

2013

Visitor's perceptions of tourism impacts: Bruny and Magnetic Islands, Australia

Brent D. Moyle
Southern Cross University

Betty Weiler
Southern Cross University

Glen Croy
Monash University

Publication details

Postprint of: Moyle, BD, Weiler, B & Croy, G 2013, 'Visitor's perceptions of tourism impacts: Bruny and Magnetic Islands, Australia', *Journal of Travel Research*, vol. 52, no. 3, pp. 392-406.

Published version available from:

<http://dx.doi.org/10.1177/0047287512467702>

ePublications@SCU is an electronic repository administered by Southern Cross University Library. Its goal is to capture and preserve the intellectual output of Southern Cross University authors and researchers, and to increase visibility and impact through open access to researchers around the world. For further information please contact epubs@scu.edu.au.

Journal of Travel Research

Visitors' Perceptions of Tourism Impacts: Bruny and Magnetic Islands, Australia.

Journal:	<i>Journal of Travel Research</i>
Manuscript ID:	JTR-12-03-28.R2
Manuscript Type:	Original Article
Keywords:	island, community, tourist, economic, socio-cultural, environmental
Abstract:	<p>Tourism on islands, as elsewhere, can have positive and negative economic, environmental and socio-cultural impacts. Previous research has focused on residents' perceptions of these impacts with little emphasis on those of the visitor, resulting in a lack of theorizing and empirical investigation into how visitors perceive and evaluate their impacts. Based on the premise that a better understanding of the visitor perspective can underpin the proactive management of some tourism impacts, this study uses Social Exchange Theory to explore visitors' perceptions tourism impacts on two Australian islands. Overall, visitors recognized that tourism activity increases impacts and evaluated these as mostly positive for the island communities. While visitors were aware of a range of positive and negative impacts, they judged their own impact to be more positive than that of tourism collectively. The findings point to how research can be used to underpin visitor-focused management and mitigation strategies of island destinations.</p>

SCHOLARONE™
Manuscripts

Visitors' Perceptions of Tourism Impacts: Bruny and Magnetic Islands, Australia.**Dr Brent Moyle**

Postdoctoral Research Fellow

Centre for Tourism Leisure and Work

School of Tourism and Hospitality Management

Southern Cross University

E-mail: brent.moyle@scu.edu.au

Phone: +61 407 745 388

PO Box 157, Lismore NSW 2480, Australia

Professor Betty Weiler

Research Professor

Centre for Tourism Leisure and Work

School of Tourism and Hospitality Management

Southern Cross University

E-mail: betty.weiler@scu.edu.au,

Phone: +61 414 745 128

PO Box 157, Lismore NSW 2480, Australia

Dr Glen Croy

Senior Lecturer

Department of Management

Monash University

E-mail: glen.croy@monash.edu.au

Phone: +61 3 9904 7032

McMahons Road, Frankston, VIC, 3199, Australia

Submitted: 23rd March 2012

Accepted with Revisions: 24th May 2012

Resubmitted: 8th August 2012

Accepted for Publication: 5th October 2012

Visitors' Perceptions of Tourism Impacts: Bruny and Magnetic Islands, Australia.

Abstract

Tourism on islands, as elsewhere, can have positive and negative economic, environmental and socio-cultural impacts. Previous research has focused on residents' perceptions of these impacts with little emphasis on those of the visitor, resulting in a lack of theorizing and empirical investigation into how visitors perceive and evaluate their impacts. Based on the premise that a better understanding of the visitor perspective can underpin the proactive management of some tourism impacts, this study uses Social Exchange Theory to explore visitors' perceptions tourism impacts on two Australian islands. Overall, visitors recognized that tourism activity increases impacts and evaluated these as mostly positive for the island communities. While visitors were aware of a range of positive and negative impacts, they judged their own impact to be more positive than that of tourism collectively. The findings point to how research can be used to underpin visitor-focused management and mitigation strategies of island destinations.

KEYWORDS: island, community, tourist, economic, socio-cultural, environmental

Visitors' Perceptions of Tourism Impacts: Bruny and Magnetic Islands, Australia.

Introduction

In recognition of the importance of conserving global biodiversity, many islands around the world now have designated protected areas, placing many at the forefront of environmental conservation (Mortimer, Sharp, and Craig 1996), and consequently tourism (Elliott and Neirotti 2008; Ioannides and Holcomb 2003). Tourism offers a vehicle for economic development and job creation for the locals who inhabit islands (Croes 2006). However, due to the ecological vulnerability and limited resource base of islands, tourism can play a major role in adversely impacting the environments of these inherently fragile destinations (Carlsen 2006). In addition to environmental impacts, previous studies have recognized that tourism contributes to social and cultural impacts on island communities (Padilla and McElroy 2005). As a result, tourism development can be a highly contentious issue on islands, and can contribute to resentment toward visitors within the local community (Ilika 2001).

The range of both positive and negative economic, environmental and socio-cultural impacts has led to diverse opinions on how to sustainably develop and manage island tourism (Zulfa and Carlsen 2011). Clearly, tourism has the opportunity to either enhance or inhibit the quality of life and the environments of islands. In order to ensure that tourism is developed and integrated into communities in a sustainable manner, island tourism planners and policy makers need to be well-informed about impacts and the complexities and challenges associated with managing and responding to these (Henderson 2000).

Studies focusing on the impacts of tourism on islands have served as a microcosm for examining the potential, perceived and actual impacts of tourism generally, however to date they have been predominantly undertaken from the residents' perspective. This is

1
2
3 understandable, as it is the residents of island communities who are actually impacted by the
4
5 existence of tourism in the region. However, this exclusive focus on residents' perceptions
6
7 has meant little scholarly attention has been directed towards advancing the conceptual
8
9 understanding of how visitors perceive and evaluate their impacts on island communities.
10
11 Arguably, it is visitors (and developers' efforts to provide for visitors) that are the source of
12
13 the problem, yet to date visitors have been rarely regarded as part of the solution. As such, an
14
15 understanding of visitors' perceptions of impacts may help build a stronger foundation for
16
17 management strategies targeted at visitors and designed to reduce or respond to impacts.
18
19

20
21 Consequently, this paper aims to explore how visitors perceive and evaluate the impacts
22
23 of tourism on island communities. To achieve this aim, the existing knowledge base on
24
25 tourism impacts is reviewed. Case sites and methods are then introduced, followed by the
26
27 presentation of the findings from the visitor surveys. The paper concludes with the research
28
29 implications and directions for future research.
30
31

32 33 34 35 36 **Literature Review**

37 38 39 *Research on Tourism Impacts*

40
41
42 Interactions through continual exchanges between visitors and the host community can lead
43
44 to short and long term positive and negative, individual and cumulative, and sometimes
45
46 profound, impacts on destinations, businesses and communities across the globe (Brown
47
48 1998; Gössling, Hall, and Weaver 2009). The impacts are interrelated and, consequently,
49
50 cannot always be easily assigned to one specific category (Manning and Valliere 2001).
51
52
53 Nonetheless, the conventional practice of previous studies is adopted here, reviewing
54
55
56
57
58
59
60

1
2
3 tourism's economic, environmental and socio-cultural impacts as distinct categories, often
4
5 referred to as the triple bottom line (Mathieson and Wall 1982; Sherwood 2007).
6
7

8 A large number of studies have examined the environmental, economic and socio-
9
10 cultural consequences of tourism and its associated development (Akis, Peristianis, and
11
12 Warner 1996; Deccio and Baloglu 2002; Jurowski, Uysal, and Williams 1997). Broadly,
13
14 these studies have indicated an inverse direct relationship between tourism economic
15
16 development and negative impacts on social and environmental structures (Carter 2004). That
17
18 is, tourism can provide economic benefits, such as income and jobs, but often results in costs
19
20 that are borne by environments and communities.
21
22

23
24 Historically the economic impacts of tourism have received the most attention due to
25
26 the positive effects they can have on destinations and communities, both directly and
27
28 indirectly, and their relative ease of assessment (Dyer et al. 2007). However, since the
29
30 negative social and environmental implications of tourism have become increasingly evident
31
32 in many destinations, a more critical view of tourism impacts has emerged (Avcikurt and
33
34 Soyballi 2001; Husbands 1989). While much of the literature has found tourism to have
35
36 negative socio-cultural impacts (Faulkenberry et al. 2000), some studies have found that
37
38 tourism has positive social impacts (Andereck et al. 2005), or that there are both positive and
39
40 negative social impacts (Hall 2004).
41
42
43

44 The environmental impacts of tourism have also received considerable attention in the
45
46 literature (Deng et al. 2003; Kavallinis and Pizam 1995). The quality of the environment,
47
48 both natural and man-made, is essential to tourism. However, the tourism industry's
49
50 relationship with the environment is complex as it involves many activities that can adversely
51
52 impact the environment, such as the construction of infrastructure (e.g., roads and airports),
53
54 and visitor facilities (e.g., resorts, hotels, restaurants, shops, golf courses and marinas). In
55
56 some cases the negative impacts of tourism development can gradually destroy the
57
58
59
60

1
2
3 environmental resources on which it depends (Giannoni and Maupertuis 2007). Despite this,
4
5 tourism has the potential to be beneficial to the environment by contributing to protection and
6
7 conservation. Furthermore, tourism is often seen as a way to raise awareness of
8
9 environmental values, to finance protection of natural areas and to increase their economic
10
11 importance. Regardless, studies generally conclude that tourism has a negative impact on the
12
13 environment (Burak, Dogan, and Gazioglu 2004).
14
15

16
17 Islands have likewise received research attention, finding similar tourism impacts to
18
19 those on mainland communities (Carlson and Butler 2011; Moyle, Croy, and Weiler 2010a).
20
21 One difference, however, is that tourism is perhaps more likely to be viewed by planners as
22
23 an economic and socio-cultural savior for island communities (Croes 2006; Keane, Brophy
24
25 and Cuddy 1992; Scheyvens and Momsen 2008). Island tourism has been found to offer a
26
27 vital source of employment, raise standards of living, diversify dependence on limited
28
29 traditional industries, further socio-cultural opportunities, and support environmental
30
31 conservation (Carlson and Butler 2011; Carter 2004; Huh and Vogt 2008). On the other hand,
32
33 island tourism jobs, due to limited competing opportunities, can be low-paying, and tourism
34
35 can introduce unwanted lifestyle changes and, due to geographic concentration, contribute to
36
37 environmental degradation (Andriotis 2005; Calafat and Juan 2004; Carlson 2006; Wilkinson
38
39 1989). Moreover, island tourism can have greater magnification of negative impacts (Ilika
40
41 2001). Overall, the ramifications of tourism on islands warrant careful consideration (Calafat
42
43 and Juan 2004; Perez and Nadal 2005).
44
45
46
47

48
49 As with the investigation of tourism impacts on the mainland, previous island studies
50
51 have primarily explored residents' perceptions of impacts (Moyle et al. 2010a). The few
52
53 studies that have investigated visitors' perceptions have focused on their perceptions of
54
55 environmental impacts on unpopulated protected areas (Deng et al. 2003; Dietz, Stern, and
56
57 Guagnono 1998). An exception is Kavallinis & Pizam's (1995) study on the perceptions of
58
59
60

