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Contents

A Note from the Editor

It has been my pleasure to serve as the editor of the *Journal of Interpretation Research* since 2004. I have worked with hundreds of practitioners, managers, and researchers to help advance both the science and the practice of interpretation. There is no aspect of our tribe more important for our future than the continued development of the profession through rigorous systematic examination and disseminating that research back into the field. This is the role of the *Journal of Interpretation Research*, and it has been an honor to help preserve its place in our world.

I can't thank you enough for helping continue the tradition of the *Journal of Interpretation Research* and ensuring its role in advancing the practice, management, and evaluation of interpretation. Thank you to all the managers, public land agencies, and park leaders for allowing research to be conducted at your sites. Thank you for embracing critical examination regardless of the outcomes demonstrated. Thank you to all the scientists and researchers for conducting forward-thinking research and doing the hard work to conduct rigorous evaluation. You are the backbone of the advancements of our field. To the team of people who take over once the manuscript is submitted, including associate editors, advisory board members, NAI staff, countless reviewers, and numerous editorial assistants, *thank you!* Although your names never appear on the articles, your work and commitment to the field makes every research paper possible. And finally to all those giants who came before me, those upon whose shoulders I stood—thank you.

After 16 years serving as your editor for the *Journal*, it is time to pass the torch of leadership. I am happy to announce that Marc Stern and Bob Powell will be assuming the co-editor roles starting with the next issue. Bob Powell is the director of the Institute for Parks at Clemson University and the George B. Hartzog, Jr., Endowed Professor in Philosophy, Parks, and Environmental Ethics in the Department of Parks, Recreation, and Tourism Management. His research and outreach program focuses on park and protected area management, ecotourism, interpretation, and environmental education. Marc J. Stern is a professor in the Department of Forest Resources and Environmental Conservation at Virginia Tech, where he teaches undergraduate courses in Environmental Education and Environmental Interpretation and graduate courses in Social Science Research Methods and Sustainability. His research focuses on human behavior within the contexts of environmental conflicts, natural resources planning and management, and environmental education and communication.

Each has published over 60 peer-reviewed journal articles in top academic journals, and Stern has recently published a book with the Oxford University Press titled *Social Science Theory for Environmental Sustainability: A Practical Guide*. Together, Powell and Stern have been conducting research for years on the programmatic and pedagogical characteristics of interpretive and environmental education programs that are most consistently linked to more positive outcomes for program attendees in a wide range of contexts.

Please make Bob and Marc feel welcome in their new roles, and I look forward to the continued developments in the field through the *Journal of Interpretation Research*.

—C

RESEARCH

More than Just a Crash of Rhinos
A Self-Study of My Time as a Wildlife Interpreter

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Abstract
This study seeks to fill a gap in research on interpretation by using my experience as an interpretive guide to critically examine the goals of interpretation and the use of the best practices of interpretation. In particular, this study examines conflicts that arose between my own goals, the goals of the visitor, and the goals of the institution. I utilized self-study methodology including conversations with critical friends, journal entries, visitor evaluations, a literature review, and a review of video data of my own tours. Qualitative analysis of the data triangulated evidence from these sources to find emergent themes. The paper also discusses the growth that occurred in my own teaching as I struggled with utilizing the best practices of interpretation. I investigated two main areas—the goals of interpretation and the types of practices used to achieve these goals. Themes that arose included tensions with the establishment I worked for, tensions with the perceived goals of visitors, as well as struggles with the use of humor, personal connections, and silence. Findings from the study suggest a need for greater communication about goals and practices within informal and free-choice learning institutions. Implications for using self-study as a tool for improving interpretation are discussed.

Keywords
self-study, interpretation, free-choice education, wildlife education

All over the country free-choice and informal learning institutions have interpreters interacting with visitors on the front lines as teachers, entertainers, and ambassadors for their organization. These establishments, which include diverse venues such as zoos, museums, and aquariums, often have their own ideas on what makes a "great" interpreter. Perhaps it is someone able to effectively entertain the visitor, someone who successfully teaches the key concepts of their mission statement, or someone who inspires visitors to take action (Beck & Cable, 2011). Others assert that there are also certain factors specific to individuals that make them great at their job such as confidence, content knowledge, or public speaking ability (Stern & Powell, 2013). Particularly for free-choice institutions, which are distinct from formal and informal learning establishments in that the visitor chooses whether or not to come (and how spend their money), it is important to utilize best practices of interpretation that not only serve the mission but also serve the needs of the visitor.

To date, these sorts of claims regarding the best practices of interpretation have often been asserted from an "outside" perspective by utilizing visitor questionnaires and experimental treatment groups to determine the desired qualities among interpreters. While useful, these studies fail to account for the real, lived experiences of interpreters. Ethnographic and qualitative research is lacking in the field of interpretation, particularly those using self-study methodology. Self-study benefits the field by providing a look inside the actual practice of interpretation and providing useful data for improving our teaching methods and training employees at free-choice and informal education centers. Self-study requires rigorous analysis of one's own practice that involves actively challenging deeply held assumptions. I argue that although self-study is not often used within the field of interpretation, this method will not only help researchers learn more about the act of interpretation but aid in creating more reflective practitioners that seek to improve their craft.

This study seeks to fill this gap in the literature by focusing on my time as an interpretive guide at a free-choice wildlife education center. My job at this institution was to provide interpretive tours aboard a "safari" type excursion while providing interpretation of the animal species and conservation topics. The self-study consisted of conversations with critical friends, journal entries, visitor evaluations, a literature review, and a review of video data of my own tours. In particular, this study examines the conflict between my own goals as a doctoral student in science education, the goals of the visitor, and the goals of the institution I was working for. The paper also explores many of the struggles I had in utilizing the best practices of interpretation and the growth that occurred in my own teaching as a result of this study. I end with implications for organizations and individuals that practice interpretation and discuss how self-study can be used as a method for practitioners to analyze and critique their work as interpreters and educators.

Review of Relevant Literature

I begin this self-study with a brief review of literature on interpretation meant to shed light on some of the most common purposes of interpretation as well as the best practices of interpretation as supported by theory and empirical evidence. The review consists both of empirical studies and professional development literature that provide a wide base of support for some key pedagogical and personal attributes of quality interpreters. The background is provided here to illustrate the qualities of interpretation that I used as a reference in this study to compare my own practice to widely held "best practices" and is organized to set up my two main research focuses: the goals/purpose of interpretation and the best practices of interpretation.

Purpose of Interpretation

No review of interpretation would be complete without mentioning Freeman Tilden. Tilden defines interpretation as: "the work of revealing, to such visitors as desire the service, something of the beauty and wonder, the inspiration and spiritual meaning that lie behind what the visitor can with his senses perceive" (Tilden, 1957). Modern definitions have not changed much with Beck and Cable (2011) defining interpretation as "an informational and inspirational process meant to elicit a response from the audience including wonder, inspiration, and action."

Specific to wildlife education facilities such as zoos, aquariums, and national parks, the goals of interpretation for these organizations often align with the broader goals of the field of environmental education. The most basic definition of environmental education was proposed by the Tbilisi Declaration (UNESCO-UNEP, 1978) which states that the purpose of environmental education is to develop among citizens a combination of content knowledge as well as the skills, attitudes, and motivation needed to take responsible environmental action. Similarly, Falk, and Heimlich (2009) assert that behavior change should be the major goal and outcome of free-choice environmental education. In particular, most wildlife education centers have conservation, protection, or preservation of species as their primary mission (Merriman & Brochu, 2009). We know from the business world that mission statements are extremely important in focusing the activities of an organization (Pearce & David, 1987). As an interpreter, an understanding of one's mission is important because most wildlife facilities now include education about conservation as a key means of achieving this mission (Falk et al., 2007).

Best Practices of Interpretation

Many books and articles have been written on the best practices of interpretation. These often take the form of lists of strategies for improving the learning of visitors. Tilden's (1957) six principles are still the most widely cited and used of such lists. Tilden's principles illustrate the importance of relating to the visitor and creating a cohesive story. His use of words such as "revelation" and "provocation" define interpretation as an art form rather than simply a transmission of information.

In a more modern theoretical piece, Larry Beck and Ted Cable (2011) listed 15 principles of interpretation, but upon close examination, their list does not stray far from Tilden's original six. Common elements of these works include relating to the participant, utilizing passion and inspiration in speaking, developing a cohesive theme, and using different techniques for different audiences. Once again we see words such as "intentional," "thoughtful," and "inspire." The National Association for Interpretation (2009) emphasizes that interpreters need to use passion and enthusiasm to facilitate a connection between the interests of visitor and meanings of the resource (National Association for Interpretation, 2009). Additionally, studies from broader fields of education and psychology suggest internal states such as intrinsic motivation for tasks and self-confidence are equally if not more important for successful interpretation than these extrinsic behaviors (Ryan & Deci, 2000).

Empirical Studies. While these lists are handy, perhaps more convincing are studies that back up these principles with empirical research. One such quantitative study by Stern and Powell (2013) sought to determine the characteristics of interpreters most associated with positive visitor outcomes by utilizing ranking to examine correlations between interpreter/program characteristics and three outcomes: visitor satisfaction, visitor experience/appreciation, and intention to change behavior. In general, the visitor outcomes were affected as much by the characteristics of the interpreter as the use of the aforementioned "best practices" of interpretation. Interpreter and program characteristics that correlated with positive visitor outcomes included: the confidence of the interpreter, authentic emotion and charisma, appropriateness for the audience, thematic organization, personal connections with guests, humor quality, consistency, a clear message, responsiveness, and multisensory engagement. Those that detracted from visitor outcomes included making false assumptions about the audience and an overly formal tone (Stern & Powell, 2013).

Interestingly, interpreters who expressed that a primary goal of their program was to increase the knowledge of the audience about their program's topic had lower visitor experience/appreciation scores than those aiming to change their audience's attitudes, appreciation, understanding, or desire to learn. Additionally, programs where the interpreter explicitly targeted behavior change as an intended outcome were more successful at doing so. This aligns with behavioral theory that interpretation shouldn't be expected to change behavior unless that behavior is explicitly targeted (Stern & Powell, 2013).

A similar study by Stern et al. (2013) correlated more subjective and qualitative assessments of quality of guides with the same visitor outcomes discussed in the previous study. Some of the qualitative traits that seemed to most influence the visitor outcomes included the comfort of the interpreter (using a conversational tone), their apparent knowledge, eloquence, passion, charisma, humor, responsiveness, introduction quality, appropriate sequence, transitions, telling a holistic story, having a clear theme, and linking the introduction to the conclusion. These qualitative findings were very similar to the quantitative findings above but also provided specific examples of each of the qualities and best practices. For instance, the authors found that the most effective type of humor was the interpreter's ability to poke fun at things rather than just using corny jokes (Stern et al., 2013).

Other similar studies that correlate best practices and visitor outcomes (both enjoyment and behavior change) in a quantitative manner reiterate these same themes. Skibins, Powell, and Stern (2012) found that best practices with the most influence on guests were: actively engaging the audience, tailoring to the audience, affective persuasive messaging, and demonstrating how to take action. Visscher, Snider, and Stoep (2009) found that interpretive scripts that included stories resulted in higher visitor outcomes compared to interpretive scripts that were only facts-based. Knapp and Benton (2004) undertook multiple case studies of interpretive programs in national parks and found that programs that related to the visitor and used innovative teaching techniques were most successful. Means of relating to the visitor included reading the audience and connecting to their prior knowledge while innovative techniques include avoiding didactic techniques, promoting interaction, and encouraging critical thinking via more constructivist teaching techniques (Knapp & Benton, 2004). Finally, Grenier (2011) examined docents considered to be experts and looked at the characteristics that set them apart. These included: extensive subject matter knowledge, utilizing prior experiences, adaptability, enthusiasm and commitment, and a sense of humor. The best docents integrated their past experience to learn how to do their job better and adapt to change (Grenier, 2011).

All of these studies point to many similar characteristics of effective interpreters. In particular, connecting to the audience, confidence of the interpreter, and clear organization emerged as front-runners. But it should be mentioned that visitors often have a bias toward ranking their satisfaction for interpretation as very high perhaps because of sympathy toward the interpreter and the differences in these studies represent more of a "good" to "better" scale rather than good versus bad (Stern & Powell, 2013).

Purpose of the Study

The purpose of this study was to critically examine my own role as an interpreter in order to uncover realistic realizations of the "best practices" of interpretation from an insider's perspective. It is hoped that by empirically exploring my own experiences, the findings will be applicable to other interpreters looking to improve their practice. The study was guided by two broad research questions:

1) What sorts of goals and motivations guide the work of interpreters when assessed from an inside perspective? How do these goals relate to the goals of institutions, visitors, and the field of wildlife education?

2) Which interpretive practices and skills emerge as the most successful in achieving these goals and how do they relate to literature regarding the best practices of interpretation?

Methods

A self-study methodology was selected in order to provide a much-needed "insider" view of interpretation. While many of the studies included in the literature review above contained qualitative components, these were the exception rather than the rule. Most research and evaluation in interpretation still focuses on surveys of visitor outcomes and pre-post tests (Hunter, 2012). Self-study fits well within the field of free-choice education research and its shift to constructivist paradigms. Modern researchers largely agree that visitors to free-choice institutions create meaning within their own personal, social, and physical contexts (Falk & Dierking, 2013). In a similar manner, self-study methodology can help practitioners explore their own conceptions of interpretation as it relates to the context of their work and motivations. Additionally, the rich description of the internal states of the researcher allows readers to better understand the ways that free-choice educators construct their own meaning of their work.

Specifically, self-study may fill in some gaps in the literature regarding interpretation by providing a systematic look at interpretation from an insider's perspective. Self-study is defined by Dinkelman (2003) as an intentional and systematic inquiry into one's own practice. The insider's perspective provides the researcher with a unique perspective of special sensitivity and a shared understanding of the subject matter. Although the insider's perspective is susceptible to bias, this may be countered by the access to information that an outsider would not have and the shift away from the dominant researcher-subject relationship present in more traditional ethnographic studies (Rabe, 2003). Key features of self-study as defined by LaBoskey (2004) are that it is self-initiated, improvement-aimed, and interactive. Self-study is more than simply reflecting on ones practice because it requires response with action and includes actively challenging one's assumptions (LaBoskey, 2004). It is also argued that self-study advances knowledge about the field because those actually engaged in a profession are in the best position to study and improve upon the practice of that profession (LaBoskey, 2004; Rabe, 2003). The reflective aspects of self-study are particularly important for practitioners to be able to apply a critical look at their craft with the eye of a researcher trying to discover what works and what does not work in practice. The goals of self-study are to answer questions that are applicable to the broader field of education and offer fresh perspectives on established truths (Bollough & Pinneger, 2001).

While sharing some commonalities with research methods such as ethnography and auto ethnography, self-study is unique in that the former methods seek to form a rich, thick description of the subject in order to understand experience (Hamilton, Smith, & Worthington, 2008). The purpose of this self-study, rather, is to treat the self as a research subject by looking for patterns and commonalities that may be applied to practice. The researcher seeks to identify discrepancies between intention and action and get to the bottom of the cause of these discrepancies (LaBoskey, 2004). As such, the self-study incorporates interactions with others as a means of challenging one's own thinking. These interactions with others increase the trustworthiness of the data by helping to address the bias that may be present in analyzing one's own practice.

Context

This study took place over 11 weeks at a wildlife education center during which I was employed as an interpretive guide at the park. The center is a large conservation park in a rural area that houses animals in large open habitats. The animals housed at the center include rare and endangered species which are being conserved through captive breeding programs and research. In addition to their work with animals, the center also works with restoring and maintaining ecological function to their landscape. My job at the park was to drive passengers through the park while providing an interpretive tour to the general public. Up to 32 people may take the tour at a time and my task was to provide guests with information about the animal species and about conservation in general during the two-and-a-half-hour tour. Guides at the facility are provided training by shadowing experienced interpreters and provided with a packet of information about the main topics that should be covered, but the tour itself is largely created by the individual interpreter and may vary greatly among the staff. As a conservation park, there is an expectation among guests to receive some educational components on their tour, but the majority of guests attending the facility were families with children wishing to experience a "fun" day out.

It should be noted that I had worked at this facility for four summers prior to conducting this study. Over these four years I gained an understanding of the vocabulary and common practices utilized in the field of interpretation that put me in a unique position to delve into deeper questions regarding my own practice. However, this does point to a limitation of the study that it does not examine many of the common concerns of beginning interpreters such as fears of public speaking or the initial development of narrative. Instead, as a result of my experience, my concern was with reconciling the goals of interpretation with my actual practice.

Data collection and Sources

The primary data sources for this study were a written personal journal, visitor surveys, video recordings of my tour, and multiple critical friend meetings. In line with the broader theory of self-study, the use of multiple data sources work to triangulate the evidence for finding patterns in goals and practices. For example, rather than focusing on strict quantitative analysis of the survey, the results of the survey were used as a tool to qualitatively compare my perception of my practice with what was actually taking place and the visitors' perceptions. Meetings with critical friends provided points of reflection that helped to address underlying bias and push my understandings of the patterns that were emerging from the other data sources. Each of these data sources is discussed in more detail below.

Journal. Throughout the course of the study, I kept a personal journal after each day of touring. The journal included my own thoughts and reactions to the tours I gave, my interactions with guests, and other situations I encountered that seemed relevant. In each entry I reflected on things I did well as well as areas for improvement.

Survey. In order to examine the outcomes of my tour and how my visitors perceived my tours, I created a survey that assessed visitor's satisfaction with the tour and included open space to elaborate on what they learned from the tour. I included many questions related to how well they believed I achieved certain "best practices" (such as relating to their daily lives, content knowledge, passion) in order to compare my own thoughts about the tours to what guests were perceiving of me. I also asked visitors to rank how important many of these best practices were to them (for example, how important was humor to them on the tour). All of these rankings were Likert scales from 1 to 4 (not at all important to very important) with the exception of satisfaction from 1 to 10 (not at all satisfied to very satisfied). Sixty-nine surveys were collected from visitors at the end of 13 tours over the duration of the study. These surveys helped to triangulate findings from my journal and recordings by comparing my own perceptions with those of the visitor.

Video Recordings. At three points during the summer, I video-recorded my tours. I did this by asking three children between the ages of six and 12, two females and one male, to wear a GoPro camera strapped to their chest. This technique was chosen due to quality of recording (good audio and visual are gained from GoPro cameras) and the ability to capture some subset of guests' real-time responses to my tours (Burris, 2017). The age range was chosen based on prior experience that families are more amenable to their children wearing cameras rather than the adult (Burris, 2017). The use of first-person recordings also connects well with the self-study methodology by providing the insider perspective of the visitor and their meaning making during the tour. The videos were used to create a transcription by hand of my "typical" tour as well as examine the real-time responses of a few visitors.

Critical Friend Meetings. Critical friends are a technique gaining prominence in the field of education for use in action research and professional development (Costa & Kallick, 1993). This method helps to provoke the researcher to look at the data through another lens and is important to the self-study methodology to help the researcher address their own biases. The purpose of critical friends is to clarify ideas and push the

Open-Coding Categories and Sub-Categories

Category	Sub-Category
Successful use of best practices	Changing tour to fit audience Using a central theme Connecting to prior experience Confidence Humor
Struggling with best practices	Inconsistent theme Conversation talk sounds forced Tour doesn't provoke action Tour doesn't connect to personal experience Low cultural competence Too boring Lacking constructivist pedagogy Linking guests with place Dealing with "bad" guests
Goals (of visitors)	Have a good time Learn discrete animal facts
Goals (of mine)	What the institution does for conservation How guests can help with conservation Amazement/connection to facility and animals
Growth	Improvement of tours to school group Increased focus on native habitat projects Improved focus on conservation Explicit statement of goals to visitors More discussion oriented and space for interaction Using humor to advance theme Focus on uniqueness of facility

Table 1

researcher to examine their thoughts from new perspectives. The first critical friend was a fellow graduate student, Kelly (pseudonyms are used in all cases) also studying science education at my university. I chose this critical friend because I believed she would have knowledge of the pedagogy we are being taught in graduate school but also because she had prior experience teaching in informal settings. Our meeting consisted talking through some of the stumbling blocks and issues I had been finding in my first month returning to touring as well as my struggle with defining the goal of my tours. The second "critical friend" meeting was with two coworkers, Leslie and Rachel. In this meeting I sought to learn more about what methods my coworkers used to work through some of the issues I had been having and if they had any suggestions. The conservation also enlightened me to other issues that my coworkers were facing that I may not have thought of.

Data Analysis
Open coding was used to break down my journal entries and critical friend conversations to look for patterns in the thoughts/ideas articulated. As I counted and tallied my references to certain topics or ideas, these were compiled into sub-categories which were then grouped together as themes and examined for alignment with the two broad research goals. Because the codes were created and combined in a movement toward creating hypotheses regarding my own thoughts, the method most resembled constant comparison (Glaser & Strauss, 1967). The categories and subcategories are illustrated in Table 1.

Videos and tour transcripts were also coded in a grounded theory technique (Merriam, 2009) and analyzed in alignment with these broad categories: successful uses of best practices (fielding questions appropriately, using humor, theme development) and struggles with best practices (poor pacing/transitions, filler words, and portions that were too didactic). Any interactions that guests had with the tour were noted. The most frequent types of interactions among guests were: connecting the material to prior experience, exhibiting curiosity about an animal, answering a question I posed, restating something I said in different words, directly asking me a question, and affective statements of "liking" a certain animal. This process of open coding was emergent and new categories were created as new themes emerged (Glaser & Strause, 1967).

Trustworthiness
This study falls within a qualitative and constructivist framework and thus follows standards for credibility as discussed by Lincoln & Guba (1985). The internal validity of the research is inherent in the level of critical self-reflection and descriptions of my own world views and orientations. However, external sources of data were also included in the study to improve its reliability such as member checks with my critical friends and external review of the themes by my advisors (Merriam, 2009).

Findings

Throughout the study, a few main themes emerged. In accordance with self-study methodology, the most interesting themes were the ones that challenged my thinking regarding interpretation (LaBoskey, 2004). In particular I discuss the conflicts posed by my two overarching questions—what goals guide the work of interpreters? And what types of interpretive practices should be used to reach these goals? Each theme is supported with data from journal entries, critical friend meetings, video recordings, and visitor surveys. The nature of this data is focused on my own lived experience of what was happening in the moment. I conclude with a discussion on how I used my reflections on these themes and conflicts to improve my practice over the duration of the study.

