



Effects of post-trip eudaimonic reflections on affect, self-transcendence and philanthropy

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ABSTRACT

Recently, tourism scholars have recognized that travel can create transformation, including (1) personal benefits such as improved wellbeing and personal growth and (2) societal benefits such as increased open-mindedness and more positive pro-environmental attitudes, motivations, and behaviors. Expanding and integrating this research, this experimental study tests whether travel experiences, with eudaimonic elements of *self-discovery* and a *sense of meaning*, lead to these benefits and tests a proposed process where these experiences influence personal changes that subsequently create societal benefits. Specifically, using an online MTurk sample ($n=481$) with a broad range of recent vacation experiences, we test whether (1) post-trip self-reflection on eudaimonic travel experiences (2) creates affective responses (3) that lead to self-transcendent changes and (4) subsequent post-trip philanthropy among recent travelers. Results of structural equation modeling indicate that philanthropic effects of travel were initiated by the eudaimonic self-reflections via eudaimonic affect and self-transcendent outcomes. This study contributes to the research linking eudaimonia and travel and provides insights into the ways that the travel industry can be harnessed as a potent tool for promoting personal meaning, self-transcendence, and prosocial outcomes.

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Tourism researchers have long treated travel as a consumptive experience and have marketed the hedonic experiences one can have while traveling (e.g. Turner & Ash, 1975), a tradition that often overlooks the deeper personal impacts and potential for good that the travel can create. By providing tourists with the opportunity to break out of daily life and have new experiences, travel has the potential to fundamentally transform the way people see themselves and the rest of the world. Consequently, tourism scholars have begun to recognize that travel can serve as a vehicle for transformative experiences (e.g. Kirillova, Lehto, & Cai, 2017a, 2017b), defined as experiences that result in a significant change in the way one thinks about and defines their self (Coghlan & Weiler, 2018). The types of changes brought about by transformative experiences during travel include personal benefits such as improved wellbeing (Filep, 2007, 2012; Filep & Pearce, 2013; Mayer,

Machado, Marques, & Nunes, 2019; Pearce, 2009; Pearce, Filep, & Ross, 2011), personal growth (Matteucci & Filep, 2017), or new world views (Kirillova et al., 2017a). Transformative experiences during travel can also have societally desirable outcomes such as increased open-mindedness, understanding, and tolerance (Brown, 2009) as well as more positive pro-environmental attitudes, motivations, and behaviors (see Ardoin, Wheaton, Bowers, Hunt, & Durham, 2015; Kuenzi & McNeely, 2008).

Positive transformations can occur in many travel contexts. For example, research on transformation and travel has revealed that travel-induced transformations can occur in a variety of contexts including volunteer tourism (Coghlan & Weiler, 2018), backpacking (Canavan, 2018; Noy, 2004), and festival tourism (Matteucci & Filep, 2017). We propose that transformations can occur across travel contexts because many travel contexts can contain eudaimonic reflections—experiences involving time for deep reflections and discovery of meaning in life (Lengieza, Hunt, & Swim, 2018). Prototypically, transformation-triggering experiences include periods of self-discovery and reflection (Coghlan & Weiler, 2018; Kirillova et al., 2017a; Matteucci & Filep, 2017) as well as meaning making (Kirillova et al., 2017a; Matteucci & Filep, 2017) which are the core elements of eudaimonia (Huta & Waterman, 2014; Lengieza et al., 2018). Transformative experiences are also frequently characterized as possessing a strong affective dimension (Ballantyne, Packer, & Falk, 2011a; Ballantyne, Packer, & Sutherland, 2011b; Kirillova et al., 2017a).

Positive transformations induced by travel have the potential to impact a large section of the global population. For example, the U.S. Travel association (World Bank, 2018) reported that in 2017 nearly 1.8 billion trips were made among 325 million U.S. residents, defined as trips of at least 50 miles away from home for at least a day or more for leisure purposes. The United Nations World Tourism Organization (2018) reports that over 1.4 billion people participate in international tourism each year, a number that has increased steadily over the last several decades. Thus, considering potential prosocial outcomes of travel and the growing number of people who travel for leisure and tourism, there is enormous potential to leverage the meaningful experiences that occur during travel as a vehicle for societal change.

While there is considerable potential for travel to be harnessed as a powerful tool for promoting collective good, to date, no research has experimentally tested the role of eudaimonic experiences in creating positive transformation through travel. Thus, previous evidence of travel induced transformations may, for example, be a result of self-selection into travel contexts that create eudaimonic experiences. Nor has the research specifically tested a causal process whereby transformation that hinges on the self may benefit society. Put plainly, previous research has not experimentally examined how self-reflection, an inherently self-focused process, can lead to collective-oriented outcomes.

Purpose and proposed model

The purpose of the present research was to experimentally test the causal process by which eudaimonic reflections, focusing on the core elements of *self-discovery through reflection* and a *sense of meaning in life*, leads to positive transformations for travelers, and potentially, as a result, leads to positive outcomes for others. While a variety of travel outcomes can be considered transformative, self-transcendence is our focus in

the present research because it connects the self to others, and thus may provide an important step in explaining how self-discovery through reflection—which involves an explicit focus on the self—may result in beneficial outcomes for others.

More specifically, as illustrated in the model depicted in [Figure 1](#), the present research tests a psychological process where (1) post-trip self-reflection on positive travel experiences, particularly in the form of eudaimonic elements of personal insight and meaning making (2) creates positive affective responses (3) that lead to self-transcendent changes among travelers and (4) subsequent pro-social outcomes in the form of philanthropic behavior. Each of the steps in this illustrative model are discussed in the corresponding section noted below. In order to test the causal role of eudaimonic reflection about travel experiences we experimentally compare groups prompted to engage in eudaimonic reflection against a group prompted to engage in mundane post-trip reflections. Additionally, to test whether the effect is unique to eudaimonic reflection, we also experimentally compare groups prompted to engage in hedonic reflection against mundane post-trip reflections.

