The XXII International Colloquium of Economic Psychology

Volume II

IAREP

PROMOLIBRO
Valencia (Spain)
1997
STUDY OF THE BEHAVIOUR OF VISITORS TO BARCELONA ZOO

Marina Romeo, Xavier Dominguez, Ignasi Espinal, Christian Röper, and Roger Vilardaga
Department of Social Psychology
Faculty of Psychology
University of Barcelona.

The study and analysis of the behaviour of the customers/consumers or users of a product and/or service is a constant, mainly, in disciplines such as psychology and marketing (Friedman, 1957; Levendahl, 1980; Curtin, 1982; Kotler, 1965; Engel, Kollat & Blackwell, 1968; Engel, Kollat & Miniard, 1990 etc.)

If we use the term “customer” to mean the individual who from time to time makes a purchase from a shop or organisation, as it is defined in terms of a company, this is not the case with the term “consumer”. These are defined by the authors as the end-users of the products, those who actually use the bought product, although they are not necessarily the purchasers (Santesmases, 1991).

Bearing in mind the variation in terminology mentioned above, this study chooses to refer to all those subjects who visit the zoo as “visitors”. However it must be mentioned that at the conceptual level we consider both concepts synonymous, since we are referring to all the people who really use the bought service.

Following this conceptual clarification, we go on to delimit which aspects of behaviour will be the object of study in this work. Starting from a properly psychological point of view, we will understand as consumer behaviour “the activity that individuals perform when they are consuming the service” i.e the type of verbal and non-verbal communication established by the subjects in the presence of the animals. It must not be overlooked, though, that the concept of consumer behaviour is much wider, as is shown in definitions such as those of Santesmases (1991, 203), who defines it as “the totality of activities performed by a person or an organisation from the onset of the need to the moment of purchase and later use of the product” or that of Loundon and Della Bita (1995, 5) who define it as “the process of decision and the physical activity which the individuals perform when they evaluate, acquire, use, or consume goods and services.”

Starting from the analysis of the behaviour of zoo visitors in the presence of different animals, this study intends to make some proposals for the improvement
r attitudes with the object of increasing the profitability the total space of a zoo. The work centres on one of the newest areas of marketing: underselling (Diez & Landa, 1996).

T STUDY

With the aim of establishing the animals in the presence of which we would like the visitors' behaviour, a pilot study was performed from the 1st to the 15th of the month.

In this, exploratory mode, we were able to appreciate the existence of different patterns of conduct towards the different animals displayed in the zoo. In fact, it was to be borne in mind that, the types of enclosures in which they are held, the types of cage which permit different kinds of physical contact, could be ringed to a greater or lesser degree the type of interaction. In view of all that we to counterbalance the variable "type of animal habitat" by choosing those animals which were to be found in enclosures which facilitated contact, as was the case of the penguin and macaw; and animals whose enclosures allowed a view of the animal but not contact such as the lion and the albino gorilla, commonly known as the "pito de nieve (Snowflake).

It was also necessary to take into account the different types of feelings and emotions - acceptance, rejection, deconfirmation - (Bateson, 1950; Watzlawick, Las & Jackson, 1981) aroused in the individuals in the presence of certain animals. It was thus considered appropriate to analyse the interactive conduct loped in the presence of those which generate a similar level of empathy.

Likewise in this first phase of our study we were able to observe that not all animals were equally attractive to the public, as a consequence of the spatial distribution within the zoo area (Ortiz de Zárate, 1990). It was for this reason that the pilot study included an analysis of the visitors' most popular routes. From that, in agreement with the postulates of merchandising, we observed that the animals located closest to the access gates, the picnic areas and the points of greatest crowding, or hot-spots - terrarium, dolphinarium - enjoyed the highest level of attendance, whereas the least visited animals were those located in the less attractive or cold-spots - the far parts of the zoo, narrow access passages, poorly lit or posted areas etc.

But, to what point could there be differences in interactive conduct as a function of the disposition of the animal inside the space? To reply to this question compared the behaviour of the visitors towards those animals located in the cold-spots of the park - the lion and the macaw - and those situated in the hot-spots - the tiger and the albino gorilla.

