

A CHOSEN CHALLENGE: GROWTH FOLLOWING SHORT-TERM CROSS-
CULTURAL TRAVEL

by

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ABSTRACT

VALERIE ALEXIS GILBERT. A chosen challenge: Growth following short-term cross-cultural travel. (Under the direction of DR. RICHARD TEDESCHI)

Using the Posttraumatic Growth model (Tedeschi & Calhoun, 1996) as a framework, the current investigation aims to determine whether growth following short-term cross-cultural travel is achieved through the same cognitive pathway as trauma; that is, whether perceived stress contributes to a reexamination of core beliefs, followed by intrusive and deliberate rumination, thereby leading to personal growth. Given that travel is self-selected, the current study also examines how motivation for personal growth may play a part in perceived growth. The sample consists of 32 individuals who attended 10-day study abroad programs as part of university classes to various destinations. I first tested the hypothesized model in which stress predicted greater disruption of core beliefs, which in turn led to more intrusive rumination, which led to greater deliberate rumination, which then predicted greater growth (Hypothesis 1). Second, I tested whether growth motivation predicted unique variance in growth beyond stress, disruption of core beliefs, and intrusive and deliberate rumination (Hypothesis 2). Findings revealed partial support for Hypothesis 1: stress did not predict disruption of core beliefs; disruption of core beliefs predicted intrusive rumination, which predicted deliberate rumination; and deliberate rumination did not predict growth. Hypothesis 2 was not supported: desire for personal growth did not predict growth when added to the model. These results suggest certain aspects of the PTG model are part of the cognitive pathway of growth following study abroad program, but that other factors remain unknown.

Limitations include small sample size, reliance on self-report measures, and a cross-sectional design. Future research should explore other factors that may lead to growth following study abroad programs, including factors other than those in the PTG model.

DEDICATION

For my parents, who always believed in me.

For Tony, who provided unconditional love and support throughout my graduate school
experience.

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TABLE OF CONTENTS

INTRODUCTION	1
EDUCATIONAL TRAVEL	2
POSTTRAUMATIC GROWTH MODEL	5
GROWTH MOTIVATION	9
CURRENT INVESTIGATION	12
METHODS	13
Participants	13
Procedure	13
Measures	14
RESULTS	17
DISCUSSION	21
LIMITATIONS	26
CONCLUSION	27
REFERENCES	28
APPENDIX A: TABLE 1	30
APPENDIX B: TABLE 2	31
APPENDIX C: TABLE 3	32
APPENDIX D: FIGURE 1	33
APPENDIX E: FIGURE 2	34
APPENDIX F: RECRUITMENT EMAIL	35
APPENDIX G: CULTURE SHOCK MEASURE	36

	viii
APPENDIX H: PERCEIVED STRESS SCALE – 4	37
APPENDIX I: CORE BELIEFS INVENTORY	38
APPENDIX J: EVENT-RELATED RUMINATION INVENTORY – SHORT FORM	39
APPENDIX K: POSTTRAUMATIC GROWTH INVENTORY	40
APPENDIX L: GROWTH MOTIVATION INDEX	41
APPENDIX M: PERSONAL GROWTH INITIATIVE SCALE – II	42

INTRODUCTION

People travel for a variety of reasons. Individuals interested in rest and relaxation go on vacation. Young adults interested in exploring the world before attending college take a gap year. College students travel as part of study abroad programs offered through their schools. Professionals take time off work to reevaluate their careers by taking a modified version of a gap year called a career gap. Some people travel for religious reasons, visiting holy sites or embarking on pilgrimages. Sometimes, travel includes experiencing a different culture. The benefits of cross-cultural travel have been widely researched and include: increased cross-cultural sensitivity (Anderson, Lawton, Rexeisen, & Hubbard, 2006), increased openness to cultural diversity (Clark, Flaherty, Wright, & McMillen, 2009), positive impacts on career goals, self-awareness, critical thinking skills (Nam, 2011), appreciation of cultural differences, new ways of thinking, and awareness into personal values (Lindsey, 2005). However, the underlying mechanisms leading to benefits following cross-cultural travel are less understood. The purpose of the current research is to examine how cross-cultural travel may create cognitive change that leads to personal growth. In addition, because the desire for personal development may be a factor in self-selected travel, the current research examines the impact of growth motivation on personal growth.