Goals of Interpretation
In answering the first research question regarding the goals and motivations for interpretation, a few main themes arose: the conflict between my own goals and the goals of the institution, the tension between my goals and my perceived desires of visitors, and my own difficulties in executing these various goals during my tours.

Tension with the Establishment. The goals and purposes of my tours were a common point of reflection in my journals. Many times this manifested with my own frustration that my personal goals felt different from the ones proposed by the institution and the motivations I perceived that my visitors had for visiting.

My first frustration came upon hearing of a new mission of the institution. The old mission stated that the main goal of the institution was conservation while the new mission statement did not contain the word conservation and instead emphasized connecting guests with wildlife. Throughout the season I expressed my frustration that conservation was no longer a key component of the mission statement.

> Connecting people with animals is great … but conservation should be the number one goal of our facility! But now that word isn't even in the mission at all. (Journal Entry, 5/9/2016)

This came up in my discussions with my critical friends as well. In both informal and formal discussions with coworkers, all of us agreed that despite the change in wording of the mission, conservation was still the central focus on our tours. In fact, critical friend Rachel even indicated that she still recited the old mission as part of her tour.

This tension with the institution extended into my views on the training we received as interpretive guides. Multiple times in the summer I discussed with coworkers and friends that I believed that as guides we were trained to provide our guests with plentiful information about the animals, but information about conservation and conservation education were lacking. In particular, I asserted that the institution could benefit from an evaluation program—something that had not been done for the general public tour.

> Me: I believe the general public tour should be equally valuable if not more so than the education we offer at our camps. People should come away from our tours passionate about [the institution] and if we do our jobs right in that way, they will want to spend the money to help conservation like management wants them to. (Critical Friend Communication, 7/19/2016)

Upon further reflections I found that some of my frustrations and tensions with the goals of the institution may have stemmed from differences in ideology from my courses and experiences in my Ph.D. program. In particular, I had just taken a course on environmental education (EE) and resonated with the principles of behavioral change that are an integral to quality EE.

> Me: I talk about what we do … but I don't really show them how they can help.
>
> Kelly: Well, maybe making them aware of what [the institution] does can help them feel more connected. Awareness is step one.
>
> Me: I feel like that's just what zoos say to make themselves feel better.
>
> Kelly: Even just learning a fact about an animal may inspire them to learn more about the animal then they might share something about it on Facebook and this just begins a trajectory where they feel connected to want to protect the animal.
>
> Me: I guess that's true. But I feel like what we learned in class is that people don't naturally just do stuff with awareness only … you have to teach them how. (Critical Friend Meeting, 6/12/2016)

This conversation points to my frustration with the underlying goals of zoos to only increase awareness about animals. Instead, I felt that it was my (and the institution's) duty to provide visitors with concrete tools for taking action on behalf of conservation.

> Building connections with animals while entertaining them may ultimately build appreciation … but is that a just cop-out because it's easier to do than changing people's actions? It's a tough question because I guess in some ways the reason I am where I am today is because I went to zoos and developed a love of animals which started me on this path. (Journal Entry, 6/13/2016)

Despite the mission of the institution and my own admission that fostering an appreciation for animals is important, I was not completely satisfied with simply connecting people with wildlife. I felt that my underlying goals aligned better with those of environmental education—to provide visitors with the knowledge, motivation, and skills for taking responsible environmental action (UNESCO-UNEP, 1978). To me it was unclear if the institution's mission aligned with these goals or if they believed that our job was primarily providing visitors with opportunities to connect to our animals via informative tours. This sort of discussion was not initiated by management throughout my time working at this institution, but in the future I believe these sorts of conversations about goals and purpose would benefit both interpreters and management at zoos and other wildlife education facilities.

Tension with Visitors. Throughout this study, it was my perception that visitors were primarily concerned with having a good time and learning facts about animals, and this perception created a tension with my goals for conservation education. Based on the cost of the tour and the high proportion of families with children, it isn't unwarranted that guests would feel entitled to having an enjoyable experience. So the question becomes how to reconcile the visitor's need for entertainment with the mission of the institution for conservation without decreasing the value of the experience.

> One thing that is predictable is that most people just want to learn about quirky facts. I really don't know how to, 1. get through to them the more general stuff like conservation and adaptations, and, 2. get them to realize that counts as learning. (Journal Entry, 5/25/16)

In some respects my perception was supported with the data from the surveys. When I asked visitors to rank certain statements for how important they felt they were in a tour, "facts about animals" had the highest average ranking for importance to visitors while the average for "what I can do for conservation" was considerably lower and often ranked as not important.

These views were further complicated by my own misconceptions that talking about conservation was inherently at conflict with my guests "having a good time."

> I guess really my purpose has always just been for my guests to have a good time and feel like they learned something. Ultimately I don't have any misgivings that my tour is actually going to lead them to change their behavior. Which may be why people don't report they are going to change their behavior

> on the surveys. If I don't believe I can get them to change, why would they believe it? But is it my place to even try? For one, everyone hates when they feel like they are being preached at. And if they feel uncomfortable that takes away from their enjoyment of the experience and probably any learning they would come out with…. Is it so wrong I just want my guests to have a good time? Maybe it's enough for them to leave with a positive view of [the institution] and our mission. (Journal Entry, 6/8/2016)

At that time I believed my goals for behavior change and conservation education conflicted with my ambition for my guests to leave the institution feeling like they had a good time. As a free-choice institution dependent on revenue from admissions, the importance of visitor satisfaction should not be ignored. But I found that my early conceptions about conservation education being incompatible with entertainment were flawed. As the summer progressed, I began to use different techniques to mediate my discomfort in conservation talk being "too preachy." These will be discussed in the next section.

Best Practices of Interpretation

Right off the bat, I felt that the best practices of interpretation resonated well with my goals and the implementation my tours. After four years of guiding, I had a high level of confidence in my tours. I felt that I connected well with my guests and that most of my guests left having had a good time. In surveys distributed after my tours, every guest ranked their satisfaction as an 8 or higher with the average a 9.8 on a scale of 1 to 10. The most commonly used word to describe their tour guide (me) in the comments section of the survey was "knowledgeable" followed by "entertaining," "friendly," and "confident." One typical response: "She was great, fun, and descriptive. [She] is awesome!" (Survey response, 6/4/2016)

If my primary goal was visitor satisfaction, then for the most part I was achieving it. However, I still wasn't completely satisfied with the tours I was putting out. Most of my unease stemmed from my underlying goals as discussed in the previous section. Was I really doing all I could do to get my visitors to connect with the theme of conservation? With this overarching question in mind, my struggles with the best practices of interpretation were enacted in three themes: struggles with thematic development/story telling, difficulty making personal connections, and discomfort in using constructivist pedagogy.

Thematic Development: Conservation versus Humor. It was clear from the beginning of the study that my main goal and theme for my tours had to be conservation. Despite the mission change, the institution is still considered a conservation facility and the information we were given in our manuals about the animals includes how the animals are being conserved at the facility and in the wild. As was made clear in the prior section, my primary goal was to provoke visitors to feel connected to the institution after their tour in such a way that they would be compelled to take action for conservation. In examining the transcript of my tour, I was doing a decent job of articulating this theme/purpose toward the beginning of my tour but my mentions of conservation became much less frequent toward the end of my tour.

Most of my tours at the beginning of the summer included the following line as we entered the animal enclosures: "Each and every animal is here for a purpose for conservation and it's my job to talk to you about that." However, this was precluded by a safety speech and a discussion about the history of the institution rather than being stated at the very beginning to frame the rest of the tour.

As my early tours continued, they quickly became dominated by my "really bad jokes." These were three jokes that I emphasized in a "self-deprecating" way. For example: "Time for another of my really bad jokes: Why can't we play monopoly here? Because we have too many cheetahs!" At the beginning of the season I always ended my tour with the culmination of these jokes: "Here's a joke I'm really proud of because I wrote it myself—you better laugh at it! Why do we have so many traffic jams? Because we have a big 'crash' of rhinos.'" This joke was followed by jibes at the visitors that the joke was just to test that they had been paying attention earlier when I told them a group of rhinos was called a crash.

At this point in the season, despite the fact that I was giving out solid information about our conservation programs throughout the tour, the underlying theme of the tour was being overshadowed by the corny jokes. Furthermore, in examining the surveys, this progression of jokes seemed to result in a large number of guests writing down that they learned "a group of rhinos is called a crash" in the open-ended section of the questionnaire (15 out of 43 answers). Additionally over half of guests wrote down some stand-alone fact about animals as what they learned during their tour, many of these being featured in one of my jokes.

> I feel like with all my jokes and sarcasm I'm just making my tours into more of that attraction/theme park thing … which is exactly what I said I don't want these places to be. But I do want people to like me. (Journal Entry, 6/15/2016).

> They only remember the stuff that is incorporated in jokes. I guess I just need to make more jokes where the punchline is conservation. (Critical Friend Meeting, 6/12/2016)

Clearly I was concerned not only with making the tour enjoyable for visitors, but also the simple element of human nature to want to be liked by others. I feared that too much conservation may result in a bad taste in the visitors' mouths. Therefore, I had to be thoughtful in how I changed my discussions of conservation by subtly shifting the organization of my tour. The first step was to improve my wrap-up speech in order to tie in the conservation theme. I did this by emphasizing the goal of my tour after the final joke about rhino crashes in the following line: "But more than the fact that I hope you learned a group of rhinos is a crash, I hope that you learned something about what we do for conservation." The first day I added this line was also the first day that someone wrote that they "learned about conservation" on their survey.

> My coworkers had a few suggestions for staying on the conservation theme, many of which focused on using humor to support conservation rather than simply being silly.
>
> Me: I just find that whenever I talk about conservation it comes off as boring.
>
> Leslie: Ask them questions to get engaged with conservation in particular.
>
> Rachel: Reward them for what they already do for conservation.

> Me: What I need is a joke about conservation, because I'm a pretty hilarious person in general … this just gets turned off whenever conservation comes up.
>
> Rachel: Nine out of 10 wetlands have disappeared … hold up 10 fingers. Okay, now drop nine of them. How many are left? One. And what can you do with one finger? Well just about nothing except pick your nose. (Critical Friend Meeting, 6/15/2016)

In addition to providing some examples of using humor to advance conservation messages, Rachel also suggested emphasizing how unique the institution is throughout the tour. While I had been mentioning conservation, I hadn't really been accentuating how special the place was to the practice of conservation. Thus, I made it my goal to tell guests a story where the institution was the main character and conservation was the theme. By the end of the season I felt like I had made strides toward this goal with a more in-depth discussion of conservation centers for species survival throughout the tour and emphasizing in my closing speech the number of programs done at the institution for conservation.

Personal Connections: How much is enough? One of the most frequently cited best practices in literature is to relate content to the lives of the visitor. Throughout the study I attempted to do this in small ways although I found this to be easier with school groups compared to the general public. Perhaps this was because of my experiences with teaching elementary students as part of my Ph.D. program and knowledge of the topics they were learning in school.

> Today I started the tour by asking them what they already knew about animals with prompts like adaptations and habitat but I think I'd like to try to focus more on the connecting to previous knowledge as I continue on. Today it was just as simple as asking them about the kangaroo exhibit at the zoo to explain the salli-port and the kids remembered that the fences were "to keep the animals from getting into the parking lot" … too funny. (Journal Entry, 5/16/2016)

Despite these successes with school groups, I felt that my feeble attempts at relating to the visitor on my general tours were somewhat weak. For example, I compared the separation of animals between the enclosure as similar to brothers and sisters needing their own room. I also contrasted the cheetah's claws to those of house cats.

My feeling of low efficacy for achieving personal connections with visitors was further supported by the surveys. The statement, "the material discussed by my tour guide related to my everyday life" was the lowest ranked item on the survey and this was a frustration of mine throughout the study.

> And relating it more to them and their daily lives, that's still lacking. Which stinks because it's the number one best practice of interpretation, I just have no idea how to do it. Especially since these are rare and endangered animals … I feel like there shouldn't have to be a connection to their daily life for them to care about animals! (Journal Entry, 7/21/16)

Even so, it appeared that guests were relating some of the material to their daily lives without my intervention, as evidenced by the videos of my tour. For example, the focal families would often reference prior experiences or other personal attributes:

> Me: Their horns can get up to four feet long!
>
> Child (to parent): That's as tall as me … that's cool! (Video Recording, 6/9/2016)

But are these self-initiated attempts to connect the material to their daily lives enough? Or should I be doing more to nudge them in this direction? This is a question I don't think I ever quite reconciled over the summer, but my attempts at making my tours more discussion-based may have helped. Similarly, I believe that giving guests specific examples of what they could do in their daily life for conservation could be a good start, but throughout the summer I struggled to think of ideas that did not come off as cliché.

> I think the one thing that is still lacking is the "What can you do for conservation?" and "Let me show you how," partially because I don't know what to tell them. (Journal Entry, 7/21/2016)
>
> Me: Like, they already know recycling … that's been shoved down their throats forever. And if I just list off things they can do, that's still pretty preachy and impersonal.
>
> Rachel: You just have to mention conservation along the way. Embed it subtly in everything. (Critical Friend Meeting, 6/15/2016)

Rachel also suggested rewarding them for what they already do as a means of connecting to them because people want to feel good about themselves. And it would still get them talking about conservation.

In sum, to reach the goal of connecting to the lives of visitors, I felt that given more time I could have restructured the whole tour and embedded more prompts for people to think of their own ways the material relates to them. In other words, my suggestion would be to encourage guests with the connections they are already making as they recall prior experiences with their families and reward them for making connections specific to conservation.

Constructivism: Fear of Silence. Finally, a few concerning factors of my tour became apparent after watching the video recordings. First, while I had been proud of the strides I had made compared to my first year in terms of making my tours more interactive, I found that most of my instances of "interactive" actually consisted of asking a bunch of rhetorical or trivia questions. For example: "Do you guys know what the camel stores in its humps?" or "Do you know how many neck bones a giraffe has?" While these did spark some interactivity in guests (many of the focal children proudly answered these questions to their parents or to me), they are shallow at best and do not relate to the central theme of conservation.

Additionally, I observed that many children on my tours were burnt out and restless by the end of the tour. This was particularly true when the animals were not very close to the bus and led to frustration that I had to carry the burden of being entertaining when the animals failed to do so.

> Not the best tours today. Some of the kids were like "I'm bored" which is super discouraging and one asked me how much time was left and that made me sad but I don't really know what else I can do to make it better because I do my song and dance and the jokes but if the animals aren't there, they aren't there … it's just not hands-on and kids need the stimulation. (Journal Entry, 6/21/2016)

These realizations were met with more confusion and fear of opening my tour up to deeper conservation-focused discussion.

> Starting to realize my tour is a lot more talking at them than talking with them … but it's really hard. How to make it more constructivist??? Especially if the people don't want to talk to you. Is just asking them questions they don't have the answer to enough? I'm probably scared to lead a real meaningful discussion … like most teachers out there... Meaningful discussions are scary! You don't know where they are going to go. Maybe I'll give it a shot sometime. It's really hard when you are rushed tho … because you have to either drive and talk and if you are stopped it's usually by an animal and they want you to talk about it. (Journal Entry, 7/6/2016)

Clearly there was a fear of the direction that my tour might take if I opened it up to real meaningful discussion, particularly within the constraints of a two-hour, 30-minute time limit. Once again, the surveys supported this lack of minds-on learning since the statement, "My tour guide challenged me to think," was consistently second lowest in agreement, just edging out the item about making connection to their daily life. Recalling from the literature on best practices that "mind-on" learning should be the goal, this prompted me to make some changes to my tour.

In one of my final tours of the summer, I tried to incorporate many of the components I had identified to make my tour better align with my goals. The main component I was going to try out was trying to have real discussions about conservation. I also tried to make it more interactive by incorporating a semi-hands-on activity throughout the tour.

> Well, I tried the best I could. I started the tour with open discussion on what conservation means. People were fairly involved in that. I even did it before the safety talk. Then I handed out brochures and told them to make sure they checked next to the animal every time they found a baby—because that is what conservation success looks like for wildlife. So the whole theme was about conservation and I think I succeeded at that. I tried to make it more discussion rather than just rhetorical questions. A good example was when I didn't just ask them what a camel uses its humps for but I opened it up and asked people to think about what traits a camel uses to survive in the desert. Most of the kids and some adults got involved. I even did the "pick your nose" conservation joke. (Journal Entry, 7/21/2016)

At this point in my tenure as a guide, I no longer felt any anxiety before my tours, but I was pretty anxious before this particular tour. I think this was partly to do with moving away from the auto-pilot speech and making myself vulnerable to the ideas of my guests. However, I found that one way to overcome this fear was just to treat "talking about conservation" as my new "shtick" instead of it being the jokes. I still told jokes, but they were better incorporated into the tour.

> I think once you get into character that you are going to be serious about conservation it's not as hard as I thought. And you can still make jokes and stuff, I think they still generally had a good time. Anyway, I felt proud of today's tour. (Journal Entry, 7/21/2016)

I was most proud out of my tour when I was able to successfully represent how unique the institution is and emphasize how each animal fits into the bigger picture of conservation. And I felt most successful at doing this when I was able to open up to visitors and really get their thoughts about what conservation means and check for their understanding of the concepts. Adding in a more interactive element did seem to help the kids from getting bored so this may be an area worth developing for future tours at the institution.

Discussion

From my first day on the job over six years ago, the quality of my tours has changed tremendously. Starting off as a new guide, I was overwhelmed with learning the content, learning to drive the bus, and watching out for the safety of guests. As such, the sorts of insights I present in this paper represent many years of reflection and growth after these initial hurdles are overcome. However, despite the obstacles of entering into a new interpretive position, I believe my experience speaks towards the types of discussions that could reasonably be incorporated throughout the development of free-choice and informal educators. The implications of the study are discussed in relation to the major stakeholders in the field.

Implications for free-choice learning institutions include improving communication with and training of staff. Most notably, my journal entries and conversations expressed my frustration that the institution wasn't providing me with a clear indication of what they wanted to be the goal of their education program. I would suggest that the mission and goals of interpretive tours should ideally be mediated between the front-line workers and the wider institution. More open communication and reflective evaluation practices could improve this. The self-study opened my eyes to the importance of a clear mission that permeates day to day business of the organization. National Association for Interpretation (2009) recommends that a mission statement be present in every aspect of interpretation. When this isn't the case, guides are often left confused about what aspects they really should be focusing on. This is a common problem for organizations (Merriman & Brochu, 2009), particularly for young organizations or those with high financial burdens that necessitate additional sources of revenue that may stray from the mission. The findings of this study are not meant to criticize the mission of the institution I was working for in any respect but only to offer insights into how the mission is perceived from an inside perspective and propose ideas for improvement.

Assuming the institution has changing the behavior of its guests as part of its goals, this fundamentally changes training that should be used. We know from behavioral change research that awareness of environmental issues is not enough to get people to take environmental action (Heimlich & Falk, 2009). To do so, people must be provided with tools to take action and they must be empowered to believe their actions can make a difference (Ardoin, 2009). This requires advanced planning and clear statements of goals for the tour as well as explicitly targeting these behavioral change goals during the interpretation itself (Merriman & Brochu, 2009).

This is not always easy to do when the institution is also concerned with ensuring that their guests have an enjoyable visit and will want to return in the future. As illustrated by the results of my survey and the evolution of the script of my tour, strategies for mediating entertainment with conservation education should be a part of interpretive training. More detailed study should be done to specifically tease out the aspects of interpretation that visitors enjoy most and how these relate to the goals of the interpreter. This may be a difficult endeavor since it likely that satisfaction surveys (such as the one used in this study) are subject to social desirability bias that would cause them to rate their satisfaction as higher than it actually was (Crown & Marlowe, 1960).

The institution that I worked for allowed for a large amount of autonomy on the part of the interpretive guide. I believe this can be a positive aspect that allows the personalities of the interpreters to come through and better connect with guests. However, this can result in inconsistencies and a muddling of the message. I believe that regular constructive evaluation of staff programs may be one way to bridge this gap by gaining direct insights from visitors for how interpretation is being received (National Association for Interpretation, 2009). Evaluations could pinpoint inconsistencies but in a manner that allowed the interpreter to see how their practice actually affects the visitors rather than the institution using a completely uniform script.

The results of this study also have implications for interpretive guides to work with their institution to improve their practice and connect with visitors. For example, interpretation with a clear theme and story will result in more people connecting with this theme and thus connecting with the institution. Other best practices such as clear communication, relating to the visitor's experience, humor, and discussion-based pedagogy also aid the visitor in making these connections. Similar to the development of pedagogy and content knowledge for classroom teachers, becoming an effective interpreter also takes time and practice and this can be enhanced with support from the organization as well as more focused practice on the part of the interpreter. For example, Bowling (2013) found that there were gaps in understanding and implementation of the best practices (interpreters used them about half of the time), but these differences were particularly striking between staff with academic training and/or prior work experience in education and those without. The author suggests that training in experiential and inquiry practices would probably help close this gap (Bowling, 2013). Additionally, Ivey and Bixler (2013) found that in training entry-level naturalists, the desired content knowledge (ecology, ornithology, and conservation biology) was readily available, but materials pertaining to communication skills were not. The authors assert that it is important for institutions to provide their staff not only with support regarding their content but also about communication, people, and program planning (Ivey & Bixler, 2013). Throughout my study, I found that my own efficacy for connecting with guests was low. As such, specific training and repetition of the best practices may aid in building mastery of these sorts of specific skills that can be learned over time (Bandura, 1982).

In addition to training, I believe that interpretive guides could also benefit from more communication between practitioners. Communication with other guides can help by sharing practices that work with each other. During this study the conversations I had with coworkers about my practices helped push and improve my own practice.

Opportunities for this kind of dialogue could be encouraged or facilitated by the institution.