POSTER SESSION

Having reached this point it is necessary briefly to describe the spatial characteristics of Barcelona zoo. It is in the form of a "J", with two gates located in the mid part of the zoo, opposite each other; the main one is the entrance from the Ciutadella park as can be seen on the attached plan. (Appendix 1)

In the zoo there are various picnic areas, restaurants and shops, mostly in the lower part of the zoo. As for the location of the animals, it was observed that a free disposition has been established, with the intention of providing different ecological patterns depending on the different animals on display. Despite that, animals which share a habitat are not grouped together; thus we find the penguins at the lower end of the park and the polar bear in the middle. Nor indeed was any generic grouping of animals observed, animals belonging to different genera being distributed throughout the zoo (among the order of primates, we found the titis in the upper part of the park, the albino gorilla in the mid part and the mandrills in the lower part.) This distribution makes it difficult for the visitor to create a clear cognitive map from which to locate himself, to which must be added the difficulties of visibility and understanding the information notices. (Appendix 2)

METHODOLOGY

1. Sample description

The sample in this study was made up of all those visitors to the selected animals: the penguin, the macaw, the lion, and the albino gorilla from 4th to 30th June 1997, between the following times: 10.00 to 14.00; >14.00 to 18.00; & >18.00 to 20.00.

This consisted of a total of 149 subjects, 45% men, 55% women, the most prominent age ranges being 19 - 30 (28%), 4 - 12, and 31 - 65 (22%).

In order to balance attendance on working days with weekends, we performed our observation on days with the highest attendance: Wednesdays (4, 11, 18, & 25 June) and Fridays (6, 13, 20 & 27 June). Non-working days chosen for observation were: Saturdays (7, 14, 21 & 28 June) and Sundays (8, 15, 22 & 29 June) as well as 24 June which, despite being a Tuesday, is a public holiday in Catalonia.

We observed that 51% of the subjects attended the zoo on weekdays and 49% at weekends. 38% did so as families and 17% in groups. Of these 34.22% preferred to visit the albino gorilla, 27.51% the lion and the penguin, and 10.73% the macaw.

These time periods for observation were established by the zoo's summer opening times.
It must be pointed out, however, that since the observations were carried
or each animal, certain significant differences were found between the different
nes generated from each of them. In this regard, the high percentage of sample
ods obtained in the presence of the penguin (98%), lion (98%) and macaw
) during the mornings and afternoons, while those who observed the gorilla did
roughout the day (37% in the mornings, 24% afternoons and 39% evenings.)

Design and procedure

Before the field study and collection of data, a particular action was performed
establish validity: the researchers visited the zoo to observe in depth the
aviour of the visitors towards the selected animals.
On the basis of this exploratory preliminary action the observation chart to be
d was drawn up. This examines the four large aspects of visitor behaviour:
tial behaviour, observation behaviour, interaction behaviour (which included
al/non-verbal behaviour of acceptance or rejection, approaching, and imitative
aviour), and interaction behaviour with the companion. Each of these behaviours
in subdivided into a system of categories as is shown below:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>J - INTERACTION BEHAVIOUR WITH ANIMAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3a - Verbal acceptance behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3aa - Speaking affectionately</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ab - Questioning behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ac - Singing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ad - Whistling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ae - Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3b - Non-verbal acceptance behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ba - Observing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bb - Greeting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bc - Surprise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bd - Feeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3be - Throwing other things</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bf - Making it see something thrown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bg - Stroking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bh - Tapping the glass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bi - Jumping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bj - Applauding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bk - Photographing or filming</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3bl - Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3c - Verbal non-acceptance behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ca - Speaking negatively</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3cb - Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3d - Non-verbal non-acceptance behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3da - Shock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3db - Crying</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3dc - Running</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3dd - Attacking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3de - Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3e - Approaching behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ea - Approaching with the object of stroking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3eb - Approaching with the object of feeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ec - Approaching with the object of attacking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ed - Approaching to see the animal better</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3ee - Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3f - Imitation behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3fa - Imitating the animal’s general aspect with a grimace</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3fb - Imitating some spontaneous grimace of the animal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3fc - Imitating the animal’s movements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3fd - Imitating the animal’s noise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3fe - Imitating the noise of a different animal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Each sub-category includes the variable "others," which collects all those behaviours, whether
itial, information, interaction with the animal or with the companion, which are not collected through
category delimitation.*
INTERACTIVE BEHAVIOUR WITH PANION

<table>
<thead>
<tr>
<th>Verbal behaviour</th>
<th>Non-verbal behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>and day of the week: (0=working day, 1=Non-working day)</td>
<td>Animal observed: 0=lion, 1=penguin, 2=gorilla</td>
</tr>
<tr>
<td>0=Human</td>
<td>Arrival time: (0=10-14h, 1=14-18h, 2=18-20h)</td>
</tr>
<tr>
<td>: (0-3)</td>
<td>2 (13-18), 3 (19-30), 4 (31-65), 5 (&gt;65)</td>
</tr>
<tr>
<td>panions: 0=alone, 1=adult &amp; children, 2=grandparents, 3=uncles, aunts, etc., 4=several families together, 5=group of schools, 6=other</td>
<td></td>
</tr>
</tbody>
</table>

The record, made simultaneously by two observers in an attempt to reduce observational bias, was made systematically in the form “Sampling of intentional acts” by collecting behaviours of those subjects who freely chose to visit a particular animal. Bearing in mind the frequency parameters in the specified categories, the appropriate microanalysis tables were prepared.

