

# Place Attachment in protected areas: an exploratory study

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Abstract: With the increasing number of destinations there is a need to study visitors' behaviour and how to achieve their loyalty. The aim of this exploratory study is to test and analyse the Place Attachment' scale in the context of tourist destinations by considering its various dimensions. The methodology applied was quantitative, and data collection was carried out through the use of a questionnaire survey. The territory under analysis was a protected area in Northern Portugal, Peneda-Gerês, the only national park in the country. A total of 507 valid questionnaires were collected and subsequently coded. According to the data collected, there are dimensions in which the degree of agreement is higher than others: the dimensions of Place Dependence and Place Identity stand out in relation to the dimensions of Affective Attachment and Social Bonds. This happens because people frequent certain places more because of what the place provides or offers than for the social relationships that may occur in that place.

Keywords: Place attachment; Protected areas; Place dependence; Place identity; Affective attachment; Social Bonds.

#### Apego al lugar en áreas protegidas: un estudio exploratorio

Resumen: Con el aumento del número de destinos existe la necesidad de estudiar el comportamiento de los visitantes y cómo conseguir su fidelidad. El objetivo de este estudio exploratorio es probar y analizar la escala "Place Attachment" en el contexto de los destinos turísticos, considerando sus distintas dimensiones. La metodología aplicada fue cuantitativa, y la recogida de datos se llevó a cabo mediante el uso de una encuesta con cuestionario. El territorio analizado fue un área protegida del norte de Portugal, Peneda-Gerês, el único parque nacional del país. Se recogieron un total de 507 cuestionarios válidos que fueron codificados posteriormente. Según los datos recogidos, hay dimensiones en las que el grado de acuerdo es mayor que en otras: destacan las dimensiones de Dependencia del Lugar e Identidad del Lugar en relación con las dimensiones de Apego Afectivo y Vínculos Sociales. Esto sucede porque las personas frecuentan ciertos lugares más por lo que el lugar proporciona u ofrece que por las relaciones sociales que puedan darse en ese lugar.

Palabras Clave: Apego al lugar; Áreas protegidas; Dependencia del lugar; Identidad del lugar; Apego afectivo; Vínculos sociales.

#### 1. Introduction

Over the last decades, there has been a growth in the number of tourism destinations seeking to "position themselves in the market, generating competitiveness" among them (Martins, Carvalho, et al., 2021, p. 1). This happens because the tourism sector has been considered one of the catalyst sectors not only in economic terms, but also social and cultural and contribute directly or indirectly to the preservation and maintenance of heritage, as well as traditions (Martins, 2022).

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Due to the high competitiveness, tourist destinations seek strategies to achieve visitors' loyalty, using several resources and instruments that come from marketing, for example. However, there is also the possibility to develop this loyalty through the concept derived from the attachment theory, the "Place Attachment". The term "place" has been the subject of analysis within several disciplinary areas, namely, sociology, human geography, environmental psychology (Rubinstein & Parmelee, 1992) marketing (Kastenholz et al., 2020) and in tourism (Santos, 2015). According to Silva (2015, p. 14), "the field of tourism has to investigate the deep meanings related to place with regard to tourist destinations and the various associated products", this is because, although several works have already been carried out within the scope of the research on attachment links between people and territories, there are still gaps in the field of research in the attachment relationship and experiences with tourist destinations.

Given that "there are places, spaces, destinations where people feel particularly good, as if they were in their own home" (Silva, 2015, p. 19), there is therefore a need to implement and test the scale of the Place Attachment concept in the tourism area. In this sense, this work aims to make an exploratory analysis with this theoretical concept in relation to tourism destinations, applying the scale of Ramkinsson et al. (2013)the present study examined place attachment as a second-order factor and investigated its relationships with place satisfaction and visitors' low and high effort pro-environmental behavioural intentions. Confirmatory factor analysis and structural equation modelling were used to test a model using a sample of 452 visitors at the Dandenong Ranges National Park, in Australia. Results supported the four-dimensional second-order factor of place attachment and indicated (a to a destination with specific characteristics. The territory chosen to test this scale is a protected area, the Peneda-Gerês National Park (PGNP), in Portugal.

Methodologically, we tried to apply the Place Attachment scale already tested in previous studies based on a questionnaire survey to people who stayed overnight in that tourist destination in a pre-pandemic period. The sample was considered representative, totalling 507 respondents. This paper is part of a larger research project and therefore will only focus on the analysis of Place Attachment in the territory where the study took place, the PGNP. The article is organized in five parts. After the introduction, the second part is a literature review addressing the origin of the concept and its applicability to tourism. The third part presents the methodological framework of the study, characterising the procedures in terms of sample analysis and data collection. The fourth part presents the results. Finally, in the conclusion, the main inferences and recommendations of the research are presented.