EDUCATIONAL TRAVEL

Educational cross-cultural travel in the form of study abroad programs is a popular form of self-selected travel. Over half of the American student population now participates in study abroad programs of varying lengths. Short-term study abroad, that is, travel lasting up to a semester in length, may be more appealing than longer travel due to financial concerns or academic requirements (Mapp, 2012). Despite the short duration of these experiences, they appear to have numerous benefits. Mapp (2012) examined 87 college students who participated in study abroad programs lasting from one to three weeks. Destinations included Thailand, Ireland, Vietnam, Costa Rica, and Ecuador. Following the study abroad experience, students reported increased emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy. A limitation of this study is that the research did not track the long-term impacts of the experience. In addition, the authors did not address the underlying mechanisms leading to changes resulting from the study abroad experience.

Stone and Petrick (2013) conducted a literature review to determine the benefits of educational travel. The authors reviewed fourteen online databases and identified four aspects of the study abroad experience: travel and tourism activities, class and formal instruction, exposure to another culture, and interpersonal contact. Students who participated in short-term study abroad programs reported increased personal development, functional knowledge, and awareness of other cultures. Other noted impacts of short-term study abroad programs include increased academic growth, self-confidence, and a change in views about the world (i.e. increased cultural understanding

and awareness). Further, the effects of long-term study abroad programs are similar to those of short-term study abroad programs, including change of perspective, self-confidence, and functional knowledge. However, these findings do not explore why study abroad experiences are beneficial. Moreover, the authors specifically acknowledge that “while motivations are worth considering, pairing motivations of travel with educative outcomes is beyond the scope” of their research (Stone & Petrick, 2013, p. 735). Like Mapp (2012), this literature review fails to track the long-term benefits of study abroad experiences.

In a study examining combined educational and religious travel, Saxe et al. (2012) examined the long-term impact of participation in Taglit-Birthright. Taglit-Birthright is a 10-day educational tour of Israel funded by the State of Israel and private donations (About Taglit-Birthright Israel, 1999). Data were collected from approximately 3,000 individuals between six and eleven years after participating in the program. The authors reported that, even years after their experience, participants reported greater observance of religious holidays, more firmly held religious beliefs, a keener awareness of current religious and political issues, membership in religious congregations, and increased involvement and engagement in religious life (Saxe et al., 2012). These findings suggest a 10-day trip can lead to personal growth that lasts years after the experience. However, because they did not collect pre-trip measures it cannot be concluded that the trip caused the differences found in behaviors and attitudes. Also, while the authors focused on long-term effects, they did not address the participants’ motivation or explore the process(es) responsible for the changes in behavior and attitude.

Thus, while the foregoing studies confirm that self-selected cross-cultural educational travel can and does lead to personal growth, they fail to address questions such as what accounts for such growth and whether motivation may play a role. Building upon the research cited above, the current investigation attempts to identify the mechanisms that lead to personal growth during and after short-term cross-cultural educational travel.

POSTTRAUMATIC GROWTH MODEL

The Posttraumatic Growth (PTG) model provides some of the elements that could be included in a framework to examine growth following travel. PTG is defined as positive outcomes that are sometimes reported by people who have experienced a highly stressful life event (Tedeschi & Calhoun, 1996). People have fundamental core beliefs about how the world should work. These beliefs make up people's assumptive worlds and provide structure that allows them to observe, organize, predict, and comprehend the events that they experience. When people experience a highly stressful event, it may challenge their views about the world and force them to make cognitive changes to accommodate their experience. Researchers believe it is the challenge to a person's world assumptions and subsequent cognitive work to reestablish a functional set of beliefs that provides the opportunity for personal growth. It is important to note that not all stressful experiences challenge a person's core beliefs or disrupt their assumptive world (Cann et al., 2009).