To determine the most appropriate interval length the modified frequency meter of Sanson-Fisher, Poole & Dunn (1980) was used; the frequency was set to be 10 seconds. The division of these periods was continuous giving a total observation time of 210 seconds.

RESULTS

Given the character of this presentation and the limitation imposed on its length the editors of the journal, only the most significant results will be shown. However, for reasons of expositional clarity we present the observational data produced for each animal, from which we will obtain a specific behaviour pattern for each of them. Secondly we analyse the similarities and differences between the specific patterns for each animal.

Results from the lion

The sample consisted of 41 people: 54% men, 46% women, aged: 4 - 12 (1%), 19 - 30 (22%) & 31 - 65 (32%). They tended to come in families (39%), on n-working days (78%) and between 10.00 & 14.00 (83%).

Among more frequent behaviours during the first period was “moving close to the animal” (16.12%). 52.94% remained “standing”, and 17.64% did not stop in front of the animal though they looked at it as they passed. Of all interactive behaviour, 25% was with the companion and only 3.75% with the animal: “speaking affectionately to it”, “imitating its movements”, or “singing to it”. During the second observation interval the total number of interactive behaviours decreased; nevertheless we found on one hand that the behaviour of “singing to the animal” increased slightly; although this increase is not significant, we consider it important to mention it. On the other hand, in this second interval there appear behaviours such as “photographing and/or filming it”, “jumping in the presence of the animal” and “imitating the sound of the animal” (13.33%); all of this was at very low frequency levels, but are no less interesting for that as we will later analyse.

RESULTS FROM THE MACAW

Of the 16 subjects, 56% women and 44% men, the most important age range was 18 - 30 (25%), followed by 31 - 65 (19%), and a similar percentage between 13 and 18. Most subjects visited the macaw with their families (44%), and 19% with partners. 56% of observations were made between 10.00 & 14.00 and 63% on working days.

In the first interval, three categories stand out for their high frequency. All subjects opted for “standing” before the animal (100%), this being 28.07% of all behaviour. 75% approached to see the animal better, while 12.5% "observed it". There are three categories which should be mentioned though their percentages are low, for their significance in the animal. The first “reading the animal’s name on the information panel” (5.26%); the second “speaking affectionately to it” (7.01%); and the third “verbal behaviour with companion” (10.52%).

The second interval is noteworthy for the percentage increase in the category “imitating the sound of the animal” which increased from 1.75% to 5.26%, while the behaviours “observing” and “establishing verbal conduct with companion” remained almost at the same level with regard to the previous level (22.8% & 10.52%). However, “approaching to see the animal” overall fell from (75% to 18.75%), as did “speaking affectionately to it” which fell from 7.01% of all subjects’ behaviour to 1.75%. This category is closely related to “imitating the sound of the animal” since, while the former fell, the latter increased from 1.75% to 5.26%.
1) Results from the penguin.

The sample consisted of 41 people, 54% women and 46% men, aged 19 - 30 (34%) and 4 - 12 (29%). 41% attended the zoo in families, on working days, 31%, mostly in the mornings (61%).

As for behaviour which is more common during the first observation period we found that 26.66% was "approaching the animal to see it better", 90% of subjects naming "standing" to see it better. Of all behaviours during the first interval 6.66% were interaction with the animal, but with great variety in the types of behaviour: "speaking affectionately to them", "feeding them", "stroking them" and photographing or filming them.

In the second observation interval slight, though not significant, increases were observed in interactive behaviour with the animal. It is worth mentioning in this respect that "greeting the animal", which appears during this interval and represents 18.75% of all affectionate interactive behaviour. It is also worth noting the increase in the behaviour "interaction with companion". During the first interval this represented 21.95% of all subjects' behaviour, and 26.82% in the second.

l) Results from the gorilla.

The total of subjects analysed was 51: 63% women and 37% men, aged 19 - 30 (29%) and 31 - 65 (25%). 31% came with partner or family on working days 63%, in the mornings (37%), and between 18.00 and the zoo's closing time (39%).

