

- Villanueva, C., Walker, B., & Bertellotti, M. (2012). A matter of history: Effects of tourism on physiology, behaviour and breeding parameters in Magellanic Penguins at two colonies in Argentina. *Journal of Ornithology*, 153, 219–228.
- Wilson, R. P., Culik, B., Danfeld, R., & Adelung, D. (1991). People in Antarctica – How much do Adélie Penguins (*Pygoscelis adeliae*) care?. *Polar Biology*, 11, 363–371.

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MODIFYING THE IOS SCALE AMONG TOURISTS

Kyle M. Woosnam

Texas A&M University, USA

Oftentimes, specialized travellers visit a destination for the cross-cultural interaction and exchange potential with community residents (Wearing, Stevenson, & Young, 2010). Too often, however, our field neglects to focus on the relationship between residents and tourists. Instead, the relationship between residents of and tourists to a destination is conceived of indirectly through examining residents' attitudes toward tourism and/or tourism development (Latkova & Vogt, 2012). This work arguably does not get at the core of the relationship, interaction, or encounters between residents and tourists.

The work that does speak directly to the relationship between residents and tourists is oftentimes conducted from the perspective of the former. For example, most recently Shani and Urieli (2012) examined VFR tourism in Israel, solely focusing on the host experience, just as Moufakkir (2011) did not consider tourists in his work concerning Dutch residents' perceived cultural distance with foreign visitors. A greater emphasis needs to be placed on how tourists view the relationship they have with community residents (Ward & Berno, 2011). If the relationship is perceived as negative, implications will exist for return visits to the destination. Factors that may serve to explain the perceived relationship include the extent of previous travel to the destination as well as perceived cultural and religious similarities between tourists and residents.

Assessing tourists' degree of emotional closeness with residents is one way to determine the extant relationship. Woosnam (2011) most recently utilized measures of emotional closeness within his *Emotional Solidarity Scale* (ESS) in assessing the perceived relationship between members of each group. A similar measure for emotional closeness, the *Inclusion of Other in the Self (IOS) Scale* was advanced as a one-item measure in the psychology literature by Aron, Aron, and Smollan (1992). Aron et al. first conceived of the 7-point Likert-scaled question as a visual portrayal of the perceived relationship between individuals, whereby each person is represented by a circle with the degree of closeness indicated by amount of overlap between said circles. To date, IOS has been used sparingly in its home discipline

and in the tourism literature (see Woosnam, 2010). The existing IOS does not account for any degree of ‘separateness.’ In other words, the minimal degree of closeness one can indicate is an option with the circles touching one another. In addition to this, the IOS has never been utilized to assess the relationship from the perspective of tourists.

Three purposes exist for this study: (1) to modify the existing IOS by including an initial response category indicating a distance between tourists and residents; (2) to examine the reliability of the new 8-point Likert scale by correlating it with existing emotional closeness measures from the ESS; and (3) to examine whether tourists’ previous travel to a destination significantly predicts their degree of emotional closeness with residents as measured through the modified IOS scale.

Galveston County, Texas was selected for its potential as a destination that provides an excellent setting to measure tourists’ degree of emotional closeness with residents. In 2011, visitor spending in Galveston County was US\$745.9 million—the top coastal county in all of Texas (Texas Tourism, 2012). As terms of residents, in 2011, Galveston County ranked 10th in the state (however top coastal county) for number of jobs directly created from tourism (8,610) (Texas Tourism 2012).

Tourists to Galveston County during July and August of 2009 comprised the study sample. Data were collected from tourists at the five most-visited locations throughout the county. A systematic sampling procedure with a random starting point was used to collect data during five weekends, whereby members of the research team approached every fifth tourist they located on the beach, public street, sidewalk, or parking lot. Overall, 660 individuals were contacted and asked to participate with 61 people claiming to be residents. Of the 599 visitors approached, 142 declined to accept a survey instrument, indicating that 457 accepted (76.3% acceptance rate). From those 457, 447 completed the self-administered instrument (97.8% completion rate), yielding an overall response rate of 74.6%.

Respondents were asked about their previous travel history to Galveston County through one question concerning the number of times they had previously visited. Regarding emotional closeness, participants were prompted to consider the most recent interactions they had with Galveston County residents overall and asked to indicate their level of agreement (on a 7-point scale of 1 = strongly disagree and 7 = strongly agree) with two items from the ESS, comprising the *emotional closeness* factor: “I have made friends with some Galveston County residents” and “I feel close to some residents I have met in Galveston County.” Additionally, participants responded to the visual portrayal of emotional closeness through the modified 8-point IOS Scale (see Figure 1).

Prior to examining reliability of the modified IOS, a composite mean for the two ESS items, comprising the *emotional closeness* factor in Woosnam (2011), was

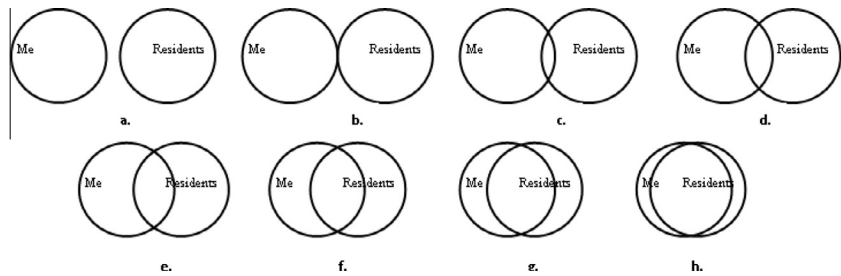


Figure 1. Modified version of Aron et al. (1992) Inclusion of Other in Self (IOS) Scale. Which diagram best represents how close you feel to residents of Galveston County (Please circle one letter).