In the PTG model, disruption of core beliefs can lead to rumination. Two forms of rumination that have been shown to contribute to PTG are intrusive rumination and deliberate rumination. Intrusive rumination is invasive thoughts about a major life event. It may be both a normal and necessary part of cognitive processing in the immediate aftermath of the event. Intrusive rumination is a precursor to deliberate rumination, which is purposeful thinking about the event in an attempt to understand or find meaning, a process which fosters PTG (Cann et al., 2011). Although disruption of core beliefs can also lead to deliberate rumination, in the PTG model the sequence of cognitive processes

is: disruption of core beliefs, intrusive rumination, and deliberate rumination, which together lead to growth. No research has yet examined whether these cognitive processes occur during or after short-term cross-cultural travel and, if so, whether and how they may contribute to personal growth.

Hirschorn and Hefferon (2013) observed that two elements present in PTG—the disruption of core beliefs and deliberate rumination—occur during cross-cultural travel and lead to personal growth in this setting. They suggest cross-cultural travel can challenge people's views about themselves and their culture, as well as liberate them from the conformity of their everyday routines. People traveling abroad may experience other adversities (loneliness, discrimination, or prejudice), leading to attempts to understand and make sense of the experience. The authors conclude that as people grapple with the necessary adaptations of a different culture they experience cognitive disjunction, which triggers personal growth.

It is important to consider how trauma and travel may be similar in some ways. Substantial overlap may occur during the trauma or travel situation. Individuals in both situations may experience stress and hardship. Both types of events may include a reexamining of beliefs about the world. People may experience cognitive disjunction, where they wrestle with what they are experiencing versus what they originally believed and attempt to make sense of the different viewpoints. In addition, travel and trauma are similar in that rumination may occur after the event, as people are reminded of their travels (intrusive rumination), and purposefully think about their experience and consider how it fits into their understanding of the world (deliberate rumination).

On the other hand, trauma and travel differ in key aspects. Travel is planned and often keenly anticipated. Before people engage in travel they form expectations about the experience, they prepare accordingly, and they are most likely motivated to engage in the experience. Most trauma is unexpected, unplanned, and people who undergo trauma do not plan for, and are certainly not motivated to engage in, the experience. During travel, people know their experience is limited in time and scope, whereas during trauma there may be no defined end to the situation. Finally, after trauma, intrusive rumination is likely due to the distressing nature of the experience. Travel, on the other hand, is stressful but most likely not severely disturbing or painful, suggesting intrusive rumination without distressing content. Indeed, stress is such a core component of trauma that PTG research often requires participants to rate the stressfulness of their trauma. The assumption is that the more stressful the experience, the more opportunity for a serious reexamination of core beliefs and subsequent deliberate rumination, thereby setting the stage for personal growth.

Culture shock may be a particularly appropriate paradigm to understand the study abroad experience. Culture shock includes emotional disturbance, difficulty coping, and a feeling of being overwhelmed by cultural differences (Mumford, 1998). Taft (as cited in Mumford, 1998) identified six aspects of culture shock including psychological strain, a sense of loss and deprivation, feeling rejected, confusion about role expectations, anxiety, and feeling rejected and ineffective. Culture shock may capture the stress and anxiety unique to travel and absent in trauma.

Based on the similarities of stressfulness, disruption of core beliefs, and intrusive and deliberate rumination of travel and trauma, I expect travel to elicit all four features which are associated with PTG and, therefore, lead to growth following a cross-cultural travel experience.