Eudaimonic reflection about travel experiences

In a little over ten years since the direct link between tourism studies and positive psychology was first proposed (Filep, 2007), there has been a dramatic upswing of interest in the relationship between travel and positive psychology, wellbeing, and quality of life (Uysal, Perdue, & Sirgy, 2012; Uysal, Sirgy, Woo, Kim, 2016). Traditionally, models of tourist satisfaction and happiness have emphasized travel's hedonic qualities (Nawijn, 2016), or those experiences centered on pleasure-seeking and pain avoidance (Huta & Waterman, 2014). Increasingly, scholars are exploring an alternative view of happiness by studying the concept of eudaimonia (e.g. Filep, 2012; Filep & Deery, 2010; Filep & Pearce, 2013; Knobloch, Robertson, & Aitken, 2017; Lengieza et al., 2018; Pearce et al., 2011; Smith & Diekmann, 2017). *Eudaimonia* is a term used to describe human flourishing, and thus is often characterized as involving personal growth and self-reflection, a sense of purpose and meaning in life, feelings of authenticity, and engagement (Deci & Ryan, 2008; Henderson & Knight, 2012; Huta & Ryan, 2010; see Huta & Waterman, 2014 for a review).

While eudaimonia can potentially occur in any form of travel, researchers have tended to focus on nature-based and culture-based travel as being the types of travel most likely to induce eudaimonic experiences. For example, nature-based tourism—defined as any travel with the purpose of viewing or experiencing nature (Kuenzi & McNeely, 2008)—often involves formal interpretation which is explicitly aimed at meaning-making (Ham, 2003), a key aspect of most conceptualizations of eudaimonia (Huta & Waterman, 2014). Other forms of travel, such as culture-based tourism—defined as any travel with the

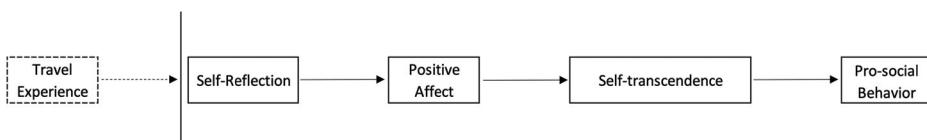


Figure 1. The conceptual model depicting the process through which reflection will lead to pro-social outcomes.

purpose of experiencing aspects of another culture (Csapo, 2012)—are also associated with eudaimonic experiences. Among individuals participating in cultural-heritage festival tourism, experiences linked to stress-related growth were associated with reflections focusing on purpose and meaning in life (Matteucci & Filep, 2017). Other studies of culture-based tourism have focused on the self-discovery that can occur during this type of travel. Self-discovery has long been noted to occur when one encounters other cultures, potentially through travel but also through life transitions, such as going to college or starting a new job (e.g. Adler, 1975). Specifically linking to tourism, self-discovery has been identified as a personal tourism goal for independent travel among women (Cockburn-Wooten, Friend, & McIntosh, 2006) and an important component of international experiences, perhaps particularly the longer one stays in another country (Brown, 2009).

Critical to these experiences is self-reflection, which has the potential to occur in a variety of travel experiences. For example, periods of reflection coupled with experiences of emotional affinity during wildlife tourism led to feelings of concern for the species being viewed (Ballantyne et al., 2011b). Self-reflection has been built into tourism where, for instance, student travelers are asked to reflect on their experiences during their travels (Fu, 2015). Self-reflection can also occur post travel. Reflection and transformation are not always contained within the entirety of the travel experience and often extend beyond the end of the trip (e.g. Kirillova et al., 2017b). Consequently, several researchers have emphasized the need to focus on post-trip influences of travel-induced change (e.g. Wheaton et al., 2016).

Positive affect

Affect is a core component of tourist experiences. It can range from one's response to the quality of the physical environment during encounters with nature (Su & Swanson, 2017), to feeling delighted by one's experiences in settings such as amusement parks (Ma, Gao, Scott, & Ding, 2013), to deep emotional experiences garnered from socially meaningful sites such as memorials (Nawijn, Isaac, van Liempt, & Gridnevskiy, 2016). Of particular relevance to the present research is the positive affective component of well-being that results from eudaimonic experiences.

The relationship between eudaimonic experiences and well-being (see Huta & Waterman, 2014) suggests that eudaimonic experiences include an affective component because positive affect is often included in measures of well-being. Yet research suggests that it is important to distinguish between two types of positive affect: *hedonic affect* and *eudaimonic affect*. Hedonic affect, in contrast to eudaimonic affect, is considered a more self-centered, fleeting form of happiness associated with pleasure (Dambrun & Ricard, 2011; Dambrun et al., 2012). Eudaimonic affect is closely related to what others have called *self-transcendent emotions* (see Stellar et al., 2017), which capture deep emotional states such as feelings of compassion. We also consider additional affective responses (e.g. feeling contemplative and introspective) used by others to study meaningful forms of affect (Oliver & Raney, 2011) that have not typically been included in research on self-transcendent emotions. Thus, to be more inclusive of these types of affect and to make explicit contrasts

with hedonic affect, going forward we use eudaimonic affect in place of the term self-transcendent emotions.

Eudaimonic reflections are associated with eudaimonic affect. For instance, reflection upon certain themes, such as meaning in life, can lead to feelings of love and compassion (e.g. Burson, Crocker, & Mischkowski, 2012). With respect to travel, vacation activities such as whale watching and rafting produce emotional experiences that are associated with eudaimonic affect, including feelings of awe (Knobloch et al., 2017). Additionally, it is argued that spirituality, defined in terms of constructing meaning in one's life, provides grounding for older individuals who report eudaimonic affect in the form of admiration, appreciation and awe during their travels (Moal-Ulvoas, 2017). Other research has shown that eudaimonically motivated activities, as indicated by respondent's self-reports, are more related to elevating experiences, which includes feelings of awe and inspiration, than are hedonically motivated activities (Huta & Ryan, 2010). In contrast, hedonically motivated activity was more strongly associated with hedonic affect (e.g. joyful) than was eudaimonically motivated activity (Huta & Ryan, 2010). Thus, we anticipate that eudaimonic reflections, and not hedonic reflections, will be associated with eudaimonic affect. The literature reviewed in this section leads us to our first hypothesis:

Hypothesis 1: Eudaimonic reflections about travel experiences will increase eudaimonic affect whereas hedonic reflections about travel will not.