Finally, as an implication for the field of free-choice education research, I would argue for the value of doing more self-study and ethnographic research. The benefits of self-reflection have been touted in the field of education and these benefits are equally viable for informal educators to improve their practice and share their experiences with others. I believe my own practice was improved as a result of this study and the insights were also shared with management of the institution I worked with to improve the organization as a whole and provide better support to their employees. Additionally, the self-study methodology helps to illustrate the subtle nuances of emotion and internal states that cannot be measured by surveys and observation. Directly addressing these sorts of feelings and tensions helps to better understand our own practice and the practice of others.

Conclusion

As a result of this study, a few significant insights emerged. Perhaps the most central of these was the importance of defining the goals and purposes of any form of interpretation. However, simply defining these goals is not sufficient for achieving them. The accomplishment of these goals may require compromises with perceptions about what is entertaining for guests as well as stretching the comfort zone of the interpretive guides themselves. Making the sort of deep connection to visitors required to reach these goals may be difficult in such a short period of time, but the development of best practices can help. For example, humor and confidence of the interpreter can go a long way as well as also allowing visitors more space to make their own connections. Becoming a teacher is not easy. Adopting a more constructivist pedagogy in free-choice education represents a real struggle for interpreters. This type of teaching is not utilized often in informal settings and this self-study illustrated the reality around our fears about seeming vulnerable to guests. More support and training for using constructivist teaching methods may help guides feel more confident about this practice. It is my hope that this self-study sheds light on some of the real-life challenges of enacting the best practice of interpretation and provides some areas of focus for improvement in the future.

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The Place of Inspiration in Heritage Interpretation

A Conceptual Analysis

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Abstract

Inspiration has been an under-studied phenomenon in the interpretation field. This paper presents the results of a systematic literature review of psychological literature related to inspiration, revealing nine characteristics of inspiration. Of particular interest was the contrasting meanings of inspiration as inspired by and inspired to, and that inspiration is transmissible, positive, individual, transcendent, unexpected, and holistic, and requires receptivity, which may be cultivated. Each characteristic was related to the field of interpretation in practice. After this review of the literature, we propose that giving consideration to inspiration-based interpretation may provide useful insights for practice as a constructivist approach to interpretation. Further exploration into the topic is warranted.

Keywords

inspiration, provocation, inspiration-based interpretation, qualitative research, literature review, constructivist

Introduction

The concept of inspiration has not been the focus of any inquiry within heritage interpretation, although the term is used regularly within the field. The word inspiration is also used in everyday contexts and is increasingly being investigated within the field of positive psychology, resulting in a growing body of literature (Gotz, 1998; Hart, 1993, 1998; Kwall, 2006; Montuori, 2011; Seligman & Csikszentmihalyi, 2000; Simopoulos, 1948; Thrash & Elliot, 2003, 2004). Research into the synergies between the concept of inspiration as identified in the psychological literature, and the field of interpretation, could provide useful insights for interpretation in practice and the purpose of this paper is to explore these potential synergies.

Over the past decades, interpretation has been slowly moving from having an education- and knowledge-based epistemological foundation to a more constructivist and visitor-oriented foundation. As the instrumental knowledge-based view of interpretation is being questioned, there is an abundance of literature encouraging more holistic interpretation, i.e., reaching out to visitors through the affective and connative domains, in addition to the cognitive domain (Ballantyne, Packer, & Falk, 2011; Ballantyne, Packer, Hughes, & Dierking, 2007; Beck & Cable, 2011; Davidson & Black, 2007; Hughes, 2012; Hunter, 2012b; Ingham, 2000; Knapp & Forist, 2014; Martin, 2011; Mitchell, 2005; Wijeratne, Van Dijk, Kirk-Brown, & Frost, 2014). Advocates for constructivist-based interpretation encourage visitors to actively make meaning based on their previous knowledge and experiences, rather than passively receiving information (Shalaginova, 2012). For example, Staiff wrote that interpretation, "rather than being a matter of communicating something to a (passive and temporary) visitor … is the production of meaning by the visitor in their interaction with the place" (2014, p. 24). In this constructivist context, we can understand interpretation as a process of assisting desired meaning-making through the provision of a range of experiences, all of which may lead to greater and deeper understandings on the part of the participant.

Concepts from the psychology literature on inspiration have provided us with useful insights for constructivist-based interpretation. Inspiration is defined as a "breathing in or infusion of some idea, purpose, etc., into the mind; the suggestion, awakening, or creation of some feeling or impulse, especially of an exalted kind" (Oxford University Press, 2000, p. Section II 3b). Attempting to operationalize this rather general definition, inspiration researchers Thrash and Elliot (2003) identified a number of important attributes of inspiration, "Inspiration implies *motivation*…; inspiration is *evoked* rather than initiated directly through an act of will…; and inspiration involves *transcendence* of the ordinary preoccupations or limitations of human agency…" (p. 871, emphasis added). More recently, reflecting an effort to try and provide a synthesis of the concept, Chadborn and Reysen (2016) asserted that, "inspiration acts as a motivational concept, in which inspiration is evoked (generated) from a source and a person then finds some means to transmit an idea and is driven to produce some creative outcome as a result" (p. 1). The benefits of inspiration include well-being (Hart, 1993; Thrash, Elliot, Maruskin, & Cassidy, 2010; Thrash, Maruskin, Cassidy, Fryer, & Ryan, 2010), creating tangible objects such as art (Engen, 2005; Thrash, Elliot, et al., 2010; Thrash, Moldovan, Oleynick, & Markusin, 2014), making life worth living (Seligman & Csikszentmihalyi, 2000), helping people flourish (Csikszentmihalyi, 1997), and meeting people's need for seeking higher ideals upon which cultures are based, such as creativity, meaning, and spiritual truth (Thrash & Elliot, 2004). Simopoulos (1948, p. 35) described inspiration as "the answer to a deep human need" and Hart (1993) explained it as a subtle and ephemeral event. While Thrash and Elliot (2003) have developed and validated an Inspiration Scale that assesses inspiration frequency and intensity, this scale has not yet been applied to the interpretation setting. The benefits of inspiration are widely acknowledged and its general qualities seem, to us, an ideal fit with the interpretation field.

The topic of inspiration is a natural fit for interpretation and the idea of inspiration is not a new one for the field of heritage interpretation. Enos Mills used the term *inspirational* to refer to interpretation in 1920, pointing out, "nature guiding, as we see it, is more inspirational than informational" (2001, p. 142). Freeman Tilden (1977) suggested that the interpreter's passion can act as a model to inspire visitors. Canadian R. Yorke Edwards stated "interpretation's aim is inspiration and revelation, leaving people's lives never quite the same again because of new interest and understanding" (1979, p. 23), and noted, "I am a firm believer in the value of interpretation not so much because I have seen its inspiration in others, but because I have received its inspiration myself. And I thoroughly enjoy being inspired" (p. 15). Beck and Cable (2011) described the purpose of the interpretive story as to inspire and provoke the audience, and their last three "gifts" of beauty, joy, and passion have similarities to inspiration. Widner-Ward and Wilkinson included a section on inspiration in their textbook, where they described the ultimate goal of interpretation as "to inspire others to want to explore further, to learn more on their own" (2006, p. 23). And in a dissertation focused on place and interpretation, one of the research participants exclaimed that inspiration is "an ultimate goal for interpretation" (Hunter, 2012a, p. 127).

The term *inspiration* is also used by a range of organizations offering interpretation, showing that the concept is considered important in the field of practice. For example, Parks Canada's slogans are "Real. Inspiring" and "Inspiring Discovery" (Government of Canada, 2013), while the mission statement of the National Association for Interpretation in the United States is, "inspiring leadership and excellence to advance heritage interpretation as a profession" (National Association for Interpretation, 2014) and the U.S. National Park Service Education Plan for Denali National Park indicated that inspiration is a desired visitor outcome (US National Park Service, 2009).

While the term *inspiration* has been used for the last 100 years in interpretation, inspiration-focused research in the field is nonexistent to date in either Canada or the United States. A search on Interpretation Canada's website for the word *inspiration* in the articles of the *InterpScan* journal revealed that the term was not used in any of the available titles between 2002 and 2017. A search of all current and archived issues of the *Journal of Interpretation Research* revealed that inspiration was not used in the title or abstract of any articles, and that the word showed up in the text of only eight articles from 2005 to 2012 and even then, not in an analytical context.

There are at least two references to concepts similar to inspiration within the interpretation literature. First, LaPage (2001) described "eureka moments," noting that these moments 1) follow an orderly sequence of events, 2) that people need to be receptive to them, and 3) that we may never know the effects of them on people. These attributes are similar to those described in the inspiration literature.

Second, the term *provocation* has been used in interpretation for at least 50 years, with the terms *provocation* and *inspiration* seemingly used interchangeably. For example, Tilden's principle four stated that "the chief aim of Interpretation is not instruction, but provocation" (1977, p. 32), Beck and Cable (2011) refer to provocation as their fourth principle, and in Sam Ham's newest textbook (2013), the term *provocation* is referenced 119 times in the index, while the term *inspiration* is not used at all. While Ham does not define provocation in his text, he refers to provocation as one of the three possible endgames for interpretation, along with teaching and entertainment. Ham seems to use the term in the same manner as Tilden; both suggest that interpreters need to provoke visitors to think and make their own meanings. A search for the term *provocation* in peer-reviewed journals, including the interpretation field and beyond, indicated that the term has not been the focus of any recent research in any field, with the exception of the law profession. The Oxford Online dictionary defines provocation as "Action or speech that makes someone angry, especially deliberately," although an older usage is that of posing a challenge, while in law, the term refers to action or speech likely to incite retaliation (Oxford University Press, 2019b). While provocation in current usage seems to be associated with deliberately provoking or making someone angry or at least presenting a challenge to a person, the term inspiration seems to be related to uplifting experiences, as shown in the review of the inspiration literature (see below). The role of the term *provocation* relative to the term *inspiration* was not a focus for this paper and is still waiting for a rigorous examination.

Methodology

The methodology for this paper consisted of an extensive systematic literature review focused on the topic of inspiration, involving both social science (psychology and heritage interpretation fields) and humanities (philosophy) literature, as this approach seemed well-suited to a conceptual analysis (Fink, 2010). We used existing studies and writings as our analytical data.

For Fink, "A literature review is a systematic, explicit, and reproducible design for identifying, evaluating, and interpreting the existing body of completed and recorded work produced by researchers, scholars, and practitioners" (2010, p. 3). Following her framework, we developed our research question, chose our sources and search terms, applied our search terms, evaluated the adequacy of each study's coverage, completed the review, and compiled the results (Fink, 2010). It is from the synthesis of the results that we developed our conceptual analysis.

Conceptual analysis in this sense is the attempt to break down ideas into their constituent parts, and we have searched within the broad usage of the term *inspiration* within a wide range of literature, for those pieces that are both constituent of and related to our work in interpretation. This approach was also useful for identifying gaps in the current research and for formulating exploratory research questions for further investigation. An extended thematic analysis (Ryan & Bernard, 2003) was used to code the various definitions and meanings of the term inspiration from across the disciplines, and from the codes we generated the nine themes that are the primary focus of this project.

We made extensive use of the Royal Roads University Library's (RRU) Discovery search engine, as well as Google Scholar to carry out this literature review. Terms utilized in our searches included *inspiration* and *inspire*, and these terms were placed against *interpretation*, *heritage interpretation*, *participation, psychology, community, creativity,* and *spirituality*, as in *inspiration* AND *psychology*. Each "hit" was examined by the senior author, who made an immediate decision as to the relevance of the source. We were not interested in non-academic and non-professional literature and focused

Figure 1 Mind map showing characteristics of inspiration from literature

our attention on the literature we felt would help us to elucidate the meaning of the focus term *inspiration* within the context of the heritage interpretation field. Given that inspiration-related searches resulted in tens of thousands of hits, we needed to ensure that we cut this huge number down by restricting our initial search to journal articles rather than books and removing references that seemed to be of lesser utility given our research interest (Fink, 2010).

The inspiration literature is dominated by a few scholars and their contributions weighed heavily in the analysis, which really was meant to provide means for us to investigate and then create a picture of how inspiration could fit into the interpretation field. The literature review was not intended to be broadly exhaustive as our purpose was really quite narrow, and once a particularly relevant reference was found, its citation list became a fruitful source for further investigation.

By the end of this literature review process, the senior author had accumulated over 130 papers relevant to the topic of inspiration and interpretation and these were reviewed and analyzed to create the framework reported here. Locke, Spirduso, and Silverman, in Hesse-Biber and Leavy (2011, p. 43) recommend thinking of the literature review as an “extended conversation”; with this notion in mind, we hope that this paper will be a conversation starter.

Results

Inspiration: An Introduction

Inspiration seems to be a complex and mysterious concept; however, we have identified commonalities in the reviewed literature. We have deconstructed the concept into nine characteristics of inspiration as described in the following paragraphs and illustrated in Figure 1. This representation is a Mind Map, a tool defined as “a diagram in which information is represented visually, usually with a central idea placed in the middle and associated ideas arranged around it” (Oxford University Press, 2019a).

Inspiration is two-sided. The literature demonstrates that inspiration encompasses two key elements: the trigger, or what people are inspired by; and the target, or what they are inspired to do or be (Hart, 1993, 1998; Jennings, 2012; Thrash & Elliot, 2003, 2004; Thrash, Elliot, et al., 2010; Thrash, Maruskin, et al., 2010; Thrash et al., 2014). Both manifestations of inspiration are necessary and linked (Gonzalez, Metzler, & Newton, 2011; Hart, 1993, 1998; Simopoulos, 1948; Thrash & Elliot, 2003, 2004; Thrash, Elliot, et al., 2010), and Jennings (2012) pointed out that both sides of inspiration are required in order to differentiate it from emotions such as awe or wonder.

While the trigger, or what people are inspired by, varies from person to person, there are commonalities. Hart's (1993) pioneering research with college students determined that typical triggers of inspiration were nature, love, suffering, courage, music, exercise, religion, beauty, and quality, with nature being the most commonly reported external source of inspiration. Thrash and colleagues continue to advance the study of inspiration and have reported that inspiration may come from within or without, and that people may be inspired by encounters with a person, object, act, or idea (Thrash & Elliot, 2003, 2004; Thrash, Elliot, et al., 2010; Thrash et al., 2014). Other researchers have added to this list, noting that internal sources of inspiration may include supernatural sources such as a deity or spirit, or ideas such as truth, beauty, or goodness (Hart, 1993; Simopoulos, 1948; Thrash & Elliot, 2003). External sources of inspiration may include other people (i.e., mentors or high-achieving role models); objects in the environment such as nature, music, or literature; or undertaking an activity such as making a fire, enjoying a cup of tea, watching a motivational video, or taking part in a physical activity (Gonzalez et al., 2011; Hart, 1993; Kwall, 2006; Thrash & Elliot, 2003, 2004).

The target, or what people are inspired to, also shows both variation and similarities from person to person. Hart (1993) found that for college students, inspiration manifested in actions such as sharing the inspiration with others through talk, art, writing, photography, or efforts for self-improvement. Other researchers have added that inspiration may manifest in achieving success in sports or academics, improving the self, achieving a personal goal, solving a problem, creating something, being transformed, or supporting a cause (Gotz, 1998; Hart, 1993, 1998; Jackson, 2012; Kwall, 2006; Thrash & Elliot, 2003, 2004; Thrash, Elliot, et al., 2010). Described as "approach motivation" inspiration, Thrash and colleagues (Thrash, Elliot, et al., 2010; Thrash et al., 2014) explain that this side of inspiration involves energy and action (i.e., being intrinsically-motivated with no thought of reward). Hart (1993) noted that people must be both passive and active for inspiration to occur, i.e., passive and open to inspiration, then active after being inspired. Hart (1998) also pointed out that the target of inspiration may manifest in the form of action (i.e., doing something), or it may manifest in being (i.e., inspired to just be, in other words, a non action, such as self-reflection or a transformation of one's being).

Inspiration is transcendent. Described by the 17th-century Welsh author Henry Vaughan as "bright shoots of everlastingness" (Simopoulos, 1948, p. 32), transcendence is one of inspiration's core characteristics (Hart, 1998; Jennings, 2012; Thrash & Elliot, 2004; Thrash, Maruskin, et al., 2010; Thrash et al., 2014). Inspiration involves being in the moment, and at the same time losing that moment. When a person is inspired they are in a special zone—others have described similar constructs, such as "flow" by Csikszentmihalyi and colleagues (Abuhamdeh & Csikszentmihalyi, 2012; Csikszentmihalyi, 1997; Seligman & Csikszentmihalyi, 2000), "peak experience" by Maslow (1964, 1968), "mental stillness" by Hart (1993) and "a moment of extreme happiness; a feeling of lightness and freedom; a sense of harmony with the whole world; moments which are totally absorbing and which feel important: these phrases characterize transcendent experience" (Williams & Harvey, 2001, p. 249). Inspiration may also be associated with spiritual experiences; for example, during a wilderness trip, participants indicated that the setting and social interaction combined to produce spiritual inspiration (Fredrickson & Anderson, 1999). Williams and Harvey (2001) found, in their study of 131 individuals "who visit, work, or live in forests" (p. 251), many expressions of a profound sense of transcendence in forest settings, settings that evoke responses that would be quite familiar to many interpreters.

Inspiration is positive. Connected to this idea of transcendence, inspiration is seen as being mainly positive and joyful (Jennings, 2012), and although it may be brought on by a difficult experience, the inspiration itself is seen as uplifting, expansive and elevating (Hart, 1998; Thrash & Elliot, 2003; Thrash et al., 2014). Haidt (2000) describes inspiration as "a warm, uplifting feeling that people experience when they see unexpected acts of human goodness, kindness, and compassion" (pp. 1–2).

The consequences of inspiration were described in positive words by Hart's research participants as being "energized, open, clear, loving, helping others, having meaning, creating, connected, confident, humbled, joyous, and alive" (1993, p. 162). Thrash and Elliot described the inspired state as being characterized by "feelings of connection, openness, clarity, and energy" (2003, p. 873) and Thrash and colleagues (2010) also noted that people usually feel the positive emotion of gratitude towards the source of their inspiration.

Inspiration is individual. Studies into inspiration as a psychological concept acknowledge that inspiration is open to all individuals. Research indicates an evolution in thinking from the term's early use in religious contexts and its relationship to creative genius only, to its modern-day secular use; "rather than a rare event reserved for the gifted artist or great mystic, inspiration appears to be something that all of us experience and have some understanding of" (Hart, 1993, p. 159). However, what one person is inspired by and inspired to may be very different than what another person is inspired by and inspired to (Jennings, 2012). Inspiration is also individual in the sense that the inspiration may or may not be visible to the world (Hart, 1998; Thrash & Elliot, 2003); and there may be a lag between the two sides of inspiration, depending on each person's response. For example, Hart (1993) noted that the recipient of inspiration was often compelled to communicate the idea while it was still fresh, i.e., to immediately validate the experience and capture the idea, with no time lag between the inspired by and inspired to phases. However, he also pointed out that the target of inspiration may come later, (e.g., at an unexpected time) and may not be visible (1998). Similarly, Thrash and Elliot (2004) noted that in some cases there may be no apparent outlet for the inspiration (e.g., a person may be inspired by the beauty of the Grand Canyon, but have no immediate outlet for that inspiration and therefore may not act on the inspiration right away), although it may manifest at a later time.

Inspiration is unexpected. Inspiration is accidental or unwilled, and it may come along in leaps and bounds or slowly (Hart, 1998; Jennings, 2012; Thrash & Elliot, 2004). This sense has also been described by Thrash and Elliot (2003) and Thrash, Moldovan, Oleynick, and Maruskin (2014), and according to Shiota, Thrash, Danvers, and Dombrowksi, "one does not feel directly responsible for becoming inspired, and ascribes responsibility for inspiration to something beyond one's own will" (2017, p. 369).

Inspiration may be out of a person's control and may involve a flash, an *aha* moment, a breakthrough, something that is unexpected or, as described by Gotz, "the instant when things 'click' and fall neatly into place, or a new idea flashes in the dark" (1998, p. 510). This notion is similar to the previously described interpretive "eureka moments" (LaPage, 2002). Inspiration involves people giving up control and in describing the moment of inspiration, Thrash et al.'s research participants explained feeling that the situation was outside of their power and control and the authors noted that this seemed to be difficult for their participants to admit in our individualistic and strength-oriented society (Thrash, Elliot, et al., 2010; Thrash, Maruskin, et al., 2010).

Inspiration is holistic. Inspiration has been described as bringing the rational and non-rational together (Gotz, 1998; Hart, 1998; Thrash & Elliot, 2003) and may be a good example of the growing understanding about the close links between cognition and emotion coming out of a range of fields (Immordino-Yang & Damasio, 2007; Pessoa, 2008). Thrash and Elliot noticed that inspiration "engages the head as well as the heart" (2003, p. 878), Engen described inspiration as involving the whole person; "emotional, behavioral, intellectual, and sensory" (2005, p. 16), while Hart referred to inspiration as "full body knowledge" in which emotion and cognition are simultaneously experienced (1998, p. 19). Gotz described inspiration "as a madness, inspiration impels artists on, but only knowledge can guide their search. If inspiration is like the wind all vessels need for movement, knowledge is at the helm" (1998, p. 512). Some scholars have pointed out that for people to experience success based on inspiration, they will need the necessary knowledge and technical proficiency to be able to successfully act on the inspiration (Hart, 1993; Seligman & Csikszentmihalyi, 2000; Thrash, Elliot, et al., 2010). British novelist Anthony Burgess (1986) put this holistic concept together when he wrote, "Art begins with craft, and there is no art until craft has been mastered…." (section 7, p. 47).

Inspiration is transmissible. Different authors have pointed out that inspiration may be contagious and self-perpetuate (Brenneman, 2012; Hart, 1993, 1998). As an important contributor to well-being, inspiration may help people flourish and its ability to spread is usually welcome (Hart, 1993; Jennings, 2012). Thrash and colleagues (Thrash & Elliot, 2004; Thrash et al., 2014) note recipients of inspiration often have a need to share the inspiration with others; the inspiration is not the end experience but simply one link in a transmission in pursuit of higher goals. While social interactions as sources of inspiration have not been investigated to any great extent (e.g., Milyavskaya, Ianakieva, Foxen-Craft, Colantuoni, & Koestner, 2012), Hart (1993) noted that it would be instructive to study collective inspiration, i.e., how people may be inspired by others at a place or event. Indeed, Margaret Mead's famous aphorism, "Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has" is really all about the transmission of inspiration from a small group to others.