1
2
3 residents, entrepreneurs and tourists towards the environmental impacts of tourism on the
4 island of Mykonos, Greece. A key finding of this work was that all three groups surveyed,
5
6 including residents, felt that the negative environmental consequences of tourism were
7
8 largely due to the actions of locals.
9
10

11
12 Partly as a result of this knowledge gap, tourism impacts are managed largely by
13
14 measuring the impacts after they have occurred, and reactively managing and mitigating
15
16 accordingly. The resident focus also means visitors' perceptions of tourism impacts are
17
18 conceptually underdeveloped, limiting how visitors might be targeted with management
19
20 strategies aimed at influencing their behavior and thereby maximizing the positive and
21
22 minimizing or mitigating the negative impacts of tourism. Intuitively, there seem to be a
23
24 plethora of actions that visitors can choose to do, or not do, that might increase or decrease
25
26 the social, economic and environmental impacts of their visits individually and collectively.
27
28 These, of course, can be both positive and negative. Thus, there is a compelling case for
29
30 exploring visitors' perceptions of the impacts of tourism on island communities.
31
32
33
34
35

36 *Theoretical Orientation of Research on Tourism Impacts*

37

38
39 One means of exploring visitors' perceptions of their impacts is conceptualized in Social
40
41 Exchange Theory (SET), which has been extensively employed in the study of tourism
42
43 impacts, though previously focused on residents' perceptions (Andereck et al. 2005; Ap
44
45 1992; Deccio and Baloglu 2002; Hernandez, Cohen, and Garcia 1996; Jurovski et al. 1997;
46
47 Kayat 2002). The basic premise of SET is that in order to sustain interaction there must be at
48
49 least a two-way exchange of material, social or psychological resources between individuals
50
51 or groups of individuals (Ap 1992). In addition to residents' perceived exchange outcomes,
52
53 previous studies have also explored the antecedent conditions that facilitate or inhibit
54
55 community support for tourism exchanges (Kayat 2002; Sirakaya, Teye and Sönmez 2002).
56
57
58
59
60

1
2
3 These studies have reported mixed antecedent findings, identifying community concern,
4
5 community attachment, eco-centric attitudes, length of residence and various demographic
6
7 characteristics and in more recent studies characteristics such as emotion as important
8
9 variables that potentially influence residents' support of tourism and its associated
10
11 development (Gursoy and Rutherford 2004; Woosnam, 2012). Overall, studies have found
12
13 that the likelihood of residents participating in future exchanges is based on their active
14
15 evaluation of the exchanges and the positive outcomes of these. Whilst there appears to be a
16
17 self-centric motive, these evaluations also include consequences for the wider community and
18
19 the visitor.
20
21

22
23 Mason and Cheyne's (2000) view is that the focus on the resident can largely be
24
25 attributed to the visibility and accessibility of the impacts of tourism on host communities.
26
27 However, a premise of SET is that visitors, like residents, are also active participants and
28
29 evaluators of the exchange. Importantly, in the exchange, all actors involved evaluate the
30
31 consequences of the exchange; that is, the range of economic, environmental and socio-
32
33 cultural impacts the exchange has (Hernandez et al. 1996) both for themselves and for the
34
35 other parties. If both actors perceive the consequences of the exchange as positive,
36
37 continuation of the exchange behavior will generally transpire (Goldberg 1980). If the
38
39 visitor–host exchange is evaluated negatively, meaning the exchange relation is unbalanced
40
41 and the transactions of resources are not gratifying, actors (residents or visitors) may be
42
43 prompted to withdraw from future exchanges (Emerson 1976). How informed visitors are of
44
45 the consequences of their exchanges (tourism impacts) for residents and environments of
46
47 destination communities, particularly on islands, is an area of research that is an important
48
49 component of SET, yet remains conceptually underdeveloped.
50
51
52
53

54
55 Despite a general lack of studies investigating visitors' perceptions of their impacts,
56
57 there have been efforts to engage the visitor in proactive impact management via
58
59
60

1
2
3 environmental education campaigns such as *Leave No Trace*, various *Codes of Conduct* and
4
5 *Environmental Guidelines* for visitors, many of which have been developed and implemented
6
7 by protected area management agencies and local tourism authorities (Mason and Mowforth
8
9 1996; Moscardo 1996). While the importance of these programs has been recognized by
10
11 others and is acknowledged here, they are almost exclusively focused on managing
12
13 environmental impacts (Garrod and Fyall 1998; Moore, Smith, and Newsome 2003).
14
15 However, it is only very recently that the design of management initiatives aimed at changing
16
17 visitors' on-site behaviors in order to reduce environmental impacts have been underpinned
18
19 by an understanding of visitors' perceptions of their own actions and consequences (Brown,
20
21 Ham & Hughes, 2010). Instead, the driving force of most environmental education
22
23 campaigns has been the need to address urgent resource management problems, and they are
24
25 thus typically developed and implemented with little or no theoretical or empirical basis that
26
27 might ensure their success in influencing visitor behavior. Furthermore, the academic
28
29 literature is bereft of examples where management interventions have sought to maximize or
30
31 minimize social, cultural or economic impacts. There is thus considerable scope and merit in
32
33 exploring visitors' perceptions of tourism impacts across the triple bottom line, as a starting
34
35 point for involving visitors in strategies that might optimize the impacts of their own actions.
36
37
38
39
40

41 What is being argued here is that a better understanding of how visitors perceive their
42
43 own impacts will enhance the opportunity to engage visitors in implementing management
44
45 solutions and thereby help minimize and possibly prevent negative outcomes, (Burns and
46
47 Howard 2003; Diamantopoulou and Voudouris 2008; Moore et al. 2003). Ap and Crompton's
48
49 (1998) framework may serve as a tool to building this understanding. They suggest
50
51 identifying management strategies by using summary plots of how impacts are perceived,
52
53 with one axis depicting respondents' beliefs about whether tourism increases or decreases the
54
55 impact, and the second axis capturing respondents' evaluation of these impacts as being good
56
57
58
59
60

1
2
3 or bad. There is an apparent parallel here to both Fishbein's (1963) expectancy-value model
4 of attitude, and to importance-performance analysis (IPA), commonly used in marketing and
5 destination image studies (Martilla and James 1977; Chon, Weaver, and Chol 1991; Joppe,
6 Martin, and Waalen 2001; Pike and Ryan 2004). IPA graphs identify management strategies
7 depending on the quadrant in which an item falls, highlighting image attributes that are
8 already being successfully used in marketing, and those that need more strategic attention
9 (Joppe et al. 2001; Pike and Ryan 2004). For example, if an attribute is important though
10 performing poorly, then the organization or destination needs to concentrate its effort there,
11 while if it is unimportant the attribute is considered to be a low priority (Oh 2001; Chu and
12 Choi 2000). Transferring the IPA management approach to Ap and Crompton's (1998)
13 summary plots provides indicative management foci quadrants (Figure 1).
14
15
16
17
18
19
20
21
22
23
24
25
26
27

28
29 INSERT FIGURE 1 HERE
30
31

32
33 This conceptual lens can thus serve as a basis for the identification of visitor-focused
34 management interventions on islands. By understanding visitors' perceptions of the impacts
35 of tourism, proactive strategies for managing visitor behavior and its consequences that tap
36 into these perceptions can be identified, designed and implemented. As such, this paper uses
37 SET to examine how visitors perceive the impacts of tourism on island communities (whether
38 they believe tourism contributes to increasing or decreasing these impacts) and visitors'
39 evaluation of the impacts (whether they perceive the impact as being good or bad for the
40 island). In other words, the paper explores the initiating actors' (visitors') perceptions of the
41 consequences of the exchange (impacts) for the other actors (residents) involved in the
42 exchange relation, which has been previously under-explored in the tourism literature.
43
44
45
46
47
48
49
50
51
52
53
54
55 Exploring the visitor-host tourism exchange, especially from the initiating actor's (visitor's
56
57
58
59
60

1
2
3 or resident's) perceptions, will provide a stronger foundation from which to more proactively
4 manage the exchange.
5
6
7
8
9

10 **Site Selection and Method**

11
12
13 To explore visitors' perceptions of tourism impacts, two islands along the Australian
14 coastline were selected, both of which are accessible only by ferry. Bruny Island is located
15 off the south-eastern tip of Tasmania, Australia, has a population of around 620 (Davis 2004)
16 and is at an early stage of tourism development. Bruny Island is home to a national park and
17 large areas of state forest reserve. The two main townships of Adventure Bay, Alonnah and
18 Lunnawanna are located on South Bruny Island. Magnetic Island is located on the north-east
19 coast of Queensland in northern Australia. As the only island on the North Queensland coast
20 with both a World Heritage listed National Park and a substantial resident population, it has a
21 more developed tourism sector. Magnetic Island has a population of about 2,500 (Magnetic
22 Informer 2008), mainly residing in four main settlements scattered across the island: Nelly
23 Bay, Picnic Bay, Horseshoe Bay and Arcadia. These two islands were selected because they
24 were at different stages of the tourism development spectrum and so it was anticipated that,
25 based on previous studies, visitor perceptions would reflect these differing tourism impact
26 contexts (McLennan, Ruhanen, Ritchie & Pham, 2012).
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44

45 This research was informed by a previous stage, which included 30 semi-structured
46 interviews with locals (key informants) from a diversity of community and tourism
47 stakeholder groups with an appropriate knowledge base to comment on issues facing the
48 communities (15 from each of the two islands). The interviews identified these local
49 informants' perspectives of the impacts occurring on each of the islands (reported in Moyle,
50 Croy and Weiler 2010a) and helped to inform the research instrument for the visitor
51
52
53
54
55
56
57
58
59
60

1
2
3 component of the research. As previous research could also be leveraged to develop both lists
4
5 of impacts and scales of measurement, a structured survey was selected for this research. A
6
7 primary source for tourism impact items was Ap and Crompton's (1998) tourism impacts
8
9 scale. Their study identified 35 tourism impact attributes. This initial list was expanded,
10
11 based on the interview findings mentioned above, to ensure the provision of a comprehensive
12
13 and location-specific coverage of tourism impacts. The list of impact items were further
14
15 informed by other studies with similar objectives (especially Andereck and Vogt 2000;
16
17 Lankford and Howard 1994; Mason and Cheyne 2000; Williams and Lawson 2001; Choi and
18
19 Sirakaya 2005). A total of 48 impact items were used to assess how visitors perceive and
20
21 evaluate impacts on each of the islands.
22
23

24
25 While the use of interviews to inform the development of a questionnaire is a standard
26
27 approach within the social sciences, this method is innovative as resident interviews were
28
29 used to supplement a pre-existing set of impacts from previous literature, and then both were
30
31 used to develop an instrument with which to survey visitors on their perceptions of tourism
32
33 impacts across the triple bottom line. Using the resident survey to inform the visitor survey
34
35 was critical, as residents have an informed local understanding of tourism impacts and
36
37 therefore a foundation from which to identify relevant impact variables. This was confirmed
38
39 by the fact that the resident respondents identified new impact variables not previously cited
40
41 in scales developed to measure tourism impacts, such as Ap and Crompton (1998) (see
42
43 asterisked items in Table 2).
44
45
46
47

