

When does the zoo start to nag?

Testing the limits for pro-wildlife behaviour requests.



by Liam Smith (POSTDOCTORAL RESEARCH FELLOW), Pieter Van Dijk (SENIOR LECTURER) and Jim Curtis

(POSTDOCTORAL RESEARCH FELLOW) TOURISM RESEARCH UNIT | MONASH UNIVERSITY | AUSTRALIA



This paper reports on the findings of two studies examining how many times visitors can be asked to do pro-wildlife behaviours before their experiences are affected. In the first study, we examined how many different pro-wildlife behaviours could be asked before visitors' experiences were affected. In the second study, we asked the same question but concentrated on one behaviour. The results of both studies showed that some visitors' personal thresholds were crossed (3% in Study 1 and 9% in Study 2), but that almost all visitors indicated that their overall zoo experiences were not affected by being asked to act in support of wildlife. Indeed, respondents in both studies suggested that being given an opportunity to act in support of wildlife improved their zoo experience.

Introduction

Zoos have a strong vested interest in proactively influencing visitor behaviour such that the wild counterparts of captive animals can benefit from the actions of zoo visitors (Swanagan 2000; Stoinski et al. 2002; Smith et al. 2008; Povey and Spaulding 2005). Because of the many species that zoos keep, as well as the range of human-induced threats to each one of them, there are a plethora of visitor behaviours that zoos could seek to influence (Smith 2009). Two problems associated with having so many behaviours that could be requested are which behaviours to ask and how many should be requested during a zoo visit. While some research studies and zoos themselves have started thinking about which behaviours are most appropriate to request (Smith 2009; Smith et al., in press), investigations into the number of target behaviour requests remains unknown. On the one hand, if there are too many requests, zoo visitors may get the feeling that they are being harassed by the zoo to the point where their visit becomes less enjoyable. Furthermore, too many requests may lead to visitors

switching off and ignoring requests for target behaviours. On the other hand, by asking more, zoos may not negatively affect visitors' experiences and instead increase their chance of influencing visitors' behaviour. Thus, the legitimate question to be asked forms the subject of this paper – how many requests are too many?

There are several questions within the question of how many requests are too many. The first is whether the impact of individual requests varies with how they are asked and the type of behaviour being asked. A recent paper sheds light on both these questions showing that respondents felt that requests for simple, new and on-site behaviours were preferred, with the stipulation that the link between the action and how it helps wildlife is made explicit (Smith et al., in press). Results of this study also showed that requests for donations were contentious, with some respondents preferring not being asked too many times to donate. Respondents also indicated a preference not to be put under pressure or made to feel guilty when asked to act in support of wildlife.

In addition, two further questions surround how many requests for pro-wildlife behaviours can be made before visitors' experiences are affected. These questions are how many times *different* behaviours can be requested and how many times the *same* behaviour can be requested before the number of requests affects visitors' experiences and two studies were conducted to examine these questions.

Materials and methods

Two separate studies were conducted in two Australian zoos: Melbourne Zoo and Werribee Open Range Zoo (WORZ). In Study 1, ten different pro-wildlife behaviours were requested three times each in keeper presentations during the study. Visitors were intercepted as they dispersed from keeper presentations late in the day. 194 visitors participated in the study.

In Study 2, one behaviour – purchasing beadwork from the zoo shop to aid impoverished communities and wildlife in Kenya – was requested via face-to-face communication such as keeper talks, interactions with a costumed character and guided tours, and static media such as displays in the bistro, on walking trails and the zoo shop. All staff also wore beads. In this study, visitors were intercepted at the zoo exit. 508 visitors participated in the study.

In both studies, respondents were asked to recall how often and from where they had heard requests for pro-wildlife behaviour. They were also asked how many times the zoo should ask them to undertake pro-wildlife behaviour. Overall evaluations of zoo experience were assessed measures from the Interpretation Evaluation Tool Kit (Ham and Weiler 2005). In addition, the overall evaluation scale was also adapted such that it asked visitors to think specifically about how the number of behaviour requests they recalled affected their overall experience.