Among the most frequent behaviours during the first interval, we found "approaching the animal to observe it" 23.52%, 90.19% of people remaining "standing" during their observation, while only 3.92% "sat". Of all behaviours observed during this first interval, we observed that 48.36% were interaction with the animal, though there was wide variety in the types of behaviour, with low percentages of "photographing and filming them" and "speaking negatively to them" (1.30%). There was also information-seeking behaviour such as "reading information panels" and "using information telephones" (8.49%).

In the second observation interval the only increase noted was in "interactive behaviour with companion", 13.72% of all behaviour in the second interval. This behaviour continued growing until the fourth interval, where it represented 16.33% of all behaviour. Mention should also be made of the category "tapping the glass" which moved from 0.65% to 1.3% and reached 2.61% in the fourth interval.

GENERAL RESULTS

We can conclude from the results that the average of subjects who observe the penguin, the albino gorilla, the lion and the macaw is 52.62%. (standard deviation 31.60). Of all records in all intervals, the commonest activity is "standing watching the animal" (85.01%), followed by "sitting watching the animal", (11.49%), and finally with "not stopping by the animal" 3.49%.

From global analysis of behaviours generated in the various observation periods, one can conclude that during the first interval 50.66% of all behaviours developed by the subject was interaction with the animal, whether verbal or non-verbal. On the other hand, 7.26% of these had the objective of finding information about the animal, and 10.57% were interaction with companion(s). During the second interval, as well as during the three following ones, there was a notable level of interaction with companions, with the highest levels of frequency being reached in levels 2 and 4 (13.60% and 17.23% respectively). This was very different from what was observed in the other categories as they decreased significantly from the fourth interval.

Comparative analysis of the subjects' sociodemographic variables towards the different animals shows clearly significant differences. We noted that the subjects who went to see the lion did so mostly on non-working days (78%), were mostly men (54%), and were aged 31-65 (32%). While for all animals together the highest attendance was on working days (51%), and most were women (55%) aged 19-30 (28%). Differences were also noted in the manner in which the subjects came to see the different animals. While in the cases of the lion and penguin this was mostly in family and groups (39% & 22% for the lion; 41% & 20% for the penguin), for the macaw and gorilla it was in a family or with a partner (44% 6 19% for the macaw; 31% & 31% for the albino gorilla).

Finally, it should be mentioned that the most frequent hours of public attendance, for all animals together, as in the mornings from 10.00 - 14.00 (58%); only in the case of the albino gorilla were similar percentages of public attendance observed during all of the day. These results may be explained by two factors: first, proximity to the gates, which means that the subjects go to see it on both entering and leaving the zoo; and secondly, it must be mentioned that this animal has specific characteristics and may be considered as Barcelona zoo's brand image since almost all the zoo's publicity has centred on its presence.
Comparative analysis of interaction behaviours performed by the subjects in respect of the various animals shows slight discrepancies. In the case of the penguin, "stroking it", "feeding it" and "making it see that something has been done" stand out. All these occurred only with this animal (100% in comparison with all the analysed animals together), from which can be deduced the affectionate relationship which the subjects establish with animals of this type. However, it must be pointed out that this animal is found in one of the hot-spots of the zoo, near the scenic area, so that "feeding it" may be helped by its spatial location. Nevertheless, only 27.51% of all the analysed public approached this animal.

The lion, on the other hand, shows clearly differential characteristics with respect to the penguin. The subjects developed two antagonistic types of emotional behaviour towards it. On one hand, positive emotional behaviours ("singing to it", "speaking affectionately to it" and "imitating its movements") which make up 44.42% of the total of behaviours in the presence of all animals together. On the other hand, negative emotional behaviours, among which appears "crying in the presence of the animal", which came about only in the presence of this animal.

From this it was observed that the lion facilitated the development of both positive and negative emotional behaviours, as well as generating the highest percentages of interaction with companion (15.76%), from which we may conclude that this animal does not leave visitors indifferent. It should also be pointed out that, like the penguin, it gathered 27.57% of all subjects analysed.

However, unlike the former, the lion is in one of the cold-spots of the zoo, from which may be deduced from the results the great attraction which the animal has for visitors.

The macaw is the animal which generates the lowest level of public attendance in comparison with all animals taken together (10.73%), as well as being the one where the subjects stayed least (time maximum 130 seconds).

It should also be added that with it the subjects generate the lowest level of interactive behaviours in comparison with all the animals analysed together.

We found only one clearly noteworthy behaviour "imitating the sound of the animal", which represents 52.94% in comparison with all animals together.