48
49 As already noted, the SET conceptualization of the visitor–host exchange identified two
50
51 components of interest: first, visitors' evaluation of the exchange (good–bad); and second, the
52
53 believed influence of the exchange (increasing–decreasing) (Ap and Crompton 1998). As
54
55 such, visitors' perceptions of impacts were measured on two five-point scales, enabling
56
57 impact plot summaries as illustrated in Figure 1 to indicate management foci. The first scale
58
59
60

1
2
3 focused on visitors' *evaluation*—specifically whether they perceived the impact to be good or
4 bad for the island communities (Ajzen and Driver 1992; Ap and Crompton 1998). The
5 second scale focused on visitors' *beliefs*—specifically whether tourism was perceived to
6 increase or decrease the impact (Ajzen and Driver 1992; Ap and Crompton 1998). To
7 minimize response bias, the impact attributes were presented to respondents in alphabetical
8 order, rather than by impact category (economic, environmental and socio-cultural) (Reid &
9 Deaux, 1996).
10
11
12
13
14
15
16
17
18

19 Additionally, in order to ascertain visitors' perceptions of the overall impacts of
20 tourism, two single-item measures using seven-point rating scales were used. The first
21 question asked visitors how positive or negative they perceived the overall impact of tourism
22 to be, and the second asked visitors to assess the impact of their personal visit to the island.
23 All rating scales used “1” as the low end of the scale. Finally, trip and demographic
24 characteristics were solicited from respondents.
25
26
27
28
29
30
31
32

33 Visitors were approached to participate at the ferry terminal as they were departing
34 each island. Recruits were garnered across a number of peak and slower days between the
35 months of January and April of 2009. Those bound by time constraints were provided a pre-
36 paid return envelope and invited to mail back the survey. On Bruny Island, of the 1,000
37 visitors approached, 838 accepted the invitation to participate, while 162 refused (16%). On
38 Magnetic Island, of the 1,000 visitors approached, 679 accepted the invitation to participate,
39 while 321 declined (32%). The higher rate of refusals was attributed to a shorter waiting time
40 for the Magnetic Island ferry, as the public transport timetable is designed specifically for the
41 ferry times. Reasons for refusal included: lack of available time, hot weather, organizing
42 young children onto the ferry, time pressure at work, imminent departure from Australia, and
43 a general dislike of surveys. There were 317 completed and usable surveys from Bruny Island
44 (37.8% response rate from distributed surveys; 31.7% response rate from all approached
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 potential respondents), and 201 from Magnetic Island (29.6%; 20.1%). Following the lead of
4
5 previous tourism impact studies, respondent data were analyzed using descriptive statistics
6
7 and t-tests.
8
9

10 11 12 **Results**

13
14
15
16 Bruny Island respondents were significantly older than those to Magnetic Island ($p=0.000$),
17
18 with 61 percent being 45 years or more, compared to just 41 percent on Magnetic Island.
19

20
21 There were also slightly more male than female respondents on both the islands. Respondents
22
23 on both islands were well educated, typically holding tertiary qualifications. Repeat visitation
24
25 to both islands was high, including each island attracting large percentage of multiple-visit
26
27 tourists; 54 percent of Bruny Island repeat tourists, and 70 percent of Magnetic Island's
28
29 repeat tourists having visited ten times or more. Domestic tourists dominated respondents at
30
31 both islands; 85 percent at Bruny Island, and 74 percent at Magnetic Island. Respondents to
32
33 Bruny Island stayed an average of 3.3 nights, while those on Magnetic Island stayed 4.9
34
35 nights. Overall satisfaction was significantly higher on Bruny Island ($p = 0.009$) than
36
37 Magnetic Island, with 34 percent being completely satisfied with their visit, compared to 24
38
39 percent on Magnetic Island.
40
41
42

43 *Respondents' Perceptions of Tourism Impacts*

44
45
46 Table 1 presents respondents' perceptions of the overall impacts of tourism and of their visit
47
48 (mean score on a 7-point scale). The results provide a useful baseline and context against
49
50 which to interpret the more specific perceived tourism impact items.
51
52

53
54 INSERT TABLE 1
55
56
57
58
59
60

1
2
3 Table 1 shows that, on average, respondents perceived the overall impact of tourism on
4 the island as moderately positive (4.7 and 4.8), relatively close to the scale mid-point (4).
5
6 Respondents rated their individual visit as more positive (5.4 and 5.3), suggesting that they
7 perceive their own impacts to be different and more favorable for the island than the impacts
8 of tourism and tourists generally. On the one hand, this could be interpreted as an indicator of
9 selective perception, and that visitors need to be encouraged to reflect on their own behaviors
10 and how they may be impacting island communities. On the other hand, the finding may
11 suggest that visitors see themselves as potential change agents, who can act as vehicles to
12 enhance the positive and minimize the negative consequences of tourism.
13
14
15
16
17
18
19
20
21
22

23 The more specific perceptions of tourism impacts on the island communities were
24 measured using two scales, in part to explore how visitors perceive tourism's impacts in
25 relative terms, and in part to identify particular impact areas that lend themselves to visitor-
26 focused management interventions. These are presented, firstly as a table to highlight the
27 detail in the findings and briefly discuss similarities to resident impact studies, and secondly
28 on scatter plots to illustrate their relationship to the management focus quadrants presented in
29 Figure 1. Table 2 presents respondents' perceptions (the mean scores and the standard
30 deviation) regarding 48 tourism impacts. Impact items are grouped in the table by economic,
31 socio-cultural and environmental impacts, and presented separately for Bruny and Magnetic
32 Islands. Belief was measured on a five-point scale, from 1 (decreases) to 5 (increases), with a
33 result closer to 5 indicating that respondents perceived that tourism increases this impact on
34 the island. Respondents' evaluation, also measured on a five-point scale, ranges from 1 (bad)
35 to 5 (good), with a result closer to 5 indicating respondents perceived that the tourism impact
36 was good for the island. The leading letter (A–V) for each impact item is the reference used
37 in the three respective economic, socio-cultural and environmental impacts scatter plots
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 (Figures 2, 3, and 4 respectively). Respondents also had the option of selecting a ‘don’t
4
5 know’ response for each impact item.
6
7

8
9 INSERT TABLE 2
10

11
12 Table 2 highlights respondents’ perceptions of the 48 tourism impacts for the island
13 communities. On both islands, respondents evaluated the economic impacts of tourism as
14 generally good and believed them to have increased as a result of tourism (above the mid-
15 point of 3). These results reflect previous studies of residents’ perceptions that tourism
16 activity provides economic benefits for the community (Carlsen 1999; Carmichael 2000;
17 Deichman 2002; Haralambopoulos and Pizam 1996; Hernandez et al. 1996). The key
18 economic impacts perceived by respondents, increasing employment, generating local
19 revenue and increasing the personal income of local residents, are also consistent with
20 previous studies on residents’ perceptions of tourism’s economic impacts (Cukier and Butler
21 1996; McNeill and Williams 2007).
22
23
24
25
26
27
28
29
30
31
32
33
34

35 Respondents perceived the socio-cultural impacts to only moderately increase as a
36 result of tourism, with most items measuring near the scale mid-point (3). Respondents
37 evaluated some of the socio-cultural impacts as good for the island communities, whilst
38 others were bad; however, again most responses were close to the scale mid-point. This
39 finding also mirrors previous studies on the socio-cultural impacts of tourism, which
40 conclude that residents perceive a range of these impacts in both a positive and a negative
41 manner (Bramwell 2003; Brunt and Courtney 1999; Dogan 1989). The positive socio-cultural
42 impacts identified in this study were associated with recreation opportunities, the restoration
43 of historical structures, the preservation of natural and cultural sites, a better quality of local
44 services, and the variety of cultural facilities and activities which align with previous resident
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 impact perception studies (Douglas 2006; Faulkner and Tideswell 1997; Haley, Snaith, and
4
5 Miller 2005; Hardy 2005; Pacaud, Voller, and Angeon 2007).
6
7

8 The results show that respondents believed that tourism moderately increases the
9
10 environmental impacts, and evaluated these as generally bad for the island communities.
11
12 These results mirror residents' perceptions of tourism impacts in other environmental impact
13
14 studies: that tourism activity increases the negative impacts on the environment (Andriotis
15
16 2003; Buijs 2009; Faulkner and Tideswell 1997; Kavallinis and Pizam 1995). The main
17
18 perceived adverse environmental impacts were having an increased pressure on
19
20 environmental resources, pollution, the deterioration of natural assets, erosion in national
21
22 parks, and litter. These all align with studies of residents' perceptions of environmental
23
24 impacts (Cushnahan 2001; Easterling 2004; Jamal 2004).
25
26
27

28 In summary, the results indicate that respondents generally rate their impact as more
29
30 positive than that of island visitors collectively. While this suggests an opportunity for
31
32 visitor-focused communication to enhance self-awareness, respondents' ratings of specific
33
34 economic, socio-cultural and environmental impacts, that is, their evaluation and belief of
35
36 these impacts, indicate where visitor-focused management interventions could be
37
38 implemented.
39
40
41

42 Respondents' perceptions of specific economic, socio-cultural and environmental
43
44 impacts are presented in Figures 2, 3 and 4 respectively. As previously noted, the scatter plots
45
46 of respondents' evaluations of and beliefs about the impacts provide a visual picture
47
48 regarding areas for management opportunities. Respondent belief (horizontal axis) was
49
50 measured on a five-point scale, from 1 (decreases) to 5 (increases), and their evaluation
51
52 (vertical axis) was also measured on a five-point scale, from 1 (bad) to 5 (good). Figure 2
53
54 presents respondents' evaluation and belief of their economic impacts on the islands
55
56 communities. The letter references relate to the impact items in Table 2. For example, "A"
57
58
59
60

1
2
3 refers to “income for local businesses”. The axes intersect at the scale mid-points, indicating
4
5 distinctions between impact items respondents believed as decreasing (left of the vertical
6
7 axis) and increasing (right of horizontal axis) due to tourism, and the items evaluated as bad
8
9 (below the horizontal axis) and good (above the horizontal axis) for the island communities.
10
11

12
13 INSERT FIGURE 2 HERE
14
15
16

17 Figure 2 indicates that respondents largely perceived tourism’s economic impacts as
18
19 good and increasing (upper right quadrant). This graph also represents the similarity in
20
21 responses across the two islands, with most items closely paired. There were a small number
22
23 of economic impact items that were perceived to be bad and increasing for the island
24
25 communities (lower right quadrant); specifically, funding for other public projects (K), cost
26
27 of living (L), and leakage of money to developers (M). Figure 3 presents respondents’
28
29 perceptions of socio-cultural impacts. The axes are the same as for Figure 2, and interpreted
30
31 the same.
32
33
34
35

36 INSERT FIGURE 3 HERE
37
38
39

40 In Figure 3, again, respondents perceived the majority of socio-cultural impacts on the
41
42 island communities to be good and increasing (upper right quadrant). No socio-cultural
43
44 impacts were evaluated as decreasing. There were, however, a number of socio-cultural
45
46 tourism impacts that were perceived to be bad and increasing for the island communities
47
48 (lower right quadrant). This quadrant presents differences between the two islands for
49
50 congestion of local shops (B), and quality of night life (Q). Congestion was believed to be
51
52 good for the host community on Bruny Island, possibly because of the perceived economic
53
54 benefits that congestion in local shops brings through increased spending. However,
55
56 congestion was considered to be bad at Magnetic Island. Another point of difference was that
57
58
59
60