Self-transcendence

Self-transcendence is decreased salience of the self, accompanied by a softening or complete dissolution of the conceptual boundaries between self and others, involving a sense of oneness with others and one's surroundings—including people, nonhuman animals, and nature (Huta & Ryan, 2010; Yaden, Haidt, Hood, Vago, & Newberg, 2017). A sense of connection to nature and to the rest of humanity are examples of self-transcendence. Connectedness to nature is defined as the extent to which nature is included in one's sense of self (Schultz, 2002) and is associated with self-transcendental values (Tam, 2013). Thus, there is support for the assertions that connectedness to nature is a form of self-transcendence. Like connectedness to nature, individuals can also feel a sense of connection to humanity; that is, they can feel like they are a part of all humanity (McFarland, 2010; McFarland, Webb, & Brown, 2012). Self-transcendence, therefore, can be effectively operationalized as feelings of connectedness to nature and humanity.

Eudaimonic reflection likely leads to self-transcendence and should be more likely to do so than hedonic reflections. Again, eudaimonically motivated activities compared to hedonically motivated activities, uniquely predict outcomes such as elevating experiences, which include feeling connected to a larger whole (Huta & Ryan, 2010). By extension, assuming that activities that are more eudaimonically motivated tend to result in greater eudaimonic reflections, this suggests that eudaimonic reflections are associated with elevating experiences. Supporting this proposed relation, as previously noted, periods of reflection coupled with experiences of emotional affinity during wildlife tourism were shown to lead to feelings of concern for the species being viewed (Ballantyne et al., 2011b). Moreover, relative to reflecting on hedonic experiences of mirth (e.g. laughing a lot), when individuals are asked to reflect on an elevating experience (e.g.

seeing someone act virtuously) they are more likely to report greater meaning in life (Van Cappellen, Saroglou, Iweins, Piovesana, & Fredrickson, 2013). These findings tying eudaimonic experiences to self-transcendence highlight the possibility that post-trip reflection on the eudaimonic experiences that occurred during travel may lead to a greater receptivity to the formation of connections to others and to nature.

Hedonic experiences, in contrast, may not be associated with self-transcendence. Hedonically motivated activities are not as strongly associated with elevating experiences, including feeling connected to others (Huta & Ryan, 2010) and self-centered values are more associated with hedonic happiness (Dambrun et al., 2012). Further, notions similar to hedonia, including subjective fluctuating happiness, are likewise correlated with egocentrism and not with self-transcendence (Dambrun, 2017). Not coincidentally, some scholars have specifically distinguished hedonia from eudaimonia on the basis of hedonia's association with self-centeredness (see Steger, 2016). Given the literature reviewed above, which suggests that eudaimonic experiences are associated with self-transcendence whereas hedonic experiences are not, we hypothesize the following:

Hypothesis 2: Eudaimonic reflections about travel experiences will increase self-transcendence in the form of connection to nature and humanity whereas hedonic reflections about travel experiences will not.

The effect of eudaimonic reflection on self-transcendence may be due to the affect that these reflections evoke. Intense affective experience during travel can lead to a sense of connection to something larger and may ultimately enhance the impact of reflection that occurs during travel (Kirillova et al., 2017a). This eudaimonic affect in turn may lead to greater connections to others, as affective experiences of this type, such as awe, have been argued to result in decreased importance given to the self (Bai et al., 2017; Campos, Shiota, Keltner, Ganzaga & Goetz, 2013; Piff, Dietze, Feinberg, Stancato, & Keltner, 2015; Stellar et al., 2018). Eudaimonic affect, may correspondingly result in increased connection to others not just a diminishment of the self. For example, spending time in nature is associated with positive affect and this affect is in turn related to feeling connected to nature (Nisbet & Zelenski, 2011). Further, eudaimonic affect is associated with attending to others rather than to the self (Stellar et al., 2017) and engaging in pro-social behaviors suggesting greater focus on others. Thus, eudaimonic affect potentially provides an explanatory link from eudaimonic reflections, which arguably reflect a focus on the self via personal meaning making and self-discovery, to self-transcendence in the form of connection to nature and humanity.

In contrast, we would not expect hedonic reflections to be linked to self-transcendence. First, we do not predict that hedonic reflections will be connected to eudaimonic affect, as noted above. Second, hedonic reflections do not appear to alter one's sense of self. Watching an awe-inspiring movie was associated with experiencing a smaller sense of self, whereas watching an amusement-inducing movie did not have this same effect (Bai et al., 2017). Additionally, in the same study, awe, but not hedonic affective states were associated with feeling a smaller sense of self. Further, hedonic affective states such as joy, unlike eudaimonic affect, are characterized by a focus on the self rather than a focus on others (Stellar et al., 2017). Moreover, as outlined above, hedonia in general is less associated with self-transcendence, suggesting that it is unlikely that hedonic affect would be associated with self-transcendence. Thus, given that the literature reviewed

above suggests that eudaimonic affect should be associated with self-transcendence whereas hedonic affect should not, we hypothesize the following:

Hypothesis 3: The relation between eudaimonic reflections about travel experiences and self-transcendence will be mediated by eudaimonic affect and not hedonic affect.

Pro-social behavior & philanthropy

Self-transcendence is associated with societal benefits via pro-social behavior (see Yaden et al., 2017). Connectedness to nature, for example, has been linked to greater engagement in pro-environmental behavior (Mayer & Frantz, 2004; Nisbet, Zelenski, & Murphy, 2009; Tam, 2013) and increased willingness to sacrifice for the environment (Davis, Le, & Coy, 2011). Similar to connection with nature, connectedness to humanity (a.k.a. identification with humanity) is associated with several prosocial outcomes. Those who are connected to humanity as a whole are less ethnocentric, endorse lower levels of both right-wing authoritarianism and social dominance orientation, are more concerned with human rights, and exhibit greater willingness to make charitable donations (McFarland, 2010; McFarland et al., 2012). Connectedness to humanity is likewise associated with pro-environmental attitudes (Lee, Ashton, Choi, & Zachariassen, 2015). Thus, we anticipate that self-transcendence, in the form of connection to nature and humanity, would be associated with pro-social behavior.

