

PSYCHOLOGICAL COMFORT AND TOURISM EXPERIENCE. THE VALENCIAN NATURAL PROTECTED AREAS (SPAIN) CASE STUDY

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I. PSYCHOLOGICAL COMFORT. KEY FACTORS FOR THE ANALYSIS

The comfort is a determinant component in the achievement of a tourist satisfaction when a natural protected area is visited. This is due to comfort affects the way in which a visitor perceives the place and therefore it contributes to increase the quality of the recreational experience.

The concept of comfort is linked to the well-being of the individual as a normal and desirable state. According to Slater (1985), this concept includes physic, physiologic and psychological components. The first two are closely related to the surrounding environment; they are objective elements and affect similarly to everyone. The psychological one is more subjective because each person perceives the reality in a different way according his/her socio-demographic profile and personality traits.

In a natural protected area, the psychological comfort can be defined like a relaxing physical and mental state that allows the visitor to develop the expected recreational activity.

The main goal of this paper is to identify and analyse the factors conditioning the visitors' psychological comfort and also the satisfaction of the tourist experience in natural protected areas. Different factors affecting the visitors' comfort have been studied: Physic-physiologic factors (especially the bio-climatic and safety ones); Environmental factors (spaces or settings, recreational activities, facilities and services); and, Psychological factors in relation to the visitors socio-demographic profile, personality traits, motivations, expectations and behaviour.

A total of 2.749 surveys were done (since 2004 to 2009) among the Valencian natural protected areas in order to assess these factors. Additionally, in-depth interviews to park managers, technicians, wardens, and guides were carried out also to the key stakeholders

such as NGO members, park suppliers, neighbours, academics, local experts, among others. Furthermore, from 2010 to 2012, a number of 98 field research sessions were developed by the participant observation technic in order to know and better analyse the behaviour of the different visitors' groups (birdwatchers, cyclers, horse riders, hikers, etc.).

Bio-climatic and Safety Factors

Climate is a relevant factor when developing outdoors activities. The bio-climatic comfort can be defined such as the state in which the body is willing to make the smallest effort to maintain the internal temperature. Additionally, this study has considered other health and safety climatic requirements and also the climatic enjoyment (sunny days and rain-free days frequency).

Furthermore, users must visit the place and develop the activities in safe conditions, and also they must perceive so for their peace of mind. Sönmez (1998) and Xueqing Qi *et al.*, (2009) state that peace, calm and safety are prerequisites to attract tourists to a destination.

Many and heterogeneous causes provoke unsafety to visitors in protected areas. Among the most usual ones are: natural hazards, absence or bad state of the facilities (trails, fences, signage, etc.), lack of good access and emergencies plans, etc. The sense of security is linked to the visitor risk perception. Sönmez and Graefe (1998) argue this perception can vary according to the personality traits of each individual, genre, previous experiences, and nationality, among other.

Visitors' information is essential to mitigate risk. Therefore, some safety recommendations reflected in informative signs, maps, brochures, booklets, also transmitted by the guides-interpreters will be very useful.

Environmental factors

a/ Space or setting where recreational activities take place

These factors deal essentially with spatial considerations. For this reason, it is necessary to know the zoning of the area (if it exists), the spatial characteristics and available surface where the activity will take place.

Spaces could be classified into three categories: i) open spaces (beaches, forests, meadows, lakes, wetlands, etc.), ii) open spaces with physical barriers (trails, pic-nic areas, campgrounds, etc.), or iii) closed spaces (caves, eco-museums, visitor centers, etc.).

b/ Recreational Activities

There are three types of recreational activities that can take place in a natural protected area: the ludic or entertainment ones, the interpretative-educational ones and/or the sport-adventure ones. To guarantee the psychological comfort during the development of the activity, it is necessary to be sure that the visitor is developing the type of activity that fits with his/her profile, in order to satisfy his/her expectations.

Another important element to know is the Visitor Spatial Standard that is the space each visitor needs to develop an activity. This figure is closely related to the kind of activity, the visitor profile, the type of space and/or the facility where the activity takes place. In this sense, the sport-adventure activities require more space than the rest. For the ludic and entertainment ones and those interpretative-educational, that often are performed in group, the spatial reference has been those proposed in the Proxemic studies established by Hall (1963).