calculated ($n = 447$, $M = 4.17$, $SD = 1.61$). To determine if the modified IOS consistently measured emotional closeness (as it was intended to measure), coefficient alpha ($n = 446$, $\alpha = .77$, $p < 0.01$) was requested (examining the correlation between the modified IOS and the composite mean for the two *emotional closeness* items from the ESS). Prior to assessing the role previous travel to Galveston has on the modified IOS Scale, the former measure was standardized examining z -scores to determine outliers. Raw scores were transformed for 15 cases where standardized z -scores exceeded the absolute critical value of 3.29 (per Tabachnick & Fidell, 2012). On a scale of 1–8 (with 1 representing some distance between representative circles and 8 indicating almost complete overlap of the circles), tourists indicated approximately a 40% overlap ($n = 446$, $M = 4.58$, $SD = 1.80$). In regards to previous travel to Galveston, tourists had on average, been to the area 26.35 times ($n = 316$, $SD = 36.27$) before. A simple linear regression was calculated predicting tourists' degree of emotional closeness (utilizing the modified IOS Scale) with residents based on the degree of previous travel to Galveston County. The test was significant ($F = 5.14$, $p < .05$) with an R^2 of .160, indicating 16% of the variance in tourists' emotional closeness with residents is explained by the formers' previous travel to the area.

With the exception of Aron et al. (1992) and Woosnam (2010), few studies examine the reliability of IOS. Reliability of the scale was found to be high and comparable to such studies. Additionally, the mean of the modified IOS is nearly identical to that reported most recently (Weidler & Clark, 2011; Woosnam, 2010), even considering an additional response category. This study reveals that tourists' previous travel makes a modest contribution in explaining the variance in tourists' emotional closeness with residents. Such a result indicates a host of other variables may serve to explain greater variance in the construct, such as: extent of interaction, similar cultural backgrounds, perceived quality of life, or personalities.

Considering limitations, the potential exists for respondents to have misunderstood the emotional closeness questions. Some could have provided responses to the items thinking about one extreme (bad or good) interaction with a particular resident. Efforts need to be made to indicate in the ESS question wording that respondents are not to consider one particular person, but residents in general. Additionally, a similar Likert-scale format should be formulated that provides an equal number of scenarios capturing negative and positive relationships. Future studies should also examine the relationship between tourists' emotional closeness with residents and how much money they spend in a destination. As Griffiths and Sharpley (2012) claim, "The eventual success of tourism at the destination, particularly as a vehicle of economic growth and development, is dependent upon balanced and meaningful tourist-host relationships" (p. 2051). **A**

REFERENCES

- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63, 596–612.
- Griffiths, I., & Sharpley, R. (2012). Influences of nationalism on tourist-host relationships. *Annals of Tourism Research*, 39(4), 2051–2072.
- Latkova, P., & Vogt, C. A. (2012). Residents' attitudes toward existing and future tourism development in rural communities. *Journal of Travel Research*, 51(1), 50–67.
- Moufakkir, O. (2011). The role of cultural distance in meditating the host gaze. *Tourist Studies*, 11(1), 73–89.
- Shani, A., & Uriely, N. (2012). VFR tourism: The host experience. *Annals of Tourism Research*, 39(1), 421–440.

- Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.
- Texas Tourism. 2011p *Direct Travel Impacts by County (within The Economic Impact of Travel on Texas Report)*. (2012). <<http://travel.state.tx.us/getattachment/7941c6e2-2d92-4c42-84af-a7156318ad0d/TXImp11pRev.aspx>> Accessed 15.10.12.
- Ward, C., & Berno, T. (2011). Beyond social exchange theory: Attitudes toward tourists. *Annals of Tourism Research*, 38(4), 1556–1569.
- Wearing, S., Stevenson, D., & Young, T. (2010). *Tourist cultures: Identity, place and the traveller*. Thousand Oaks, CA: Sage.
- Weidler, D. J., & Clark, E. M. (2011). A distinct association: Inclusion of other in the self and self-disclosure. *The New Psychology Bulletin*, 9(1), 34–43.
- Woosnam, K. M. (2010). The inclusion of other in the self (IOS) scale. *Annals of Tourism Research*, 37(3), 857–860.
- Woosnam, K. M. (2011). Comparing residents' and tourists' emotional solidarity with one another: An extension of Durkheim's model. *Journal of Travel Research*, 50(6), 615–626.

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AGGREGATE VS. DISAGGREGATE FORECAST: CASE OF HONG KONG

Shui-Ki Wan

Hong Kong Baptist University, Hong Kong

Shin-Huei Wang

National Tsing Hua University, Taiwan, CORE & CEREFIM, FUNDP,
Academie Louvain, Belgium

Chi-Keung Woo

Hong Kong Baptist University, Hong Kong

INTRODUCTION

Accurate forecasts of total tourist arrivals (TTA) are critical for the tourism industry as they are the basis for scheduling and planning by tourist service providers (e.g., hotel operators and airlines), investments by developers of tourist facilities (e.g., hotels and theme parks), and infrastructure development (e.g., airports and ports), as well as tourism policy formulation by the government (e.g., tax incentives and tourism promotion). Hong Kong is no exception. The data series of 113 monthly observations shown in Figure 1, which exhibit seasonality, allow an aggregate forecast of Hong Kong's TTA to be made using the seasonal autoregressive integrated moving average (SARIMA) model (Box & Jenkins, 1976). Compared to the seasonal moving average and Holt Winters models, the SARIMA model is more general and has a lower root mean square error (RMSE) and better forecast performance.