Recent work has taken a social identity approach (Turner, 1975) focusing on the transmission of inspiration as influenced by the relationship between an individual's self-concept and their sense of social identity. Social identity relates to how individuals "define themselves in terms of a shared group membership…" (Haslam, S. A., Reicher, S. D., & Platow, 2011, p. xxii). Findings (Chadborn & Reysen, 2016), while preliminary, indicate research participants were more likely to be inspired by members of a group that they saw themselves as a member of (i.e., by members of their in-group):

> Overall, the results provide strong support indicating not only a relationship between in-group identification and inspiration, but that when made salient, an individual's in-group can act as a strong determinant for the frequency and intensity of inspiration gained when thinking about one's group. (p. 6)

Inspiration requires receptivity. While inspiration is seen as being outside the control of a person, receptivity to inspiration is required (Hart, 1993, 1998, 2004; O'Grady & Richards, 2011; Thrash & Elliot, 2004; Thrash, Elliot, et al., 2010; Thrash, Maruskin, et al., 2010; Thrash et al., 2014). Receptivity may take the form of tolerance for ambiguity, divergent thinking, focus, trust, letting go, or listening (Hart, 1993, 1998). Thrash and Elliot (2003) discovered that positive affect and openness to experience were traits that were positively correlated with inspiration, and that inspiration also correlated positively with intrinsic motivation (i.e., doing things for their own value) but negatively with extrinsic motivation (i.e., doing things because you'll get a reward), suggesting that certain personality traits may predispose a person to being more or less receptive to inspiration.

Some research has shown that inspiration is experienced to a greater degree the more the stimulus is in line with a person's values, i.e., people are more receptive to being inspired by content that already fits with their existing beliefs. For example, in a dissertation that explored inspiration as a state, Jennings (2012) determined that "inspiration does not necessarily relate to general prosocial behavior; rather, it relates to specific content domains when those domains are aligned with one's enduring interests and values" and inspiration is "experienced to a greater degree when the content of a particular stimulus is more congruent with one's internalized values or interests" (pp. 73–74).

In summary, in order for inspiration to occur, whether through personal traits or aligned values, people must be open and receptive to it.

Inspiration receptivity may be cultivated. Inspiration may not be forced, but it may be wooed, as described by Hart; "although it does not seem possible to will inspiration into existence, it does seem likely that we can set up favorable conditions to woo or invite it" (1998, p. 26). The psychological literature contains many suggestions for wooing or cultivating receptivity to inspiration, including:

- being open and contemplative, seeking it, reading, meditating, dialoguing, focusing, trusting, letting go, listening, and understanding that inspiration exists (Hart, 1993, 1998, 2004; O'Grady & Richards, 2011);
- being exposed to high-achieving role models (Thrash & Elliot, 2003);
- collaboratively creating new futures (Montuori, 2011);
- receiving a pep talk or watching an inspirational video (Gonzalez et al., 2011);
- setting goals, particularly successful in people with high trait inspiration (Milyavskaya et al., 2012);
- being open to new ideas and motivationally responsive to those ideas (Thrash, Maruskin, et al., 2010); and
- having high attentional involvement, as in "finding flow" (Abuhamdeh & Csikszentmihalyi, 2012; Csikszentmihalyi, 1997; Seligman & Csikszentmihalyi, 2000).

After having undertaken a review of the concept of inspiration from within the psychology literature, we propose that the nine characteristics of inspiration we have identified may be useful to the field of interpretation.

Discussion

Based on the literature review conducted, the benefits and characteristics of inspiration as described above seem to be directly relevant to interpretation. In this section, we will discuss how the nine characteristics of inspiration may be connected to the field of interpretation, including the practice of interpretation.

Inspiration is two-sided. This overarching characteristic of inspiration, i.e., the notion that inspiration involves both a trigger and a target, is well-suited for use in the interpretation field. The pedagogical literature aimed at improving the practice of interpretation is focused on helping visitors learn or connect to the meaning of the place (Beck & Cable, 2011; Ham, 1992, 2013; Widner-Ward & Wilkinson, 2006), and in inspiration-based terms, this existing literature is aimed at ensuring the visitors are inspired by and inspired to do or be something.

The trigger of inspiration in interpretation—what our visitors are most often inspired by—is usually the place. For example, Hart (1998) found that nature was the most common source of inspiration among his respondents, and this fits with interpretation's sense of the site's *genius loci*, or "spirit of the place." There are many references to the importance of place in interpretation including Turek (2006), who advocated for place-based interpretation that connects audiences directly to the heritage resource, enabling them to hear site-specific stories and share in the work of meaning-making. In other examples showing the importance of place in interpretation, Hunter (2012b) studied sense of place in park interpretation and concluded that developing attachment to place may lead to re-inhabitation and preservation of place, while Van Matre (2008) eloquently refers to interpretation spaces as public jewels.

People are also a typical trigger of inspiration in interpretation and we assume that visitors will be inspired by interpreters and other staff they encounter at a site. This seems to be the premise the field of interpretation is built upon. For instance, Ham (2013) describes the role of interpreters as being provokers, teachers, and entertainers, with the provoker role being the most important one when making a difference is desired. In *Applied Interpretation*, Knapp devotes a section to the importance of the interpreter, noting that "the overall impression was virtually everyone interviewed in our research saw the interpreter as valuable and a positive aspect of their visit to the resource site" (2007, p. 110). And Edwards pointed out that, "an interpretation program can be no better that the interpreters in it" (1979, p. 38). In inspiration terms, these examples suggest that the visitors will be inspired by the interpreter. Studies into collective inspiration and social identity approaches suggest that investigations into ways visitors may be inspired by each other are also warranted. In *The Participatory Museum*, the author uses multiple examples to illustrate the value of visitors interacting within their group and between groups (Simon, 2010).

The target of inspiration, the inspired to side of inspiration, manifests in the interpretation field through interpreters and visitors being inspired to take action of some kind, e.g., either through being engaged in hands-on activities during a program or being encouraged to take actions after the program. In practice, participatory interpretation is increasingly being used, with visitors being encouraged to be more involved in the experience (McCarthy & Ciolfi, 2008; Simon, 2010; Tan, 2012). Interpreters are expected to leave their visitors with some kind of action to take after the interpretive experience, and the phrase "call to action" is now regularly used in interpretation practice (Hughes, 2011; Whatley, 2011). Tilden's suggestion that "through interpretation, understanding; through understanding, appreciation; through appreciation, protection" (1977, p. 38), has led to interpretation in which the suggested actions are ones that will benefit the agency, such as not littering and not feeding wildlife. Converted to inspiration terminology, the end goal of interpretation would be seen as visitors being inspired to protect the resource.

However, research in non-interpretation fields has shown that Tilden's programmatic sequence cannot be guaranteed, i.e., awareness of the need to care for a resource does not automatically transfer into actions to care for the resource (Bush-Gibson & Rinfret, 2010; Clover, 2002; Halpenny, 2010; Ham, 2013; Silberman, 2013; Uzzell & Ballantyne, 1998; Vaske & Kobrin, 2001). In inspiration terminology, this may reflect people being inspired to different ends than protection of the resource and it begs the question, would agencies commit to focusing on inspiration in interpretation if it means accepting that visitors may be inspired to take actions that the agency is not advocating or may not even consider acceptable?

The inspired-to-just-be concept that was mentioned briefly in the inspiration literature (Hart, 1993, 1998) is more vague, but may also be relevant to the interpretive field. For example, Van Matre's work encourages participants in his camping programs to just sit and watch and be: "when you're completely comfortable, take a couple of deep breaths and relax. As you breathe, settle into a state of motionless. Don't move at all but don't strain. Just relax. Let the natural world sweep over and engulf you" (1979, p. 189). Interpretation that encourages visitors to take no action, but instead to be mindful and reflective, as recommended by some authors (e.g., Langer, 1997; Markwell, Stevenson, & Rowe, 2004; Moscardo, 1996, 1999; Noh, 2014; Wong, 2013), warrants further consideration for the field of interpretation. Non-action may be just what many people need in order to slow down and connect with the place or idea and to reflect on its relevance to their lives.

Inspiration is transcendent. Interpretation may transcend the daily and inspire people to *aha* moments and peak experiences; to have such an impact is the hope, we would imagine, of all interpreters. The transcendence may exhibit itself in a passive response, i.e., an overall change in being, rather than a specific action, similar to Hart's (1998) description of inspiration as either "form," i.e., an action or creation, or "being," i.e., our general state of existence. Interpretation may take people to a higher level of awareness or consciousness, although visitors are not likely to have a transcendent inspirational experience unless their basic human needs are taken care of first, as Maslow's hierarchy of needs pointed out (1964, 1968). Interpreters leading guided tours or hikes know well the importance of pointing out the locations of the washrooms and water fountains prior to the event!

Inspiration is positive. Generally, interpretation is viewed by those participating in interpretive activities in a positive light and as having positive impacts. However, the positive nature of the term *inspiration* may be in contrast to the negative connotation often associated with the word *provocation*. Tilden's fourth principle, "The chief aim of interpretation is not instruction but provocation," has been a directive to the field for over 50 years and is well documented in Ham (2013). As described earlier, the word *provocation* is defined as "Action or speech that makes someone angry, especially deliberately"; it is a word indicating a challenge is posed to someone and while the challenge may be seen negatively, the end result may be seen to be positive. A conceptual exploration into our current understanding and use of the words *provocation* and *inspiration* in interpretation would be worthwhile.

As mentioned earlier, people seem to show gratitude towards the source of their inspiration (Thrash, Maruskin, et al., 2010) and as a positive notion, the concept of gratitude may be worth further exploration within the field of interpretation. Gratitude is an emotion that agencies offering interpretation would likely be interested in fostering in visitors. One future research question posed by Thrash, Maruskin, Cassidy, Fryer, & Ryan (2010) and relevant to interpretation would entail an investigation into which yields more gratitude, an intentional agent, such as an interpreter, or an unintentional agent such as nature, i.e., the place?

Inspiration is individual. Tilden's first principle places the emphasis on relating to the visitor, and his sixth principle suggests that children's interpretation should not be a dilution of an adult presentation (1977). Both these principles relate directly to the concept of inspiration being individual; we acknowledge that all visitors are inspired by different things and to different ends and that each visitor will make their own meaning of the place or idea being interpreted. Exploring this notion further fits with the movement towards more constructivist-based interpretation. For example, Staiff (2014) and others suggest that interpretation is a system of representation, i.e., the meaning of the object of heritage interpretation is not inherent in the resource or in the agency's interpretation of it, but ultimately is the meaning of the personal experience in a place, with a person or creature or artifact. One role of interpretation is to help people find this meaning for themselves and to help make the place and/or its ideas relevant to their lives. Reminding ourselves that one approach will not fit all and offering a variety of interpretive experiences is one way to acknowledge that inspiration is individual.

Inspiration is unexpected. That inspiration is unexpected is ideally suited to interpretation, in which visitors may have *aha* moments or find that things just click into place at an unexpected moment. The exact moment when inspiration might occur for any of us is unknown and unknowable, and this makes life exciting! Perhaps interpretation in practice could benefit from greater attention to giving participants the unexpected in order to surprise and delight them. People can have inspirational experiences exploring tidepools; first-time visitors start seeing creatures of all sorts, creatures that they've never before seen and couldn't even imagine seeing, all the while thinking they were just going to be looking, but not really expecting to be seeing anything interesting, in the pool. We can offer the unexpected through either personal or non-personal interpretation, and often, through careful planning, the experienced interpreter has planned for the unexpected; e.g., coming over a ridge with an extraordinary viewpoint, doing an evening program during the Perseid meteor shower, or planning on giving the visitor an unexpected but amazing experience with an artifact in a museum tour. Experiencing the unexpected is surely interpretation that aims to reach people at an emotional, far more than at a cognitive, level. For instance, in practice the authors have seen visitors thrilled to come upon something they were not expecting, such as a "games night" evening program, or an opportunity for the visitors to use costumes and props to tell their own stories. A recent study by Latham, Narayan, and Gorichanaz (2018) described the "surprising" influence of surprise and discovery on inspiration and noted that "an experience is more meaningful and memorable when it involves a 'surprise' or 'flip' experience" (p. 7).

Inspiration is holistic. Tilden's fifth principle, i.e., that interpretation should aim to present a whole rather than a part, fits well with the psychological literature's assertion that inspiration is holistic and "engages the head as well as the heart" (Thrash & Elliot, 2003, p. 878). Interpretation in the past has tended to focus on information first; however, within the field there is a shift occurring towards a more holistic perspective. For example, various authors have suggested that interpretation needs to engage visitors through more involvement, i.e., actions that would reach visitors in a more holistic and not simply cognitive way (Ballantyne & Packer, 2009; Ballantyne, Packer, & Sutherland, 2011; Blaney, 2013; Dierking, 1998; Falk & Dierking, 2000; Goldman, Chen, & Larsen, 2001; Goodrich & Bixler, 2012; Grenier, 2008; Hunter, 2012b, 2012a; Knapp & Benton, 2004; McCall & McCall, 1977; McCarthy & Ciolfi, 2008; Noh, 2014; Simon, 2010; Smith, 1999; Taylor & Caldarelli, 2004).

In addition, multiple authors also recommend inviting emotions into interpretation (Ballantyne, Packer, & Falk, 2011; Ballantyne et al., 2007; Hughes, 2012; Ingham, 2000; Latham, 2013; Martin, 2011; Smith, 1999; Wijeratne et al., 2014). Recognizing the importance of emotion in effective communication is nothing new: Aristotle's formulation of rhetoric saw persuasive communications engaging with three kinds:

> The first kind depends on the personal character of the speaker [ethos]; the second on putting the audience into a certain frame of mind [pathos]; the third on the proof, or apparent proof, provided by the words of the speech itself [logos]. Persuasion is achieved by the speaker's personal character when the speech is so spoken as to make us think him credible. (Aristotle, Art of Rhetoric, 1356a 2,3)

Interpretation practice has seemingly focused on the first and the third parts of this rhetorical triangle, and in our quest to communicate agency messages, we've often missed the emotional connection that, as Aristotle notes, puts the audience into a certain frame of mind. In a holistic, inspiration-based approach to interpretation, the persuasive element of pathos would be given more attention, since emotion is a strong component of inspiration.

Inspiration is transmissible. As interpreters, we hope that the passion displayed in our interactions will lead to visitor inspiration. An unintended side effect of this interaction may be increased inspiration for the interpreter, which may set the wheels in motion for an ongoing cycle of inspiration where inspiring interpreters are inspired by inspiring places/artefacts/organisms/ ideas, as well as by inspiring visitors. This can lead to a virtuous cycle of reciprocal impact where our interpretive work is not the end experience, but simply one link in a journey of some of our audiences who are pursuing higher goals (Thrash & Elliot, 2004). The transmissibility of inspiration suggests that maintaining inspired interpreters is an important task for an agency. It is important that interpreters are given professional development opportunities, including the chance to spend more time in places of inspiration. And, as previously mentioned, since interpretation typically involves groups of participants; it would be beneficial to explore social interactions in interpretation as a source of inspiration; this may lead to the designing for provision of more socially-based experiences within interpretation, e.g., through dialogic interpretation. An Audience Centred Experience (ACE) approach to interpretation is being advocated by the US National Park Service (2018) and includes the use of participatory and dialogic techniques, including those espoused by the International Coalition of Sites of Conscience (2017). These new ideas fit well with the tenets of inspiration.

Inspiration requires receptivity. As already noted, some visitors will be more open to inspiration than others. Perhaps the visitors who choose to attend an interpretive event are already the ones most open to being inspired by the kinds of activities carried out there, while those who choose not to join in a program are inspired in different ways (Hood, 1983) and have different self-identities than those who don't visit parks, museums, and galleries (Falk, 2012). Helping visitors and staff be receptive to being inspired is an ongoing and exciting challenge for the field.

Inspiration receptivity may be cultivated. This last characteristic of inspiration is particularly relevant to interpretation, as it seems that the job of the interpreter is to foster inspiration in visitors through cultivating an openness to what may potentially be new knowledge, experiences, emotions, ideas, or actions. How to develop programs that present the interpreter as a facilitator of inspiration and not merely a source of information is worthy of more attention, and different authors have advocated for interpreters to be facilitators of meaning making (Ashley, 2006; Dicks, 2000; Ham, 2013; Lück, 2003; Noh, 2014; Poria, Biran, & Reichel, 2009; Smith, 1999; Staiff, 2014). It would be interesting to explore how visitor receptivity to new ideas may be cultivated in interpretation and what may result from their inspiration. As previously mentioned, Thrash and Elliot (2003) developed an Inspiration Scale, and it would be an interesting challenge to modify this scale (or develop a new one) to look at the "inspirationality" of a particular person, place, or artefact as utilized in interpretive programming. The new work coming out of museum studies that looks at visitors' preference for certain kinds of experiences may also hold promise. Pekarik and colleagues (2014) look at individual preferences for experiences that connect to Ideas, People, Objects, and Physical (known collectively as IPOP). Knowing more about our visitors and what kinds of experiences we might be able to offer that may inspire, perhaps in the context of the IPOP framework, should become an active domain of further research.

Conclusion

Upon completion of this exploration, we feel that giving consideration to the characteristics of inspiration gleaned from psychological studies would be useful to and productive in the field of heritage interpretation. It is also worth a reminder that no matter how we deconstruct the concept, we have to keep the whole in mind; inspiration as a concept is uplifting and compels us every day.

An investigation into the applicability of the characteristics of inspiration in the practice of interpretation could provide valuable insights for constructivist-based interpretation. We hope our contribution inspires readers to engage in dialogue about the concept and to undertake further exploratory research into how a focus on inspiration may help us continually improve our field in practice.

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Crowding, Race, and Ethnicity

A Case Study at Onondaga Cave State Park

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Abstract

This study investigated crowding perceptions of adult visitors who took guided tours at Onondaga Cave State Park in Leasburg, Missouri. An on-site survey was conducted on weekends, alternating between Saturdays and Sundays from May until October 2015. Crowding perceptions of White and Asian visitors were compared using an independent t-test, while a regression model examined the effects of different factors associated with perceived crowding. Results showed that Asian visitors felt more crowded on cave tours than Whites. Being Asian or White, along with tour satisfaction, were negatively associated with crowding perception. Implications for outdoor recreation management, both in theory and practice, were discussed.

Keywords

crowding, race, ethnicity, Asian, cave, state park management

Crowding is one of the most important and frequently investigated issues in park management (Manning, 2011; Vaske & Shelby, 2008). Since it is closely related to visitor satisfaction and motivation, understanding this construct is of keen interest to many researchers and practitioners (Heberlein & Shelby, 1977, Kainzinger, Burns, & Arnberger, 2015; Manning, Valliere, Minteer, Wang, & Jacobi, 2000). To date, three broad categories of crowding antecedents have been identified in the literature: socio-demographic characteristics, characteristics of others, and situational factors (Manning, 2011; Neuts & Nijkamp, 2012). Other psychological and behavioral determinants of crowding include: expectation for, or preference in use level (Kalisch, 2012; Needham, Szuster, Lesar, Mora, & Knecht, 2018); specialization and experience level (Arnberger & Brandenburg, 2007; Bentz, Rodrigues, Dearden, Calado, & Lopes, 2015; Eder & Arnberger, 2012); attitude toward wilderness (Schreyer & Roggenbuck, 1978); and place identity/attachment (Kyle, Graefe, Manning, & Bacon, 2004; Sharp, Sharp, & Miller, 2015).

Researchers have also examined the effect of culture or nationality on crowding (Arnberger, Aikoh, Eder, Shoji, & Mieno, 2010; Vaske, Donnelly, & Petruzzi, 1996; Yagi & Pearce, 2007), but these studies are few in number despite the fact that race and ethnicity play critical roles in outdoor recreation behavior (Floyd & Stodolska, 2013; Manning, 2011; Stodolska & Walker, 2007; Washburne, 1978). Existing studies have documented that crowding perceptions differed across cultural backgrounds and nationalities. For example, Leujak and Ormond (2007) studied international visitors at four beaches and found that Germans and Italians were more sensitive to crowding than Egyptians. Sayan, Krymkowski, Manning, Valliere, and Rovelstad (2013) studied national park visitors in Turkey and found that American and British tourists were more intolerant of seeing others than Turkish visitors. Sayan and Karaguzel (2010) also examined the effect of age, gender, education level, income level, and nationality on crowding perceptions of national park visitors in Turkey. Although visitors did not think the park was overcrowded, they differed significantly in preference for seeing other people. For example, 37.5% of Dutch and 35.7% of French visitors did not want to encounter other groups, whereas the corresponding figure for Turkish visitors was 2.4%. Vaske and Shelby (2008) examined crowding perceptions of visitors from different countries. Using secondary data from 181 studies conducted in Canada, New Zealand, and the U.S., they found that individuals in New Zealand had the highest crowding score (M = 3.6), while those in Canada had the lowest one (M = 2.7) as measured on a nine-point crowding scale. At an urban historic site in Taiwan, Sun and Budruk (2017) found that Taiwanese visitors felt more crowded than mainland Chinese or other foreign tourists. Sun and Budruk also found that nationality had a moderating effect on the relationship between independent variables and crowding perception.

Some studies have compared crowding perceptions of individuals from Eastern and Western countries. An underlying assumption of this research is that Easterners are more crowd tolerant than Westerners due to high population densities in their respective countries, less preferences toward privacy and solitude, and more emphasis on personal contact (Sun & Budruk, 2017). Yet, these studies have produced mixed results. Vaske et al. (1996) investigated the relationship between crowding and country of origin at two sites in Jasper National Park, Canada. Although Canadian, Anglo Americans, Japanese, German, and British visitors had varying crowding perceptions at one location, but not at the other one. Jin and Pearce (2011) explored crowding perceptions at tourist destinations in Xi'an, China. Chinese were neither more tolerant of higher numbers of visitors, nor preferred more tourists at the sites, as compared to other international visitors.