There are some organizational activity conditions such as touring pattern, visitation level, group size and type which are essential to provide psychological comfort to visitors.

The touring pattern prevents resources impacts and contributes to increase visitors' safety by facilitating a good access to the site (avoiding congestion and overcrowding also encounters with other groups, etc.). It also provides an easy intellectual access to the heritage by presenting orderly and sequentially the interpretative resources.

The visitation level of the site must be adequate in order to guarantee the conservation and protection of the resources; also it provides an atmosphere which visitors feel comfortable. The psychological comfort is strongly affected by the congestion and overcrowding phenomena, especially in closed spaces.

Regarding the group organization (size, visitors profile and number of encounters with other groups), it can be stated that a smaller group is more comfortable and effective because actions can be better customized and interpretation programmes can be better implemented (Moscardo, 1996). Empirical studies suggest that it should never exceed the number of ten members. It can also declare that a homogeneous group (same motivations and expectations) makes the communicative efficiency higher. There are some kind of groups, especially those highly specialized which do not feel comfortable with other visitors except with the ones sharing the same profile and motivations; also they prefer small size groups. Other visitors those more generalist profile better support group activities and despite sharing only a short period of time with peers acquire group behaviours.

According to McCool (1983), the number of encounters with other groups should never exceed ten during the recreational experience because if there were more than this it could provoke a psychological discomfort feeling.

c/ Facilities and Services

Facilities are not synonymous of psychological comfort. Nevertheless there are two assumptions that should be taken into account: a/ some basic facilities are needed (welcome and information facilities, restrooms, signage, parking areas and trails); and b/ facilities in perfect state of maintenance are required.

Welcome and information facilities are the basic elements to provide trust and confidence to the visitors. Visitors feel psychological comfort by receiving geographic information such as locations and orientation to prevent visitors to be lost. Other useful information is safety and emergencies one. Recommendations in relation to the in-site expected behaviour regarding heritage resources and etiquette codes are also suggested. Signing is a key tool to provide information, orientation and interpretation, besides safety.

Trails are relevant facilities visitors use to walk from a place to another or to support interpretative routes. Trail elements affecting the psychological comfort are related to the

landscape quality where they run, the signing system and upkeep. The generalist visitors prefer good foot trails to walk, that is, not too much narrow and low slope; the sport-adventure and interpretative-educational visitors allow more difficulties (high quality landscapes, outstanding ecosystems, natural monuments, rare bird sighting, etc.). The trail layout design also influences in the psychological comfort; that's the reason winding paths offer a more appropriate atmosphere for those visitors looking in nature for solitude. This type of paths also avoids the feeling of persecution.

It is also necessary to mention that some physical and psychological discomfort problems are detected in multi-use trails, where relationships among visitors with different styles of recreation are not so good (pedestrian, cyclists, horse riders, joggers, pet walkers, etc.). In these cases is necessary to develop strict etiquette codes.

Other suitable facilities are those for supporting interpretation and education purposes in order to provide intellectual access to heritage. The more representative ones are: Interpretative Routes and Interpretation Centers.

Services can be defined as the necessary activities, actions and programmes that set up the recreational experience. This development is supported by in-site facilities and trained staff. Relationships between psychological comfort and services depend on the visitor profile and the quality of the offered service, understood as the quality as meeting the expectation or the need of the visitor. The more generalist public usually needs more facilities and services than the specialized one. The last one often obviates them, and may even negatively value an oversizing of them.

Basic services in a natural protected area are: cleaning and maintaining, waste management, first aids, and safety, besides the informative ones. Additionally, there are others for attending the needs of the impaired public. The interpretative services should be an indispensable element that visitors of a protected area deserve. If this service is offered under appropriate conditions and with good trained guides-interpreters, the intellectual access to the site can be guaranteed.

Visitors Factors

The visitors' psychological comfort has to do largely with complicate mental processes inherent to the human beings. Needs, motivations, and expectations are those elements of the process that are forged prior to visit the site. They partially depend on the personality traits of individuals. Perception and recreational experience occurs *in situ*, and behaviours start during the visit but it is intended to become part of the visitor lifestyle.