## 2. Literature review

## 2.1. Place Attachment: from its origin to tourism

The concept of Place Attachment emerges from attachment theory which began with studies related to parent-child relationships, as a result of work carried out in the 1970s by Bowlby (1977). This theory is based on three fundamental principles: the affective bond, attachment and behaviour. In the last decades, although maintaining the focus on the parent-child relationship, attachment theory covers other areas of knowledge. Currently, attachment theory includes a very diverse area in terms of its applicability, comprising attachments and bonds not only to people, but also to places and objects. Place Attachment "involves the interaction between affect and emotions, between knowledge and beliefs, between behaviours and actions in relation to place" (Low & Altman, 1992, p. 16). Brocato (2006) corroborates this idea by stating that, in specific contexts, people create emotional attachments to places, being manifestations that materialize and gain strength over the years. These attachment links can be developed between people with environments and landscapes, buildings and dwellings, objects and even rural spaces and cities (Cresswell, 2014).

The "place", according to Harris et al. (1996, p. 299), cannot be recognized only as a space in physical terms, but also as "a holistic phenomenon involving environmental, social, psychological and temporal processes". Thus, places must comprise the physical environment, the human experiences that can develop in that environment, as well as its interpretation and meaning (Jorgensen & Stedman, 2001). However, as it is a concept subject of analysis in several disciplinary areas, due to the diversity of perspectives, there has been some difficulty in defining it. According to Hidalgo & Hernandez (2001), there are a number of similar terms to define this concept and which currently coexist, namely, Sense of Community (Gatti & Procentese, 2021); Local Identity (Belanche et al., 2021); Local Dependency (Cheung & Oßenbrügge, 2020); and Sense of Place (Suchyta, 2020).

With regard to its definition, there is a wide range of definitions concerning Place Attachment, such as an affective connection or emotional attachment of a person with a certain physical environment (Hidalgo & Hernandez, 2001); cognitive, functional and emotional attachment to a place (Yan & Halpenny, 2019); and multidimensional concept composed of four dimensions: "Place Dependency, Place Identity, Affective Attachment and Social Bonds" (Ramkissoon et al., 2013, p. 553)the present study examined place attachment as a second-order factor and investigated its relationships with place satisfaction and visitors' low and high effort pro-environmental behavioural intentions. Confirmatory factor analysis and structural equation modelling were used to test a model using a sample of 452 visitors at the Dandenong Ranges National Park, in Australia. Results supported the four-dimensional second-order factor of place attachment and indicated (a.

In the context of human geography, territories become "places" from the moment people attribute physical or psychological meanings to them (Williams & Patterson, 1996). These places become entities in which people can create and/or reinforce attachment bonds (Brocato, 2006; Cresswell, 2014). These places gain meaning for people and may even give rise, in people's minds, to networks of places built from relationships between people and the environment, filled with meaning and experiences (Cresswell, 2014).

In tourism terms, the idea of Place Attachment is a target of analysis because places and images of tourist destinations can have important roles in the context of tourism activity because "attractions and experiences, which motivate tourists' travel, do not exist in a vacuum" and "most attractions are fixed somewhere and experiences emerge and occur also in a certain physical context, in a certain place" (Silva, 2015, p. 15). Williams & Soutar (2009) corroborate this idea by stating that tourism demand is based on people's perceptions of experiences that have become memorable and meaningful in their minds and that, in general, become associated with certain places.

Williams & Soutar (2009) consider that tourism is related to place in several ways: a) forms of tourism are rooted in the idea of place; b) the motivations and perceptions of visitors are shaped by the ways in which they imagine those places; c) tourist places generally have a positive charge of symbolism that is a factor of attraction; d) tourism activity is one of the ways in which the identity of a place can be created, maintained and preserved e) tourist activity can function as a means for people to create affective and emotional links with a place, gaining a special meaning for them; f) tourist destinations can become spaces of remembrance for many visitors, (one form of remembrance are the photographs, postcards and / or souvenirs that visitors acquire when staying in these places); g) tourist destinations can in a certain way promote the idea and feeling of belonging between the visitor and the place visited.

In fact, tourist destinations cannot be seen only as spaces with physical attributes where activities are developed, because they are places where experiences are provided, in which people can attribute meanings and positive memories. Through investment that seeks to involve visitors in the emotional aspect may be one of the best ways to build loyalty and publicize the places as tourist destinations. Therefore, we corroborate the idea of Silva (2015, p. 16) when he states that "the ability to build places of attachment may be the key to the positive evaluation of tourists about the places visited and, in this way, constitute an additional factor to increase loyalty rates and increase the number of repeat tourists". Consequently, we seek to apply an already created Place Attachment scale and apply it to a particular tourist destination, with particular characteristics, a natural area.