1
2
3 the night life quality was believed to be a bad for the island communities on Bruny Island, but
4
5 good on Magnetic Island. Figure 4 represents respondents' perceptions of environmental
6
7 impacts on the islands. Again, the same axes and interpretation as for Figures 2 and 3 are
8
9 used.
10

11
12
13 INSERT FIGURE 4 HERE
14
15

16
17 Figure 4 indicates that respondents perceived that the majority of environmental
18
19 impacts were bad for the island communities and increasing due to tourism (lower right
20
21 quadrant). The only two environmental impact items perceived to be good and increasing
22
23 were awareness of environmental issues (A), and use of sustainable energy (B). The only
24
25 point of difference between the two islands was that wildlife in the area (I) was evaluated,
26
27 due to tourism, to be very slightly decreasing on Magnetic Island, whilst increasing on Bruny
28
29 Island.
30
31

32
33 The difference in stage-of-development context on the two islands does not appear to
34
35 have led to differences in how visitors perceive impacts. This suggests that visitors may take
36
37 a holistic and/or long term perspective of tourism's impacts on islands, and are relatively
38
39 unaffected by the immediate experience of current developments and issues and their
40
41 potentially shorter-term impacts.
42
43

44 *Tourism-Focused Management Indications*

45

46
47 SET suggests that an evaluation of the consequences for themselves, and to the other
48
49 party involved, may prompt actors (visitors) to then modify their behavior to attempt to
50
51 produce positive outcomes for all. This research has indicated that individual visitors are
52
53 collectively aware of the impacts and the consequences of these impacts for island
54
55 communities and environments. Moreover, they are more positive about their own impacts
56
57
58
59
60

1
2
3 than the collective impacts of visitors (Table 1). This may provide an avenue and justification
4
5 for visitor-focused management action that aims to encourage visitors to reflect on and
6
7 consider their own impacts and behavioral responses as a result of these impacts.
8
9

10 Viewing the results regarding specific impacts through the management framework of
11
12 Figure 1, the majority of the tourism impact perceptions are in quadrants 2 and 3 (i.e.
13
14 consider maintaining current visitor-focused management approaches). In the case of the two
15
16 islands in this study, there were no known visitor-focused management strategies in place at
17
18 the time of the study, and for the impacts that fall into quadrants 2 and 3, there does not
19
20 appear to be a basis for introducing new ones.
21
22
23

24 The impact items identified for consideration for visitor-focused management action
25
26 are those measured in quadrant 1 (“consider new visitor-focused management foci that
27
28 increase tourism’s contribution to these ‘good’ outcomes”) and quadrant 4 (“consider new
29
30 visitor-focused management approaches that decrease tourism’s contribution to these ‘bad’
31
32 outcomes”). There was just one economic impact item perceived as good and decreasing (i.e.,
33
34 needing encouragement to increase) and this was “funding for infrastructure/facilities” (J) on
35
36 Bruny Island. While visitors may have limited capacity to enhance the funding that goes to
37
38 infrastructure, collectively their actions could make a difference.
39
40
41

42 However, there are several impacts in quadrant 4, indicating that consideration be given
43
44 to visitor-focused management action with respect to these impacts. Thus, for Bruny and
45
46 Magnetic Islands, from the Figure 2, 3 and 4 scatter plots, it would appear that attention
47
48 needs to be directed to visitor-focused management actions that decrease tourism’s
49
50 contributions to “bad” outcomes (quadrant 4). The 20 quadrant 4 tourism impacts that
51
52 respondents evaluated as bad and increasing and that warrant consideration for new visitor-
53
54 focused management interventions are listed in Table 3. New visitor-focused strategies aimed
55
56
57
58
59
60

1
2
3 at increasing visitors' awareness of these impacts may well assist here in managing or
4
5 mitigating these impacts.
6
7

8 That said, management action should be directed toward impacts that are at least in part
9
10 the consequences of visitors' actions and thus where visitors' actions can genuinely
11
12 contribute to mitigating or eliminating the impact. In addition, they need to be perceptions
13
14 that can be influenced through some form of communication or similar management
15
16 intervention. In Table 3, the impacts that appear to offer little or no scope for influence via
17
18 visitor-focused management strategies have been categorized as "little or none", those that
19
20 may have some scope for influencing visitor behavior are categorized as "limited", and those
21
22 that appear to offer considerable scope are categorized as "yes".
23
24

25
26
27 INSERT TABLE 3
28
29

30
31 The engagement of visitors in proactive management of their impacts through visitor-
32
33 focused management interventions has been a neglected area of research in tourism. This
34
35 study's results indicate how visitors' perceptions can assist in identifying where to target this
36
37 management effort. Specific visitor management strategies may range from strategic
38
39 communication (both on-site and off-site) to more direct management interventions, however
40
41 the focus of this research is on visitors' perceptions, and points to the use of the former, i.e.
42
43 visitor-focused communication aimed at influencing those perceptions.
44
45

46
47 The aim of this paper has not been to put forward a specific set of recommendations for
48
49 management, but rather to illustrate how research on visitors' perceptions of impacts can be
50
51 used to identify areas which appear to lack successful current management strategies and/or
52
53 areas which offer scope for visitor-focused management action and therefore are worthy of
54
55 management attention. In the case of the two islands in this study, most of the impacts which
56
57 are able to be modified by management intervention are social and environmental, suggesting
58
59
60

1
2
3 scope for communication strategies that enhance visitors' understanding of their impacts and
4
5 promote responsible visitor behavior. For example, island managers could consider using the
6
7 media during each of the five phases of the visitor experience (i.e., anticipation, travel to, on-
8
9 site, travel back and recollection), in order to help modify and shape visitors' existing
10
11 perceptions of the socio-cultural impacts of tourism. The implication for demand-side
12
13 management of tourism impacts is that, in addition to the environmental impact messages
14
15 found in destinations' advertising and promotional material, island managers could consider
16
17 integrating appropriate information about the economic and socio-cultural impacts of tourism
18
19 that islands are experiencing. For example, it could be that these specific desired changes
20
21 could be captured in visitor *Codes of Conduct*, which are commonly used in environmentally
22
23 sensitive areas (Garrod and Fyall 1998; Mason and Mowforth 1996; Moore et al. 2003;
24
25 Moscardo 1996). By gaining a greater understanding of tourism development-related change,
26
27 visitors could be motivated and empowered to reflect on and adjust their own impact-
28
29 inducing behaviors.
30
31
32
33
34
35
36

37 **Limitations, Future Research and Conclusions**

38
39
40 This research was undertaken to explore visitors' perceptions (evaluation and beliefs) of
41
42 tourism's impact on the island they visited. The findings, while providing new insights, are
43
44 just a starting point for understanding visitors' perceptions of tourism impacts, in part due to
45
46 several study limitations. First, this research was undertaken on two Australian islands both
47
48 of which are easily accessible from and socially, culturally and politically similar to the
49
50 mainland. The results and management foci may well have been different if undertaken on
51
52 islands and indeed mainland destinations that are more remote or dissimilar to the tourists'
53
54 places of origin, including more remote Australian islands such as Lord Howe, Norfolk or
55
56
57
58
59
60

1
2
3 Christmas Island. Second, no visitor-focused management strategies were identified at the
4
5 time of the research, and so the research did not assess the role that such strategies may have
6
7 played in influencing actual and perceived impacts, nor has this research investigated the
8
9 likelihood of visitors responding to proposed or future impact communication messages
10
11 aimed at increasing their understanding and/or modify their behaviors.
12
13

14
15 Given the exploratory nature of this research, further research on visitor perceptions of
16
17 impacts is needed to replicate the approach undertaken here, firstly on islands similar to the
18
19 ones investigated in this study, that is, islands in close proximity of and that have much in
20
21 common with their nearby mainlands. Secondly, research on very different types of island
22
23 destinations is also needed and, of course, on non-island destinations. How do visitors at
24
25 other destinations assess tourism's contribution to decreasing or increasing impacts, and
26
27 which impacts do they judge as being bad or good for the host community? For example, are
28
29 visitors to less familiar and more "exotic" destinations more naïve or ignorant about their
30
31 impacts? Thirdly, are there contexts in which visitors' perceptions of impacts are destination
32
33 or development-specific? In this research, whilst there were some contrasting responses,
34
35 visitors' ratings of most impact items were largely consistent between the two islands.
36
37 Fourthly, in the present study, the visitors were relatively homogeneous, mostly Australian,
38
39 relatively well-educated and more often than not repeat visitors. A fruitful avenue for future
40
41 research would be to examine how previous travel and island experience and other socio-
42
43 demographic characteristics of the visitors influence their perceptions of impacts. Finally,
44
45 investigations into the efficacy of existing and experimental management interventions aimed
46
47 at influencing visitors' perceptions of and actions relating to impacts are needed. This might
48
49 include not only evaluating the impact of such management interventions on visitors' on-site
50
51 behavior, but asking visitors to indicate whether the interventions influence their decisions to
52
53 recommend the destination and to visit again in the future.
54
55
56
57
58
59
60

1
2
3 In conclusion, the increased attraction of islands due, in part at least, to their spatial,
4 temporal and environmental differences to the mainland, has increased the presence of
5 tourism impacts in these localities (Carlsen 2003; Ioannides and Holcomb 2003). Tourism is
6 often a welcomed sector enabling greater employment and social opportunities (Carlsen and
7 Butler 2011; Croes 2006; Huh and Vogt 2008; Padilla and McElroy 2005). Unfortunately,
8 along with the positive impacts, tourism can also contribute to negative impacts and, due to
9 the physical and resource constraints on islands, these negative impacts can quickly manifest
10 and be magnified (Ilika 2001). Impacts previously investigated on islands were categorized
11 into economic, socio-cultural and environmental (Sherwood 2007). Most studies have
12 reported that tourism often results in mixed outcomes, including increased economic benefits
13 and decreased environmental opportunities for the host community (Carter 2004;
14 Faulkenberry et al. 2000; Giannoni and Maupertuis 2007). Past tourism impact studies, of
15 which there are many, have predominantly focused on residents' perceptions of impacts and
16 have used the findings to implement reactive management responses (Moyle et al. 2010b).
17 However, there is also an opportunity to manage the initiators' impacts: the visitor.
18 Understanding visitors' perceptions of their impacts can provide a basis for proactive visitor-
19 focused strategies aimed at managing or mitigating impacts.