Some studies suggest that Asians are more tolerant of crowding than other nationalities. For example, Doorne (2000) compared the crowding perceptions of visitors of Waitomo Glowworm Cave in New Zealand and found that New Zealanders had the highest crowding perceptions, while Japanese and Korean visitors had the lowest sensitivity. Fleishman, Feitelson, and Salomon (2004) conducted a similar study at two nature reserves in Israel. Young and well-educated European and American visitors were found to be less tolerant of crowding than older people, and also those of Asian and African descent. Moreover, they found that similarity in educational and ethnic backgrounds of visitors lessened crowding sensitivity. Neuts and Nijkamp (2012) explored crowding perceptions of tourists in Bruges, Belgium. Consistent with Doorne (2000) and Fleishman et al. (2004), these authors found that Asian tourists were less susceptible to crowding than Western tourists.

Given the locations of previous research, it is noteworthy that most of the studies did not examine crowding perceptions of different racial and ethnic groups at tourist destinations in the U.S. One notable exception is Chavez's (1993) study at two national forests in southern California, which found no significant difference in perceived crowding between Anglos and Hispanics. One possible explanation for the paucity of research on people of color in the U.S. is their underrepresentation at parks and recreation sites (Lee & Scott, 2016; Scott & Lee, 2018; Solop, Hagen, & Ostergren, 2003; Taylor, Grandjean, & Gramann, 2011). For example, the Great Smoky Mountains National Park attracts about nine million annual visitors, but racial and ethnic minorities accounted for only 2% of the total visitation (Papadogiannaki, Braak, Holmes, Eury, & Hollenhorst, 2009). The lack of racial and ethnic diversity of visitors at state and national parks creates a challenge for sampling and data analysis.

Research on crowding at tourism destinations is important since the U.S. is becoming more culturally diverse. Racial and ethnic minorities constituted 37.8% of the U.S. population in 2014, and this figure is expected to grow by 56.4% in 2060 (Colby & Ortman, 2014). Among those minorities, the Asian population grew faster than any other racial or ethnic group from 2000 to 2010 (Hoeffel, Rastogi, Kim, & Shahid, 2012). In anticipation of this demographic shift, many park agencies are working diligently to meet the recreational needs of people of color (Schneider & Kivel, 2016; Schultz, Bocarro, Fearn, & Floyd, 2017). In fact, political and financial support of state and national parks might be in jeopardy if agencies do not attract more diverse audiences (Wilkinson, 2000). It is a question of relevancy.

Our study focused on perceived crowding between Asian and White visitors at Onondaga Cave State Park (OCSP) in Leasburg, Missouri. To the best of our knowledge, this study is among the first attempts to examine crowding perceptions of visitors on a guided cave tour. This location was selected due to the relatively large number of Asians who visited the site since it was one of several destinations used by the Asian Affairs Center at the University of Missouri for scholars and participants of cultural exchange programs to enhance their experience in the U.S.

	Minimum	Maximum	Mean	SD
Age	19	82	40.18	14.58
Education	1	5	3.83	1.02
Gender	0	1	.45	.49
White	0	1	.73	.45
Asian	0	1	.20	.40
Group Size	2	39	18.34	9.01
Overall Value of the Tour	1	5	4.24	.79
Crowding	1	9	2.81	2.08

Table 1. Descriptive Statistics of Variables

Methods

Study Site

Onondaga Cave State Park is located about 80 miles southwest of St. Louis, Missouri, near Interstate 44. It became a Missouri State Park and National Natural Landmark in 1982. This site has 1.5 miles of passages and is the most popular of four caves within the state park system. Guided cave tours are available from April through October, but closed during the winter months when bats use the cave for hibernation. The park contains 1,317 acres and lies adjacent to the Meramec River, making it attractive for visitors to enjoy a variety of land- and water-based activities.

Sampling and Data Collection

The sample consisted of adult visitors (at least 19 years old) who took a guided cave tour at OCSP on alternating Saturdays and Sundays from May 23 until October 4, 2015. After purchasing an admission ticket, participants watched a 10-minute video on the cultural and natural history of the cave, and then took a guided tour that lasted about one hour. After finishing the tour, visitors were asked to complete a short survey by park interpreters.

The questionnaire consisted of 29 items on park visitation patterns, crowding perception, satisfaction level with the cave tour, and demographic information. Some of the typical crowding predictors were not used because the state park manager wanted to focus on quality and performance of the tour guides, effectively shortening the questionnaire. Crowding was measured using the standard nine-point scale developed by Heberlein and Vaske (1977). Respondents had six options to identify their ethnic and racial backgrounds: American Indian/Alaska Native, Asian, Black or African American, Native Hawaiian/Pacific Islander, White/Caucasian, and Other. Since many Chinese and Koreans visited the park on behalf of the Asian Affairs Center, the survey was translated into both languages and cross-checked by two language experts. The overall response rate was 44.1% (1,187 tickets were purchased and 524 surveys were completed). Of those, 521 questionnaires were used for analysis.

	Whites (n=379)		Asians (n=105)	
	Frequency	*%*	*Frequency*	*%*
Age				
19-25	62	16.4	39	37.1
26-45	160	42.2	52	49.5
46-65	131	34.6	13	12.4
Over 65	26	6.8	1	1
Education				
Less than High School	2	0.5	1	0.9
High School Graduate	33	8.7	26	24.8
2 yr College or Some University	91	24	4	3.8
Bachelor's Degree	147	38.8	28	26.7
Professional Degree	106	28	46	43.8
Gender				
Female	218	57.5	48	45.7
Male	161	42.5	57	54.3
Group Size				
1-10	94	24.8	13	12.4
11-20	149	39.3	24	22.8
21-30	103	27.2	39	37.2
31-40	33	8.7	29	27.6
Overall Value of the Tour				
Very Poor	4	1.1	4	3.8
Poor	5	1.3	3	2.9
Average	56	14.8	19	18.1
Good	140	36.9	44	41.9
Very Good	174	45.9	35	33.3

Table 2. Descriptive Statistics of White and Asian Visitors

Analysis

An exploratory investigation using the Kolmogorov-Smirnov test showed that the crowding scores of Asians, D (105) = .156, $p < .001$, and Whites, D (379) = .280, $p < .001$ deviated significantly from normal, thus violating the parametric assumption of normality. Hence, a bootstrapping procedure was used (Mooney & Duval, 1993). Two statistical analyses were conducted using 95% percentile bias-corrected and accelerated confidence intervals (CIs) and 1,000 bootstrap samples. First, an independent t-test was conducted to compare the crowding perceptions of Asians and Whites. Second, a regression model

	Unstandardized Beta (B)	Confidence Interval	Standard Error for B	Standardize Beta	p-value
Constant	8.24	(2.54, 12.83)	2.72		
Age	-.03	(-.08, .02)	.02	-.24	.094
Education	.36	(-.33, 1.08)	.36	.18	.233
Gender	.17	(-1.03, 1.32)	.57	.04	.736
White	-6.54	(-12.96, -.26)	3.02	-1.39	.011
Asian	-5.99	(-13.12, 1.15)	3.35	-1.14	.048
Group Size	.04	(-.05, .14)	.04	.19	.254
Overall Value	-1.44	(-2.08, -.82)	.38	-.55	.012
Age*White	.03	(-.02, .07)	.02	.31	.185
Education*White	-.04	(-.81, .74)	.37	-.03	.917
Gender*White	-.38	(-1.62, .87)	.61	-.15	.502
Group Size*White	.04	(-.04, .12)	.04	.20	.307
Overall Value*White	1.21	(.32, 2.11)	.40	1.17	.068
Age*Asian	.03	(-.03, .10)	.03	.20	.328
Education*Asian	-.40	(-1.20, .33)	.40	-.32	.253
Gender*Asian	.87	(-.57, 2.26)	.70	.26	.180
Group Size*Asian	.03	(-.07, .13)	.05	.16	.516
Overall Value*Asian	1.06	(.08, 2.02)	.44	.85	.076

$R^2 = .25$. Adjusted $R^2 = .22$.

Table 3. Bootstrap Regression Estimates of Crowding Perception

was tested to examine the effect of several independent variables on crowding. These included: age, gender (1 = male), education levels (1 = less than high school, 2 = high school graduate, 3 = two years college graduate or some college education, 4 = bachelor's degree, and 5 = professional degree), White (1 = White), Asian (1 = Asian), group size of the tour, and the respondents' satisfaction level with the guided cave tour or rating on its overall value (1 = very poor, 2 = poor, 3 = average, 4 = good, and 5 = very good). Group size of each tour was obtained from ticket sales information. Previous studies indicated that these independent variables were significantly associated with crowding (e.g., Fleishman et al., 2004; Gramann & Burdge, 1984; Kalisch & Klaphake, 2007; Ross, Erickson, & Schopler, 1973; Sayan & Karaguzel, 2010; Yagi & Pearce, 2007). We also included interaction terms between the two race and ethnicity variables, Asian and White, and the rest of independent variables in the regression model. The interactions were added because Sayan et al. (2013) and Sun and Budruk (2017) suggested that cultural background or nationality had a moderating effect on crowding.

Results

Descriptive statistics of the selected variables are presented in Table 1. Respondents ranged from 19 to 82 years old (M = 40.2, SD = 14.6) and most (86.6%) had a college degree or some higher education. Approximately 73% (n = 379) of the visitors were White, 20% (n = 105) were Asian, and 7% (n = 37) were other racial and ethnic groups. At least 49 Koreans and 27 Chinese visitors were identified in the sample using information provided by the Asian Affairs Center and the number of completed surveys in Korean and Chinese. The remaining 29 Asians visited the park and took the tour independently. While racial and ethnic minorities comprised less than 2% of the visitors at six different Missouri state parks (Witter, 2007), our study was able to collect data from a comparatively large number of Asian visitors at one location. Since the present study focused on comparing Asian and White visitors, descriptive statistics of the two groups are summarized in Table 2.

Results of the independent t-test showed that, on average, crowding perceptions of Asians on the cave tours (M = 3.55, SD = 2.1) exceeded those of Whites (M = 2.59, SD = 2.03). The difference was statistically significant (95% CI: .51 ~ 1.39, SE = .23, $p < .001$). Hedges' g showed that the ethnic and racial identity had a medium effect on crowding perception (g = .47). The statistical power calculated from the harmonic mean of the two samples was greater than .97, showing a negligible probability of a Type II error (Clark-Carter, 2010).

Table 3 summarizes the results of the bootstrap regression analysis. Being Asian (B = -5.99, 95% CI: -13.12 ~ 1.15, $p < .05$) or White (B = -6.54, 95% CI: -12.96 ~ -.26, $p < .05$) significantly contributed to crowding perception. Respondents' satisfaction level was also significantly associated with crowding (B = -1.44, 95% CI: -2.08 ~ -.82, $p < .05$). Other independent variables and interaction terms were not statistically significant. The direction of the regression coefficients suggested that Asian and White visitors, as well as those who were satisfied with the tour, were less likely to feel crowded. Moreover, both standardized and unstandardized beta coefficients suggested that Asians were more likely to feel crowded on the tours as compared to Whites.

Discussion

This study is among the first attempts to examine crowding perceptions of different racial and ethnic groups at a tourism destination in the U.S. While the lack of racial and ethnic diversity at state parks in the U.S. makes sampling and data analysis a daunting task, we were able to overcome this issue at OCSP, despite some limitations. Several findings are worth noting. The most surprising result was that Asians felt more crowded than Whites. This finding contradicts previous studies that Asians were more crowd tolerant than other nationalities (e.g., Doorne, 2000; Fleishman et al., 2004; Neuts & Nijkamp, 2012; Sun & Budruk, 2017) and there were no significant differences between Easterners and Westerners (e.g., Jin & Pearce, 2011; Vaske et al., 1996). The gaps between our results and those from previous studies suggest a careful interpretation of the results. As such, two possible explanations are presented below.

First, the relative intolerance of Asian visitors to crowding might not be a function of their ethnic and racial identity, but other factors such as travel format. Seventy-six Asians (72.4%) in the sample visited OCSP through tours organized by the Asian Affairs Center. They were visiting scholars and participants of cultural exchange programs who had lived in the U.S. for up to 1.5 years. They spent two hours together while riding in the van, and another hour on the cave tour. These travel parties tended to be larger than Whites who visited the park in social or family groups. Whereas previous findings on the relationship between travel format and crowding are mixed (Jin & Pearce, 2011; Sun & Budruk, 2017; Truong & Foster, 2006), sharing the same space with other Asians for a long period of time before and during the tour may have heightened their sensitivity toward crowding. Researchers have reported that the behavior of other visitors can impact crowding perceptions (Fleishman et al., 2004; Jin & Pearce, 2011; Sun & Budruk, 2017). For example, Jin and Pearce (2011) documented that Chinese tourists were more sensitive to others as compared to European and American visitors. Therefore, it is possible that the tour format may have boosted the crowding perception of Asian tourists, inadvertently. Regrettably, the present study could not fully examine these possibilities because this type of information was not included on the survey.

Second, although the existing literature emphasizes collectivistic norm and frequent personal interactions within Asian culture (Evans, Lepore, & Allen, 2000; Gillis, Richard, & Hagan, 1986; Hofstede, 2001; Kim, Lee, & Sirgy, 2016), this notion might be outdated. Lee and Stodolska (2016) pointed out that, due to rapid westernization and industrialization occurring in East Asian countries, many Asian immigrants to North America have been exposed to Western values, such as individualism and materialism prior to their arrival. Thus, the subjects in this study might have been more westernized than expected.

Visitor satisfaction with the cave tour had a significant negative association with crowding perception. Needham et al. (2014) suggested that the relationship between overall satisfaction and crowding has produced mixed results, yet it was weak or insignificant in many studies. Since those studies were conducted elsewhere, our findings may be unique to a cave setting. Further investigation at other caves might be necessary to gain a robust estimate of the association between perceived crowding on visitor satisfaction.

Besides being Asian or White and the satisfaction level, other independent variables and their interactions did not exert a meaningful influence on crowding perception. Although Sayan and Karaguzel (2010) found that education level affected crowding perception as well as preference for the number of groups to encounter, our study did not support such results. We also found that group size was not significant, although several studies have documented the positive relationship between the number of visitors and crowding at tourism destinations (Neuts & Nijkamp, 2012; Sun & Budruk, 2017). Unlike Sayan et al. (2013) and Sun and Budruk (2017), we found that being Asian or White did not moderate the relationship between other independent variables and crowding.

The discrepancies between our findings and previous investigations might be explained by the most distinctive characteristic of this study—a cave. In fact, environmental attributes are one of three major antecedents of crowding (Manning, 2011; Neuts & Nijkamp, 2012). Few crowding studies have been conducted in caves. Morgan and Walker (2011) suggested that crowding perceptions may differ between cave environments and other settings. Guided cave tours are unique since participants are not allowed to depart from the group. Visitors often experience coolness and limited visibility for periods of time. In fact, the presence of others could be a source of comfort for some cave visitors, a topic that warrants further investigation.

This study contains at least four limitations: 1) researchers showed that crowding could be influenced by other factors that were not included in this study. Some of those factors include: the extent to which tourists share or differ in their personal characteristics (Fleishman et al., 2004), behavior of other tourists (Sun & Budruk, 2017), normative tolerance for seeing others (Needham, Vaske, Whittaker, & Donnelly, 2014), and knowledge and previous experience with the destination (Leujak & Ormond, 2007). Incorporating other factors might yield a better understanding of crowding perception from different ethnic and racial groups; 2) although tour guides encouraged visitors to participate in the study, our response rate of 44% is relatively low for an onsite survey. It might be subject to a non-response bias. We believe the low response rate is due to the location and timing of data collection. For example, visitors were asked to complete the survey in a separate room in the visitor center, adjacent to the cave exit. This arrangement made it easy for visitors to bypass it since some of them needed to get a drink of water or use the restroom. Others left quickly so they could see different areas in the park; 3) several Asian nationalities were combined into one group to enlarge the sample size. This strategy might have been too simplistic to account cultural heterogeneity across Asia. For example, some researchers have found that Chinese were more individualistic than Japanese and Koreans, suggesting that it might be problematic to generalize Asian values (Ueltschy, Laroche, Zhang, Cho, & Yingwei, 2009); and 4) the generalizability of our findings might be limited, given that guided tours at caves are context-specific. Thus, our findings might not lend themselves easily to other settings.

Despite the above limitations, this study sheds some new insights into crowding perceptions of park visitors in the U.S. Discrepancies between our findings and other studies call for more empirical research to draw stronger conclusions. Although crowding at interpretive programs may not be an issue at many parks, show caves present some unique challenges for visitor management. In an effort to enhance park revenue, some managers may want to include more people on the tours, not fewer. In doing so, some park visitors may feel uncomfortable or intolerant of sharing the same space with people from different racial or ethnic backgrounds (Dillette, Benjamin, & Carpenter, 2018; Gobster, 2002; Lee & Scott, 2017; Tinsley, Tinsley, & Croskeys, 2002). Perception of alikeness is a topic that has been studied in outdoor recreation management, but not within the context of interpretation. However, the diversity of tourists in the U.S. may change in the near future. Further investigation will enable researchers to better understand the relationships between crowding and racial and ethnic identities, thus helping practitioners more effectively manage caves and other outdoor recreation settings.

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The Devil Made Me Do It

Influence of Values on Interpretation and Behaviors for Tasmanian Devils

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Abstract
Zoos are becoming more intentional about embedding messaging in their interpretation to promote pro-conservation behaviors, essentially acting as agents of social change. Values theory suggests that, be effective, interpretation including these pro-conservation messages needs to broadly align with visitors' values. Using the Schwartz value system, this study modeled the relationships between visitors' values, perceptions of interpretation, emotional connectivity to Tasmanian Devils, and behavioral intent, including a comparison of different types of on-site and post-visit pro-conservation behaviors. Most visitors held moderate to strong conservation values, which were predictive of positive perceptions of interpretation, emotional connectivity, and pro-conservation behaviors. However, the results suggest that while visitors' values align with their perceptions of interpretation, they are only weak predictors of behavioral intent. Visitors' perceptions of interpretation and behavioral intent aligned more strongly with

emotional connectivity than with their values. Overall, behavioral intentions were low for all pro-conservation behaviors. Liking a Facebook post about the conservation of Tasmanian Devils was the behavior most likely to be performed.

Keywords
behaviors, emotional connection, interpretation, Tasmanian Devils, values, zoo-based conservation, Zoos Victoria

Introduction

Zoos, given their mandate of keeping and displaying wildlife, offer an ideal portal to reach broad cross-sections of the global public with conservation-oriented interpretation that harnesses the zoo visit to gain support for and action on conservation issues. As zoos continue to evolve into centers of conservation, they are well positioned to act as agents of social change (Fraser & Wharton, 2007; Rabb & Saunders, 2005). This is further enhanced by the staggering visitor numbers now reported by wildlife attractions. As per the World Association of Zoos and Aquariums and the Association of Zoos and Aquariums, annual worldwide visitation rates to accredited institutions exceeds 700 million visitors, with an average visit lasting four hours (AZA, 2019; WAZA, 2019).

Many zoos are actively looking to be more impactful in their use of interpretation, and this includes a better understanding of their publics' values and how these values relate to behavioral intentions and behaviors. The problem, or gap, that this study seeks to fill is that of understanding the relationship between visitors' pre-existing values, which are relatively stable, and their perceptions, emotional connections, and pro-conservation behaviors, which are what zoo interpretation typically seeks to influence. Such understanding can then be channeled into developing interpretation that better aligns with the values held by intended audiences.

Interpretation and Behavior Change

A fundamental tool zoos have in their arsenal for garnering conservation support and action is on-site interpretation. Beck and Cable (2011) define interpretation as an educational activity that reveals meanings about natural resources through various media. Another leading definition, from the National Association for Interpretation, defines interpretation as "a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource" (NAI, 2019). In both cases, zoo-based interpretation is centered on connecting visitors (emotionally and cognitively) to animals. Ultimately, many zoos seek to use the connection visitors form with wildlife to drive conservation. This model is summarized in the quote apocryphally attributed to Freeman Tilden (1957) "through interpretation, understanding; through understanding, appreciation; through appreciation, protection" (p. 38).

The premise that interpretation can influence an individual's connection to a resource (e.g. wildlife) and thus stimulate protective action is a core tenet of conservation psychology (Ham, 2009; Saunders, 2003), and the foundation of many behavior models. Several behavior models have been used to explain and predict a wide range of consumer, social, and environmental behaviors, and their efficacy assessed from a conservation psychology perspective (Kaiser, Hübner, & Bogner, 2005). The theory of planned behavior (Ajzen, 1991), value belief norm theory (Stern, Dietz, Abel, Guagnano, & Kalof, 1999), and the elaboration likelihood model (Petty & Cacioppo, 1986) are commonly used theoretical frameworks to align interpretation to desired outcomes (e.g. behavior change), for example, see MacDonald, Milfont, & Gavin (2016), Powell & Ham (2008), and Walker & Moscardo (2014). Such behavior models provide a useful framework to study the applied nature of the zoo visit and in particular the influence of interpretation on visitors' conservation attitudes and behaviors, including such behaviors as protecting old growth trees in order to preserve nesting sites, choosing products made using sustainable forestry practices, and donating money to a conservation organization.

Most of these frameworks posit that values are antecedent predictors of behavior change (e.g., cessation or adoption of an action). However, most scholars suggest that values are relatively stable and not subject to significant change or influence, particularly as a result of one-off exposure to interpretation (Ajzen, 1991; Manfredo et al., 2017; Stern et al., 1999). Rather than attempting to change values, Manfredo et al. (2016) suggest that conservation would be better served by aligning messages to visitor values. Aligning interpretation to visitors' underlying values has been shown to increase receptivity to messages and positively influence behavior change (Ham & Weiler, 2002; Orams, 1997).