One particular form of travel-induced prosocial behavior that has been the focus of past tourism scholarship is travel-related philanthropy (e.g. Ardoin, Wheaton, Hunt, Schuh, & Durham, 2016). Specifically, travel-related philanthropy is ‘the donating of money, in-kind resources, or time, occasioned by or facilitated by travel’ (Goodwin, McCombes, & Eckardt, 2009, p. 11). Researchers have recognized that travel experiences can evoke a desire to make a difference by giving back (Ardoin et al., 2016; Goodwin et al., 2009). Indeed, previous research has offered preliminary support for the notion that certain qualities of the trip experience can increase likelihood of donating (Ardoin et al., 2016). Here we operationalize post-trip pro-social behavior as travel-induced philanthropy, and seeing how self-transcendence should be associated with prosocial behaviors, we hypothesize the following:

Hypothesis 4: Self-transcendence, in the form of connection to nature and humanity, will be associated with pro-social behavior.

Eudaimonic reflections may influence pro-social behaviors broadly via their impact on eudaimonic affect and self-transcendence. For example, eudaimonic affective states, such as awe, result in pro-social behaviors which is presumably a result of placing oneself in a broader context (Piff et al., 2015). Thus, if eudaimonic reflections result in increased eudaimonic affect and self-transcendence, as hypothesized above, such self-reflections may indirectly influence these prosocial behaviors (in the case of research, philanthropy) via eudaimonic affect and self-transcendence. Consequently, our final hypothesis is the following:

Hypothesis 5: There will be an indirect effect of eudaimonic reflections about travel experiences on pro-social behavior via eudaimonic affect and self-transcendence.

Current research

As noted above, we adopt an experimental approach to studying the role of eudaimonic reflection on travel experiences. Adult participants were recruited from a general

population as to obtain a wide sampling of different travel experiences because, as we note above, we argue that transformative experiences can occur across a wide range of experiences. Participants who indicated having a recent travel experience were asked to reflect on a previous travel experiences, being randomly assigned to either reflect on eudaimonic experiences (i.e. reflecting on how a trip contributed to one's sense of meaning in life), hedonic experiences (i.e. reflecting on how a trip was fun), or mundane aspects of their trip as a control condition. We tested the effects of post-trip reflections on eudaimonic and hedonic affect, subsequent self-transcendental and prosocial outcomes and test a model that specifies the process by which eudaimonic reflections will have these outcomes, as illustrated in [Figure 1](#). We predicted that eudaimonic reflections, and not hedonic reflections, would result in eudaimonic affect (Hypothesis 1) and self-transcendence as assessed by connectedness to nature and humanity (Hypothesis 2). We tested whether the two types of affect, eudaimonic and hedonic, would mediate the relation between post-trip reflections and these self-transcendent outcomes (Hypothesis 3). Considering the effect of self-transcendence, we predicted that self-transcendence would subsequently predict prosocial behavior (Hypothesis 4). Further, we tested whether affect and self-transcendent outcomes mediated the relation between post-trip reflections and these donations (Hypothesis 5).

Method

Participants

Five-hundred eighty-six participants were recruited via Amazon's Mturk, which is a commonly used tool to collect reliable data online (Johnson & Borden, 2012), for an online survey concerning their most recent vacation experience that lasted for at least a three overnight stays within the past year. They were paid \$1.00 for their compensation. They were offered an additional \$1.00 at the end of the survey to donate to an organization or to keep for themselves. Demographic information was provided in the aggregate, with the exception of gender, by Turk Prime. The initial sample, prior to exclusion, was comprised of mostly males (52.4%), mostly white (72.6%) and the majority (68.3%) were born between 1980 and 2000.

Four participants (10 observations) were removed because the associated worker ID appeared more than once. An additional 43 participants were removed because they indicated their trip took place outside of the past year. Another 38 participants were excluded for problematic descriptions of the vacation or reflections.¹ Lastly, 14 participants were excluded for selecting identical responses, including reverse coded items, for all items on the two connectedness scales. The remaining sample contained 481 participants.

Procedure

At the beginning of the survey participants were asked to consider their most recent vacation experience that lasted at least three overnight stays. To provide descriptive information about their trips and to ensure that participants focused on a particular trip, participants were asked to describe specific characteristics of the trip. They reported the start date (month and year) and end date of their trip and the approximate duration of their trip

in days as well as whether or not it was international or domestic trip. We also asked participants if the trip was solo or with others and, when applicable, who those others were. Next participants reported the extent to which their trips included nature- and culture-based experiences.

Participants were then randomly assigned to one of three reflection conditions: Eudaimonic, hedonic, and control. In all three conditions participants were asked to record their reflection in a textbox. In the eudaimonic reflection condition participants were asked to reflect upon 'how this trip provided a sense of meaning in your life'. In the hedonic reflection condition participants were asked to reflect upon 'how this trip was fun for you'. Finally, in the control reflection condition participants were asked to reflect upon 'how you or someone else went about planning during this trip'. Participants were informed that they would have to write for 2 min before being able to proceed to the next page. The reflection manipulation was followed by a measure of eudaimonic and hedonic affect, connection to nature and connection to humanity and the opportunity to donate money to four charitable organizations.

Measures

Type of tourist experience

Participants read a definition of nature-based tourism (Buckley, 2009, p. 5). They indicated, on a 0 ('not at all') to 100 ('very much') slider scale the extent to which their trip fit this definition. Then, using the same slider scale, they indicated whether their tourism experiences included any of the following: wildlife tourism, adventure tourism, ecotourism, agritourism, and sport-fishing/hunting. Next participants read a definition of culture-based tourism (Csapo, 2012). They indicated, on a 0 ('not at all') to 100 ('very much') slider the extent to which their trip fit this definition. Using the same style of sliding scale, they then indicated whether they whether their tourism experience included any of the following cultural heritage, ethnic tourism, 'roots' tourism, cultural creativity, and religious tourism. The sub-types were used to create a composite score for nature-based tourism ($\alpha = .78$) and for culture-based tourism ($\alpha = .85$). Additionally, participants were asked to report the number of trips falling into each of the two categories they had taken across their lifetime (including the one they wrote about).

Affect

Adopted from Oliver and Raney (2011), four items assessed eudaimonic affect (compassionate, contemplative, introspective, inspired; $\alpha = .78$) and four items assessed hedonic affect (humored, entertained, amused, excited; $\alpha = .87$). Using a 0 (not at all) to 5 (completely) measure, respondents indicated whether they felt these affective states while on their vacation.