20
21 SET presents that all actors (both locals and visitors) have the capacity to evaluate the
22 consequences of the exchange as one factor for determining their engagement in present and
23 future exchanges (Ap 1992; Hernandez et al. 1996; Kayat 2002). Using this theoretical
24 orientation, it was suggested that exploring visitors' evaluation and belief of exchange
25 consequences could be used to shed light on how visitors view present and future tourism
26 exchanges. Additionally, identifying specific perceptions of these impacts assists with
27 identifying possible areas for visitor-focused management interventions (Burns and Howard
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 2003; Moore et al. 2003), that is, interventions that engage visitors in reducing or modifying
4
5 their impacts.
6

7
8 An exploration of visitors' perceptions of tourism impacts was undertaken on Bruny
9
10 and Magnetic Islands. Visitors were surveyed as to their perception of tourism impacts
11
12 increasing or decreasing on the islands, and if the impacts were good or bad for the island
13
14 communities. The findings suggest that visitors are able to perceive the impact of tourism
15
16 activity on host communities and environments. Results indicate that visitors to these two
17
18 islands generally perceive the overall impact of tourism as moderately positive. Moreover,
19
20 findings from this research demonstrate that most visitors perceive the impact of their
21
22 individual visit as more positive than the impact of tourism activity generally. This is not
23
24 dissimilar to Kavallinis and Pizam's (1995) finding that visitors perceived locals rather than
25
26 visitors to be the primary cause of environmental impacts on the island of Mykonos.
27
28

29
30 More specific impact items were also assessed and suggest that visitors perceive many
31
32 increases in impacts on local communities and environments as a result of tourism. It was
33
34 generally perceived that tourism increased economic and socio-cultural impacts, and that
35
36 these are generally good for the island communities. Contrastingly, the results suggest that
37
38 visitors generally perceived that tourism increased the negative environmental impacts for
39
40 these island destinations. These findings were relatively consistent with studies of residents'
41
42 perceptions of tourism impacts (Bramwell 2003; Carmichael 2000; Faulkner and Tideswell
43
44 1997; Hernandez et al. 1996; Jamal 2004; Kavallinis and Pizam 1995; Picaud et al. 2007). It
45
46 was interesting that the island visitors' perceptions of impacts were very consistent between
47
48 the two islands—even though each island was at a different development stage—suggesting
49
50 that visitors' perceptions of impacts may be tourism- rather than destination- or development
51
52 stage-specific. As already noted, future research could consider if visitors' perceptions of
53
54 impacts on island communities vary by location.
55
56
57
58
59
60

1
2
3 The plotting of the impacts indicated specific impact items for management foci. Few
4
5 positive impacts were identified as needing further encouragement (good impacts perceived
6
7 to be decreasing as a result of tourism), while many negative impacts were identified as
8
9 needing minimization (bad impacts perceived to be increasing as a result of tourism).
10
11 However, this study's results can provide only indicative foci for selecting and implementing
12
13 visitor-focused management interventions.
14
15

16
17 This research contributes to a relatively small body of literature on island tourism in
18
19 Australia. Overall, the research has demonstrated that, in general, visitors to these two islands
20
21 are able to perceive the wide range of tourism's impacts on island communities. It has
22
23 become accepted in the literature that tourism activity increases impacts on host communities
24
25 and that these can be perceived and identified by residents (Akis et al. 1996; Dyer, Aberdeen,
26
27 and Schuler 2003; Gössling 2001). Likewise, this study has illustrated that visitors do have
28
29 awareness of tourism's impacts and insight into the nature and consequences of these impacts
30
31 on host communities and environments. Finally, it was also proposed that enhancing
32
33 awareness and highlighting specific behaviors through visitor-focused management
34
35 interventions could encourage and empower visitors, potentially leading to better exchange
36
37 outcomes both for host communities and visitors. Most importantly, this research has found
38
39 that at least some visitors appear to have an appreciation of themselves as agents of change,
40
41 and as such can be employed in the management of tourism impacts.
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Reference List

- 1
2
3
4
5
6 Akis, S., N. Peristianis, and J. Warner. (1996). "Residents' Attitudes to Tourism
7
8 Development: The Case of Cyprus." *Tourism Management*, 17 (7): 481-494.
9
- 10
11 Ajzen, I., and B. L. Driver. (1992). "Application of the Theory of Planned Behavior to
12
13 Leisure Choice." *Journal of Leisure Research*, 24 (3): 207-224.
14
- 15
16 Andereck, K. L., K. M. Valentine, R. C. Knopf, and C. A. Vogt. (2005). "Residents'
17
18 Perceptions of Community Tourism Impacts." *Annals of Tourism Research*, 32 (4):
19
20 1056-1076.
21
- 22
23 Andereck, K., and C. Vogt (2000). "The Relationship Between Residents' Attitudes Toward
24
25 Tourism and Tourism Development Options." *Journal of Travel Research*, 39 (Aug.):
26
27 27-36.
28
- 29
30 Andriotis, K. (2003). "Tourism in Crete: A Form of Modernisation." *Current Issues In*
31
32 *Tourism*, 6 (1): 23-53.
33
- 34
35 Andriotis, K. (2005). "Seasonality in Crete: Problem or a Way of Life?" *Tourism Economics*
36
37 11 (2): 207-224.
38
- 39
40 Andriotis, K. (2006). "Researching the development gap between the hinterland and the coast
41
42 - evidence from the island of Crete." *Tourism Management* 27(4): 629-639.
43
- 44
45 Ap, J. (1992). "Residents' Perceptions on Tourism Impacts." *Annals of Tourism Research*, 19
46
47 (4): 665-690.
48
- 49
50 Ap, J., and J. L. Crompton. (1998). "Developing and Testing a Tourism Impact Scale."
51
52 *Journal of Travel Research*, 37 (2): 120-130.
53
- 54
55 Avcikurt, C., and H. Soybali. (2001). "Residents' Attitudes Towards Tourism in Ayvalik,
56
57 Turkey." *Tourism Analysis*, 6 (3/4): 259-265.
58
59
60

- 1
2
3 Bramwell, B. (2003). "Maltese Responses to Tourism." *Annals of Tourism Research*, 30 (3):
4
5 581-605.
6
- 7 Brown, T. (1998). *Tourism Reassessed: Blight or Blessing?* Wallingford, Oxfordshire, UK:
8
9 CABI, pp. 1-141
10
- 11
12 Brown, T., S. Ham and M. Hughes. (2010). "Picking up litter: An application of theory based
13
14 communication to influence tourist behaviour in protected areas." *Journal of*
15
16 *Sustainable Tourism*, 18(7), 879-900.
17
- 18
19 Brunt, P., and P. Courtney. (1999). "Host Perceptions of Sociocultural Impacts." *Annals of*
20
21 *Tourism Research*, 26 (3): 493-515.
22
- 23
24 Burns, G. L. and P. Howard. (2003). "When Wildlife Tourism Goes Wrong: A Case Study of
25
26 Stakeholder and Management Issues Regarding Dingoes on Fraser Island, Australia."
27
28 *Tourism Management*, 24 (6): 699-712.
29
- 30
31 Burak, S., E. Dogan, and C. Gazioglu. (2004). "Impact of Urbanisation and Tourism on
32
33 Coastal Environment." *Ocean & Coastal Management*, 47: 515-527.
34
- 35
36 Calafat, A. and M. Juan. (2004). "Health and Safety Problems in Recreational Nightlife in the
37
38 Island of Mallorca." *International Journal of Drug Policy*, 15 (2): 157-162.
39
- 40
41 Carlsen, J. (1999). "Tourism Impacts on Small Islands: A Longitudinal Study of Community
42
43 Attitudes to Tourism on the Cocos (Keeling) Islands." *Pacific Tourism Review*, 3 (1):
44
45 25-35.
46
- 47
48 Carlsen, J. (2006). "Post-tsunami Tourism Strategies for the Maldives." *Tourism Review*
49
50 *International*, 10: 69-79.
51
- 52
53 Carlsen, J., and R. Butler. (2011). "Introducing Sustainable Perspectives of Island Tourism."
54
55 In *Island Tourism Sustainable Perspectives*, edited by J. Carlsen and R. Butler.
56
57 Wallingford, Oxfordshire, UK: CABI, pp. 1-7.
58
59
60

- 1
2
3 Carter, R. W. (2004). "Implications of Sporadic Tourism Growth: Extrapolation from the
4
5 Case of Boracay Island, The Philippines." *Asia Pacific Journal of Tourism Research*,
6
7 9 (4): 383-404.
8
9
10 Carmichael, B. A. (2000). "A Matrix Model for Resident Attitudes and Behaviours in a
11
12 Rapidly Changing Visitor Area." *Tourism Management*, 21 (6): 601-611.
13
14 Choi, H. S. C. and E. Sirakaya (2005). "Measuring Residents' Attitudes Toward Sustainable
15
16 Tourism: Development of the Sustainable Tourism Attitude Scale." *Journal of Travel*
17
18 *Research*, 43 (4): 380-394.
19
20
21 Chon, K. S., P. A. Weaver, and Y. K. Chol. (1991). "Marketing Your Community: Image
22
23 Analysis in Norfolk." *Cornell Hotel and Restaurant Administration Quarterly*, 31 (4):
24
25 31-37.
26
27
28 Chu, R. K. S. and T. Choi. (2000). "An Importance-Performance Analysis of Hotel Selection
29
30 Factors in the Hong Kong Hotel Industry: A Comparison of Business and Leisure
31
32 Travellers." *Tourism Management*, 21 (4): 363-377.
33
34
35 Croes, R. R. (2006). "A Paradigm Shift to a New Strategy for Small Island Economies:
36
37 Embracing Demand Side Economics for Value Enhancement and Long Term
38
39 Economic Stability." *Tourism Management*, 27 (3): 453-465.
40
41
42 Cukier, J., and R. Butler. (1996). "Tourism and Employment in Bali: Trends and
43
44 Implications." In *Tourism and Indigenous People*, edited by R. Butler and T. Hinch.
45
46 London, International Thomson Business Press, pp. 49-75.
47
48
49 Cushnahan, G. (2001). "Resource Use and Tourism on a Small Indonesian Island." *Tourism*
50
51 *Recreation Research*, 26 (3): 25-31.
52
53
54 Davis, B. (2004). "Bruny Island Ferry—50th Anniversary." *Bruny News*, 3: 1-41.
55
56
57 Deccio, C., and S. Baloglu. (2002). "Nonhost Community Resident Reactions to the 2002
58
59 Winter Olympics: The Spillover Impacts." *Journal of Travel Research*, 41 (1): 46-56.
60

- 1
2
3 Deng, J., S. Qiang, G. J. Walker, and Y. Q. Zhang. (2003). "Assessment On and Perception
4
5 Of Visitors' Environmental Impacts of Nature Tourism: A Case Study of Zhangjiajie
6
7 National Forest Park, China." *Journal of Sustainable Tourism*, 11 (6), 529-548.
8
9
10 Diamantopoulou, P., and K. Voudouris. (2008). "Optimization of Water Resources
11
12 Management using SWOT Analysis: The Case of Zakynthos Island, Ionian Sea,
13
14 Greece." *Environmental Geology*, 54 (1): 197-211.
15
16
17 Deichmann, J. I. (2002). "International Tourism and the Sensitivities of Central Prague's
18
19 Residents." *Journal of Tourism Studies*, 13 (2): 41-52.
20
21
22 Dietz, T., P. C. Stern, and G. A. Guagnono. (1998). "Social Structural and Social
23
24 Psychological Bases of Environmental Concern." *Environment and Behaviour*, 30 (4):
25
26 450-472.
27
28
29 Dogan, H. Z. (1989). "Forms of Adjustment: Sociocultural Impacts of Tourism." *Annals of
30
31 Tourism Research*, 16 (2): 216-236.
32
33
34 Douglas, L. (2006). "Small Island States and Territories: Sustainable Development Issues and
35
36 Strategies—Challenges for Changing Islands in a Changing World." *Sustainable
37
38 Development*, 14 (2): 75-80.
39
40
41 Dyer, P., D. Gursoy, B. Sharma, and J. Carter. (2007). "Structural Modeling of Resident
42
43 Perceptions of Tourism and Associated Development on the Sunshine Coast,
44
45 Australia." *Tourism Management*, 28 (2), 409-422.
46
47
48 Dyer, P., L. Aberdeen, and S. Schuler. (2003). "Tourism Impacts on an Australian Indigenous
49
50 Community: A Djabugay Case Study." *Tourism Management*, 24 (1), 83-95.
51
52
53 Easterling, D. S. (2004). "The Residents' Perspective in Tourism Research: A Review and
54
55 Synthesis." *Journal of Travel & Tourism Marketing*, 17 (4), 45-62.
56
57
58 Elliott, S. M. and L. D. Neirotti. (2008). "Challenges of Tourism in a Dynamic Island
59
60 Destination: The Case of Cuba." *Tourism Geographies*, 10 (3): 375-402.