The analysis of the albino gorilla presents some specific problems, as was pointed out at the beginning of this section, for which reason we must be cautious in interpreting the results. On one hand "finding information from the information panels near the animal" (64.38%) and "use of information telephones" (58.82%), stand out in comparison with behaviours developed in the presence of other animals; likewise, "interacting with companion" (56.40%) and "photographing and filming the animal" (61.53%) stand out in relation to all animals together. On the other hand, this animal gave rise to the behaviour of "speaking negatively to it", this being taken to mean insults and annoyance given to the animal. This behaviour was produced only with this animal and despite its very low frequency (only 1 person out of a total of 149), we consider it important to mention it, since it was produced only by this animal.

Finally, there is the behaviour "tapping the glass", but it should be borne in mind that this is the only animal that has this type of structure. Nevertheless it should be mentioned that in all the animals studied, no similar behaviour was produced, either tapping the cages or bars, as in the case of the macaw.

CONCLUSIONS

This communication is part of wider investigation. We limit ourselves here to emphasising some of its most significant aspects with the aim of pointing to a group of possible improvements, without intending to be exclusive, at the level of merchandising in the zoo.

From the results obtained we observed significant differences in the levels of public attendance at the different animals. Those like the macaw, located in an area which is unattractive for visitors, hinder the level of both public attendance (10.73%), and the development of interactive behaviours (6.39%). However, it seems that the albino gorilla, being located in a more attractive area, facilitates greater public attendance (34.22%), as well as a higher level of interactive behaviour (14.23%). It is also important to point out the differences which exist due to the level of attractiveness of the animal itself. In this respect we observed that the lion, despite being located in a cold-spot in the park, has levels of interaction and public attendance similar to animals located in more propitious areas, as we have seen in comparing it with the penguin.

For all these reasons we consider it necessary to reconsider the location of the animals in the zoo. In this respect our proposal starts from the need to amplify this study, collecting the type and level of interaction developed by the subjects in the presence of all the animals which currently make up Barcelona Zoo.

However, with this study we are already in a position to make some specific suggestions, without being unaware of the technical, human and ethnological repercussions that they may represent. In the first place we consider it appropriate that the gorilla should be moved to one of the zoo's cold-spots, since it is such an attractive animal for the public that it would allow a better distribution of visitors throughout the zoo, especially in its cold-spots. Secondly it seems necessary to reconsider the location of the macaw. Our proposal would be to place this animal in one of the hot-spots, since this would allow an animal such as this to enjoy, at least, higher attendance levels. Thirdly, regarding the penguin and the lion, we consider that they should be kept in the present places, though for different reasons. The penguin seems not to generate very high levels of interactive activity and public
attendance if we consider the potentials starting from its spatial location. The lion, on the other hand, generates high levels of interactive activity as well as of attendance, despite being in a cold-spot.

On another matter, we consider an improvement in the zoo’s publicity and information strategies to be absolutely necessary, with the redesign and relocation of posters being particular relevant. In our opinion this would make it easier for the visitor to enjoy his visit to the zoo to the full. In this respect, we propose the creation of different atmospheres brought about by the grouping together of animals which belong to the same ecological niche. Later, after the determination of the differing levels of interaction and attractiveness established by the subjects, we would be in a position to decide on the animal which would be our Single Sales Proposition for each habitat.

BIBLIOGRAPHY

ANGUERA, M.T., 1991: Metodología observacional en la investigación psicológica. Barcelona, PPU.
ORTIZ DE ZARATE, A., 1990: El merchandising de los 90. DISTRIBUCIÓN ACTUALIDAD, 127, 81-84.

ATTITUDES TOWARD MONEY: DIFFERENCES BETWEEN YOUNG PEOPLE EMPLOYED AND UNEMPLOYED

Xabier San Sebastian Mendizabal
Roberto Ibarrutxte Zorrirreta
Esther Torres Alvarez

Universidad del País Vasco/Euskal Herriko Unibertsitatea
Spain

Abstract

A great deal of investigation has been done dealing attitudes toward money. These investigations have attempted to analyse the different perceptions that exist (Furnham, 1984; Tang, 1992, 1993; Fank, 1994; Lua, Quintanilla y Diaz, 1995). The role of money possesses a mediating power over the process of consumption processes as expressed by Luna and Quintanilla (1996), i.e.: compulsive buying, shopping and three consumption styles (brand preference, aesthetic criteria and symbolic qualities). This paper is focused on showing the different attitudes toward money expressed by young people, employed and unemployed. Employed people display a more positive attitude toward money than the unemployed section of the youth. The attitude is influenced with their own monthly income and that of their family's.