GROWTH MOTIVATION

Although growth motivation is not an element present in the PTG theoretical framework, it may be a relevant factor in predicting whether personal growth will result from self-selected travel. Several studies have focused on motivation related to cross-cultural travel. Nyaupane, Paris, & Teye (2011) examined undergraduate students' motivations to study abroad. The sample consisted of 136 study abroad participants attending five-week programs. They surveyed participants about social ties, previous travel, motivations, and attitudes towards their destination. Exploratory factor analysis revealed study abroad students' motivation fell into four categories: International ("Get broader understanding of the world"), Escape ("Travel independently without family"), Academic ("Explore career opportunities"), and Social ("Travel with friends"). These four categories of motivation appear to overlap conceptually with a recently published model of growth motivation that includes reflective growth motivation and experiential growth motivation (Bauer, Park, Montoya, & Wayment, 2014). Reflective growth motivation involves a desire for wisdom, maturity, and thinking deeply about oneself and others, and overlaps with the motivation categories of International and Escape from Nyaupane et al. (2011). Experiential growth motivation involves a desire for meaningful experiences in relationships and activities, and strengthening skills in areas of personal interest, and overlaps with the motivation categories of Academic and Social from Nyaupane et al. (2011). Bauer et al. (2014) refer to growth motivation as a subjective desire to gain maturity and well-being, while Nyaupane et al. (2011) focus more

generally on motivation for travel without specifying an innate desire for personal development.

Religious or spiritual motives are another reason people may engage in travel. Kresic, Mikulic, and Milicevic (2012) conducted a study that examined pilgrims visiting Medjugorje, a renowned shrine of the Virgin Mary located in Bosnia and Herzegovina (formerly Yugoslavia). They found that 35.7% of respondents identified spiritual development as a motive for their travel to the shrine. They did not examine whether post-event spiritual growth occurred or whether motivation may have played a part in such growth. Like Nyaupane et al. (2011), this finding supports the idea that motivation may be related to engaging in travel.

A similar construct to growth motivation is Personal Growth Initiative (PGI), which is defined as intentional cognitive and behavioral self-improvement. Cognitive components of PGI include deliberate thinking about involvement in activities that develop personal growth, having knowledge about the process of personal change, valuing personal development, and having reasonable expectations regarding the change process. Behavioral components of PGI include proactively seeking opportunities for personal growth, capitalizing on these opportunities, and following through on personal development plans (Robitschek et al., 2012). Roepke (2013) found a positive correlation between growth following a positive life event and the original PGIS ($r = .38, p < .01$). She suggests, “people who actively seek opportunities for personal growth are probably more likely to grow from their positive experiences” (p. 283). Consistent with Roepke’s

ideas, I expect motivation for personal growth to predict growth following a cross-cultural travel experience.

CURRENT INVESTIGATION

The current study addressed the cognitive process of growth following short-term self-selected cross-cultural educational travel. The sample included groups who participated in 10-day cross-cultural travel experiences. The groups were comprised of 32 university students who participated in travel to various destinations as part of separate university programs. Six weeks after returning from their respective trips, participants were invited to complete an online survey to examine stress and culture shock, disruption of core beliefs, rumination engagement, perceived growth, and motivation to grow related to participants' travel. Figure 1 (Appendix D) demonstrates the proposed model of how growth is achieved from short-term cross-cultural travel.

My hypotheses were as follows:

1. Growth will follow the same cognitive path for short-term cross-cultural travel as suggested by the PTG model. That is, the stressfulness and culture shock of the experience will lead to a greater breakdown of core beliefs, which should lead to greater intrusive and deliberate rumination. Intrusive rumination should also be related to greater deliberate rumination, which should, in turn predict greater PTG.
2. Growth motivation / personal growth initiative will predict growth above and beyond the PTG model variables.

METHODS

Participants

Participants were university study abroad students from a Southeastern university who went on 10-day spring break study abroad programs from February 26th to March 8th of 2015 (exact trip dates varied by program). University professors led study abroad groups and participants received college credits. Destinations included Cuba (14 students), Taiwan / Hong Kong (10 students), Malawi (12 students), India (13 students), United Kingdom (England; 14 students), Germany (5 students), Italy (12 students), the Netherlands (8 students), Poland (12 students), Ecuador (12 students), and Brazil (25 students) (Total $n = 137$). Students self-selected to take part in the study abroad programs and were responsible for paying the program cost, international airfare, and other fees ("Faculty led spring break programs," 2015).