Self-transcendence

We used Mayer and Frantz's (2004) 14-item Connectedness to Nature Scale (e.g. 'I often feel a sense of oneness with the natural world around me'; 'I think of the natural world as a community to which I belong') using a 5-point scale from 1 ('Strongly Disagree') to 5 ('Strongly Agree'). We adapted this measure to assess connection to humanity by replacing words like 'nature' with 'humanity' or 'global community'. For example, 'I often feel a

sense of oneness with the natural world around me' became 'I often feel a sense of oneness with humanity'.² Two items (i.e. 'When I think of my place [on earth/in the global community], I consider myself to be a top member of a hierarchy that exists [in nature/among cultures]'; 'My personal welfare is independent of the welfare of the [natural/rest of the] world') were dropped from both scales because they were flagged as problematic and loaded poorly in subsequent analyses. The two final scales were reliable ($\alpha_{\text{nature}} = .92$; $\alpha_{\text{humanity}} = .89$) and were strongly correlated, $r(479) = .42$. Therefore, they were combined to create a single measure of self-transcendence.

Philanthropic prosocial behavior

Prosocial behavior was operationalized as travel-induced philanthropy (i.e. the amount of money to given to help others). Participants were offered an additional \$1.00 compensation that they could use to donate to four charitable organizations or any proportion they chose to keep to for themselves. The directions emphasized that the money would actually be donated. Two of the organizations were environmental organizations (e.g. World Wildlife Foundation & Nature Conservancy). The other two were humanitarian organizations (e.g. Save the Children & Doctors Without Borders). The order of the four organizations was randomized and the option to keep some of the compensation for themselves was always the last option. The sum of the donations to all four groups became one measure of charitable behavior.

Results

Trip characteristics³

The trips that participants reported upon in this sample were on average roughly a week long ($M = 6.79$ days) and occurred 4 months prior to completing the survey. Approximately 23.7% of participants went on trips that contained an international component, 78.2% went on trips that contained a domestic component and 28.7% went on trips were to visit family. Most participants (83.4%) traveled with at least one companion. Of those who did not travel alone, the average number of companions was about four ($M = 3.79$), 17.5% indicated that they traveled with parents, 17.7% indicated they traveled with siblings, 64.6% indicated that they traveled with a significant other, 14.2% indicated that they traveled with extended family, and 19.2% indicated that they traveled with friends.

On average, participants indicated that their trips were only moderately nature-based in general ($M = 38.49$, $SD = 34.64$), and they tended to be only moderately consistent with wildlife tourism ($M = 20.39$, $SD = 27.62$), ecotourism ($M = 21.77$, $SD = 29.17$), and adventure tourism ($M = 36.68$, $SD = 34.85$) and generally not consistent with hunting or sport tourism ($M = 10.05$, $SD = 21.36$) or agri-tourism ($M = 12.56$, $SD = 22.56$). Participants also indicated, on average, that their trips were only moderately culture-based in general ($M = 43.34$, $SD = 34.46$), and they tended to be only moderately consistent with heritage tourism ($M = 28.08$, $SD = 31.61$), ethnic tourism ($M = 24.44$, $SD = 31.16$), and cultural creativity tourism ($M = 27.12$, $SD = 30.97$) and not generally consistent with roots tourism ($M = 14.79$, $SD = 25.98$) or religious tourism ($M = 7.45$, $SD = 18.22$).

Total effects

Prior to model testing, a series of one-way ANOVAS compared the effects of type of reflection on our outcome measures (see Table 1). Consistent with Hypothesis 1, Individuals who engaged in eudaimonic reflection reported higher eudaimonic affect than those who engaged in hedonic reflection and those who engaged in mundane reflection. The latter two conditions did not differ from each other. Individuals who engaged in hedonic reflection reported greater hedonic affect than those who engaged in mundane reflection but not those who engaged in eudaimonic reflection. The latter two conditions did not differ from each other. However, the overall effect of type of reflection was only marginally significant.

Inconsistent with Hypothesis 2, we did not find direct effects of different types of reflection on self-transcendence even when separately conducting analyses for connectedness to nature and connectedness to humanity. However, the total amount of money individuals chose to donate was higher among those who engaged in eudaimonic reflection compared to those who engaged in mundane reflection but not those who engaged in hedonic reflection. The latter two conditions did not differ from each other. However, the omnibus test for the effect of type of reflection on total donations was not significant. Separate test of reflection on the type of donations offered by participants revealed the same patterns for effects for environmental and humanitarian donations but the omnibus tests and follow-up comparisons were only significant for environmental donations: Individuals who engaged in eudaimonic reflection donated more money to the environmental organizations than those who engaged in mundane reflection. There was no difference between those who engaged in hedonic reflection and either those that engaged in eudaimonic or mundane self-reflection.

Model testing

We used structural equation modeling (SEM) to test our operationalization of our hypothesized model (see Figure 2) which represents the direct effect of both eudaimonic and hedonic self-reflection on affect (Hypothesis 1), indirect effects of eudaimonic self-reflection on self-transcendence via eudaimonic affect (Hypothesis 3) and indirect effects of eudaimonic self-reflection on donations via eudaimonic affect and self-transcendence

Table 1. The effects of type of reflection on outcome variables.

Outcome	Type of self-reflection			Statistical test
	Eudaimonic Mean (SE)	Hedonic Mean (SE)	Mundane Mean (SE)	
Eudaimonic affect	3.29 ^a (0.08)	3.01 ^b (0.08)	2.88 ^b (0.08)	F(2, 478) = 7.47, $p < .001$
Hedonic affect	2.70 ^{ab} (0.09)	2.88 ^a (0.09)	2.59 ^b (0.09)	F(2, 478) = 2.89, $p = .06$
Self-transcendence	3.56 ^a (0.06)	3.62 ^a (0.06)	3.63 ^a (0.06)	F(2, 478) = 0.42, $p = .66$
Connectedness to nature	3.62 ^a (0.06)	3.64 ^a (0.06)	3.72 ^a (0.06)	F(2, 478) = 0.61, $p = .54$
Connectedness to humanity	3.51 ^a (0.07)	3.60 ^a (0.07)	3.54 ^a (0.07)	F(2, 478) = 0.48, $p = .62$
Total donations	47.40 ^a (3.47)	41.61 ^{ab} (3.43)	37.48 ^b (3.45)	F(2, 477) = 2.08, $p = .13$
Environmental donations	23.51 ^a (2.20)	20.24 ^{ab} (2.19)	15.01 ^b (2.20)	F(2, 474) = 3.81, $p = .02$
Humanitarian donations	24.68 ^a (2.45)	21.75 ^a (2.42)	22.70 ^a (2.44)	F(2, 474) = 0.38, $p = .69$

Note: Means with within rows with different letters were significant different from each other at $p < .05$.