- 1
2
3 Emerson, R. (1976). "Social Exchange Theory." *Annual Review of Sociology*, 2 (1): 335-362.
4
5
6 Faulkenberry, L. V., J. M. Coggeshall, K. F. Backman, and S. J. Backman. (2000). "A
7
8 Culture of Servitude: The Impact of Tourism and Development on South Carolina's
9
10 Coast." *Human Organization*, 59 (1): 86-95.
11
12 Faulkner, B., and C. Tideswell (1997). "A Framework for Monitoring Community Impacts of
13
14 Tourism." *Journal of Sustainable Tourism*, 5 (1): 3-28.
15
16
17 Fishbein, M. (1963) An investigation of the relationships between beliefs about an object and
18
19 the attitude toward that object. *Human Relations*, 16, 233-240.
20
21
22 Garrod, B. and A. Fyall (1998). "Beyond the rhetoric of sustainable tourism?" *Tourism
23
24 Management* 19(3): 199-212.
25
26
27 Giannoni, S. and M. A. Maupertuis. (2007). "Environmental Quality and Optimal Investment
28
29 in Tourism Infrastructures: A Small Island Perspective." *Tourism Economics*, 13 (4):
30
31 499-513.
32
33
34 Goldberg, V. P. (1980). "Relational Exchange: Economics and Complex Contracts."
35
36 *American Behavioural Scientist*, 23 (3): 337-352.
37
38
39 Gössling, S. (2001). "Tourism, Economic Transition and Ecosystem Degradation: Interacting
40
41 Processes in a Tanzanian Coastal Community." *Tourism Geographies*, 3 (4): 430-453.
42
43
44 Gössling S., C.M. Hall, and D. Weaver. (2009). *Sustainable Tourism Futures*. London:
45
46 Routledge.
47
48
49 Gursoy, D., and D. G. Rutherford. (2004). "Host Attitudes Toward Tourism—An Improved
50
51 Structural Model." *Annals of Tourism Research*, 31 (3): 495-516.
52
53
54 Hall, D. (2004). "Rural Tourism Development in South-Eastern Europe: Transition and the
55
56 Search for Sustainability." *International Journal of Tourism Research*, 6: 165-176.
57
58
59
60

- 1
2
3 Haley, A. J., T. Snaith, and G. Miller. (2005). "The Social Impacts of Tourism: A Case Study
4 of Bath, UK." *Annals of Tourism Research*, 32 (3): 647-668.
5
6
7 Haralambopoulos, N., and A. Pizam. (1996). "Perceived Impacts of Tourism: The Case of
8 Samos." *Annals of Tourism Research*, 23 (3): 503-526.
9
10
11 Hardy, A. (2005). "Using Grounded Theory to Explore Stakeholder Perceptions of Tourism."
12 *Journal of Tourism and Cultural Change*, 3 (2): 108-133.
13
14
15 Henderson, J. C. (2000). "Managing Tourism in Small Islands: The Case of Pulau Ubin,
16 Singapore." *Journal of Sustainable Tourism*, 8 (3): 250-262.
17
18
19 Hernandez, S. A., J. Cohen, and H. L. Garcia. (1996). "Residents' Attitudes Towards an
20 Instant Resort Enclave." *Annals of Tourism Research*, 23 (4): 755-779.
21
22
23 Huh, C., and C. A. Vogt. (2008). "Changes in Residents' Attitudes Toward Tourism over
24 Time: A Cohort Analytical Approach." *Journal of Travel Research*, 46 (4): 446-455.
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
- Husbands, W. (1989). "Social Status and Perception of Tourism in Zambia." *Annals of
Tourism Research*, 16 (2): 237-253.
- Ilika, C. (2001). "Tourism Development in Small Islands: A Case Study of Elephanta Island,
Maharashtra, India." *Tourism Recreation Research*, 26 (3): 15-23.
- Ioannides, D., and B. Holcomb. (2003). "Misguided Policy Initiatives in Small-Island
Destinations: Why Do Up-Market Tourism Policies Fail?" *Tourism Geographies*, 5
(1): 39-48.
- Jamal, T. (2004). "Conflict in Natural Area Destinations: A Critique of Representation and
'Interest' in Participatory Processes." *Tourism Geographies*, 6 (3), 352-379.
- Joppe, M., D. W. Martin, and J. Waalen. (2001). "Toronto's Image as a Destination: A
Comparative Importance-Satisfaction Analysis by Origin of Visitor." *Journal of
Travel Research*, 39 (3): 252-260.

- 1
2
3 Jurowski, C., M. Uysal, and D. R. Williams. (1997). "A Theoretical Analysis of Host
4
5 Community Resident Reactions to Tourism." *Journal of Travel Research*, 36 (2): 3-
6
7 11.
8
9
10 Kavallinis, I., and A. Pizam. (1995). "The Environmental Impacts of Tourism—Whose
11
12 Responsibility is it Anyway? The Case Study of Mykonos." *Journal of Travel*
13
14 *Research*, 33 (2): 26-32.
15
16
17 Kayat, K. (2002). "Power, Social Exchanges and Tourism in Langkawi: Rethinking Resident
18
19 Perceptions." *International Journal of Tourism Research*, 4 (3): 171-191.
20
21
22 Lankford, S. V., and D. R. Howard. (1994). "Developing a Tourism Impact Attitude Scale."
23
24 *Annals of Tourism Research*, 21 (1): 121-139.
25
26
27 Lindberg, K., T. D. Andersson, and B. G. C. Dellaert, (2001). "Tourism Development:
28
29 Assessing Social Gains and Losses." *Annals of Tourism Research*, 28 (4): 1010-1030.
30
31
32 Magnetic Informer. (2008). "A Natural Paradise for you to Enjoy." *Magnetic Island*
33
34 *Informer*.
35
36
37 Manning, R. E., and W. A. Valliere. (2001). "Coping in Outdoor Recreation: Causes and
38
39 Consequences of Crowding and Conflict among Community Residents." *Journal of*
40
41 *Leisure Research*, 33 (4): 410-426.
42
43
44 Martilla, J. A. and J. C. James. (1977) "Importance-Performance Analysis." *Journal of*
45
46 *Marketing*, 41 (3): 77-79.
47
48
49 Mason, P., and J. Cheyne. (2000). "Resident Attitudes to Proposed Tourism Development."
50
51 *Annals of Tourism Research*, 27 (2), 391-411.
52
53
54 Mason, P., and M. Mowforth. (1996). "Codes of Conduct in Tourism." *Progress in Tourism*
55
56 *and Hospitality Research*, 2 (1): 151-167.
57
58
59 Mathieson, A. and G. Wall. (1982). *Tourism: Economic, Physical and Social Impacts*.
60
Harlow, Longman.

- 1
2
3 McLennan, C., L. Ruhanen, B. Ritchie, and T. Pham (2012). "Dynamics of Destination
4
5 Development: Investigating the application of Transformation Theory." *Journal of*
6
7 *Hospitality and Tourism Research*, 36(2), 164-190.
8
9
10 McNeill, J. M. and J. B. Williams. (2007). "The Employment Effects of Sustainable
11
12 Development Policies." *Ecological Economics*, 64: 216-223.
13
14 Moore, S. A., A. Smith, and D. Newsome. (2003). "Environmental Performance Reporting
15
16 for Natural Area Tourism: Contributions by Visitor Impact Management Frameworks
17
18 and Their Indicators." *Journal of Sustainable Tourism*, 11 (4): 348-375.
19
20
21 Mortimer, R., B. Sharp, J. Craig. (1996). "Assessing the Conservation Value of New
22
23 Zealand's Offshore Islands." *Conservation Biology*, 10 (1): 25-29.
24
25
26 Moscardo, G. (1996). "Mindful Visitors." *Annals of Tourism Research* 23(2): 376-397.
27
28
29 Moyle, B. D., W. G. Croy, and B. Weiler. (2010a). "Community Perceptions of Tourism
30
31 Impacts on Bruny and Magnetic Islands." *Asia Pacific Journal of Tourism Research*,
32
33 15 (3): 353-366.
34
35
36 Moyle, B. D., W. G. Croy, and B. Weiler. (2010b). "Tourism Interaction on Islands: The
37
38 Community and Visitor Social Exchange." *International Journal of Culture, Tourism*
39
40 *and Hospitality Research*, 4 (2): 96-107.
41
42
43 Moyle, B. D., W. G. Croy, and B. Weiler. (2011). "Sustainable Host-Guest Interactions on
44
45 Islands." In *Island Tourism Development: Journey's to Sustainability*, edited by J.
46
47 Carlsen, and R. Butler. CABI, Wallingford, UK pp. 129-139.
48
49
50 Oh, H. (2001) "Revisiting Importance-Performance Analysis." *Tourism Management*, 22 (6):
51
52 617-627.
53
54
55 Pacaud, L., D. Vollet, and V. Angeon. (2007). "Impact of Tourism Infrastructure on Regional
56
57 Development: The Implantation of a Center Parcs Resort in Northern France."
58
59 *Tourism Economics*, 13 (3): 389-406.
60

- 1
2
3 Padilla, A. and J. L. McElroy. (2005). "The Tourism Penetration Index in Large Islands: The
4
5 Case of the Dominican Republic." *Journal of Sustainable Tourism*, 13 (4): 353-372
6
7
8 Pérez, A. E. and R. J. Nadal. (2005). "Host Community Perceptions: A Cluster Analysis."
9
10 *Annals of Tourism Research*, 32 (4): 925-941.
11
12 Pike, S., and C. Ryan. (2004). "Destination Positioning Analysis through a Comparison of
13
14 Cognitive, Affective, and Conative Perceptions." *Journal of Travel Research*, 42 (4):
15
16 333-342.
17
18
19 Reid, A. and K. Deaux (1996) Relationship between social and personal identities:
20
21 Segregation or integration, *Journal of Personality and Social Psychology*, 71(6),
22
23 1084-1091.
24
25
26 Sherwood, P. (2007). *A Triple Bottom Line Evaluation of the Impact of Special Events: The*
27
28 *Development of Indicators*. Victoria University, Melbourne.
29
30
31 Sirakaya, E., V. Teye, and S. Sönmez. (2002). "Understanding Residents' Support for
32
33 Tourism Development in the Central Region of Ghana." *Journal of Travel Research*,
34
35 41 (1), 57-67.
36
37
38 Williams, J., and R. Lawson. (2001). "Community Issues and Resident Opinions of
39
40 Tourism." *Annals of Tourism Research*, 28 (2): 269-290.
41
42
43 Wilkinson, P. F. (1989). "Strategies for Tourism in Island Microstates." *Annals of Tourism*
44
45 *Research*, 16 (2): 153-177.
46
47
48 Woosnam, K. M. (2012) "Using Emotional Solidarity to explain residents' attitudes about
49
50 tourism and tourism development." *Journal of Travel Research* , 51 (3): 315 – 327.
51
52
53 Zulfa, M., and J. Carlsen. (2011). "Planning for Sustainable Island Tourism Development in
54
55 the Maldives." In *Island Tourism Sustainable Perspectives*, edited by J. Carlsen and
56
57 R. Butler. Wallingford, Oxfordshire, UK: CABI, pp. 215-227.
58
59
60