For example, Clayton, Fraser, and Burgess (2011) found zoo visitors' environmental identity and connection to an animal were positively correlated with an interest in conservation. Other studies have documented increases in visitor awareness, empathy, and knowledge following zoo-based interpretation (Fraser, Gruber, & Condon, 2007; Gwynne, 2007; Woods, 2002). Other research has shown mixed results as to the efficacy of interpretive experiences influencing behaviors, and the overall likelihood of visitors adopting pro-conservation behaviors (Smith, Broad, & Weiler, 2008; Smith, Curtis, & van Dijk, 2010; Smith, Weiler, & Ham, 2011). Conservation caring, a measure of visitors' emotional connection to wildlife, has been found to be a stronger predictor of behaviors compared to interpretation. However, interpretation has a significant influence on conservation caring (Skibins, Powell, & Hallo, 2013; Skibins, Dunstan, & Pahlow, 2017).

Another challenge that has not been taken up in published literature is how to address conservation issues that require human intervention, but do not have human behaviors at the root cause of the threat. Tasmanian devil conservation is one such example. The Tasmanian devil is the world's largest living carnivorous marsupial, is endemic to the state of Tasmania, Australia, and is officially listed as endangered. However, the greatest threat to Tasmanian devil survival, Devil Facial Tumor Disease (DFTD), is not directly attributable to human action; rather, it is a contagious disease transmitted by contact with individual animals already infected with the disease. DFTD has nearly destroyed the entire wild population.

What makes this situation rare, from a conservation standpoint, is that, although DFTD is not rooted in anthropogenic causes, the survival of the species still requires broad public support and action. In particular, financial support from private sources are needed to supplement government funding for breeding disease-free populations and re-introducing them to the wild, and for researching and monitoring their health and survival as a species. Public support, including financial donations, is key, and zoo interpretation can play an important role in fostering pro-conservation attitudes and behaviors toward the species. The influence of visitors' values on perceptions of interpretive messaging, connection with wildlife, and preferences for pro-conservation behaviors is generally poorly understood, and how values relate to interpretation of a species threatened by non-anthropogenic causes is unknown. Given the increasing evidence that wildlife conservation and threats to biodiversity more generally are largely dependent on human responses to these issues, it is imperative to continue to build understanding of the antecedents to pro-conservation behavior, including the role that both values and interpretation can play in enhancing this (St. John, Edwards-Jones, & Jones 2011).

Values

Given that zoos are significant visitor attractions with broad appeal across nationalities and ethnic groups, this study made use of Schwartz's (2006, 2012) values instrument, which has been shown to be robust across cultures. Schwartz identified 10 personal value orientations (self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism), with six features being common to all 10 value orientations: 1) values are beliefs, 2) values are desirable goals, 3) values transcend specific actions and situations, 4) values are standards or criteria, 5) values are ordered by importance, and 6) values are relatively important in guiding actions.

Schwartz's value orientations provide a way of understanding how people see themselves in relation to the environment, and may be useful in determining how an organization like a public zoo can use interpretation to align with and perhaps reinforce values, which can then in turn help foster a more sustainable world (Pahlow & Dunstan, 2015). Values are measured with multiple items, with a full profiling of an individual's values requiring at least 56 items. In order to minimize respondent burden, many studies focus on a subset of relevant values. Ballantyne, Hughes, Lee, Packer, and Sneddon (2018) used a subset of Schwartz's values to evaluate zoo visitors' behaviors. Manfredo, Teel, and Dietsch (2016) suggest aligning messaging to specific value orientations to improve broad conservation efforts.

This study focused on two of Schwartz's value orientations, benevolence and universalism, as these have been shown to be of particular relevance to visitor-based conservation actions (Clayton, Litchfield, & Geller, 2013; Walker & Moscardo, 2014; Yocco, Bruskotter, Wilson, & Heimlich, 2015). The benevolence value orientation focuses on the welfare of those with whom one is in frequent contact. It emphasizes voluntary concern for others' welfare and promotes cooperative and supportive behaviors. The concern expressed for others can be extended to include wildlife (Manfredo, Teel, & Dietsch, 2016). The universalism value orientation has its defining goal as understanding, appreciation, tolerance, and protection for the welfare of all people and for nature. Universalism values are triggered by the recognition of the scarcity of natural resources. Universalism's generic focus is contrasted with the personalized focus of benevolence.

As noted in Schwartz's value features five and six, individual importance and impact of values is relative. In order to identify the strength of value orientations, Schwartz created the Schwartz Value Survey (SVS). The SVS uses nine-point scale items that are compressed at the bottom end and allow for expression of opposition to the value. The SVS is designed to capture how people explicitly report their own values. It has been shown to be valid across diverse samples. However, as feature six indicates, value importance is relative and the subsequent differential effect on visitor outcomes is unknown.

Study Objectives

This study had two main objectives: 1) quantify the influence of zoo visitors' values on perceptions of interpretive messaging, connection to wildlife (conservation caring), and

Figure 1. Donation box interpretive panel in Tasmanian Devil exhibit at Healesville Sanctuary

pro-conservation behavioral intentions, and 2) evaluate visitors' preferences for pro-conservation behaviors for the Tasmanian Devil. Positive perceptions of interpretive messaging, conservation caring, and pro-conservation behavioral intentions are common visitor-based outcomes that zoos aim to achieve through interpretation and are expected to contribute to wildlife conservation (Skibins & Powell, 2013; Smith et al., 2008; Weiler & Smith, 2009). Statistically significant relationships between a visitor's values and these outcome variables would have implications for message development and delivery.

Study Site

Zoos Victoria (ZV) is a zoo-based conservation organization with three properties—Melbourne Zoo, Healesville Sanctuary, and Werribee Open Range Zoo—all located in Victoria, Australia. This study was conducted at Healesville Sanctuary (average annual visitation 500,000), which is designed to provide a uniquely Australian experience. Healesville Sanctuary departs from the traditional zoo practice in that its collection is not dominated by exotic charismatic megafauna, large-bodied vertebrates, and less threatened species (Colleony, Clayton, Couvet, Saint Jalme, & Prevot, 2017). Rather, the zoo exhibits mainly native Australian wildlife and its interpretation is strongly focused on local endangered species and recovery programs, one of which is supporting the recovery of Tasmanian Devils.

Healesville Sanctuary holds the second largest captive group of Tasmanian Devils in Australia and has the highest breeding success of any of the 31 captive breeding programs (Zoos Victoria, 2014). The Tasmanian Devil exhibit consists of several enclosures along a circular path with one entry/exit point. Keeper Talks (i.e., first-person interpretation) are conducted at the first enclosure on the path. There are 10 full-color interpretive panels throughout the exhibit that detail Tasmanian devil natural history, conservation issues, and DFTD. Signage is almost entirely static (i.e., does not include video or sound) with multi-sensory interpretation largely absent except during the Keeper Talks, although several of the signs have interactive flaps and actions. Collectively, the messaging is informative and compelling, and strongly focused on conveying the primary threat (DFTD), building emotional connections with the devil, and providing visitors with actions they can undertake to help address the threat and thereby help "save" the devil. For example, "DFTD is a contagious fatal cancer that has wiped out most of Tasmania's wild devils and may leave them extinct in the wild"; "Breeding and research is helping us survive"; "One day we'll be back in the wild"; and "You can help fight extinction by making a donation." Messaging applies interpretive principles and uses interpretive techniques that are known to be effective in attracting attention and impacting visitors understanding, attitudes, and behavioral intentions (Skibins et al., 2012). This includes content that is relevant to the audience, cognitive and affective messaging, providing examples of actions visitors can take, and providing an opportunity to take action on-site. The latter consists of a donation box near the main viewing platform, in which inserting a coin activates a recording of Tasmanian devil sounds. The donation box panel includes the zoo's "Fighting Extinction" logo, text stating Zoos Victoria is a not-for-profit organization, and that donations support the zoo's threatened species conservation programs (see Figure 1).

Methods

A self-completed questionnaire was administered to visitors aged 18 and over at Healesville Sanctuary over a two-month period as they exited the Tasmanian devil exhibit. A census sampling protocol was used. Census sampling is a useful approach when all visitors during the sampling period can be intercepted at a central location (Salkind, 2016).

Measurements for visitors' values were adapted from the Schwartz Value Survey (SVS). SVS items were rated on a nine-point Likert-type scale: –1 (opposed to my values) to 7 (of extreme importance) and follow Schwartz's schema for measuring values (Schwartz, 1992, 2006, 2012). The three dependent variables included perceptions of interpretive messaging, conservation caring (emotional connection to Tasmanian Devils), and pro-conservation behavioral intentions. All items were rated on a nine-point Likert-type scale: 1 (strongly disagree/extremely unlikely) to 9 (strongly agree/extremely likely).

Variables

Visitor Values

We measured the SVS value orientations of universalism and benevolence using a total of eight items (four items for each orientation).

Visitor Perceptions of Interpretive Messaging

This composite variable, hereafter perceptions of interpretive messaging (PIM), included items addressing visitors' self-perceptions of knowledge gained, personal responsibility, and Healesville Sanctuary's responsibilities for Tasmanian devil survival. Visitors rated each of the 12 items on a nine-point Likert-type (agree-disagree) scale.

Emotional Connectivity

Emotional connectivity to Tasmanian devils was measured using conservation caring. Conservation caring is a scale that measures visitors' emotional connection to a species. The scale, consisting of six items, has been validated in *in situ* and *ex situ* settings for a wide variety of species, and has been shown to be a strong predictor of behaviors (Skibins & Powell, 2013; Skibins et al., 2013; Skibins et al., 2017).

Pro-Conservation Behavioral Intentions (PCBI)

We measured visitors' self-reported intentions of performing eight different pro-conservation behaviors. These eight behaviors were used to create the composite variable, PCBI. Behavioral intentions can be an acceptable proxy for actual behaviors and can overcome logistical challenges in collecting data at the time of behavior execution (Ballantyne, Packer, & Falk, 2011; Smith & Sutton, 2008). Behaviors were based upon actions that zoo visitors could actually perform at Healesville Sanctuary or at home. Behaviors included five traditional options such as donating various amounts of money and adopting (i.e., sponsoring for an annual fee) an animal (also a form of donation), and three social media-related options that had a direct connection to conservation, such as "liking" a Healesville Sanctuary/Tasmanian devil conservation post on Facebook.

Analyses

Data were screened for missingness and for univariate, and multivariate outliers (Tabachnick & Fidell, 2007; Vaske, 2008). Sixty-two cases were removed, using listwise deletion, for exceeding ± 3 S. D. and the Mahalanobis Distance value (χ 2 (43) = 77.42, $p < .001$). The final sample size was 419. Composite variables were assessed using scale reliability analysis in SPSS v22. Reliability iterations were stopped when there was no meaningful improvement to Cronbach alpha scores from item removal. Final Cronbach alpha scores for all composites (i.e., visitor values, PIM, conservation caring, and PCBI) exceeded 0.8. Linear regressions were performed to uncover relationships between variables. ANOVAs with Bonferroni post-hoc comparison and pairwise t-tests were performed to assess differences in means.

A K-means cluster analysis was performed using SVS value orientations following Wu (2012). This technique has been shown to be useful for assessing psycho-social constructs in tourism experiences (Brida, Osti, & Barquet, 2010; Kibicho, 2006). K-means cluster analyses allow the researcher to specify the number of groups, and subsequently allows for cases with similar scores to be placed into relatively homogeneous groups or clusters. Assignment to a group is based on the shared similarities for that cluster, as well as the degree of difference from other clusters. The analysis seeks to maximize intra-group similarity and inter-group differences. Fredline (2012) advocates for the use of cluster analysis in tourism settings as a meaningful and effective approach to assess nuanced differences within psycho-social variables, such as values, rather than relying on geographic or demographic segmentation. By creating groups that are similar, solutions can be more targeted and specialized.

As per Wu (2012), the number of clusters is based, in part, on the sample size of

Composite Variable	Sample Size (n)	Mean	Standard Deviation	Cronbach Alpha
Benevolence*	410	5.61	± 1.32	.94
Universalism*	403	5.25	± 1.40	.93
Perceptions of Interpretive Messaging**	365	7.94	±.85	.88
Conservation Caring**	401	5.33	± 1.70	.92
Pro-conservation Behavioral Intention**	399	3.97	± 1.77	.87

Notes: * rated on 9-point scale -1 = opposed to my values, 0 = not important, 7 = of supreme importance; ** rated on a 9-point Likert type scale, 1 = strongly disagree/extremely unlikely, 9 = strongly agree/extremely likely

Table 1. Composite variable descriptive statistics

Model	Adj. R^2	β
SVS Values on Perceptions of Interpretive Messaging	.12 (*p* < .001)	
Benevolence		NS
Universalism		.30 (*p* < .001)
SVS Values on Conservation Caring	.25 (*p* < .001)	
Benevolence		NS
Universalism		.56 (*p* < .001)
SVS Values on PCBI	.076 (*p* < .001)	
Benevolence		NS
Universalism		.20 (*p* < .01)
SVS Values, Perceptions of Interpretive Messaging & Conservation Caring on PCBI	.39 (*p* < .001)	
Benevolence		NS
Universalism		- .16 (*p* < .001)
Perceptions of Interpretive Messaging		NS
Conservation Caring		.62 (*p* < .001)

Table 2. Linear regressions of SVS value orientations

	Cluster 1 (high) (n = 221)	Cluster 2 (medium) (n = 119)	Cluster 3 (low) (n = 57)
Benevolence (mean)*	6	5	3
Universalism (mean)*	6	5	3
Age (mean)	40	40	40
Gender	59% female 41% male	47% female 53% male	32% female 68% male
Education	73% tertiary or higher	80% tertiary or higher	75% tertiary or higher
Income	64% @ $75,000/yr or higher	67% @ $75,000/yr or higher	67% @ $75,000/yr or higher

Notes: *SVS values scored on a scale of -1 (opposed to my values) to 7 (of supreme importance).

Table 3. Cluster mean value scores and demographics

potential clusters. It is preferred to have clusters with 20 or more individuals and of the same approximate sample size. However, neither condition is mandatory (Fredline, 2012; Wu, 2012). For this study, we created three clusters, high (n=221), medium (n=199), and low (n=57) values scores, which were subsequently evaluated for differences in responses across the dependent variables.

Results

Survey Sample and Composite Variable Descriptives

A total of 481 zoo visitors (43% response rate) completed the survey. The sample was 52% female, 48% male; mean age was 40.5 years; 76% reported completing undergraduate or post-graduate level education; 86% resided in Australia; and 54% report an annual household income greater than $75,000 AUD.

Sample sizes, means, standard deviations, and Cronbach alpha values are reported for the composite variables respectively (Table 1): benevolence (410, 5.61 ± 1.32, .94), universalism (403, 5.25 ± 1.40, .93), PIM (365, 7.94 ± .85, .88), conservation caring (401, 5.33 ± 1.70, .92), and PCBI (399, 3.97 ± 1.77, .87). As shown in Table 1, respondents generally held positive benevolence and universalism values and are above average in conservation caring (emotional connection with the devil), but had low intentions to undertake pro-conservation actions.

Influence of Values on Dependent Variables

Linear regressions were performed to uncover relationships between value orientations and the dependent variables. For individual parameter estimates, see Table 2. SVS

		Mean	Cluster 1 (high)	Cluster 2 (medium)	Cluster 3 (low)
SVS Value Clusters					
Perceptions of Interpretation*	Cluster 1	8.16			
	Cluster 2	7.70	*p* < .001		
	Cluster 3	7.53	*p* < .001	NS	
Conservation Caring*	Cluster 1	5.97			
	Cluster 2	4.82	*p* < .001		
	Cluster 3	4.00	*p* < .001	*p* = .004	
PCBI*	Cluster 1	4.30			
	Cluster 2	3.96	NS		
	Cluster 3	2.81	*p* < .001	*p* < .001	

Notes: * rated on a 9-point Likert type scale, 1 = strongly disagree/extremely unlikely, 9 = strongly agree/extremely likely

Table 4. Comparison of composite mean scores across value clusters

values were shown to significantly predict PIM ($F(2, 344) = 24.44$, $p < .001$, $R^2 = .12$), conservation caring ($F(2, 377) = 63.67$, $p < .001$, $R^2 = .25$), and PCBI ($F(2, 377) = 16.53$, $p < .001$, $R^2 = .076$). When both SVS value orientations, PIM, and conservation caring were regressed on PCBI, the model was significant ($F(4, 322) = 52.32$, $p < .001$, $R^2 = .39$); universalism ($\beta = -.16$, $p < .001$) and conservation caring ($\beta = .62$, $p < .001$) were the only significant predictors.

Cluster Analyses

High, medium, and low clusters were generated for benevolence and universalism values (Table 3). Socio-demographic characteristics were consistent across clusters, with the exception of gender in cluster 3 (low values). Dependent variables were assessed across clusters. The overall pattern was for cluster 3 (low value scores) to report less positive PIM levels, conservation caring and PCBI ($p < .05$) than clusters 1 (high) and 2 (medium). Cluster 1 had the highest scores for PIM and conservation caring. Cluster 3 had the lowest scores for PCBI, but there was no difference between Clusters 1 and 2. For a complete list of results see Table 4. ANOVAs with Bonferroni post-hoc comparisons were performed for each behavior across clusters (see Table 5). Respondents in cluster 3 (low) had significantly lower scores for all behavioral intentions compared to clusters 1 (high) and 2 (medium).

SVS Value Clusters	Mean $\pm$ S.D.	Cluster	1	2	3
I would "adopt" a TD for $15/month.	3.98 $\pm$ 2.10	1 (high)			
	3.64 $\pm$ 1.85	2 (med)	NS		
	2.40 $\pm$ 1.56	3 (low)	$p < .05$	$p < .05$	
I would "adopt" a TD for $60/year.	4.29 $\pm$ 2.37	1 (high)			
	4.03 $\pm$ 2.15	2 (med)	NS		
	2.63 $\pm$ 2.05	3 (low)	$p < .05$	$p < .05$	
I would donate $50 to help purchase infrared cameras to monitor TD in their natural habitat.	4.45 $\pm$ 2.20	1 (high)			
	4.15 $\pm$ 1.88	2 (med)	NS		
	3.00 $\pm$ 1.98	3 (low)	$p < .05$	$p < .05$	
I would donate $100 to help purchase fencing and solar panels for field enclosures to protect TD in their natural habitat.	3.84 $\pm$ 2.06	1 (high)			
	3.48 $\pm$ 1.82	2 (med)	NS		
	2.54 $\pm$ 1.58	3 (low)	$p < .05$	$p < .05$	
I would donate $250 to help fund research and veterinarian services for the TD breeding program.	3.39 $\pm$ 2.08	1 (high)			
	3.11 $\pm$ 1.79	2 (med)	NS		
	2.47 $\pm$ 1.56	3 (low)	$p < .05$	NS	
I would "Like" posts about TD on Zoos Victoria's Facebook page.	5.96 $\pm$ 2.94	1 (high)			
	5.72 $\pm$ 2.58	2 (med)	NS		
	3.98 $\pm$ 2.47	3 (low)	$p < .05$	$p < .05$	
I would "Tweet" about Healesville Sanctuary's TD conservation program on Twitter.	3.83 $\pm$ 2.91	1 (high)			
	3.59 $\pm$ 2.65	2 (med)	NS		
	2.56 $\pm$ 2.16	3 (low)	$p < .05$	NS	
I would share via email about Healesville Sanctuary's TD conservation program.	4.78 $\pm$ 2.82	1 (high)			
	4.13 $\pm$ 2.60	2 (med)	NS		
	2.89 $\pm$ 2.00	3 (low)	$p < .05$	$p < .05$	
PCBI composite	4.30 $\pm$ 1.79	1 (high)			
	3.96 $\pm$ 1.55	2 (med)	NS		
	2.81 $\pm$ 1.54	3 (low)	$p < .05$	$p < .05$	

Notes: All PCBI rated on 1 = extremely unlikely, 9 = extremely likely; TD (Tasmanian Devil)

Table 5. Comparison of individual PCBI mean scores across SVS value clusters

Pro-Conservation Behavior	Mean ± S.D.	1	2	3	4	5	6	7	8
I would "adopt" a TD for $15/month.	3.63 ± 2.02								
I would "adopt" a TD for $60/year.	3.97 ± 2.33	$p < .05$							
I would donate $50 to help purchase infrared cameras to monitor TD in their natural habitat.	4.14 ± 2.13	$p < .05$	NS						
I would donate $100 to help purchase fencing and solar panels for field enclosures to protect TD in their natural habitat.	3.54 ± 1.96	NS	$p < .05$	$p < .05$					
I would donate $250 to help fund research and veterinarian services for the TD breeding program.	3.16 ± 1.93	$p < .05$	$p < .05$	$p < .05$	$p < .05$				
I would "Like" posts about TD on Zoos Victoria's Facebook page.	5.58 ± 2.86	$p < .05$	$p < .05$	$p < .05$	$p < .05$	$p < .05$			
I would "Tweet" about Healesville Sanctuary's TD conservation program on Twitter.	3.60 ± 2.78	NS	$p < .05$	$p < .05$	NS	$p < .05$	$p < .05$		
I would share via email about Healesville Sanctuary's TD conservation program.	4.33 ± 2.73	$p < .05$	$p < .05$	NS	$p < .05$	$p < .05$	$p < .05$	$p < .05$	

Notes: All PCBI rated on 1 = extremely unlikely, 9 = extremely likely; TD (Tasmanian Devil)

Table 6. Pairwise comparisons of individual PCBIs

Differences Between Individual PCBI

Pairwise comparisons of individual pro-conservation behavioral intentions were performed at the total sample level. The purpose of this analysis was to uncover potential differences in visitors' likelihood of performing pro-conservation behaviors for Tasmanian devils. For a complete list of individual comparisons see Table 6. The following patterns were observed. The least likely behavior to be performed was donating $250 to help fund research (3.16 ± 1.93, $p < .05$ in comparison to all other PCBI). The behavior that had the highest reported level of intention was "liking" a post on Facebook (5.58 ± 2.86, $p < .05$ in comparison to all other PCBI). Within financial donation behaviors, visitors were most likely to make a one-time donation of $50 to $60. Use of Twitter was the least likely of the social media behaviors (3.60 ± 2.78, comparisons within social media category all $p < .05$).

Discussion

This study had two main objectives. The first was to determine the relationship between zoo visitors' values and perceptions of interpretive messaging, connection to wildlife, and behavioral intentions. The second was to evaluate visitors' preferences for conservation behaviors they could perform to aid the Tasmanian devil.