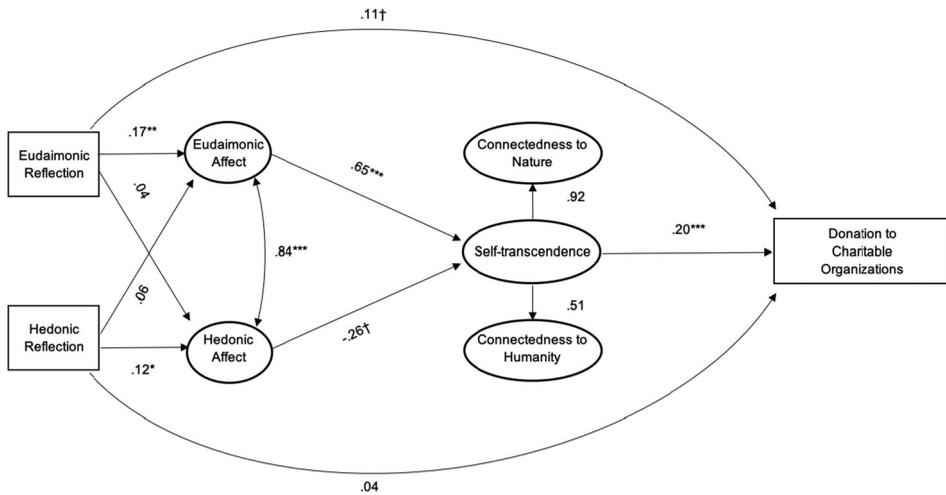


Figure 2. The results from the hypothesized structural equation model. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

(Hypothesis 5). Structural equation modeling was used in order to test latent variables that represent the constructs of interest in our model. This allowed us to test a system of linear regressions simultaneously as well as handle latent variables, thereby allowing us to reduce the influence of measurement error in our analyses (see Nachtigall, Kroehne, Funke, & Steyer, 2003). Correlations among all measures are presented in Table 2. In the model, we included dummy codes to represent eudaimonic reflection (eudaimonic = 1; else = 0) and hedonic reflection (hedonic reflection = 1; else = 0) to test the effects of the two types of reflection relative to a baseline control condition. Eudaimonic affect and hedonic affect were latent variables derived from the four corresponding affect measures. Self-transcendence was a latent variable with connection to nature and connection to humanity as nested latent variables. Donations was the sum of all donations and was standardized to place the standard errors associated with the paths involving this variable on a similar scale with the rest of the standard errors in the model. SEM models were tested using robust maximum-likelihood estimation with a Satorra-Bentler correction (MLM in *lavaan*; Rosseel, 2012) and three indices were used to assess the fit of our models: The comparative fit index (CFI; values below .90 warrant model rejection, values above .95 suggest good fit; Bentler & Bonett, 1980; Hu & Bentler, 1999), root mean

Table 2. Correlations among all measures.

	1.	2.	3.	4.	5.	6.	7.	8.
1. Eudaimonic affect	–							
2. Hedonic affect	.67***	–						
3. Self-transcendence	.30***	.17***	–					
4. Connectedness to nature	.35***	.21***	.83***	–				
5. Connectedness to humanity	.16***	.08*	.85***	.41***	–			
6. Total donations	.11*	.12**	.16***	.16***	.10*	–		
7. Environmental donations	.15***	.13**	.18***	.27***	.04	.71***	–	
8. Humanitarian donations	.03	.05	.05	–.01	.10*	.78***	.12**	–

Note: † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

square error (RMSEA; values higher than .10 warrant model rejection, values near .05 suggest good fit; Browne & Cudeck, 1992; Hu & Bentler, 1999), and standardized root mean residual (SRMR; values less than or equal to .08 indicate good fit; Bentler & Bonett, 1980).

The result for our predicted model is illustrated in Figure 2. The paths represent standardized relations among the variables. The model fit well: $\chi^2(550) = 974.50$, CFI = 0.93, SRMR = 0.05, RMSEA = 0.04, 90% CI [0.04, 0.05]. Consistent with the ANOVA results reported above, eudaimonic reflection was related to eudaimonic affect, $\beta = 0.17$, SE = 0.06, $p < .01$, and not associated with hedonic affect, $\beta = 0.04$, SE = 0.06, $p = .47$. In contrast, hedonic reflection was not associated with eudaimonic affect, $\beta = 0.06$, SE = 0.06, $p = .34$, but was associated with hedonic affect, $\beta = 0.12$, SE = 0.06, $p = .05$, which was consistent with the ANOVAs reported above. Eudaimonic affect was, in turn, positively associated with self-transcendence, $\beta = 0.65$, SE = 0.14, $p < .01$. Hedonic affect, on the other hand, was negatively associated with self-transcendence, $\beta = -0.26$, SE = 0.13, $p = .05$. Finally, self-transcendence was positively associated with donations, $\beta = 0.20$, SE = 0.05, $p < .01$.

Supporting the prediction that eudaimonic affect links eudaimonic experiences to self-transcendence (Hypothesis 3), indirect effect tests indicated that, eudaimonic reflection, compared to control, led to higher levels of self-transcendence *through* eudaimonic affect, $\beta = 0.11$, SE = 0.04, $p = .01$, but not through hedonic affect, $\beta = -0.01$, SE = 0.02, $p = .51$. Also consistent with predictions (Hypothesis 5), indirect effect tests indicated that, eudaimonic reflection, compared to control, led to more donations via eudaimonic affect and self-transcendence, $\beta = 0.02$, SE = 0.01, $p = .04$, but not through hedonic affect and self-transcendence $\beta = 0.00$, SE < 0.01, $p = .52$. There were no significant indirect effects for hedonic reflections to self-transcendence through eudaimonic affect, $\beta = 0.04$, SE = 0.04, $p = .35$, or hedonic affect, $\beta = -0.03$, SE = 0.04, $p = .16$, nor were there indirect effects of hedonic reflections to donations via eudaimonic affect and self-transcendence, $\beta = -0.01$, SE = 0.01, $p = .37$, or hedonic affect and self-transcendence, $\beta = -0.01$, SE < 0.01, $p = .19$.