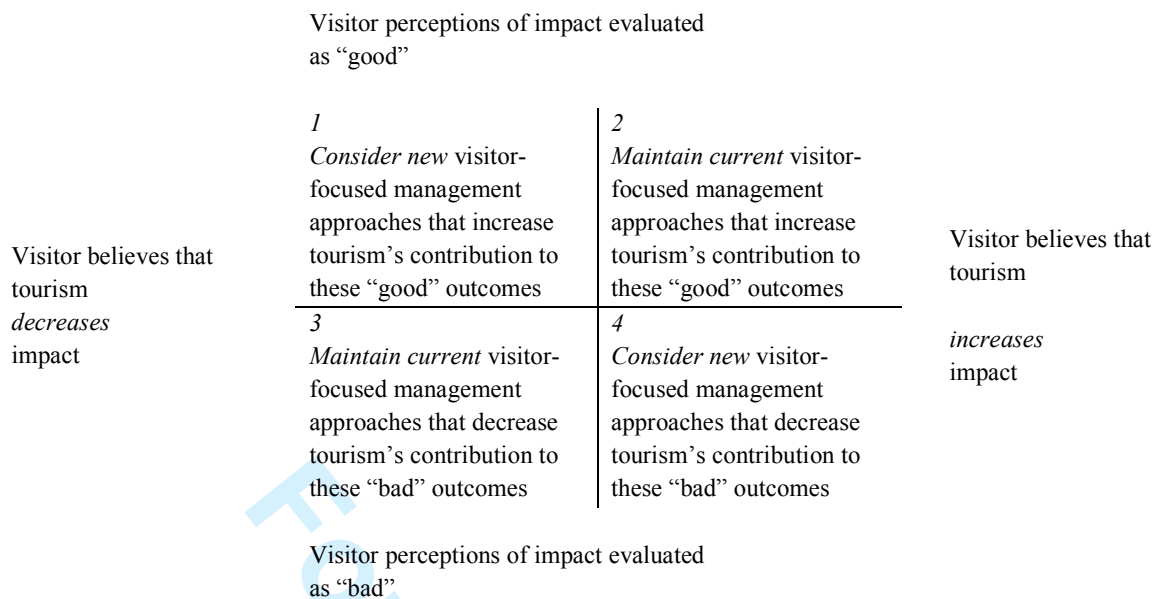


Figure 1. A framework for identifying visitor-focused management actions

Peer Review

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Table 1. Tourism Impacts as Perceived by Visitors

	Bruny Island		Magnetic Island	
	Mean	SD	Mean	SD
Perceptions of Overall Impact of Tourism	4.7	1.59	4.8	1.53
Perceptions of Respondents' Own Impact	5.4	1.31	5.3	1.36

For Peer Review

Table 2. Visitors' Perceptions of Tourism Impacts on Bruny and Magnetic Islands

Perceived Impacts		Bruny Island				Magnetic Island			
Perceived economic impacts		Belief (mean)	(SD)	Evaluation (mean)	(SD)	Belief (mean)	(SD)	Evaluation (mean)	(SD)
A	Income to local business	4.4	0.64	4.4	0.71	4.4	0.74	4.2	0.97
B	Number of jobs in local community	4.1	0.77	4.1	0.93	4.2	0.65	4.2	0.80
C	Revenue generated in economy	4.1	0.79	4.1	0.90	4.3	0.65	4.1	0.81
D	*Funding for environmental protection	3.9	0.90	3.9	1.10	4.0	0.82	4.1	0.96
E	Personal income of local residents	3.8	0.84	3.8	0.92	3.9	0.81	3.8	0.95
F	Investment development and spending	4.0	0.76	3.4	1.14	4.2	0.72	3.3	1.15
G	*Indirect financial benefits for locals	3.7	0.82	3.7	0.99	3.8	0.94	3.7	0.85
H	Economic development	3.9	1.02	3.4	1.26	4.3	0.73	3.3	1.18
I	Financial Resources for local services	3.6	0.92	3.4	1.11	3.7	1.09	3.9	0.92
J	Funding for infrastructure/facilities	2.9	1.72	3.6	1.13	3.2	1.76	4.0	0.86
K	Funding for other public projects	3.7	0.83	2.7	1.82	4.0	0.69	2.8	1.87
L	*Cost of living	3.6	0.95	2.4	1.03	3.8	0.99	2.4	1.06
M	*Leakage of money to developers	3.7	1.09	2.0	0.94	3.9	0.95	2.2	0.99
N	*Local business closures	2.3	1.02	2.9	1.40	2.6	1.12	2.8	1.30
Perceived socio-cultural impacts		Belief (mean)	(SD)	Evaluation (mean)	(SD)	Belief (mean)	(SD)	Evaluation (mean)	(SD)
A	Opportunities to restore/protect historical structures	3.9	0.90	4.0	0.95	3.6	0.94	3.8	1.05
B	*Congestion of local shops	3.9	0.95	3.9	1.20	3.8	1.00	2.9	1.12
C	Awareness of culture and heritage	3.8	0.88	4.0	0.97	3.5	1.00	3.7	1.08
D	Opportunities to meet people	3.8	0.91	3.9	0.86	3.9	0.91	3.7	1.04
E	Demand for historical activities/programs	3.8	0.88	3.7	0.88	3.5	0.80	3.5	0.85
F	Variety of cultural	3.6	0.84	3.7	0.88	3.6	0.94	3.7	0.82
G	Demand for cultural activities/programs	3.8	0.84	3.5	0.93	3.5	0.86	3.5	0.92
H	Variety of entertainment	3.6	0.83	3.6	0.90	3.8	0.91	3.8	0.98
I	Life and vitality of community	3.6	0.93	3.5	1.06	3.5	0.98	3.4	1.03
J	Number and quality of restaurants	3.5	0.96	3.6	1.09	3.9	0.90	3.7	1.06
K	Opportunities to learn about people cultures	3.5	0.95	3.6	1.02	3.6	0.95	3.7	0.98
L	*Recreation opportunities locals	3.5	0.99	3.5	1.07	3.9	0.87	3.5	1.08
M	Understanding of different patterns/customs	3.4	0.90	3.5	0.90	3.6	0.93	3.4	0.97
N	*Standard of living for locals	3.5	0.84	3.3	1.09	3.6	0.94	3.5	1.06
O	Shopping opportunities	3.4	0.93	3.2	0.97	3.9	0.85	3.8	0.91
P	*Change in social patterns/values/customs of locals	3.5	1.01	2.9	1.09	3.3	0.87	2.9	0.87

Q	*Quality of night life	3.3	0.89	2.8	1.00	3.6	0.96	3.4	1.08
R	Sexual behavior of locals	3.2	0.76	2.8	0.90	3.3	0.76	2.8	0.94
S	Parking issues for locals	3.7	0.96	2.2	0.97	3.6	1.02	2.3	1.01
T	Tension within local community	3.5	0.95	2.3	0.93	3.4	1.01	2.5	1.00
U	Drug and alcohol consumption	3.5	1.07	2.2	1.03	3.8	1.01	2.0	0.99
V	Crime	3.2	1.08	2.1	1.12	3.5	1.02	2.1	1.07
Perceived environmental impacts		Belief (mean)	(SD)	Evaluation (mean)	(SD)	Belief (mean)	(SD)	Evaluation (mean)	(SD)
A	*Awareness of environmental issues	3.9	0.97	3.9	1.18	3.7	1.05	3.9	1.17
B	*Use of sustainable energy	3.6	0.94	3.6	1.08	3.8	0.93	3.8	1.05
C	Change in behavior of wildlife	3.9	0.95	2.4	1.26	3.6	1.04	2.2	1.03
D	*Waste disposal on island	3.8	1.08	2.3	1.22	4.1	0.94	2.4	1.32
E	Impact on natural environment	3.9	1.01	2.2	1.08	3.8	0.94	2.2	1.01
F	Pressure on environmental resources	4.1	0.89	1.9	0.90	4.0	0.84	2.0	0.84
G	Quality of natural environment	2.9	1.15	2.6	1.24	2.9	1.18	2.6	1.27
H	Pollution	3.8	1.01	1.9	1.03	3.7	0.96	1.9	1.02
I	Wildlife in local area	3.2	1.20	2.2	1.19	3.0	1.25	2.4	1.24
J	*Deterioration of natural assets	3.6	1.11	1.9	0.97	3.7	0.96	2.0	1.02
K	*Erosion in national parks	3.5	0.97	2.0	0.98	3.8	0.82	2.0	0.97
L	Litter	3.9	1.08	1.7	0.97	4.1	0.89	1.7	0.90