Procedure

The Office of Education Abroad from the university organizing the programs sent an email inviting study abroad students to participate in research about their experience. The email was sent out six weeks after their return and contained a link to an online data collecting website (Appendix F). They resent the email one week later in an attempt to maximize the response rate.

All information was gathered through Qualtrics, a secure online data collection website. Participants read an informed consent, answered demographic questions, and completed measures of culture shock, perceived stress, disruption of core beliefs,

intrusive and deliberate rumination, growth, growth motivation, and personal growth initiative.

Measures

Culture Shock: Using Mumford's (1998) culture shock measure as a guide, I developed a three-item measure of culture shock. Participants were instructed: "Thinking back to your study abroad experience, did you ever feel..." and asked to rate how much they felt strain from the effort to adapt to a new culture, felt confused when trying to cope with the new culture, and felt lost or out of place in the new culture. Items were rated on a scale from 0 (*not at all*) to 4 (*always*) (Appendix G). The internal reliability for the three items is .73, suggesting they are measuring the same construct.

Perceived Stress: I measured perceived stress using the 4-item Perceived Stress Scale - 4 (PSS-4, Cohen, Kamarck, & Mermelstein, 1983). Participants were instructed to think about their study abroad experience and asked, "How often did you feel confident in your ability to handle your personal problems," and "How often did you feel that things were going your way" (reverse scored). Items were rated on a scale from 0 (*never*) to 4 (*very often*) (Appendix H). The PSS-4 has acceptable internal reliability in the current sample ($\alpha = .64$).

Disruption of Core Beliefs: Disruption of core beliefs was assessed using the Core Beliefs Inventory (CBI; Cann et al., 2009). The CBI is a nine-item self-report measure used to assess the serious examination of core beliefs due to a highly stressful event. Items began with the stem "Because of the program, I seriously examined..." and were

rated on a scale from 0 (*not at all*) to 5 (*to a very great degree*) (Appendix I). The CBI has excellent internal reliability in the current sample ($\alpha = .93$).

Rumination Engagement: Intrusive and deliberate rumination were measured using the short form of the Event Related Rumination Inventory (ERRI; Cann et al., 2011). Five items assessed intrusive rumination and five items assessed deliberate rumination. All items were rated on a scale from 0 (*not at all*) to 3 (*often*) (Appendix J). Internal consistencies were excellent for both intrusive rumination ($\alpha = .93$) and deliberate rumination ($\alpha = .93$) and the scales also correlated with each other ($r = .72, p > .01$).

Growth: The 21-item Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996) was used to assess the degree to which participants experienced positive changes as a result of their travel experience. Participants rated items on a scale from 0 (*I did not experience this change as a result of my experience*) to 5 (*I experienced this change to a very great degree as a result of my experience*). The internal consistency of PTGI in this sample was excellent ($\alpha = .97$), suggesting all the items measured the same construct.

Wording of the prompt and Likert scale were altered to reflect psychological change due to participation in university-sponsored study abroad (Appendix K).

Motivation to Grow: Two measures assessed the desire for personal growth and development. Growth motivation was assessed using the Growth Motivation Index (GMI; Bauer et al., 2014). The GMI assesses how often participants engage in activities related to personal growth (i.e. seeking new perspectives to think about life, thinking about how to contribute to society, etc.) and includes two subscales assessing reflective and experiential growth motivation. Eight items, 4 measuring reflective growth

motivation and 4 measuring experiential growth motivation were rated on a scale from 1 (*never*) to 7 (*always*) (Appendix L; J. Bauer, personal communication). Internal consistencies were poor for experiential growth motivation ($\alpha = .50$) and good for reflective growth motivation ($\alpha = .83$), and the scales also correlated with each other ($r = .41, p < .05$). Seeking and initiating opportunities for personal growth were measured using the Personal Growth Initiative Scale-II (PGIS-II; Robitschek et al., 2012). The PGIS-II includes sixteen items rated on a scale from 0 (*strongly disagree*) to 5 (*agree strongly*) (Appendix M). Internal constancy for the current sample was excellent ($\alpha = .94$).