## 2.2. The dimensions of Place Attachment

According to the various definitions of Place Attachment, all of them present an intrinsic characteristic: a combination between the physical and the social interaction components, thus considering that attachment to a certain region is not limited by itself to the physical environment, but also includes social interactions that usually occur in that place. Initially, in the studies investigating this concept, it was possible to observe two dimensions of this concept: Place Dependence and Place Identity (Williams & Patterson, 1996). However, with the development of a number of studies, the emphasis has been placed on the fact that it is a concept that should be analysed in a more wide-ranging way, confirming its multidimensional nature, and an affective dimension (Affective Attachment) and a social dimension (Social Bonds) have been added to the traditional dimensions (Brocato, 2006). In summary, this concept of Place Attachment has been considered and supported theoretically and empirically as having four dimensions, namely: "a) Place Dependence; b) Place Identity, c) Affective Attachment; and d) Social Bonds" (Ramkissoon et al., 2013, p. 557)the present study examined place attachment as a second-order factor and investigated its relationships with place satisfaction and visitors' low and high effort pro-environmental behavioural intentions. Confirmatory factor analysis and structural equation

modelling were used to test a model using a sample of 452 visitors at the Dandenong Ranges National Park, in Australia. Results supported the four-dimensional second-order factor of place attachment and indicated (a. However, there are authors who refer that the importance and relevance of these dimensions may vary depending on both different individuals and different places (Hidalgo & Hernandez, 2001; Scannell & Gifford, 2010). Even within this concept, the dimensions themselves do not yet have consensual definitions.

Place Dependence was one of the first dimensions to be identified. In terms of definitions of this dimension, most of them focus on the idea of functional attachment (Yuksel et al., 2010). It is thus considered as a functional connection between the individual to a certain place, according to its relevance and attributes, as a space for the fulfilment of certain activities (Williams & Roggenbuck, 1989). The strength of this connection is highly dependent on functionalities, activities and experiences that the place can provide to visitors. Milligan (1998) considers that this connection can become weak when other places emerge that serve as alternatives. In tourism terms, destinations must differentiate themselves from other destinations competitors, seeking to maintain a varied and diversified offer in order to meet the needs of various audiences. According to Brocato (2006), this dimension is strongly correlated with the specific characteristics of the places and with the practice of equally specific activities. However, the researcher adds that the strength of this correlation is more based on objectives and functional attributes than with evaluations of affective range.

Place Identity is another dimension often identified in the concept of Place Attachment. It has been the issue of study by a number of authors such as Tr bka (2019), Li & Zhang (2021) or Belanche et al. (2021). It is also a dimension that has different definitions, namely, "sub-structure of the self-identity of the person consisting of broadly conceived cognitions about the physical world in which the individual lives" (Proshansky et al., 1983, p. 58); "an individual's cognitions, beliefs, perceptions or thoughts that the self is invested in a particular spatial setting" (Jorgensen & Stedman, 2001, p. 237); "the symbolic importance to a place as a repository of emotions and relationships that give meaning and purpose to life" (Williams & Vaske, 2003, p. 70), According to Proshansky et al. (1983, p. 59), "Place Identity emerges as the result of the interaction between the self with the special environment consisting of a collection of memories, interpretations, ideas and feelings related to the physical components as well as their different types and configurations". According to several researchers who have studied this dimension, an individual may develop a bond with a particular physical space giving to the meaning he or she gives to that place. However, the meanings that people attribute to places can be varied and complex. They may be ties to nature, to the social interaction that a place provides, to cultural and historical aspects of places, and so on. These ties are based on what the individual likes to do during the holiday period (sky diving or snorkelling); to be in contact with nature (mountaineering, contemplating landscapes); the symbolic meaning that places may represent (in the case of religious places like Fatima, the Vatican, Lourdes for Christians or Mecca for Muslims, or the concentration and extermination camps for Jews). Thus, the social and physical aspects of place can function as a path to help construct the idea of place belonging (Yuksel et al., 2010). Silva (2015, p. 30) considers that "each person carries with them a set of values, beliefs and principles, created and developed throughout life and the result of a wide range of learning, experiences and lived experiences, which situate us in a specific place in relation to the world around us and guide and mark our attitudes and behaviours in the relationship that, daily, we establish with it". The affective bonds/emotional relations with a certain place emerge when individuals identify themselves with that same place.

The Affective Attachment to a place has been little investigated within the scope of Place Attachment. Nevertheless, some research is starting to focus on this aspect, providing support for it to be seen as a dimension, separate from the others (Brocato, 2006; Halpenny, 2010; Jorgensen & Stedman, 2001). In this sense, there are studies that corroborate that Affective Attachment has its own characteristics, being different from Place Identity and measures the emotional or affective character of a person towards a place (Brocato, 2006; Halpenny, 2010). The concept of affect, although still little studied in the context of Place Attachment, has been, since the early 21st century, the subject of in-depth analysis in research on consumption and marketing. Initially it was considered that consumers' decisions were made on the basis of the benefits and utility of product attributes. However, in recent decades, the marketing focus has turned to the role that emotions evoke in consumers (Holbrook & Hirschman, 1982). Affect is thus considered as a valence of emotional state, including emotions and mood (Cohen & Areni, 1991). However, it is an overly comprehensive and even ambiguous concept since it includes affective states, feelings and emotions (Damasio, 2003). It is a dimension that is not yet fully consolidated due to its difficulty of analysis and interpretation in consumer behaviour, and its definition may vary a little from author

to author: emotional attachment to a particular place (Jorgensen & Stedman, 2001) or expression of a presence of strong and positive feelings towards a specific space. Yuksel et al. (2010), aiming to analyse the effects of Place Attachment on visitors' satisfaction and consequent loyalty, attest the existence of scientific support to incorporate affectivity as an intrinsic dimension of the Place Attachment concept, even finding that it is a dimension that exerts a more considerable effect on visitors' satisfaction than the Place Dependence and Place Identity dimensions.