The needs of recreation or entertainment in relation to the natural protected areas deal with very primary links that tie people with nature. Motivations are internal forces that lead a person to act to meet requirements which vary according the personality traits of the visitors. However, they can be grouped into these types: a new way of self-development, reconciliation with nature, knowledge, enjoying healthy environments and escape.

From these needs and motivations arise expectations, but it is necessary to add a new element, this is the image of the destination or tourism image. The human brain builds expectations from the information received from the site and makes a *projected* image. This image can be even created not knowing personally the site or not having been exposed

to commercial sources of information, since people throughout his/her life accumulates information related to historical, political, and economic factors shaping their own image about the destination. The information received by a potential visitor can come from various sources which are: official sources (in our case the administrations of the protected area), commercial ones (tourism services providers), and this coming from prescribers who are other users having previously visited the site. These prescribers often provide more trust than official sources.

Perception is a process which in an individual receives information *in situ* through the senses. The human brain selects, organizes and interprets this information to create a *significant or perceived image*. To give a meaning to the information that the individual receives, it is necessary to link it to previous cognitive elements (memories, ideas, beliefs, previous feelings, patterns, past experiences, etc.). So this process involves memory, learning and intelligence. At this stage, it is important to ensure a psychological comfort to the visitor as it is the last opportunity to influence the personal impression that the visitor will build about the site.

Perception includes a cognitive or rational dimension (knowledge of the attributes, resources, attractions, facilities and services, etc.), and other affective or emotional one. Cognitive information could not be misunderstood because the resources or attractions are there, but it is clear that they must be properly presented to the public and must be presented in the best state of conservation. Emotional information is subjective and can be stimulated or enhanced. Perception may vary according to personality traits, prior knowledge, experience of the observer, and cultural development of each individual as pointed by Pizam and Mansfeld (1999), and Shiffman y Lazar (2000).

The site perception can be improved by: a) keeping a good state of conservation trying to be as close as possible to the ecological and landscape integrity; b) looking for a significant sensory impact by utilizing all the senses in the act of apprehending information; c) identifying appropriate interpretive icons to each audience; d) using intangible heritage, as it is closely linked to the people and therefore to the emotions; and e) incorporating guide-interpreters in the presentation of heritage because they are the best help to visitors in order to capture the stimuli sent by nature, and also because communication between human beings is the best mean to generate emotions.

From the moment that perception begins to be forged, other internal processes shape the recreational experience. These are the result of living certain situations; therefore a very direct connection between the site and the visitor is established. During the experience process, the learning of new data occurs due to the cognitive information reaching the brain, and this can already be seen as a positive action; but also and equally important can trigger a range of emotions as we discussed.

The objective of the protected area manager has to be that visitors can learn new knowledge and also that visitors experience emotions, because, in this way, they can generate positive feelings of satisfaction, in turn, give rise to attitudes of appreciation and enjoyment for the nature.

Finally, the recreational experience is submitted by our mind to an assessment that results in a judgment on whether the performance is: exactly as expected, better than expected, or worse than expected. In the first two cases occurs satisfaction; while in the third occurs clearly dissatisfaction. Satisfaction is a feeling of well-being or pleasure that people has

when a wish or need is covered. This feeling is the result of the cognitive and/or emotional evaluation which is derived from the experience of visiting a protected area. The cognitive assessment focuses on the attributes or attractions of the site, so many authors emphasize the importance of matching the *projected image* with the *perceived image*.

The reaction linked to the feeling of satisfaction, further than a positive state of mind, is an attitude and behaviour. Certain behaviours are the last intended purpose of the managers of a protected area because are those that can contribute to the heritage conservation.

However, it can go further and consider more ambitious goals in relation to attitudes and behaviours that can transcend the time of the visit itself and influence the everyday life of the visitor. Nowadays, behaviours after the recreational experience can be reinforced through the use of new technologies (websites) and social networks because they can keep alive the feelings and memories.