Results

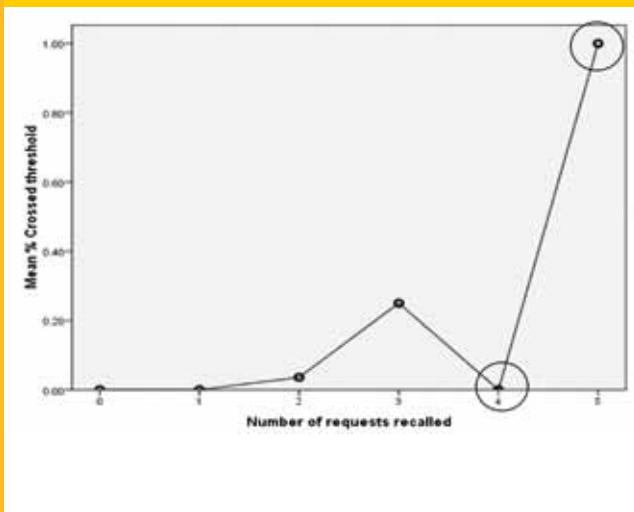
STUDY 1

Key findings from the first study were: On average, respondents could recall 1.2 requests. Almost all visitors (99%) felt that the number of requests they could recall being asked, either had no affect (12%) or improved (87%) their experience at the zoo. The data suggested that up to three recalled requests do not negatively affect visitors' experiences. Some visitors explicitly stated that *doing* on-site actions and / or learning how to help wildlife made their overall zoo experience better.

Respondents were asked, hypothetically, the maximum number of requests for different pro-wildlife behaviour the zoo should ask them to do during their visit. The average for this measure was 5.8. Each respondent's personal threshold was calculated by subtracting the number of recalled requests from their suggested maximum. For example, a visitor might indicate that they think the maximum number of requests should be five but during their visit they only received three. Thus their personal threshold wasn't crossed. Calculating this measure showed that less than 3% of respondents had their threshold crossed.

A new simple yes / no variable was created on the basis of whether an individual's personal threshold was crossed and plotting the mean of this measure against the number of recalled messages reveals visitor thresholds. While Figure 1 appears to show that thresholds are crossed at five requests, only one respondent recalled four and one recalled five requests (circled) meaning that more research is needed.

Figure 1 Personal threshold measure – Study 1 (n=162).



STUDY 2

Study two had a much larger sample than the first study.

Key findings from Study 2 were:

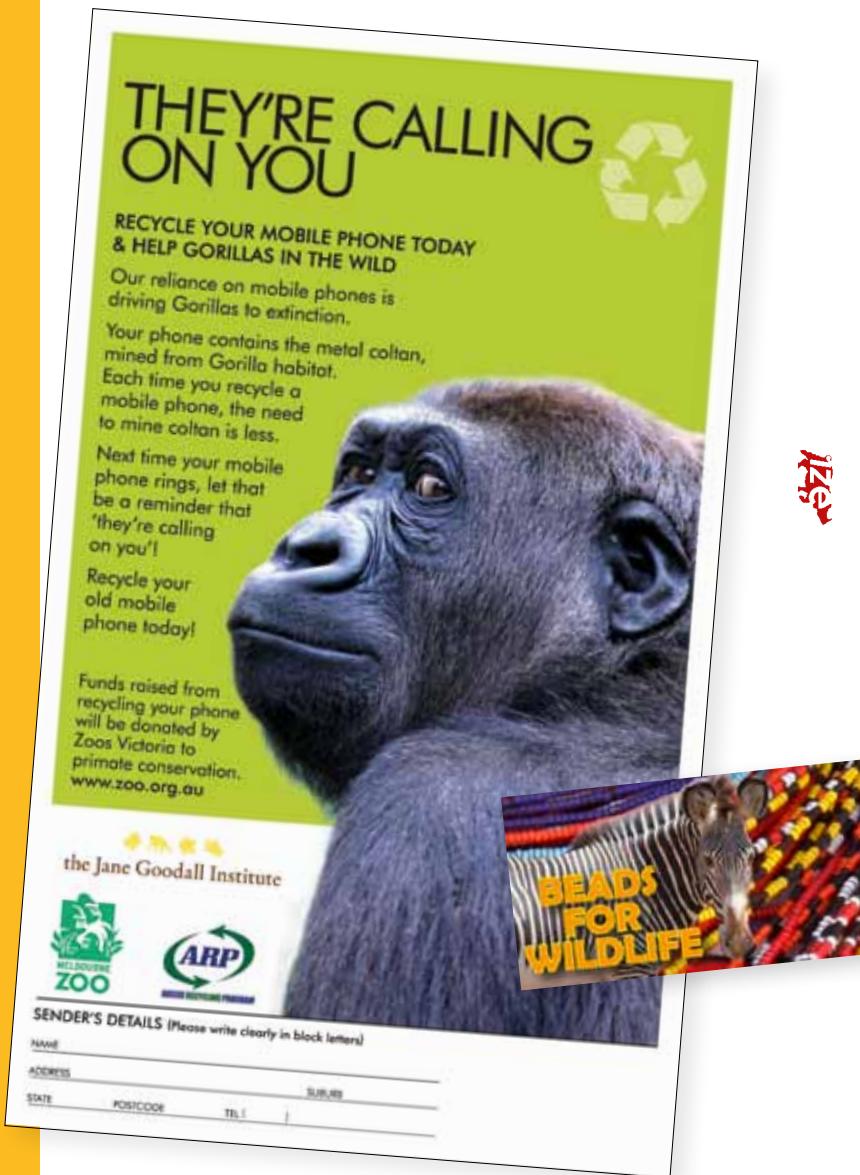
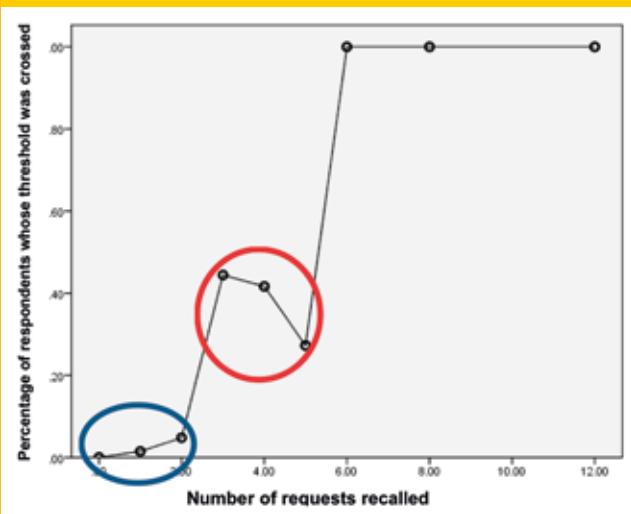
Seventy percent of respondents recalled seeing or hearing requests to buy beads from the zoo shop. Of those that did, the average number of requests was 1.2 requests (same as Study 1). Again, the majority of respondents (97%) indicated that the number of times they were asked to buy beads had either had no affect (52%) or improved (46%) their zoo experience. Less than 3% indicated that the number of requests made to them had a detrimental effect on their overall zoo experience.

Respondents were asked to indicate the maximum number of times the zoo should ask visitors to buy beads. The mean was 2.8 requests. Only five respondents (1.4%) suggested that the zoo should not ask them to buy beads at all.

The personal threshold measure was again calculated. Most respondents (62%) felt they could have been asked to buy beads more often than they were. Twenty nine percent felt that the number of requests they received was the same as the maximum the zoo should ask, while 9% indicated that they received more requests than the maximum, meaning their personal threshold was crossed.

Figure 2 shows that all respondents who recalled six or more requests to buy beads, also stated that the maximum number of requests should be less than six (i.e. their personal threshold was crossed). Up to two recalled requests (circled in blue) had little bearing on personal thresholds whereas the thresholds of 30-45% of respondents who recalled between 3-5 requests were crossed (circled in red).

Figure 2 Personal threshold measure – Study 2 (n=359).