Social Bonds is another dimension of the concept of Place Attachment that has been gaining prominence. Although there is still no consensual definition, according to Hipp (2010), several studies have found that Social Bonds can be considered as a characteristic dimension of Place Attachment. There is a robust attachment of people to a particular place because of what the place represents as a space for social interactions, i.e. places become important to people because they symbolise social ties. People often frequent certain places, not only because of what the place provides/offer, but because it is a place frequented by friends and family, i.e., what really matters are the social relationships that occur in a certain place, being more important than the place itself. According to Brocato (2006), Social Bonds has been one of the widely studied dimensions, as it seeks to reflect on the relationship between the physical environment and social relationships, where a strong impact of the social dimension on the physical dimension has been revealed: the dimension "translates the bonds and interpersonal relationships that occur in places" (Brocato, 2006, p. 28); "social ties arising from the network of contacts and social relationships that are established and developed between people who share and interact in the same social space during a given period of time" (Silva, 2015, p. 34). In fact, social ties and their importance in relation to places has been highlighted by several researchers mainly in the field of environmental psychology (Hidalgo & Hernandez, 2001), finding that when establishing a comparison between social and physical ties, social ties prove to be more consistent to the detriment of physical ties. This means that when it comes to the holiday period, holiday destinations are chosen taking into consideration the visitation of family and friends. Other situations reveal that holiday periods take place mainly in the company of friends, with the tourist destination taking second priority. However, Silva (2015, p. 34) considers that "the relationships that visitors establish with other visitors facilitate the creation of empathetic ties", contributing to generate feelings of attachment towards a certain territory.

Place Attachment has also been found to be a determinant of satisfaction (Arnberger et al., 2022), pro-environmental behaviour (Daryanto & Song, 2021) or loyalty (Wan et al., 2021). For these reasons it is therefore essential to study the association that exists between Place Attachment in the tourist destinations.

## 2.3. Peneda-Gerês National Park

As a tourist destination, protected areas seek to convey rewarding experiences to visitors. These experiences and impacts also affect local communities at various levels (economic, social and cultural) as well as environmental risks (Martins, 2020). In Portugal, tourism in protected areas has become a national focus, especially since the 21st century, first through the National Strategic Tourism Plan and now with the Tourism Strategy 2027. Among the protected areas, the PGNP stands out, both in terms of supply and demand, as a reference associated with nature tourism. The PGNP, with an area of 703 square kilometres, is located between the regions of Minho and Trás-os-Montes, from the mountains of Peneda, Soajo, Amarela to the Serra do Gerês, assuming a horseshoe shape (Martins, 2020).

Currently, the PGNP, compared to other protected areas at an international level, possesses a set of factors that enhance this region as a tourist destination of excellence. In effect, it has a permanent technical team and good access conditions (e.g. roads and signposting) and accommodation for tourists, among others. In fact, in most developing countries, national parks lack the infrastructures that the PGNP already has (Martins, 2018)apesar dos condicionalismos evidentes do século XX relacionados com a elevada concentração territorial ao nível do produto turístico, com a aposta num turismo massificado e também devido à instabilidade nas formas de organização e gestão institucional, tem- se afirmado como um dos principais motores da economia nacional. Não obstante, tem-se assistido a uma diversificação da oferta turística que impõe o estabelecimento de novas estratégias de marketing no sentido de atrair e satisfazer públicos diversificação e quantidade crescente do número de destinos turísticos que têm apostado na segmentação, outras implicações, nomeadamente, relativas à sua sustentabilidade, têm de ser levadas em consideração na agenda de todos os intervenientes. Assim, atendendo à importância do marketing dos destinos turísticos, em particular no que respeita à vertente da fidelização, este trabalho de investigação tem como propósito contribuir para o desenvolvimento concetual da marca associada aos

destinos e da dimensão emocional em torno da relação turista/destino. Tendo como território o Parque Nacional da Peneda-Gerês (PNPG. In this aspect, it was sought from early on, especially from the 1980s, to know, study and classify the PGNP heritage, material and immaterial, through the inventorying of the archaeological, architectural and ethnographic value existing heritage of the territory, in addition to the natural heritage, considered tourist attraction.

With regard to tourism demand, this territory, in recent decades has experienced high increase, as a result of the projection and its identity in national and international terms. According to Martins (2020), the PGNP is in a privileged position compared to other protected areas, since besides holding some conservation statuses at national level, it also has other conservation statuses at international level, which has allowed consolidating its brand "acting as a differentiation strategy in an increasingly competitive market" (Martins, Silva, et al., 2021, p. 753). In addition to the tourist attractions, the PGNP has obtained over the years, some conservation statuses both nationally and internationally, which gives it greater visibility and projection.