Additionally, it should be noted that in-site visitor behaviour is an excellent tool for assessing the level of satisfaction and achievement of the goals outlined in the interpretation and awareness programs. Therefore, the direct observation of certain attitudes and behaviours and a participant observation method also serve as an evaluation of the visitors' psychological comfort and as an indicator of the management activity. Satisfaction is a determinant aspect of visitors' loyalty and an opportunity to recommend the site to other visitors. Therefore, if a visitor has been able to complete the process successfully, he/she will be a good prescriber of the site.

CASE STUDY: VALENCIAN NATURAL PROTECTED AREAS

The previous analysed factors have been applied in the study of four Valencian Natural Protected Areas (Font Roja, Albufera, Turia and Islas Columbretes) through direct and participant observation methods, in-depth interviews to key stakeholders, as well as an amount of 2,749 in-site visitors' surveys.

As regards physical comfort elements, both the Mediterranean climate and security factors have been positive in all four cases.

Outdoor spaces analysed in this work have been: coastal lagoons, Mediterranean forests, islands and river banks. Among the outdoor spaces with barriers are included: trails, lookout towers, pic-nic areas and parking lots. Enclosed spaces have been: information/interpretation centers and observatories/hides.

As for analysed outdoor spaces, we must mention that the Font Roja, Turia and l'Albufera present open and flat (or gently sloping) areas, and not too dense wooded areas, therefore this allows some good middle ground views. Nice soundscapes complete these settings, so it can be said that these landscapes are relaxing and comfortable for most of the general public. Possibly specialized audiences would prefer a higher density forest closest to the original pristine vegetation.

The Columbretes Islands are a very open and elevated setting above the horizon that allows 360° panoramic views on the Mediterranean Sea. The sensations that cause visitors are divided between those who enjoy them as a special place far from the urbanized areas and where the only sounds come from the birds, the sea and wind. Other visitors can trigger sensations of isolation or agoraphobia with consequent psychological insecurity.

Regarding to attendance, visitors' data until 2011 inform us that the Font Roja received 59,797 visitors and 38,790 Albufera. The Columbretes Islands received 19,625, being the protected area which has experienced higher growth in recent years. Estimates for the number of visitors in the Turia River Natural Park conducted by the Universitat Politècnica de València and the Universidad de Alicante between 2009 and 2012 shed the number of 750,000 people.

The more saturated park is Turia River Natural Park, followed by Font Roja Natural Park. Prior to this work, the recreational carrying capacity of these two spaces and also the Albufera one (Viñals *et al.* 2004; Morant and Viñals, 2010) was studied, and it could be said that generally were within acceptable capacity levels of use. However, there have been specific problems in the multi-use trail of the River Turia posing bicycle traffic congestion in certain time slots on weekends and holidays. The Columbretes Islands Natural Reserve presents also congestion in some summer days. This is due to the unexpected arrival of visitors on private yachts, without having previously booked. Another situation arises saturation during special events such as the Pilgrimage of Virgen del Lliris in the Font Roja. The perception of congestion is felt with greater intensity in the Turia River Natural Park (51.2% of the visitors), but visitors said that this circumstance did not affect their psychological comfort and not have too much weight in their assessment of the place.

It can therefore state that visitor management could be improved in all parks and impacts on resources could even be minimized by managing recreational carrying capacity. This would improve the visitors' perception of the space and thus help to increase their psychological comfort.

Regarding recreational activities, it should be noted that the most practiced ones in the Font Roja, l'Albufera and Columbretes Islands have been the concerted-guided interpretive educational and also those ludic and entertainment ones (except the Columbretes Islands where only concerted visits are allowed). These last are mainly represented by outdoor walks. In Turia River Natural park the most common activities are those of entertainment, and also the sport and adventure ones, carried out individually or in self-organized groups. In this park, walking is the most popular activity with 70.6% of responses because users live close to this green corridor. The next group and experiencing the strongest growth, is those of cyclists with 64.2%. The reasons for the high presence of cyclists are related to the adequacy of the path for the practice of this activity. Horse riding is also practiced in this space (3.3%). Since 2013, this green corridor was inventoried as a National Equestrian Itinerary (IE-031) by the Spanish Equestrian Federation. Visitors frequent this place at intervals of 2 to 4 times a week (52.5%) because they live in the nearby towns. It can be stated that this park acts as a «proximal space for recreation».