Discussion

The key finding of the research is that most respondents in both studies indicated that zoo requests had little impact on their experience at the zoo. Where it did make an impact, more requests were often associated with improved zoo experiences rather than a negative impact, particularly in the first study. However, in the first study respondents only recalled, on average, 1.2 requests meaning that respondents may have noticed pro-wildlife behaviours that resonated and not attended to those that didn't. In the second study, most respondents indicated that the number of requests had no bearing on their overall experiences. The combination of results suggests that multiple requests for different behaviours are associated with improved experiences whereas multiple requests are fairly neutral in their impact on visitors' experiences.



Results from the personal threshold measure were most relevant to the question of how many requests for the same behaviour are too many. Using this measure, small groups of respondents were identified (3% in Study 1 and 9% in Study 2), who felt that they were asked to undertake pro-wildlife behaviour more times than was appropriate. The results of the personal threshold measure in Study 1 suggest that respondents' personal thresholds were not crossed and that there was scope for more different requests. Conversely, Study 2 did appear to genuinely establish a threshold. All respondents who recalled more than six requests had their personal threshold crossed. The observation that respondents' overall experiences were not affected by the number of times they were asked, suggests that crossing the personal threshold for requests does not lead to negative zoo experiences. It seems likely that upon noticing the third, fourth, fifth or sixth request, visitors remembered the request and stopped paying attention.

Conclusions

The results provide some qualified support for the zoo industry to ask visitors to act in support of nature more often. It seems that visitors, to the Australian zoos involved in this study at least, are receptive to requests for participation in pro-wildlife behaviour.

Perhaps the most obvious area for further research is to repeat the second study with another behaviour. The criteria for behaviours set forth by visitors (in Smith et al., *in press*) were, for the most part, met in the choice of behaviour for the study. That is, buying beads for wildlife is a novel behaviour, it is done on-site, it's easy and visitors can see how it helps wildlife. It would be interesting to see whether visitors felt the same way about repeated requests for another behaviour if it was well known (not novel) off-site, difficult, or had a tenuous link to how it helped wildlife.

Research is also needed to examine whether multiple requests translate into actual behaviour. Some modelling done as part of the second study suggested that more requests were not associated with increased purchase and this finding needs to be explored.

Corresponding Author: Liam Smith |
Liam.Smith@buseco.monash.edu.au

We would like to thank Rachel Lowry and Katie Pahlow but also extend thanks to the many keeping and interpretation staff who asked visitors to undertake pro-wildlife behaviour.

ACKNOWLEDGEMENTS
REFERENCES
Ham, S.H., and B. Weiler. 2005. *Interpretation Evaluation Tool Kit: methods and tools for assessing the effectiveness of face-to-face interpretive programs*. Gold Coast, QLD, Australia: CRC for Sustainable Tourism Pty Ltd.

Povey, K., and W Spaulding. 2005. "Message design for animal presentations: a new approach." Paper presented at the American Zoo and Aquarium Association Annual Conference (Chicago; September 13-18).

Smith, L.D.G. 2009. "Identifying behaviors to target during zoo visits." *Curator: The Museum Journal* 52 (1):101-115.

Smith, L.D.G., S. Broad, and B. Weiler. 2008. "A closer examination of the impact of zoo visits on visitor behaviour." *Journal of Sustainable Tourism* 16 (5):544-562.

Smith, L.D.G., J. Curtis, and P.A. Van Dijk. *in press*. "What the zoo should ask: the visitor perspective on pro-wildlife behaviour attributes." *Curator: The Museum Journal* 53 (3).

Stoinski, T.S., M.T. Allen, M.A. Bloomsmith, D.L. Forthman, and T. Maple. 2002. "Educating zoo visitors about complex environmental issues: should we do it and how?" *Curator: The Museum Journal* 45 (2):129-143.

Swanagan, J. S. 2000. "Factors influencing zoo visitors' conservation attitudes and behaviour." *Journal of Environmental Education* 31 (4):26-31.

Photos ©Claire Smith & Zoos Victoria