## 3. Methodology

The main objective of this research is to test the scale of Place Attachment as a multidimensional concept. We believe that this concept plays an important role because we believe that there is a relationship between this concept and the behavioural loyalty of tourists as visitors to a tourist destination, as they identify with it. Our empirical research depended strongly on fieldwork and this methodology seemed acceptable since we intended to get information to confirm results found in the literature we conducted on this concept that we wanted to analyse.

The fieldwork took place between the months of June and October during the pre-pandemic period. The focus population was the tourists who stayed for the night in the PGNP. The sample was intended to be representative so that conclusions could be drawn and extrapolated (McDaniel & Gates, 2004).

The chosen data collection technique was the questionnaire survey, made available in four languages (Portuguese, Spanish, English and French) in order to listen to the opinion of both domestic and foreign tourists who visited this tourist destination.

The questionnaire was completed by the respondent. In the questionnaire, in terms of operationalising the concept of Place Attachment a scale tested and validated by Ramkissoon et al. (2013) was used, developed and adjusted mainly from other scales from research works by Halpenny (2010) and Yuksel et al. (2010). To this end, tourists who were part of the sample of the present study were asked to analyse their feelings towards the territory they chose to visit, from the four dimensions that make up the concept: Place Dependence, Place Identity, Affective Relationship and Social Bonds. Each dimension is composed of ter response items, making the scale a total of twelve items. We sought to analyse Place Attachment as a whole and in its four dimensions, using the previously mentioned measures of central tendency and dispersion. The measurements of the concepts were made through an expanded 7-point Likert interval scale ranging from 1=Strongly Disagree to 7=strongly Agree, where 4=Neither Agree or Disagree.

Being the target audience the tourists who stay overnight in the accommodation units within the boundaries of the PGNP, the sample is of the non-probabilistic type by convenience. For the implementation of the empirical study, the collaboration of the receptionists of the local accommodation units and tourism resorts was requested in order to deliver the questionnaire. After data collection, the inquiry form were coded and validated using the Statistical Package for the Social Sciences. The sample was significant (McDaniel & Gates, 2004) totalling 507 respondents.

It should be noted that this study is exploratory and is part of a broader research and, therefore, it was not our intention to focus on the socioeconomic profile of the sample.

## 4. Analysis of the results

As previously indicated, in this study we sought to analyse the dimensions of Place Attachment by using the scale tested and validated by Ramkissoon et al. (2013)the present study examined place attachment as a second-order factor and investigated its relationships with place satisfaction and visitors' low and high effort pro-environmental behavioural intentions. Confirmatory factor analysis and structural equation modelling were used to test a model using a sample of 452 visitors at the Dandenong Ranges National Park, in Australia. Results supported the four-dimensional second-order factor of place

attachment and indicated (a, with four dimensions: a) Place Dependence; b) Place Identity, c) Affective Attachment; and d) Social Bonds. Each dimension includes three response items.

In Table 1, it is possible to verify that regarding the Place Dependence dimension, most of the sample agreed with all three items, ranking at point 6 on the Likert scale. Of the three items that constitute the Place Dependence dimension, the one with the highest agreement was item 2 (For the activities I like to do, the PGNP conditions are ideal), with 35.1%, followed by item 3 with 30.8% (I like to visit this Park and its environment more than any other parks). Making an analysis of agreement, grouping items 5, 6 and 7 the one with the highest agreement continues to be item 2 (83,6%), followed by item 1 (78,7%) (For these holidays, I could not imagine something better than this park) (table 1).

Table 1: Place Dependency Dimension (%)

	ite	m 1	ite	m 2	item 3		
1) Strongly disagree	0,4		0,2		0,2		
2) Disagree	3,4 6,7		1,2	3,9	3,6	6,9	
3) Partially disagree	3,0		2,6		3,2		
5) Neither agree nor disagree	14,6	14,6	12,4	12,4	22,1	22,1	
5) Partially agree	29,2		28,4		22,5		
6) Agree	29,6	78,7	35,1	83,6	30,8	71,0	
7) Completely agree	19,9		20,1		17,8		
Total	100,0		10	0,0	100,0		

Item 1: For this holiday, I couldn't imagine anything better than this park.

Item 2: For the activities I like to do, the conditions of the PGNP are ideal.

Item 3: I enjoy visiting this park and its environment more than any other parks.

**Source:** Elaborated by the author

Of the three items, the item that was more in the middle range was also item 3 (22.1%), and it was also the one that had the highest percentage of disagreement (6.9%, when aggregating items 1, 2 and 3) (table 1).

In table 2, it is possible to see the values of the identity of the place dimension. Curiously, also in this dimension most of the sample was situated in point 6 of the Likert scale: item 4 (34,9%), item 5 (27,2%) and item 6 (27,2%). Even aggregating points 5, 6 and 7, the values show that the item with the highest agreement is item 4 (79.3%), and items 5 and 6 have an almost similar percentage (63.9% and 63.1%, respectively) (Table 2).