Influence of Values on Conservation Outcomes

The SVS value orientations demonstrated high levels of statistical rigor and were successful in measuring latent values of zoo visitors. This was expected as these instruments have been validated in numerous contexts (Schwartz, 2006, 2012; Schwartz et al., 2012). Visitors' mean scores for SVS values (both benevolence and universalism) were just over five, indicating a moderate to high level of importance. Additionally, the majority of respondents (85%) were assigned to the high and medium value clusters (Table 3), which may suggest a trend in zoo visitors of holding moderate to strong benevolence and universalism values. However, further investigations are needed to better define this pattern.

Results from the linear regressions support the assertion that visitors' values have a positive and direct relationship with PIM, conservation caring, and PCBI. However, universalism was only a weak predictor of the dependent variables, and benevolence was not found to be a significant predictor of any of the dependent variables. Although a negative coefficient for universalism appears in the model with all the IVs, the value is too small to be considered meaningful. Future interpretive messaging could consider focusing more on universalism value statements. A focus on one value set may also help interpretive messaging better adhere to being thematic, organized, relevant, and enjoyable as advocated by Ham (2013).

In general, all the R^2 values are low and indicative of only "weak" relationships (i.e., $R^2 < .40$) (Vaske, 2008); no R^2 value exceeded .40 (Table 2). In fact, the model with values as the only IV and PCBI as the DV performed the poorest ($R^2 = .076$), suggesting values are not strongly related to behavioral intentions. Values' effect on PIM was also very weak ($R^2 = .12$). Overall, these findings support previous studies that show values and experiential variables (such as interpretation and observed species) are more strongly related to conservation caring, and only weakly associated with PCBI (Skibins et al., 2016; Skibins et al., 2013).

In general, the findings of this study are consistent with how values are modeled in communication and behavior models (Petty & Cacioppo, 1986; Stern et al., 1999; Stern, Dietz, & Guagnano, 1998) and previous values studies (Sponarski, Vaske, Bath & Musiani, 2014; Walker & Moscardo, 2014). As noted earlier, values are relatively stable over time and function as anchor points in most models. Thus, while values do exert an influence on communication efficacy and behavior change, they are several steps removed. Data from this study suggest interpretive messaging that is generally framed by pro-conservation values, but which targets constructs such as emotional connectivity may be more effective in generating desired visitor outcomes compared to messaging that focuses solely on values, as seen in Jacobs and Harms (2014) and Pfatteheicher, Sassenrath, and Schindler, 2015.

Visitor Outcomes Based on Values Clusters

Clusters were generated using a K-Means cluster analyses, based on visitors' value scores. The purpose of these analyses was to provide practitioners an additional perspective in considering ways of engaging audiences. With the exception of gender in Cluster 3, values were uniformly distributed in visitors to Healesville Sanctuary and high/medium/low scores were not restricted to a specific subset of visitors. In other words, values were relatively evenly distributed regardless of age, education, and income levels. This would indicate a reduced need for a values-based messaging campaigns targeted to individual demographics. This is consistent with Doran (2009) who found SVS values were not linked to specific demographics.

Once clusters were established, the mean scores for PIM, conservation caring, and PCBI were compared across clusters. All scores for PIM were very high regardless of value cluster, which suggests an overall high-quality interpretive experience at Healesville Sanctuary. Visitors who reported high value scores (Cluster 1) reported the highest PIM. Low (Cluster 3) and medium (Cluster 2) clusters did not differ, suggesting that the values threshold for perceptions of interpretation is relatively high. That is to say, visitors who reported the strongest value orientation scores rated interpretation higher than visitors with medium or low value scores. This may be an example of "preaching to the choir," in that visitors with high benevolence and universalism scores may be predisposed to the zoo's mission, and thus favorably regard interpretive messaging (Ballantyne, Packer, & Falk, 2011; Skibins et al., 2013).

For conservation caring, all three clusters (high/medium/low) were significantly different from each other, and all hovered around the neutral point. Visitors who reported high value scores reported the highest conservation caring scores, followed by medium then low clusters. This pattern is expected and supports how values underlie emotional responses, particularly for wildlife species such as the Tasmanian devil that are not necessarily charismatic (Burns, 2006; Schultz, 2001).

No differences were revealed between high and medium clusters for PCBI responses, effectively creating only two groups (low and medium/high). This suggests the values threshold for PCBI is low, whereas for PIM it was high. As medium and high clusters had the greatest number of individuals, this would indicate the majority of zoo visitors are equally likely to engage in pro-conservation behaviors. The minority segment of visitors with low value scores appear to be very unlikely to participate in behaviors. However, it is important to reiterate that values were only weak predictors of behaviors, as were all other variables in this study.

It should also be noted that the mean scores for all PCBIs across value clusters were "unlikely" to "neutral" except for "liking" a Facebook post (see Tables 4 and 5). The mean score for the PCBI composite was also below the neutral point, whereas conservation caring was just above the neutral point of 5. In comparison, PIM was strongly positive. Thus, even though PIM is generally high, and conservation caring is neutral, visitors do not appear to be likely to perform any of the behaviors tested in this study. This may be due to perceptions of the behaviors in this particular study, and/or perceptions of efficacy of conservation behaviors in general (cf. Smith, et al., 2012; Weiler & Smith, 2009; Smith et al., 2010; Smith et al., 2010).

Visitor Preferences for Pro-Conservation Behaviors

This study assessed visitors' preferences for a set of proposed behaviors intended to contribute to Tasmanian devil conservation. Behaviors included "new" behaviors (social media action) and more traditional behaviors (financial contributions to specific field conservation measures). Overall, visitors' intention to perform any behavior was low and no single behavior emerged as being highly likely to be adopted. Even simple behaviors, such as sharing information or photos about devils, were found to be unlikely. The behavior that had the highest likelihood of being performed was "liking" a Facebook post. This could be explained by the ease of execution and low level of commitment. It may also speak to the disparity between social media platforms, as behaviors related to Twitter and email were significantly lower.

Although the interpretation is strongly focused on conveying DFTD as the primary threat to Tasmanian devils, the lack of an anthropogenic cause of DFTD may have resulted in visitors expressing low levels of PCBI. It may have been difficult for visitors to relate to the behaviors posed because none precisely targets the cause of the problem or precisely how their action will remove or reduce the threat of DFTD. This situation is different to nearly every other endangered species in that, although human intervention is indeed needed to save the devil, human behaviors are not the underlying cause of the devils' demise. Thus, visitors may not feel the same level of culpability, or perhaps guilt, as they do in relation to orangutans, mountain gorillas, or Leadbeater's possums, all for whom Zoos Victoria have successfully leveraged interpretation for conservation outcomes (Banks & Dunstan, 2014; Mellish, Sanders, Litchfield, & Pearson, 2017; Pearson, Lowry, Dorrian, & Litchfield, 2014).

Conclusion

Zoos must continue to provide wildlife viewing experiences that are enjoyable for visitors. However, they are increasingly motivated and even compelled to harness those experiences to impact visitors (Gray, 2017). Moreover, pro-conservation messages are expected to deliver not only better understanding, but greater empathy towards wildlife and a propensity to take action. Visitors in this study report being very favorable regarding their interpretation experience at the zoo, but on average visitors' levels of emotional connection to the Tasmanian devil is only moderate, and the likelihood of undertaking pro-conservation behaviors is low.

Generally, the findings of this study suggest a low return on investment for interpretive planners who use values to drive message development and delivery. However, replication is needed to ascertain whether this is true for visitor cohorts whose value orientations are less homogeneous, e.g., visitors with differing cultural backgrounds. In addition, findings may be different for species with different threats to their survival and thus options for conservation behaviors that have greater resonance with visitors. Nonetheless, the findings of the present study suggest that there is likely to be greater efficacy in focusing more directly on caring about the species, that is, fostering empathy, rather than attempting to align to values. One such outlet for caring/empathy messaging is social media. Social media is emerging as a new vehicle for zoos to facilitate a deeper and more meaningful connection between visitors, collections, and conservation, as well as providing an avenue for visitor action (Green, Crawford, Williamson, & DeWan, 2019).

Future studies could explore how exposure to different interpretive elements, messages, and media influence visitor responses in general, and behavioral intentions specifically. The present study did not isolate the effects of specific interpretive variables on the dependent variables. While other studies have investigated these relationships (Skibins, et al., 2012), results can be variable and context-specific, suggesting the need for more research generally but particularly for non-anthropogenic driven issues such as the one investigated in the present study.

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IN SHORT

Effectiveness of Interpreter Training in the Japanese Interpretive Context and Opportunities for Improving Interpretation

An Impact Assessment of a Training Program in Japan

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Abstract

This exploratory research examined a four-day interpreter training program in Japan for impacts on participants' self-reported increases in knowledge and skills. Pre-, during-, and post-training open-ended questionnaires were administered to all 17 participants. Results showed the training program was effective at increasing knowledge of interpretation's definitions, principles, and goals. Participants indicated extended opportunities for understanding the profession as a whole, as well as how to operationalize interpretation and develop strategic outcomes would increase the overall effectiveness of trainings. Future training programs could use a strategic reflection process to emphasize skill development in the design and delivery of interpretation. Results derived from this empirical research provide a guideline for developing a training framework contextualized to the practice of interpretation in Japan.

Keywords

interpretation, training program, impact assessment, effectiveness, opportunity

Introduction

One of the advantages of interpretation is its plasticity. Interpretation can be applied in multiple venues and address myriad strategic objectives. Researchers have investigated requisite practitioner skills and knowledge necessary to meet best practices for interpretation (Skibins, Powell, & Stern, 2012; Stern & Powell, 2013). Research has also shown how training programs can increase practitioner knowledge and skills (Walker & Weiler, 2017; Weiler & Ham, 2002). However, the application and associated professional training should be context specific to maximize impacts (Black & Ham, 2005).

Studies of tour guide and interpreter training have demonstrated a variety of context-specific issues. For example, tour guides at training programs in Australia regarded their presentation skills as strengths while their interpretation techniques as weakness (Ballantyne & Hughes, 2001) and training participants in a tour guide organization in Australia placed paramount importance on the knowledge pertinent to guiding practices and networking skills (Carmody, 2012). Training participants in Tonga benefitted from information on visitor expectations, experience brokering, and interpretive principles (Weiler & Walker, 2014). Tour guides in Panama, Galapagos Islands, and Argentina sought diverse information in a training program, such as visitor profiles and expectations, the interpretive approach to communication, customer service, and leadership and group management (Weiler & Ham, 2002). Interpreters in Japan desired definitions and goals of interpretation, interactions with other interpreters, and practical exercises in a training program (Yamada, 2014). A single training guideline does not seem to fit all contexts.

To maintain relevancy to a variety of societies and the international profession, interpreter training ought to be designed based on culturally contextual training needs informed by empirical evidence. Recently, needs assessments relating to interpreter training have been reported in the U.S. (Powell, Depper, & Wright, 2017) and Japan (Yamada, 2014). However, little work has been done to assess the efficacy of interpreter training, or its cross-cultural relevancy, particularly in Japan.

This exploratory research sought to identify the influence of a training program on the development of Japanese interpreters' skill and knowledge. Such information should allow us to better align a training program with context specific issues.

Methods

In summer 2016, a four-day-long interpreter training program was offered at a Tokyo Metropolitan Natural Park in Japan. It has been offered by the Association for Interpretation Japan since 1992 and targeted introductory level individuals who had little or no interpretation experiences as a fulltime, volunteer, or prospective interpreter. Ten men and seven women enrolled in the training program.

A textbook was developed by the Association for Interpretation Japan and included the definitions of interpretation (Ham, 2013; National Association for Interpretation, n.d.; Tilden, 1957). One lead trainer and several assistant trainers conducted the program. The program was composed of the definition and principles of interpretation, self-history analysis, experiences of guided walks and personal interpretive programs, research on resources, delivery techniques, communication exercises, planning and implementing a short walk, theme/goal/objective, risk assessment and management, and performing a short walk. Multiple opportunities were offered to the participants to discuss their thoughts, learnings, and experiences in small groups, and to daily reflect on their experiences in journals.

Question	Pre	During	Post
Effectiveness			
a. What is your understanding of interpretation?	x	x	
b. What was the most important learning for you today?		x	
c. Is there anything that you have felt you understood more deeply in the past two months since the training course?			x
d. What was useful for you among the things that you learned in the training program?			x
Opportunity			
e. What do you expect of the training course?	x		
f. What was difficult to understand or practice today?		x	
g. What skills or knowledge do you wish to further advance?		x	
h. Among the things you learned in the training course, is there anything you feel would be difficult to put in practice?			x
i. After the training program, is there anything that you wished to have learned?			x

Table 1. Open-ended questions and administration schedule

Anonymous pre-, during-, and post-training self-reported, open-ended questionnaires were administered to all participants. The pre-survey was sent prior to the training to determine baseline conditions. The during-survey was administered at the end of each day of training (i.e., four times) to examine the impact of the daily sessions on participants' knowledge and perceptions. The post-survey was administered through email one month after the training program and was completed by seven respondents (41% response rate). The post-survey measured the impact of the training on knowledge and application of learned skills.

Questions in the pre-, during-, and post-surveys were classified as "effectiveness" or "opportunity" (Table 1). The total frequency of responses exceeds the number of participants (i.e., 17) in some instances, because respondents were able to provide multiple answers and some questions were asked on multiple occasions. The number in parenthesis presents the frequency of responses.

Results

Understanding of Interpretation Definitions and Principles

The most frequently identified theme associated with responses for "What is your understanding of interpretation?" in the pre- and during-survey and for "Is there anything that you have felt you understood more deeply?" in the post-survey was as a transferal of information (pre = 9 and during = 19). Participants also identified interpretation as being experiential, offering first-hand participatory activities (pre = 3, during = 18, and post = 3), rather than being only information transmission.

They viewed interpretation as having a theme/goal (during = 11 and post = 2), being relevant (during = 9), enjoyable (during = 9), and organized (during = 7 and post = 1), which were equal to Ham's four qualities of interpretation. For some participants, interpretation was intriguing audience's interests (pre = 2 and during = 8), making audience aware of (pre = 2 and during = 8), causing a change in audience (pre = 2 and during = 8), communication (pre = 1 and during = 8), and making a connection between an object and audience (pre = 1 and during = 7). This understanding indicated effects of the training program.

Important and Useful Learning

The theme most frequently identified in the during-survey responses to "What was the most important learning for you today?" was the principles of interpretation (10), followed by a theme/goal (9), diverse forms of interpretation (8), being experiential (7), and the definition of interpretation (6). Some respondents appreciated diverse viewpoints on a resource (4) and enjoying one's own interpretation as a basis of interpretation (4). Themes identified in responses to "What was useful for you among the things that you learned in the training program?" in the post-training survey involved having a theme/goal (3) and being experiential (3) as a useful learning. These important and useful learning themes could be considered effects of the training program.

Expectations for the training course

The most commonly described responses to "What do you expect of the training program?" in the pre-survey involved learning delivery techniques (11), followed by interacting with other participants (6), understating interpretation (4), and learning communication (4). Two trainees listed experiencing interpretation, the environment surrounding the venue, and something new. These expectations suggested an opportunity to consider in a future training.

Difficulty in understanding

While the respondents most frequently reported no difficulties (during = 16 and post = 1), some themes emerged in responses to "What was difficult to understand or practice today?" in the during-survey and "Among the things you learned in the training program, is there anything that you feel difficult in practicing?" in the post-survey. The respondents felt difficulties in identifying a theme/goal (during = 10 and post = 2), designing a program (during = 8 and post = 2), making interpretation relevant (during = 5), and comprehending the definition of interpretation (during = 5), a training session (during = 5), the purpose of interpretation (during = 4), and evaluating whether a program was adequate or not (post = 2). These difficulties may be viewed as insufficiently fulfilled areas in the training program and suggest a future opportunity.

Desirable Skills and Knowledge to Further Develop

Themes were derived from responses to "What skills or knowledge do you wish to further advance?" in the during-survey and "Is there anything that you wished to have learned?" in the post-survey. Interpretation skills and knowledge were their major concerns (during = 27 and post = 3), which include designing interpretation (during = 15 and post = 1) and making interpretation relevant (during = 4), organized (during = 3), and enjoyable (during = 3). Other identified themes involved communication (during = 10), delivering techniques (during = 8), speaking (during = 8), and public speaking (during = 6 and post = 1). These desires may indicate a future opportunity.

Discussion

The purpose of this case study was to evaluate the cross-cultural effectiveness of an interpretation training program in Japan. Overall, the training program did increase participants' knowledge and skills. However, several gaps were identified, and exploratory data suggest a need for responsiveness to contextual issues.

While participants perceived the definition and principles of interpretation as important, these subjects were reported as difficult to understand and apply. A better format for operationalizing these concepts, in a Japanese context, is needed. Participants reported learning specific techniques through practice to operationalize the definitions and principles could help to advance abilities.

The gap between understanding and operationalization may be an indication of the ambiguity of interpretation for participants. This may have been due to a lack of goals and outcomes explained in the training program and the textbook. Participants should have the goals and outcomes of interpretation and those of a particular organization for which they work better clarified. If an interpreter is unclear about the purpose for which they are designing an interpretive program, they may encounter difficulty in completing it. It also is not possible to assess whether an interpreter is successful without a clear understanding of what an interpreter is doing for what outcome (Ham, 2013).

To reduce the gap between understanding and operationalizing the definition and principles of interpretation, two approaches can be taken. First, identifying organization-specific goals as well as the expected outcomes of interpretation is necessary for an interpreter to see her/his role at her/his setting. For example, three expected outcomes of interpretation that researchers advocated ought to be enunciated in the textbook (Ham, 2013; Stern & Powell, 2013). Illustrating what one's interpretation can and cannot do allow trainees to understand the profession as well.

Second, the process through which such outcomes will be accomplished should be explained. The participants regarded being experiential as the most important essence of interpretation. Interpretation should be offered through direct experience (Tilden, 1957) so as to provoke emotions and thoughts and result in reflective engagement (Ballantyne, Packer, & Falk, 2011) and mindfulness (Walker & Moscardo, 2014). In this training, participants were offered multiple opportunities to reflect their thoughts and learnings in a small group during the training and to write a reflection journal at the end of each day. These reflections have likely contributed to their skill and knowledge development.

This research was subject to several limitations. The findings represented only a single researched case with the small sample size. Additionally, data were gathered through self-report questionnaires, and response rate for post-training responses was low.

A future training program could focus on two aspects. First, it should focus upon understanding core concepts: definitions and principles, goals, and expected outcomes of interpretation. It should help trainees to operationalize what interpretation is, what it accomplishes, and what the profession is. Articulating an organization-specific goal is critical in this process. Second, focus on exercising the learned concepts. This will help participants' confidence in acquiring the skills to incorporate the core concepts into the design and delivery of interpretation. In so doing, encouraging trainees to reflect their learning experiences and roles in achieving local and global goals is needed.

As Stern et al. (2013) address, training alone may be insufficient to create the conditions that produce quality interpretive programs and encouraging both trainees and trainers to be sensitive about an interpreter's role to be played in one's setting will be important. Paying attention to the Japanese interpretive cultures will be critical in developing a training program.

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The Application of GPS Visitor Tracking

Implications for Interpretation at Heritage Sites

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Abstract

This paper presents the results of the application of GPS Visitor Tracking (GVT) to evaluate visitor movements through a heritage site. This method provides temporal and spatial distribution and "heat maps" that depict visitor movements through the site. Documenting these visitor movements indicates to interpreters where to concentrate interpretive efforts and identifies opportunities to strategically encourage visitation to less visited areas of the site. The research team approached 117 travel parties and 106 elected to participate in the study, yielding a 90.6% response rate. Analysis revealed that visitors typically travel in a clockwise direction once they entered the park, stopping at a point of interest then proceeding to the visitor center. However, the density maps revealed that other points of interest were less visited. This information about temporal and spatial distribution of visitors can provide information for creating interpretive programs that people may engage with at the park.

Keywords

GPS, heritage sites, visitor movement, evaluation, visitor use

Introduction

Evaluation is "the systematic collection and analysis of data to address the worth or improvement of something" (Henderson, Bialeschki, & Browne, 2017). Specifically, the improvement of interpretation and the visitor experience at heritage sites can be guided by rigorous evaluation. An organization that fails to evaluate indicates disrespect for its interpreters and disregard for their work, and it implies little concern for the quality of visitor experiences (Beck, Cable, & Knudson, 2018). However, often these evaluations rely on visitor surveys and reported behaviors, and not actual visitor behavior. In fact, an argument can be made that most interpretation-based evaluations (typically utilizing surveys) do not measure behavior, but intent to behave, and solely rely on visitor input related to these intended behaviors (Bixler, 2014). This is an important point, as intended behavior (as reported) does not always lead to actual behavior. Often times visitors are only responding to intentions to behave when cued to do so in an artificial setting (Sniehotta, Presseau, & Araua-Soares, 2014). For these reasons, there is a need for more objective measures of visitor behavior, that do not rely solely on visitor answers to survey questions. Global Positioning System (GPS) data collected during a visitor's experience at a heritage area, can provide such objective behavioral information by actually cataloging the temporal and spatial attributes of their visit.

Many studies have been conducted on understanding temporal and spatial distributions of visitors in protected areas (D'Antonio, et al. 2010; Orellana et al. 2012; Newton et al. 2017), however, few have focused on cultural or historical sites, instead focusing on large "natural" protected areas. Moreover, few of these studies explored how protected area managers can proactively use technology to provide meaningful interpretive experiences for their visitors. The studies that have examined pairing GPS data and interpretation have mostly focused on how interpretation attracts or enhances current visitation (Wolf, Stricker, & Hagenloh, 2013) and does not delve into visitors movement within an area as a means of understanding interpretive opportunities. Identifying where people visit, their travel routes, the quantity and timing of use, and the amount of time spent at a location can add a layer of depth to interpretive planning that currently is being underutilized. This paper presents the results of the application of GPS Visitor Tracking (GVT) to evaluate visitor movements through the Fort Larned National Historic Site (FOLS) in Kansas. The use of GVT as an innovative tool produces temporal and spatial distribution and "heat maps" which depict visitor movements through a site. Additionally, this study provides a unique perspective on visitor movement due to the relocation of the main entrance of the park. Documenting these visitor movements indicates to interpreters and planners where to concentrate interpretive efforts and identifies opportunities to strategically encourage visitation to less visited areas of the site. By understanding visitor movements and addressing areas of concentration or underuse, interpreters can take steps to distribute visitors both in time and space so that they can more fully experience the site and be exposed to the complete array of interpretive themes and stories offered at the site.