Figure 2. Visitors' perceptions of economic impacts of tourism

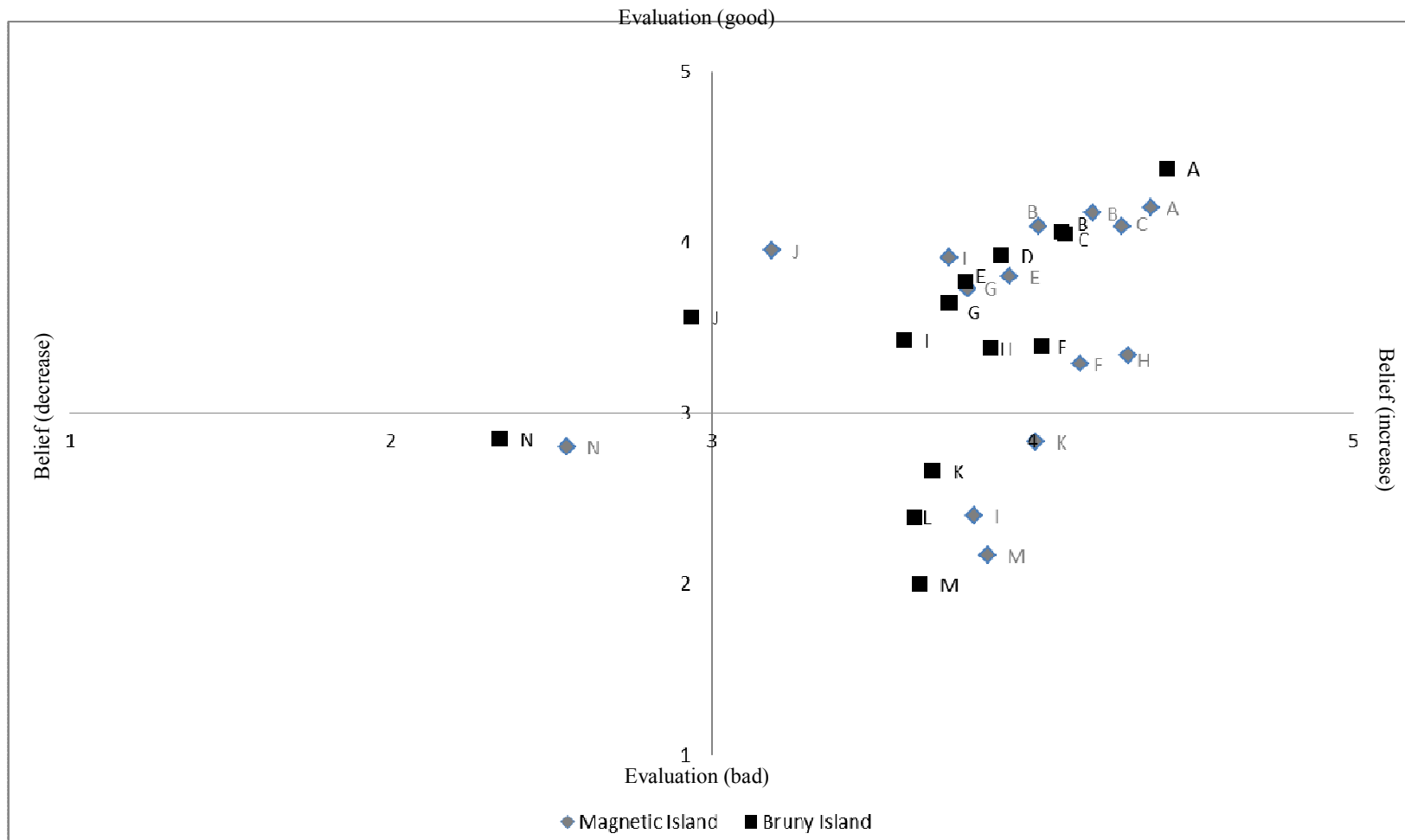


Figure 3. Visitors' perceptions of socio-cultural impacts of tourism

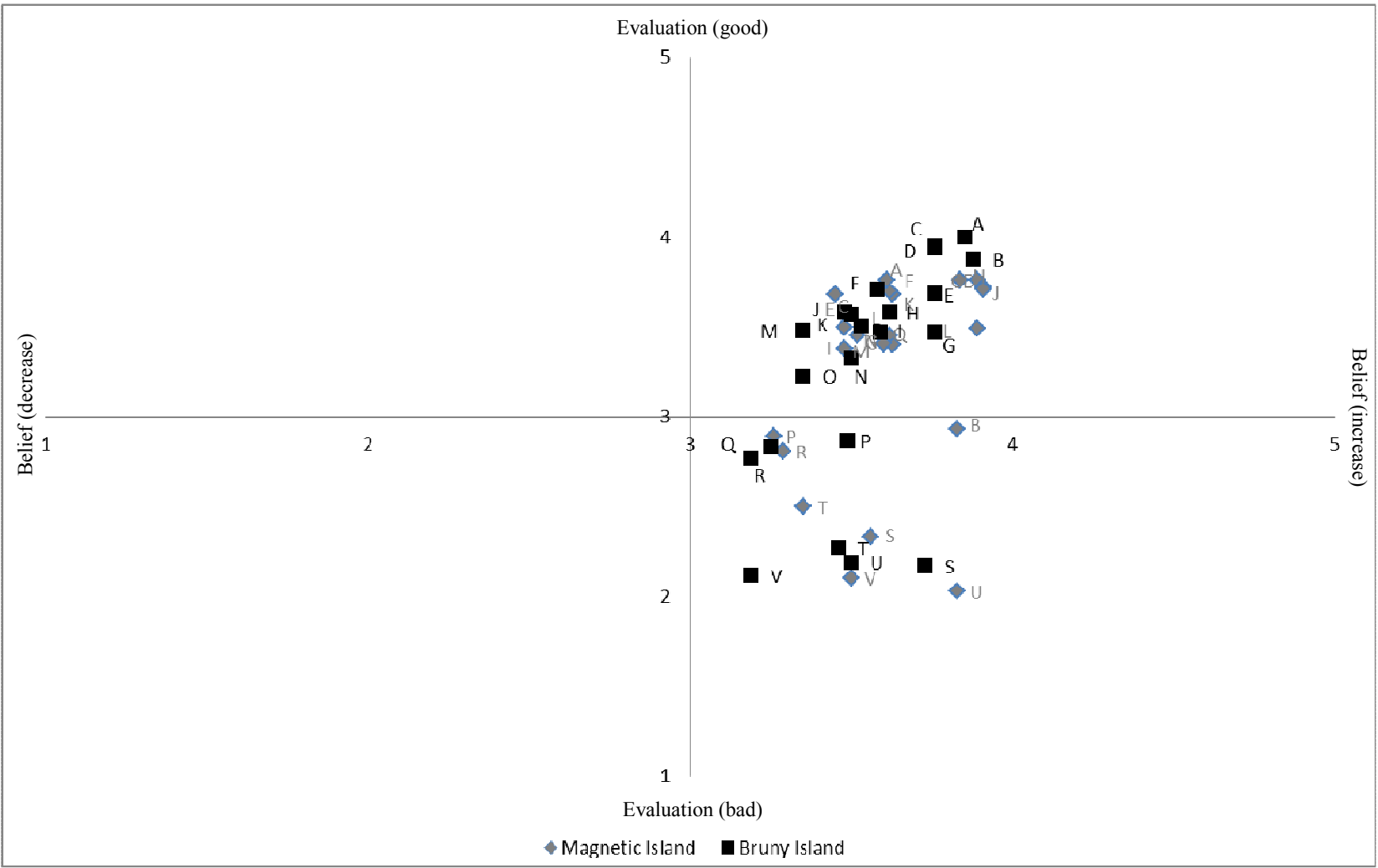


Figure 4. Visitors' perceptions of environmental impacts of tourism

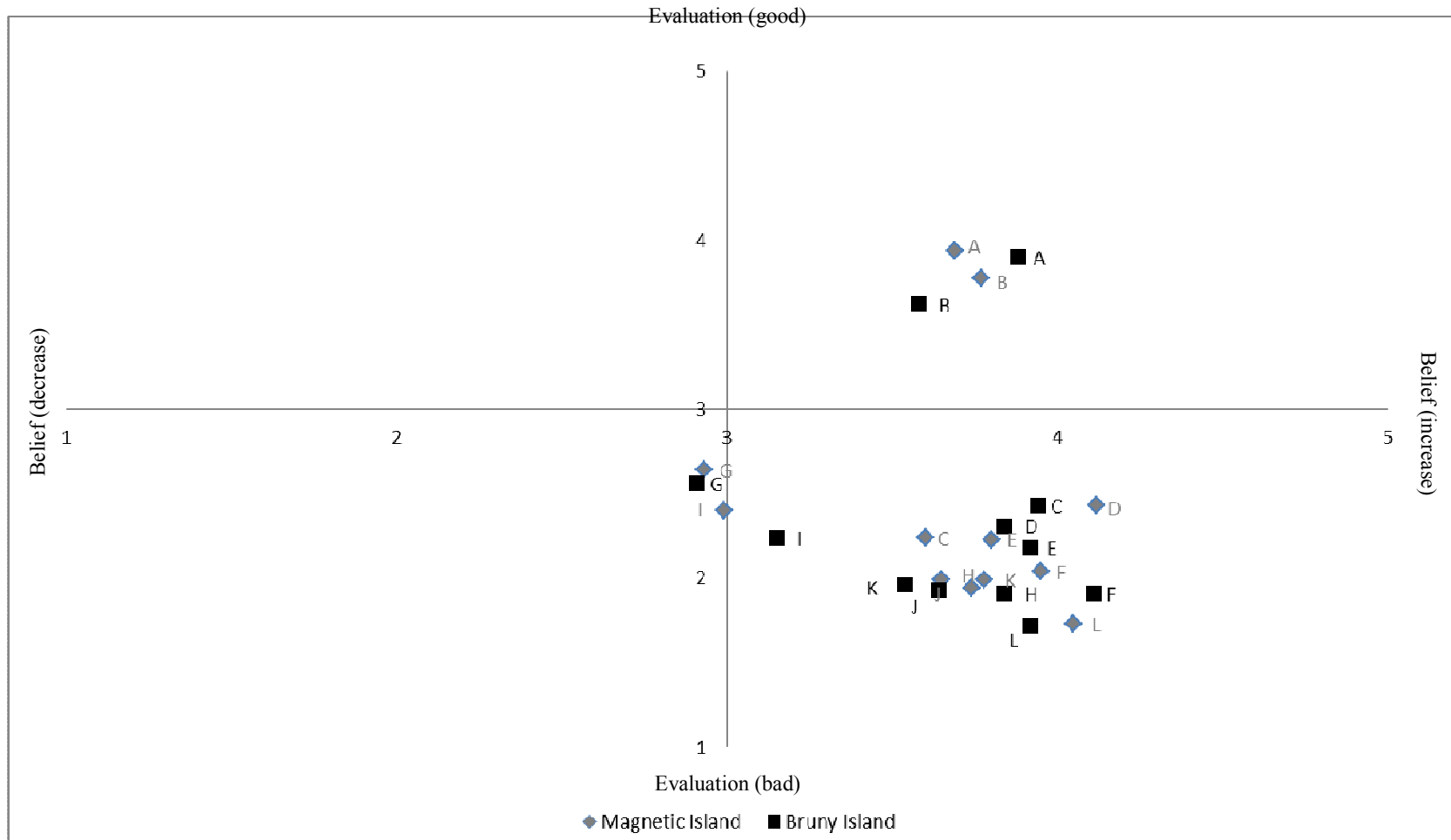


Table 3. Impacts for which “New” Visitor-Focused Management Approaches Could to be Considered in order to *Decrease* Tourism’s Contribution to Negative (“Bad”) Outcomes

	Perceived Impact	Location	Potential for Visitor-Focused Management Strategy
	Economic		
K	Funding for other public projects	Both Islands	Little or none
L	Cost of living	Both Islands	Little or none
M	Leakage of money to developers	Both Islands	Little or none
	Socio-Cultural		
B	Congestion of local shops	Magnetic Island only	Limited
P	Change in social patterns/values/customs of locals	Both Islands	Limited
Q	Quality of night life	Bruny Island only	Limited
R	Sexual behavior of locals	Both Islands	Limited
S	Parking issues for locals	Both Islands	Yes
T	Tension within local community	Both Islands	Limited
U	Drug and alcohol consumption	Both Islands	Limited
V	Crime	Both Islands	Limited
	Environmental		
C	Change in behavior of wildlife	Both Islands	Yes
D	Waste disposal on island	Both Islands	Yes
E	Impact on natural environment	Both Islands	Yes
F	Pressure on environmental resources	Both Islands	Yes
H	Pollution	Both Islands	Yes
I	Wildlife in local area	Both Islands	Limited
J	Deterioration of natural assets	Both Islands	Yes
K	Erosion in national parks	Both Islands	Yes

1
2
3 L Litter Both Islands Yes
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review