Table 2: Place Identity Dimension (%)

	ite	m 4	ite	m 5	item 6		
1) Strongly disagree	0,8		2,2		2,4		
2) Disagree	2,4	5,7	3,9	9,7	3,9	9,9	
3) Partially disagree	2,6		3,6		3,6		
5) Neither agree nor disagree	15,0	15,0	26,4	26,4	27,0	27,0	
5) Partially agree	21,5		21,1		21,1		
6) Agree	34,9	79,3	27,2	63,9	27,2	63,1	
7) Completely agree	22,9		15,6		14,8		
Total	100,0		10	0,0	100,0		

Item 4. I identify myself with this Park.

Item 5. I feel that this National Park is a part of me.

Item 6. A visit to this National Park says a lot about who I am.

Source: Elaborated by the author

In terms of disagreement, although not very significant, the item with the highest level of disagreement (aggregating items 1, 2 and 3) was item 6 (A visit to this National Park says a lot about who I am) with 9.9%. Curiously, of the three items, item 6 was the one that registered the highest percentage in the intermediate level, neither agree nor disagree (27%) (table 2).

In Table 3, compared with the previous tables, this dimension departs from the values of the Place Dependence and Place Identity dimensions. In terms of the Affective Attachment dimension, the item that stood out the most was item 8 (I feel a strong sense of belonging to this National Park) with 32%, revealing that most neither agree nor disagree with the statement of sense of belonging. The item which stands out in second place was item 7 (I am very attached to this Park), with 30.4%, suggesting that most neither agree nor disagree about the affective connections towards the territory.

Table 3: Affective Attachment Dimension (%)

	ite	m 7	ite	m 8	item 9		
1) Strongly disagree	1,6		2,8		2,4		
2) Disagree	5,1	10,8	5,1	12,0	5,1	12,6	
3) Partially disagree	4,1		4,1		5,1		
5) Neither agree nor disagree	30,4	30,4	32,0	32,0	24,7	24,7	
5) Partially agree	22,3		21,1		22,7		
6) Agree	22,5	58,8	22,7	56,0	26,0	62,7	
7) Completely agree	14,0		12,2		14,0		
Total	100,0		10	0,0	100,0		

Item 7: I am very attached to this Park.

Item 8: I feel a strong sense of belonging to this National Park.

Item 9: This National Park means a lot to me.

Source: Elaborated by the author

In contrast, grouping together items of agreement 5, 6 and 7, item 9 (This National Park means a lot to me) stands out with 62.7%. These data indicate that most of the tourists who completed the questionnaire are probably repeat tourists, tourists who usually travel to this tourist destination, feeling more settled than "attached". In reality, although most of the sample answered above 50% (58.8% in item 7 and 56% in item 8), we can consider that these values are not representative of an effective Affective Attachment (table 3).

In Table 4, compared with the previous tables, this dimension moves away from the values of the Location Dependence and Place Identity dimensions and is closer to the results of the Affective Attachment dimension. In terms of the Social Bonds dimension, the item that stands out the most was item 10 (Many of my friends / family prefer this National Park over other parks), with 32, 7%, revealing that most neither agree nor disagree with the statement. The second item of this dimension in which most of the sample identified themselves was item 12 (My friends/family would be disappointed if I started going on holiday to another park) with 27.6% of the sample totally disagreeing with the statement. With this data it is assumed that tourists in this sample do not usually travel in groups of friends /family.

item 10 item 11 item 12 1) Strongly disagree 3.9 23.1 27.6 2) Disagree 6,3 14,4 17,8 49,1 16,6 52,5 3) Partially disagree 4,1 8,3 8,3 5) Neither agree nor disagree 32.7 32.7 25.6 25.6 25.2 25.2 5) Partially agree 22,1 11,6 8,9 7,7 22,3 6) Agree 19,5 52,9 25,2 8,3 7) Completely agree 11 2 5,9 5,1 Total 100,0 100,0 100,0

Table 4: Social Bonds Dimension (%)

Item 10: Many of my friends / family prefer this National Park to other parks.

Item 11. If I had to stop visiting this Park, I would lose touch with a large number of friends.

Item 12. My friends/family would be disappointed if I started going on holiday to another park.

Source: Elaborated by the author

Analysing tables 1, 2, 3 and 4, it can be observed that the dimensions present in tables 1 and 2 had a higher degree of agreement in relation to the dimensions present in tables 3 and 4. Probably affectivity and social connection do not relate to this type of green tourism, namely in relation to this tourist destination.

