25 Centrality to life and the Theory of Planned Behavior: The case of musk ox safaris in Dovrefjell-Sunndalsfjella National Park, Norway

Hilde Nikoline Hambro Dybsand, Stian Stensland, The Norwegian University of Life Sciences, Norway

Ajzen's (1985) Theory of Planned Behavior (TPB) is one of the most recognized frameworks for understanding wildlife-related behaviors. According to this framework, intentions to perform behaviors can be predicted from attitudes, subjective norms, and perceived behavioral control. Behavioral intentions are evaluated as how likely a person is to perform a behavior in the future, with these intentions accounting for a considerable amount of variance in actual behavior together with perceived behavioral control (Ajzen, 1991). Involvement is another useful concept when studying behavioral outcomes, as highly involved participants can hold more intense attitudes and emotions, that may in turn influence future behavior (Burke & Stets, 1999; Havitz & Dimanche, 1999). Understanding a possible relationship between involvement and TPB may provide further insight on wildlife-related behaviors, as the literature suggests both concepts have effects on behavioral intentions. However, to the best of the authors' knowledge there are no previous studies combining TPB and involvement in a wildlife watching tourism context. Meanwhile, one of wildlife watching tourism's main justifications is its potential to improve participants' empathy and actions toward wildlife and the environment (Hughes, 2013). However, some activities are better suited for this purpose than others, and short duration and mass marketed activities oriented toward a single focal species may not have this effect (Curtin, 2013).

Our study investigates connections between TPB and centrality to life, a concept that is often used to measure involvement when studying participants' degree of recreation specialization (Scott & Shafer, 2001) and enduring involvement (Forgas-Coll et al., 2017). Additionally, we investigated participants' intentions to perform three pro-environmental behaviors that benefits wildlife following a wildlife watching experience. Organized musk ox safaris in Dovrefjell-Sunndalsfjella National Park was used as a case study, and data was collected through participant surveys. Participants who joined musk ox safaris during the 2018 peak season were asked to fill out a short on-site form (n = 487), followed by an online survey (n = 219, 52% response rate). The survey included 15 questions designed to investigate participants' perspectives on pro-environmental behaviors based on TPB (Ajzen, 1985) and four questions measuring participants' centrality to life. Responses to these questions were analyzed using three partial least squares structural equation models (PLS-SEM) that had R2 values of .46,.49 and .47, indicating satisfactory predictive validity (Hair et al, 2017).

Results showed that centrality to life had statistically significant positive relationships with participants' attitudes and subjective norms, whereas its relationship with perceived behavioral control was not significant. Furthermore, both centrality to life and the perceived effects of participating in a musk ox safari had positive relationships (directly or indirectly) with all three pro-environmental behaviors. Our findings indicate that involvement (measured as centrality to life in our study) can add further insight to the TPB, as positive relationships were found between centrality to life and two of TPB's dimensions. Additionally, findings can be useful to managers of national parks and other wildlife areas when deciding which wildlife watching tourism activities to allow. In areas with vulnerable species, it may not be possible to offer long duration wildlife watching tourism activities or involve all species found in the area. This study shows that a short duration guided wildlife watching experience based on one charismatic species may be a good option in these cases, as musk ox safaris typically lasted four to five hours and still had positive effects on behavioral intentions. Future product development should focus on fostering high involvement, positive attitudes and subjective norms, as both centrality to life and perceived effects of participating had stronger indirect effects through their effects on these elements than their direct effects on intentions to perform pro-environmental behaviors.

Model 1: Intentions to participate in volunteer work that benefited wildlife:



Figure 1: Structural model analysis overview. Relationships between constructs are shown as standardized beta coefficients (first number on lines), followed by p-values (second number on lines in parentheses).

References

.004 (.951)

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl; & J. Beckmann (Eds.), <u>Action control - From cognition</u> to behavior (pp. 11-39). Springer. Ajzen, I. (1991). https://doi.org/10.1016/0749-5978(91)90020-T. Ballantyne, R., Packer, J., & Sutherland, L. A. (2011). https://doi.org/10.1016/j.tourman.2010.06.012. Bryan, H. (1977).

https://doi.org/10.1080/00222216.1977.11970328. Burke, P. J., & Stets, J. E. (1999). https://doi.org/10.2307/2695833. Curtin, S. (2013). The intrinsic motivations and psychological benefits of eco and wildlife tourism experiences. In R. P. Ballantyne, J (Ed.), International handbook on ecotourism (pp. 203-216). Edward Elgar. De Salvo, M., Cucuzza, G., Ientile, R., & Signorello, G. (2020).

https://doi.org/10.1080/10871209.2020.1778822. Forgas-Coll, S., Palau-Saumell, R., Matute, J., & Tárrega, S. (2017).

https://doi.org/10.1002/jtr.2107. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). <u>A primer on partial least squares</u> structural equation modeling (PLS-SEM) (2 ed.). SAGE publications. Havitz, M. E., & Dimanche, F. (1999).

https://doi.org/10.1080/00222216.1999.11949854. Hughes, K. (2013). https://doi.org/10.1080/09669582.2012.681788. Miller, Z. D. (2017). https://doi.org/10.1080/10871209.2017.1347967. Scott, D., & Shafer, C. S. (2001).

https://doi.org/10.1080/00222216.2001.11949944. Skibins, J. C., & Powell, R. B. (2013). https://doi.org/10.1002/zoo.21086. Tsai, L. L. (2020). https://doi.org/10.1080/15470148.2020.1816519.