behavioural group. This is particularly pertinent given the consensus that stakeholder involvement at all stages of tourism development is an essential component in achieving sustainable tourism.

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