To deepen this data and analyse it further, we sought to analyse in terms of the average of the items that make up the dimensions of the concept of Place Attachment. We observe that there is a very high variation, ranging from 5.53 to 3.17 (table 5). In a deeper analysis, six items stand out (belonging to the dimensions of Place Dependence and Place Identity), showing a higher mean value in relation to the variables of the other two dimensions (Affective Attachment and Social Bonds), being above the value five (partially agree) of the Likert scale. Given the results, the order of the means was: item 2, from the Place Dependence dimension (For the activities I like to do, the PGNP conditions are ideal - 5.53), item 4, from the Place Identity dimension (I identify myself with this Park - 5.50); item 1, from the Place Dependence dimension (For these holidays, I could not imagine something better than this Park - 5.37); item 3, from the Place Dependence dimension (I enjoy visiting this Park and its environment more than any other parks - 5.26); item 5, from the Place Identity dimension (I feel that this National Park is part of me - 5.04); and item 6, from the Place Identity dimension (Visiting this National Park says a lot about who I am - 5.01) (table 5).

We observed that we had a set of mean scores between points four (neither agree nor disagree) and five (agree) of the seven-point interval scale, all of them in the dimension Affective Attachment and one in the dimension Social Bonds. Given the results, the order of the mean scores were: item 9, from the Affective Attachment dimension (This National Park means a lot to me - 4.94), item 7 from the Affective Attachment dimension (I am very attached to this Park - 4.90); item 8, from the Affective Attachment dimension (I feel a strong sense of belonging to this National Park - 4.80); and item 10, from the Social Bonds dimension (Many of my friends/family prefer this National Park over other parks - 4.66) (table 5).

Finally, we found a set of means between points three (partially disagree) and four (neither agree nor disagree) of the interval scale, both from the dimension Social Bonds: item 11 (If I had to stop visiting this Park, I would lose contact with a large number of friends - 3.32) and item 12 (My friends/family would be disappointed if I started going on holiday to another park - 3.17) (table 1).

Trying to analyse each dimension in terms of overall mean, it was possible to verify that the majority of the sample agreed positively with the statements of the Place Dependence and Place Identity dimensions (5.39 and 5.18). However, the other two dimensions were not very expressive in the sample, with the mean of the Affective Attachment dimension being below point five of the interval scale (4.88) and the mean of the Social Bonds dimension being even below point four of the interval scale (3.72) (Table 5).

The overall mean of the concept is positive (4.79), being found to be highly impaired by the dimensions Affective Attachment and Social Bonds (table 5). These data reveal that the sample was pleased with

the place chosen for holidays, identifying with it. However, it is not noticeable that there is a real Affective Attachment. Furthermore, it also does not reveal great Social Bonds (overall average of 3.72).

Table 5: Mean, median, mode, pattern deviation and percentiles of Place Attachment

		Dimensions of Place Attachment											
Items	Place	Place Dependency			Place Identity			Affective Attachment			Social Bonds		
	1	2	3	4	5	6	7	8	9	10	11	12	
	5,37	5,53	5,26	5,50	5,04	5,01	4,90	4,80	4,94	4,66	3,32	3,17	
Mean		5,39			5,18			4,88			3,72		
		4,79											
Median	5,00	6,00	5,00	6,00	5,00	5,00	5,00	5,00	5,00	5,00	4,00	3,00	
		5,33			5,33			5,00			3,67		
		4,83											
Mode	6	6	6	6	6	6	4	4	6	4	4	1	
		6			6			4			4		
		4											
Pattern deviation	1,259	1,112	1,284	1,267	1,416	1,419	1,401	1,439	1,454	1,493	1,835	1,850	
		1,06		1,27			1,37			1,49			
		1,11											
Perc 25	5,00	5,00	4,00	5,00	4,00	4,00	4,00	4,00	4,00	4,00	2,00	1,00	
Perc 50	5,00	6,00	5,00	6,00	5,00	5,00	5,00	5,00	5,00	5,00	4,00	3,00	
Perc 75	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	5,00	4,00	
Perc 25		4,67			4,33			4,00			2,67		
Perc 50		5,33			5,33			5,00			3,67		
Perc 75		6,00			6,00			6,00			4,67		
Perc 25		4,08											
Perc 50		4,83											
Perc 75		5,58											

Likert Interval Scale of Attitude expanded to seven points according to study by Ramkissoon et al. (2013)

(1) Strongly disagree | (2) Disagree | (3) Partially disagree | (4) Neither agree nor disagree | (5) Partially agree | (6) Agree | (7) Strongly agree

Source: Elaborated by the author

In terms of median, the data confirm, in part, the positive character of the means. The two items with a central point of 6 on the seven-point interval scale stand out: item 2, from the Place Dependence dimension and item 4, from the Place Identity dimension. On the other hand, the items with a low median are related to the dimension Social Bonds: item 11, with a median of 4.00, and item 12, with a median of 3.00. The remaining items have a median of 5.00 (table 1).

By analysing the median by dimension, it is possible to observe that the first two have an identical positive median (5.33), followed by the dimension Affective Attachment (5.00). In contrast, we have the dimension Social Bonds, showing a median lower than point four of the seven-point interval scale (3.67). The median of this concept is 4.83. These data reflect the indications already mentioned by the average (table 1).