Discussion

The present study sought to experimentally test whether personal insight and meaning-making developed through post-trip reflection on recent travel results in positive societal benefits via affective states and self-transcendent changes in the individual. The findings contribute to our understanding of the ways in which eudaimonic experiences are important contributors to societally beneficial outcomes resulting from travel. As predicted in Hypothesis 1, reflecting upon eudaimonic experiences that occurred during travel resulted in increased eudaimonic affect whereas reflecting upon hedonic experiences did not produce such an effect. Thus, the results provide an important quantitative complement to the conclusions derived from prior qualitative research on this topic (Hunt & Harbor, *in press*).

In contrast, Hypothesis 2 was not supported. We did not find evidence that eudaimonic reflections directly resulted in increased self-transcendence. Yet, we did find indirect relations between eudaimonic reflection and self-transcendence via eudaimonic affect, as predicted in Hypothesis 3. One possibility for the presence of an indirect effect in the absence of a total effect is that our manipulation was not strong enough to directly

affect self-transcendence. It is also possible that there is another, as of yet unidentified, mediating variable that is suppressing the effect of our manipulation on self-transcendence.

The power of eudaimonic reflection is seen in its effect on pro-social behavior in the form of donations. Consistent with Hypothesis 4, eudaimonic reflections directly increased total donations—which was particularly pronounced for donations to environmental organizations. Moreover, consistent with Hypothesis 5, our model points to indirect relations between eudaimonic reflection and total donations via eudaimonic affect and self-transcendence. Thus, our results suggest that reflecting upon the way in which a travel experience provided meaning in one's life prepares one for increased self-transcendence—in the form of greater connectedness to other members of the planet, both people and nature—and for philanthropic behavior through the effect of such reflections on eudaimonic affect and not hedonic affect. This finding not only contributes to the theoretical knowledge regarding the positive transformative effects of travel but may also help practitioners and service providers better implement powerful programming to enhance their clients' experiences while also creating pro-social benefits.

Importantly, the indirect effects of self-reflection on self-transcendence and donations were not simply because tourists were reflecting upon positive experiences; hedonic reflection did not produce any detectable effects. Rather these self-transcendent changes were specifically a result of eudaimonic reflections and the resulting affect. That is, although both eudaimonia and hedonia reflect forms of positive psychological experiences (see Henderson & Knight, 2012), it was reflection upon the former, not the latter, that resulted in indirect effects on self-transcendent changes in the individual and pro-social outcomes. The benefits of eudaimonic reflections shown in the present research confirm past research demonstrating the effects of reflecting on themes associated with eudaimonia (e.g. Burson et al., 2012) as well as research illustrating the unique effects of eudaimonic experiences and motives compared to those that are hedonic (see Henderson & Knight, 2012; Huta & Ryan, 2010). The unique effect of eudaimonia also supports the necessity of focusing on all dimensions of positive travel experiences as suggested by other tourism scholars (e.g. Filep, 2012). Had we focused on only the hedonic aspects of travelers' experiences, as has been the tradition in the past (see Nawijn, 2016) we would not have detected any effects and would not be able to draw any conclusions regarding the positive effects of travel.

The importance of developing self-transcendence is illustrated by the strong association between connectedness and charitable donations (Hypothesis 4). This is consistent with past research indicating the benefits of self-transcendence for people and the planet (Davis et al., 2011; Piff et al., 2015; see Yaden et al., 2017). Additionally, our results indicate that eudaimonic reflection, through its impact on eudaimonic affect and self-transcendence, was associated with more generous donations. Yet, in contrast, there was no evidence of pro-environmental and social benefits resulting from hedonic reflections or affect. Together, these results contribute to our understanding of the ways that reflecting upon how travel experiences contribute to one's sense of meaning in life produces socially desirable outcomes through self-transcendent changes. While this is similar to the findings of other research in nature-based tourism contexts which has demonstrated that evaluations of the trip experience are positively associated with willingness to donate to conservation-related philanthropies (Ardoin et al., 2016), the present study

more specifically identifies the process through which positive travel experiences facilitate a propensity to donate. That is, the present study points to the role of self-transcendence as an influence on the likelihood of charitable behavior.

The results also confirm the importance of considering post-trip influences when investigating the outcomes of travel, as has been emphasized by other researchers (e.g. Wheaton et al., 2016). In our study, we were able to indirectly increase self-transcendence and directly and indirectly increase philanthropic behavior by manipulating post-trip reflections. Thus, effects of travel are not isolated to the duration of the trip itself but can be attained after travel. This finding is consistent with research demonstrating that reflection beyond the duration of travel was necessary to produce lifestyle changes in the individual (e.g. Kirillova et al., 2017b). This role of post-trip reflection is an especially important contribution since industry practitioners can work reflective prompts into their business practices and travel programing.

A final key contribution of this experimental research is an understanding of how designed reflective prompting is applicable across a range of travel contexts. Our manipulation produced effects across a range of travel experiences, not just those that have been the focus of previous research. That is, past research has focused on the benefits of travel experiences such as culture-based tourism (Matteucci & Filep, 2017), volunteer tourism (Coghlan & Weiler, 2018) and educational trips (Brown, 2009) that are likely to create meaningful experiences. In contrast, we did not select for these types of experiences. We instead demonstrated that eudaimonic aspects of one's travels can be made salient across a variety of types of travel. Thus, researchers and travel planners can be more informed about the ways that post-trip eudaimonic reflection is applicable to a wide range of travel contexts and may be applicable to other types of experiences as well.