Methods

Fort Larned National Historic Site is in east-central Kansas. Most visitors come to the park to see the historic structures and learn about the history of the fort and the Santa Fe Trail (National Park Service, 2018). The park consists of several buildings that are accessed by a crushed stone trail that runs the interior of the parade grounds

Location Key – 1=Officers Row, 2=Visitor Center, 3=Barracks, 4=Cemetery, 5=Commissary, 6=Quartermaster's Storehouse

Figure 1. Density maps for visitor use at FOLS from 10am to 4pm

(~0.3 miles). There is also a trail that leads to the cemetery and then continues on as a nature trail loop (~0.8 miles). From October 2016 through July 2017, researchers used systematic random probability sampling (Vaske, 2008) to intercept FOLS visitors. Sampling occurred on weekends and holidays to maximize the number of people available for the study and to understand differences in visitor-use patterns. Intercepted visitors voluntarily participated in the study and received a GVT unit to carry with them throughout their day. The researchers distributed one GVT unit per travel party, and the size of the travel party was also recorded. Researchers chose to use the Canmore GT-740FL Sport for GVT due to utility and accuracy (White et al. 2012). GVT units were configured to mark spatial waypoints and time stamps at 15-second intervals and all waypoints were recorded in decimal degrees. The researchers asked participants to return the GVT units at the end of their visit. Once the data had been cleaned using the procedures from Beeco et al. (2013), the researchers used ArcCatalog (ESRI kernel density analysis) to organize the data by day and travel party size. The research team physically approached 117 travel parties and 106 elected to participate in the study, yielding a 90.6% response rate. Although the unit of measure for this analysis was the travel party, these travel parties represent approximately 337 visitors participating in the study. All GVT units distributed were returned to the researchers at the end of their stay.

Results and Conclusions

The average time spent in the park was one hour and 38 minutes with a maximum time of four hours and 40 minutes and a minimum of seven minutes. Analysis revealed that visitors typically travel in a clockwise direction once they entered the park stopping at a point of interest then proceeding to the visitor center. Although not conclusive (and largely occurring in a museum setting), several studies have found that there is a "right turn" bias that visitors often exhibit when visiting a site (Bitgood, 1995), which was not evident in this study. However, Bitgood (2006) states that visitors also adhere to the general value principle that visitors utilize to mentally calculate the benefit/cost ratio of their movement throughout an area. This may have come into play at FOLS, as the visitor center is to the left upon entering the park, and may be one of the major benefit drivers for visitors to the site.

The researchers then investigated point-density analysis at each hour. Figure 1 display the specific areas of highest use during times of the day (all data aggregated). The density maps were created to follow the flow of visitors through a typical day at the park (10:00am–4:00pm). These maps are intended to provide a broad overview of what the output of this data may look like and to provide a sense of the utility of using GVT. The program used to do this analysis (ArcGIS) can be utilized to analyze the data and create maps in a wide variety of ways.

Analysis revealed that visitors typically travel in a clockwise direction once they entered the park (after crossing the bridge from the parking lot) stopping at a point of interest (officers row) then proceeding to the visitor center, then other points of interest (barracks and the shops building). The post cemetery received moderate use compared to other attractions on the clockwise loop visitors used to travel. Visitors consistently stop at the arsenal, the commissary, and the quartermaster's storehouse. However, the density maps revealed that the commissary and the quartermaster buildings were less visited than the northern side of the park. This information about where visitors are and when they are visiting certain parts of the park can provide information for creating interpretive material or providing interpretive programs that people may engage with at the park.

This study displays how GVT can be used at a heritage site to objectively understand visitor use and how interpretive materials and programs may be developed to reach as many visitors as possible. This method provides objective data about the temporal and spatial distribution of visitors and relies less on asking visitors when and where they visited a park, which is often spurious and unreliable (Bixler, 2018). If someone is visiting a site for the first time, or is unfamiliar with the content being presented at a site, they may not have enough information to properly answer a set of survey questions about their experience, thus possibly leading to responses that have little to do with the questions being asked. A limitation of survey research, often used for interpretive planning, is the assumption that all respondents will have prior knowledge and full understanding of the topic being interpreted (Vaske, 2008). The use of GVT can help to overcome this limitation by the observation of objective movement patterns at the site. Of course, other data inputs (e.g. surveys, interviews, focus groups, interpretive staff expertise, past research) would be required in the development and evaluation of interpretive materials and/or programs, but GVT can act as an initial tool to understand where visitors are and how long they spend in certain areas, including those with a historical or cultural focus. Although not addressed in this paper, the use of GVT can also provide a wealth of data that could be used to understand patterns of use across different visitor segments (e.g. short versus long visits), and how visitors may skip around from location to location. The GVT data may also reveal areas that interpreters should spend more time observing visitor behavior (e.g., based on length of stay in an area, or areas of frequent visitation). Overall, GVT can assist in maximizing limited interpretive budgets to understand visitor behavior in order to reach the largest number of visitors.

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Contested Terrain

Attitudes of Lakota People Towards Interpretation at Wind Cave National Park

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Abstract
Wind Cave National Park (NP) in South Dakota has a long and complex history with local indigenous peoples, including the Lakotas. Wind Cave is the location of the Lakotas' traditional origin story, and is now protected by a park representing a federal government that many indigenous peoples view negatively. The purpose of this exploratory study was to understand the attitudes of Lakotas toward Wind Cave NP and the interpretive stories it shares with visitors. Seventeen in-person interviews were conducted with Lakota people to understand their thoughts and feelings. Content analysis was used to uncover positive and negative themes about the park and various forms of interpretation. Findings indicate that park interpretation should include more Native perspectives, and recommendations are noted. The park should attempt to work more closely with Lakota and other local tribes, and can follow the examples of other National Park Service sites to accomplish these changes.

Keywords
native peoples, national parks, attitudes, interpretation, qualitative

Introduction

Wind Cave National Park in the Black Hills of South Dakota has a long and complex history concerning local indigenous peoples, including the Lakotas (Albers, 2003; Morrison, 2014; Reinhardt, 2015). Wind Cave is the location of the Lakotas' traditional origin story, and is now protected by a park representing a federal government many indigenous peoples view negatively (King, 2007; LaVelle, 2001; Wooster, 1992). The Lakotas have long maintained that the Black Hills were illegally seized by the government in 1877, a claim that was upheld by the United States Court of Claims in 1979. The Lakotas were awarded $106 million at the time but declined to accept the money (this trust is now worth over $1 billion), insisting that it was not the money they wanted, but the land itself (Wooster, 1992). Efforts in the mid-1980s to return the park land to the Lakotas failed in the US legislative process (Wooster, 1992). Besides being significant to Lakota and other indigenous cultures, Wind Cave is the sixth-longest cave in the world and is often identified as one of the most complex cave systems (Spence, 2011). It was set aside as a national park in 1903, the first such designation to protect a cave.

Despite the tumultuous history, no study has attempted to characterize the attitudes of local indigenous people towards the park, nor its interpretation of Native peoples. Therefore the purpose of this exploratory study was to understand the attitudes of Lakotas toward Wind Cave NP and the interpretive stories it shares with visitors. The three research questions explored were:

1) What are the attitudes of Lakota people towards Wind Cave National Park?

2) What are the attitudes of Lakota people toward the National Park Service's interpretation of Wind Cave?

3) Do attitudes of Lakota people differ depending on their age (Anthony, 2007)?

Methods

Seventeen semi-structured in-person interviews using an interview guide (Allendorf, 1999; Turner III, 2010) were conducted in the summer of 2016 with Lakota tribal members at their homes to better understand their thoughts and feelings about the park and its interpretation. Once new information and themes stopped emerging from the interviews (i.e., data saturation occurred), data collection ended (Marshall, 1996). Criterion (age and gender) and snowball sampling techniques were used to identify the interviewees (Browne, 2005; Palinkas et al., 2015). To initiate the snowball sampling, the first contact was a tribal member (female, under 44 years of age) known by the researcher. She was asked for the names of five to 10 tribal members who could potentially be interviewed. Each person was contacted by phone and asked for permission to be interviewed. After interviewing those who agreed to be interviewed, each was then asked for the names of other people who could potentially be interviewed, and the sample continued to "snowball" in this manner. Respondents were grouped into two age groups during analysis, 18–44 years of age (younger) and 45+ (older). Respondents were almost equally split between young (9)/old (8) and male/female. Most interviews (16 out of the 17) were audio recorded with permission of the interviewee, transcribed, and then content analyzed using DeDoose, a web-based qualitative data analysis and management software. Responses were coded using both a priori and emergent categories, and these categories were organized thematically (Hsieh & Shannon, 2005).

Results

Lakota Attitudes Towards Wind Cave NP

As the results are presented, example quotes that are representative of that category are included. Overall, results indicated that most tribal members had mixed opinions about the park. *Positive themes* frequently noted about the park in general included:

1) preservation of an important resource (10 interviewees, or 59%) (e.g., "They made it a national park so that it can never be destroyed. I feel like if it wasn't, then people would be exploiting it somehow. And I don't feel like that's being done." Interviewee #4);

2) the natural beauty (6, or 35%) (e.g., "It's not so man-made, which I like about it…and trying to preserve the beauty that is our Black Hills." Interviewee #7);

3) recent improvements in park interpretation (5, or 29%) (e.g., "I remember [the visitor center] looked very upgraded from the last time I was there." Interviewee #10).

Negative themes frequently discussed about the park in general were:

1) the "touristy" aspects of Wind Cave (9, or 53%) (e.g., I kind of have mixed feelings about the intrusion of sacred places by mobs and mobs of people just to see it, you know, as spelunkers. It's more of a commercial thing." Interviewee #6);

2) lack of Lakota perspectives in park interpretation (8, or 47%) (e.g., "I was looking around there, and I…made remarks about…hey, this is Native American, and there's nothing that exists in there pertaining to Native Americans." Interviewee #14);

3) fees for cave tours (5, or 29%) (e.g., "I remember saying, 'Why should I have to pay?' You know, to go to something that has cultural, spiritual, and historical significance? Why did I have to pay to go back to my home?" Interviewee #6); and

4) feelings of violation remaining due to their poor treatment in the Fort Laramie Treaty (4, or 24%) (e.g., "The entire [National Park System] needs to be made aware of the fact that number one, as to native cultures, to indigenous cultures, they are intruders. They are guests. And to remember that you're not welcome guests to begin with." Interviewee #17).

Eight tribal members (47%) made comments that suggested they were unfamiliar with park policies (e.g., some were unaware tribal members can go on cave tours for free). Sixteen interviewees (94%) made suggestions for park improvements, most frequently:

- Emphasize importance of cave to Lakotas to all visitors ("The Emergence Story is just as important [as] any [other] story that they're telling. So it's not something that should be glossed over; it's not a footnote." Interviewee #11)
- Hire Lakota staff members ("I know [a friend] was telling me that they're trying to get more local people, more Lakota people to work there [Wind Cave], so I think if they keep trying to do that it would be good…." Interviewee #2)
- Include a broader Lakota people's perspective ("I think that they mainly have just Oglala right now. And they always say 'the Lakota people,' but there are seven bands. We're all different. I think it's just important to not make it about the Oglalas just 'cause we're closest." Interviewee #4)

	Interp. in general	Personal Interp. (Cave tours)	Non-Personal Interp. (VC exhibits)
Positive comments	59%	47%	18%
Negative comments	100%	71%	71%

Table 1. Percentages of interviewees making positive and negative comments about park interpretation. Numbers in both rows and columns do not add up to 100 because an interviewee could make both positive and negative comments about different aspects of interpretation. For example, 59% of all interviewees made a positive comment regarding general interpretation at the park, and 100% of all interviewees made a negative comment regarding general interpretation at the park (N=17).

Lakota Attitudes Towards Interpretation at Wind Cave NP

Positive and negative comments related to interpretation in general, as well as both personal interpretation (cave tours specifically), and non-personal interpretation (the visitor center exhibits specifically) are summarized in Table 1. Overall, 59% (10 interviewees) made positive comments about park interpretation, most frequently about including Lakota perspectives and sharing scientific information. All interviewees made negative comments about interpretation, and the most frequent negative comment noted the lack of Lakota perspectives present in the existing interpretation.

As seen in Table 1, a similar percentage (71%) of respondents made negative comments about both cave tours and the exhibits, but a much smaller percentage (18%) made positive comments about the exhibits compared to 47% who had positive comments about cave tours. The most commonly reported (29%) positive thematic category about cave tours was appreciation for the inclusion of Lakota perspectives on cave tours, as interviewee #7 noted: "…I really liked the tour that the ranger gave us. … from what I've heard, she told the [Emergence] Story very accurately, and she gave a lot of information." Interestingly, the most commonly reported negative thematic category about cave tours was that the tours did not adequately emphasize or respect the Lakotas' viewpoints of Wind Cave (9 people, or 53%). As interviewee #11 stated, "If anything was mentioned about the Lakota people, it was mentioned in passing. Entirely. And that's actually still a problem that exists."

Few interviewees (3, or 18%) expressed positive thoughts or feelings towards the visitor center exhibits at the park, and all of those comments related to the improvements being planned for the exhibits. Twelve interviewees (71%) made negative comments about the exhibits, most frequently (10 interviewees, or 59%) that Lakotas' viewpoints are not adequately represented in the exhibits. As one interviewee (#11) noted, "You know, it's very dismissive, it's very insulting. The time periods that are addressed

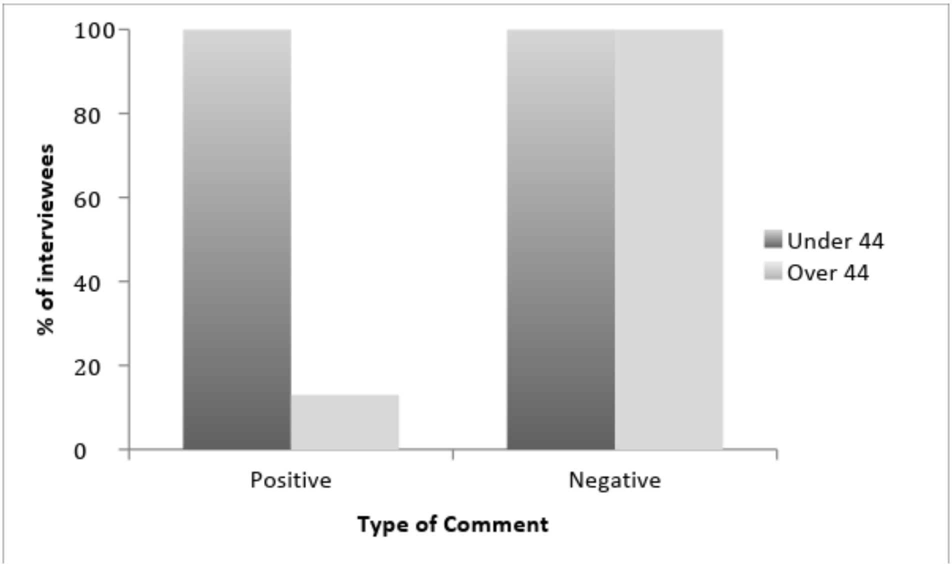

Figure 1. Differences between positive and negative comments specifically related to Park Interpretation among age groups.

with regard to Native Americans are past tense. I mean, we don't exist anymore." Two other common negative comments were that information contained in the exhibits was inaccurate, and the neglect of Lakotas perspectives was purposeful on the part of the park (both noted by three interviewees each, or 18%).

Difference in Attitudes Between Age Groups

The majority of interviewees, both younger and older, made both positive and negative comments about the park in general, with younger Lakotas tending to make more positive and less negative comments than older Lakotas. However, clear age differences emerged specifically related to Park interpretation. All younger Lakotas (9 out of 9) made positive comments, but only 13% of older Lakotas (1 out of 8) made positive comments (Figure 1). Finally, all interviewees, regardless of age, made negative comments about park interpretation.

Additional differences among older and younger Lakotas were noted related to the types of comments. For example, 56% of the younger group made comments about improvements at the park, but only 13% of the older group made such comments. Similarly, 44% of younger Lakotas stated that the park was willing to make positive changes, but none of the older Lakotas made such comments. One hundred percent of younger Lakotas suggested that the park should better emphasize the Emergence Story and Lakota perspectives, while only 63% (5 out of 8) of older Lakotas made similar suggestions.

Discussion & Management Implications: Respect & Encourage Tribal Voices

Results reveal most of the Lakotas interviewed think the park needs to better communicate the cultural significance of the cave and encourage visitors to be more respectful. Many interviewees felt Lakota "neglect" is a problem—the Lakota perspective(s) are missing in most of the interpretation at the park. Interestingly, results also found that many Lakotas lacked awareness regarding the policies the park has in place that pertain to Lakotas. For example, some interviewees complained of having to pay a fee to go on a cave tour, even though the park offers free cave tours to any enrolled member of 21 federally recognized tribes. Results indicate the park should continue to actively try to build stronger relationships with local tribes (Albers 2003; Tuxill et al., 2009), and the tribes themselves may also want to reach out to the park. Similar issues related to Native Peoples exist at Devils Tower, Apostle Islands, and Mount Rainier for example, so NPS sites (and other federal agencies) should continue to work together to develop and implement best practices regarding tribal collaborations (Keller & Turek, 1998; Parks Canada, 2016; Tuxill et al., 2009; Whisnant et al., 2011).

The main difference between younger and older Lakotas was that the younger generation were more likely to say something positive about the interpretation, but almost none of older generation interviewees did so. As the park works more with Lakotas, it is recommended they specifically reach out to older generations as they seem to be less positive towards the park, especially in regards to their views on current park interpretation.

Based on the interviewees' suggestions, the following things are specifically recommended to improve the relationships with Native Peoples at Wind Cave NP, as well as to improve the interpretation related to Lakotas. Some of these recommendations came directly from interviewees, others are based on best practices to collaborate with Native peoples:

- Invite more collaborative opportunities; encourage hiring of more indigenous staff members; and invite tribes to showcase perspectives regularly (Ostler, 2011).
- Require Tribal perspectives to be shared on all cave tours, which are easier to "update" than visitor center exhibits.
- Develop more non-personal interpretive opportunities (i.e., site bulletins) with Tribal consultation and collaboration.
- As the older and more expensive exhibits are replaced, NPS planners should work collaboratively with tribal members to incorporate more diverse Lakota perspectives.
- Encourage NPS staff to integrate more Lakota stories and perspectives into non-cave programs, to demonstrate that the cave is not the only important resource to indigenous people.

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APPENDIX

Appendix: Manuscript Submission

Instructions to Authors

Purpose

The purposes of the *Journal of Interpretation Research* are to communicate original empirical research dealing with environmental, cultural, historical, and heritage interpretation and to provide a forum for scholarly discourse about issues facing the profession of interpretation. The *Journal* strives to link research with practice. The *Journal of Interpretation Research* is published by the National Association for Interpretation, the preeminent professional association representing the heritage interpretation profession.

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The primary function of the *Journal* is to disseminate original empirical research regarding interpretation. However, the *Journal of Interpretation Research* takes a broad view of the field of interpretation and publishes manuscripts from a wide-range of academic disciplines. The primary criteria for deeming a research manuscript appropriate for the *Journal* are whether it clearly communicates a problem statement, employs sound methods, makes valid interpretations of the data, and adds to the current state-of-knowledge for practitioners, researchers, academics, or administrators who work in the field of interpretation.

In recognition of how diverse the relevant literature is, the *Journal* will also publish reviews of recent books, government publications, original literature reviews, and bibliographies dealing with interpretation. Abstracts from dissertations, private consultant materials, and reports from public agencies will be published in the *Journal* in a section called "In Short: Reports and Reviews." This section will also provide an outlet for summaries of research studies with limited scope. Interpretation research often consists of small "in-house" program evaluations and basic visitor studies. The purpose of this section is to communicate current research activities, allow readers to identify colleagues with similar interests, and provide practitioners and administrators with useful information and direction for conducting their own mini-research projects. Submissions for the "In Short: Reports and Reviews" section should be limited to 1,000 to 1,200 words and will be reviewed by the editor and two associate editors.

Additionally, the *Journal* will publish thought pieces that exhibit excellence and offer original or relevant philosophical discourse on the state of interpretation. The "In

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Manuscripts

Manuscripts will be accepted with the understanding that their content is unpublished and not being submitted elsewhere for publication.

- All parts of the manuscript, including title page, abstract, tables, and legends, should be formatted in 12-point font in Microsoft Word with one-inch margins and 8.5" x 11" pages.
- Manuscript pages should be numbered consecutively in the top right corner.
- All papers must be submitted in English.
- Word limit for full-length research manuscripts is 7,500 (excluding figures and tables). The editors will consider longer manuscripts on an individual basis.
- All full-length research manuscripts should include a section with the heading "Implications for Practice." This section should explicitly translate research findings into meaningful lessons for practitioners in the field.

Titles

Must be as brief as possible (six to 12 words). Authors should also supply a shortened version of the title, suitable for the running head, not exceeding 50 character spaces.

Affiliation

On the title page include full names of authors, academic, and/or other professional affiliations, and the complete mailing address of the author to whom proofs and correspondence should be sent. An email address and phone number should also be included. As all manuscripts will be reviewed anonymously, the name(s) of the author(s) should only appear on the title page.

Abstract

Each paper should be summarized in an abstract of no more than 150 words. The abstract will preface the paper and should be a comprehensive summary of the paper's content, including the purpose or problem, methods, findings, and implications or applications. It should enable the reader to determine exactly what the paper is about and make an informed decision about whether to read the entire paper. Abbreviations and references to the text should be avoided. All abstracts shall be listed on the *Journal of Interpretation Research* website (www.interpnet.com/JIR).

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Please submit a digital (Microsoft Word) of your manuscript to Marc J. Stern and Robert B. Powell at the addresses below. Authors whose manuscripts are accepted for publication must submit final manuscripts electronically.

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