With regard to the mode, all items of the Place Dependence and Place Identity dimensions had high agreement from most of the sample, standing at point six (I agree) of the interval scale. Another item that the mode highlights is item 9 of the Affective Attachment dimension (This National Park means

a lot to me). The remaining items (7, 8, 10 and 11) show that most do not have a very strong opinion about the statements, with the exception of item 12, in which most totally disagree with the statement (My friends/relatives would be disappointed if I started going on holiday to another park).

The analysis of the mode by dimensions allows us to observe the great difference between the dimensions Place Dependence and Place Identity, in which most respondents agree with the statements/ items (with the mode at point six), and the dimensions Affective Attachment and Social Bonds, in which most respondents neither agree nor disagree with the statements/items (with a mode of four points in the seven-point interval scale). These data are reflected in the general mode of the concept, which is situated at point four on the interval scale (neither agree nor disagree) (Table 5).

With regard to the pattern deviations, no significant variances were found, except for items 11 and 12, which is why we will analyse these items in detail. As regards the pattern deviation by concept dimensions, these variances blurred, leading to a low pattern deviation (table 5).

With regard to the percentiles, we highlight items 1, 2 and 4, which, in the 25th percentile, are placed in point five (partially agree) and items 3, 5, 6, 7, 8, 9 and 10, which, despite being placed in point four (neither agree nor disagree) in the 25th percentile, reach point six (agree) in the 75th percentile, together with items 1, 2 and 4. Items 11 and 12 are the ones that present reduced points (1 and 2 - totally disagree and disagree) in the 25th percentiles, with item 12 at point four (neither agree nor disagree) in the 75th percentile. By dimensions, the percentiles also present this path. Overall, the percentiles are attenuated, with the 25th percentile at 4.08 (neither agree nor disagree) and the 75th percentile at 5.58 (partially agree) near the sixth point (agree) of the seven-point interval scale (table 4).

Given that items 11 and 12 of the Social Bonds dimension of the concept of Place Attachment showed different pattern deviations from the remaining items (table 4), we sought to analyse these data in detail. Thus, according to Table 4, it is possible to observe that these two items have very similar response values. About half of the sample (by rating from one to three on the interval scale) disagrees with the statement of item 11 (If I had to stop visiting this Park, I would lose contact with a large number of friends - 49.1%), the same happening with the statement of item 12 (My friends/family would be disappointed if I started going on holiday to another park - 52.5%). Roughly a quarter of the sample has no opinion about the statements in items 11 and 12 (neither agree nor disagree), while the remaining sample states that they agree with the statements (25.2% - item 11 and 22.3% - item 12) (table 4). It should also be noted that in both statements, many respondents totally disagreed: 23.1% and 27.6%, and the statement in item 12 had the most answers in point one of the interval scale (totally disagree - 140) (table 4).

#### 5. Conclusion

Given that Place Attachment can work as a differentiation strategy within tourist destinations, it is therefore important to understand how this concept works and test the scales in various tourist destinations since tourist demand emerges from the perceptions and significances that individuals have of their experiences associated with certain places.

Currently it is consensual to highlight the multidimensional nature of this concept. This study sought to test the already existent scale, given the 4 dimensions of attachment, and to apply it to a specific tourist destination, the PGNP, a protected area. The present research corroborates the idea of multidimensionality of the concept of Place Attachment referred to by several authors listed in the literature (Brocato, 2006; Jorgensen & Stedman, 2001; Ramkissoon et al., 2013; Silva, 2015; Suchyta, 2020)

Through the data collected, it was possible to observe that of the four dimensions that are part of the concept of Place Attachment, the dimensions of Place Dependence and Place Identity stand out in relation to the dimensions Affective Attachment and Social Bonds. These data corroborate the existing literature, namely Yuksel et al. (2010) who consider that the Place Identity and Place Dependence dimensions have a greater effect. Thus, by dissecting the scale already previously tested in other studies, we conclude that Place Attachment is still very much associated with the functional aspect (Place Dependence), as it is an aspect that weighs heavily at the time the tourist chooses this tourist destination over other alternative options (Silva, 2015).

On the one hand, the dimension that stood out in this study was the symbolic aspect of place, presupposing the existence of a relationship between the individual and the environment, especially

ties with nature as the tourist destination target of our study is one of the most connoted protected areas, with a strong connection to nature.

On the other hand, Affective Attachment was not a preponderant dimension in this study, as well as the Social Bonds dimension. This probably has to do with the fact that people frequent certain places more because of what the place provides or offers than because of the social relationships that may occur in that place.

Therefore, it is necessary to have further studies on this dimension, namely trying to understand if individuals who go to the PGNP, visit this territory alone or with relatives and friends. Therefore, we consider that it is important to test this scale in other tourist destinations with different characteristics than the PGNP or even in relation to certain tourist attractions in order to understand if the dimensions of Place Dependence and Place Identity continue to exert a greater influence. Furthermore, it would be convenient in future studies to relate the dimensions of this concept of Place Attachment with other variables such as satisfaction and loyalty, in order to understand which dimensions have a greater impact.

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