Limitation and future directions

A primary limitation of this study is that it relied upon an online convenience sample. While the use of crowd sourcing sites like Mturk may raise concerns about the quality of data collected, research has generally shown that data quality does not differ between Mturk and conventional sampling methods (Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012; Paolacci, Chandler, & Ipeirotis, 2010). Further, samples on Mturk tend to contain a wider range of demographics (Buhrmester et al., 2011; Mason & Suri, 2012) which can help increase the generalizability of the findings. We also paid particular attention to removing problematic open-ended responses which further assures that the data used in this study were of acceptable quality. Future research could test our model with other samples.

We note that our research suggests that our findings apply across a variety of types of travel. One might predict that the results would generalize because many contexts could encourage eudaimonic reflections. For example, culture shock does not require leaving one's own country but can occur when one encounters subcultures within one's own country (Adler, 1975). Thus, it is possible that popular forms of leisure travel in the U.S. such as visiting of relatives and family, shopping, dining experiences, and rural sightseeing (U.S. Travel association, 2018), may be able to be leveraged to produce prosocial outcomes through post-trip eudaimonic reflection. Yet, the generalizability of the findings across many different travel experiences should be tested in order to inform the limits of its

effectiveness, which makes this a potential future direction for research of this nature. For example, hedonic experiences may be so strong in some types of travel that eudaimonic reflection may not seem authentic. Additionally, selection of particular travel locations or opportunities designed to create eudaimonic experiences may have revealed stronger effects than what we found here. This could reveal that certain travel experiences are more conducive to leveraging for prosocial outcomes through eudaimonic reflection than are others. Future research may find it valuable to focus both on the range of travel contexts to which the effects of eudaimonic reflection can be extended as well as the contexts in which the effects are most potent.

It is also the case that participants were provided an immediate opportunity to donate after reflecting upon their travel experience, thus, this study only demonstrates a willingness to donate if opportunities are placed directly in front of participants. In other words, we cannot speak to whether or not the effects demonstrated in this study will translate into seeking opportunities to donate. While this limitation is worth noting, it is still important to recognize that, at the very least, reflecting upon how a trip provided meaning in one's life seemed to *prepare* participants to engage in pro-social behavior. Future research can both explore for what other behavior such reflections may prepare individuals as well as how resilient this effect is in the face of everyday challenges (e.g. having demands on one's time that makes it difficult to seek out opportunities to engage in pro-social behaviors).

We had difficulties with our measurement of connection to humanity. Without these difficulties, we may have been able to find total effects of eudaimonic reflections on self-transcendence. However, we use a latent measure of self-transcendence in our model and the paths from connection to humanity to self-transcendence were weaker than the paths from connection to nature to self-transcendence suggesting that the error from the measurement problems were removed from in our model testing. It is also the case that we do not find total effects for reflection on connection to nature alone (see [Table 1](#)) suggesting that the lack of total effects is not simply a result of measurement effects.

It may be useful to distinguish between pro-social behavior in the form of helping other people and helping nature. We found total effects of reflection on donations to help nature but not on donations to people. It may be that decisions to help people are different than those that help nature. Perhaps people are generally more inclined to donate toward humanitarian than environmental organizations, as suggested by a comparison between the amounts donated to the two different types of organizations in our control group making it difficult to detect effects of different types of reflection on humanitarian donations. It is possible that a nudge to increase donations may be more effective when one's baseline is a propensity to not donate to the organization, which may be the case for environmental organizations.

In the present study we found that eudaimonic affect, but not hedonic affect, was associated with charitable donations. Considering that other work has found that other affective states, such as empathy and fear, are determinants of donation behavior (Banks & Raciti, 2018; Swim & Bloodhart, 2015). Future work could focus on a broader range of affective states to better understand the role that affect plays in influencing donations.

Other empirical research on the links between travel and philanthropy found that individual values play a role on the amount individuals are willing to donate that is independent of the influence of the travel experience itself (Ardoin et al., 2016). Further attention to different pre-existing characteristics of the traveler and their value orientations, and how these pre-existing qualities interact with and directly influence the reflections may be fruitful. For example, people who endorse certain values may be more likely to engage in eudaimonic reflection. However, it is worth noting that, because participants were randomly assigned to condition in the present research, possible confounds between the tendency to engage in eudaimonic reflection and values is not relevant to the present study.

Conclusions

The purpose of the present research was to experimentally test the causal process by which eudaimonic reflection leads to positive transformations for travelers, and potentially, as a result, to positive outcomes for others in the form of philanthropic behavior. The present research demonstrates that travel can, indeed, have positive societal impacts. In the context of this study, the positive effect of travel was initiated by eudaimonic self-reflections and assisted by eudaimonic affect and self-transcendent outcomes. Moreover, this study demonstrated the importance of considering the impact of travel *after* the traveler has returned to everyday life. Together, these findings suggest that encouraging recent travelers to reflect on the meaning derived from their trip may be an effective means of promoting both personal well-being and philanthropic behavior, something that interested practitioners can implement. As we continue to learn more about both the role of eudaimonic experiences during travel and post-travel, travel and tourism can be better harnessed as a potent tool for creating more compassionate responses to other people and the planet, an important objective given the increasingly large number of people who are now traveling each year.

Notes

1. Cases were excluded in which (a) the field was left blank or had fewer than 5 words, (b) the response was copy and pasted from a web page, (c) the response was unintelligible, (d) the response indicated the participant had likely changed the vacation they were describing between the two text entries, (e) the response indicated the trip occurred more than a year ago, or (g) the response indicated that the participant could not remember the trip well enough to reflect upon it.
2. Due to an error, for the majority of participants, the scale points for the connectedness to humanity measure were presented in a randomized order (i.e. not the uniform 'strongly disagree' to 'strongly agree'). However, given that (a) all participants in the sample passed an instructional attention check and (b) the items were used as a latent variable, we elected to use the measure in our analyses. Results remained consistent if connectedness to humanity was dropped from analyses on measures of self-transcendence.
3. Including traveling internationally, alone versus with others, and whether the trip was nature or culture-based as covariates predicting affect and adding interactions with these variables and the reflection manipulations did not change substantive conclusions. One interaction revealed that those who traveled with others experienced stronger eudaimonic and hedonic emotions after engaging in reflection than those who traveled alone. This does not

alter support for the model but instead suggests that those traveling with others may have been more likely to have, or more easily recall upon being prompted to reflect, corresponding affect. Post-travel activation of such experiences among those who traveled alone may require more assistance.

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