As for facilities and services, it should be noted that the basic facilities are not guaranteed in these protected areas. There are sufficient number of marked, non-motorized and save trails but they are not interpretive. The touring pattern is linear in most cases. The signs of all the parks are, for the moment, insufficient and incomplete causing occasionally feelings of psychological discomfort and insecurity in individual visitors. It is remarkable that all parks have visitors' centers.

The information and interpretive services are those contributing most to meet the cognitive expectations of visitors. It should be noted that there is information available to visi-

tors on the official website of the regional administration prior to their visit. In the parks themselves are brochures and occasionally informative panels with accurate information, providing a projected image quite adequate to the reality of each park, which helps to create expectations with a realistic chance of being satisfied during the visit (perceived image). Interpretive exhibitions in these centers are old and upgradable in all cases. In relation to interpretive services, it must be commented that the staff dedicated to these services (guides-interpreters and monitors) has been in decline in recent years with the consequent damage to visitors. Consequently, the emotional component of the visit is neglected.

Regarding the socio-demographic profile and personality traits of the visitors, it can be said that general visitors have a medium-to-high perceptual capacity; that is, they are not too demanding in terms of space requirements to conduct recreational activities, and also they tolerate the presence of others while not reached saturation.

The most common type of visit is concerted: schoolchildren in working days, and families during the weekends. In the Columbretes Islands, there is a concerted fit of 2-3 groups of 20 people per day, although it is quite complex to monitor. From Turia River Natural Park, it is known that the visitor-type shows certain features of specialization towards sports and adventure. So, it could be defined the profile as: male (63.3%), between 36 and 50 years (36.9%), working in the services sector (46%, 0%), and with a high educational level (36.1%). Most visitors concentrate on the weekends or holidays. Runners and cyclists have a peculiar personality traits characterized by a remarkable vigorexy.

Among the motivations that stimulate a visit to these protected areas, according to the answers and free comments used in questionnaires, it could be highlighted: the «break» and «contact with nature». The Turia River visitors are also motivated by a «personal growth (overcoming spirit, physical achievements, etc.). In the Albufera and the Font Roja, the thirst for knowledge seems to be the motivation of organized groups.

Derived from surveys conducted by the managers of parks, it is observed that the expectations of the general public and specialists have been satisfied after the visit. This merit, it must be attributed largely to the spaces themselves who hold great beauty and very attractive and unique resources. It should also be mentioned that projected image according the information provided and final perceived image meet too much, even perceived image was better than expected. Respondents showed a medium-high level of satisfaction in 84.10% of cases in the Font Roja, a 70.63% in the Columbretes Islands, and 76.9% for the Turia River. From these results, it can be deduced the intention of returning to visit the park and recommending it to others.

CONCLUSIONS

In view of the above, it can be highlighted the need to pay particular attention to the factors that influence the psychological comfort as they are closely linked to the satisfaction of the recreational experience. Thus, it is very important that not only protected natural areas are perfectly preserved and managed from the ecological and/or cultural point of view, but the administration of these sites should go further and worry about visitors in order to have a good physical and intellectual access, providing them a quality and satisfactory experience as much as possible, so that to create positive emotions and feelings that lead them into attitudes and behaviours increasingly committed to the conservation and protection of the heritage.

The psychological comfort cannot be understood as a standard applicable to all profiles of visitors but varies a lot with the socio-demographic characteristics and personality traits of each individual as well as expectations about the recreational experience to perform. Managers of protected areas must provide psychological comfort to visitors even before the visit, when the projected image is forging, as this is crucial for the generation of expectations about the site. However, it will be inside the site when it should make every effort to make the experience successful and so the attitudes and behaviours expected of visitors are achieved. The psychological comfort should be a concept that is associated with the quality of the experience.

Regarding satisfaction of the recreational experience in the case studies analysed, it can be stated that the general public is the easiest to satisfy in terms of psychological comfort. It can be also be concluded that, despite the positive assessment of recreational experience, the study of the four natural protected areas allows us to suggest that psychological comfort of visitors can be improved by enhancing emotional stimuli.