RESULTS

Demographics

Of the 137 individuals contacted, a total of 39 study abroad participants began surveys and 32 completed all measures (dropout rate = 18%, 7 participants). Only individuals who completed the entire survey were included in data analysis ($n = 32$). The final sample included 10 males and 22 females; participants ranged in age from 19 to 51 ($M = 28.91$, $SD = 9.96$). A majority of the sample were graduate students (40.6%), followed by Senior grade level (34.4%), then Junior grade level (21.9%), and finally Sophomore grade level (3.1%). The ethnic makeup of the sample included 26 Caucasian, 2 Black/African American, 1 Latino/Hispanic, 1 Caribbean, 1 Asian, and 1 Other. Table 1 (Appendix A) provides the number of individuals who attended each study abroad location. Table 2 (Appendix B) provides the means and standard deviations of all measures. Table 3 (Appendix 3) provides the correlations between all measures.

General Data Considerations

Two measures were included in the survey to assess the stressfulness of the study abroad experience: the Perceived Stress Scale – 4 and the Culture Shock measure. These scales were not correlated ($r = .28$, $p = .12$), suggesting they are measuring different aspects of travel-related stress. Perceived stress was unrelated to PTG ($r = -.03$, $p = .89$), while culture shock was negatively correlated with PTG ($r = -.35$, $p = .05$). I used the Perceived Stress measure and not culture shock as an indicator of difficulty of the study abroad experience for several reasons. First, culture shock was negatively correlated with PTG, which is opposite than expected. In addition, the culture shock measure appears to

have a floor effect, with the mean score less than 1 on a 5-point scale. Perhaps the culture shock measure captured a very specific type of difficulty (e.g. problems acclimating to another culture), while the perceived stress scale captured general difficulties more applicable to the participants (e.g. feeling out of control or unable to handle problems). Overall, Perceived Stress appears to be the better of the two measures even though it did not positively correlate with PTG.

Two measures were included in the survey to assess growth motivation: Growth Motivation Index (GMI) and Personal Growth Initiative Scale – II (PGIS-II). PGIS-II was significantly correlated with the two factors of GMI ($r = .64, p < .01$ for Reflective; $r = .39, p = .03$ for Experiential). I used the PGIS as the measure of growth motivation because, based on face validity of the items for both scales, PGIS appeared to better capture the desire for personal growth and change. For example, the GMI items “I love the projects or work that I do” and “The important activities in my life are often activities that involve the people I love” do not appear to capture the personal characteristic of intentionally seeking out and engaging in personal development. On the other hand, the PGIS-II items “I actively work to improve myself” and “I use resources when I try to grow” appear to better capture a personal desire for growth and development.

The power to detect a medium effect for this sample is .56, meaning moderate effects could go undetected.

Analytic Strategy

Analyses were conducted in two phases. The first phase tested whether the hypothesized model predicts growth in which stress predicted greater disruption of core

beliefs, which in turn led to more intrusive rumination, which led to greater deliberate rumination, which then predicted greater growth (Hypothesis 1). The second phase tested whether growth motivation predicted variance in growth above and beyond stress, disruption of core beliefs, and intrusive and deliberate rumination (Hypothesis 2). Hypotheses were tested using multiple regression; the path model was tested sequentially, with a separate regression equation for each path. For each path, the current investigator regressed the criterion on the predictor, controlling for all variables preceding that path in the model.

Phase 1: Testing the Hypothesized Path Model

Phase 1 analyses tested the hypothesized path model in four regressions. First, I tested the first path in the hypothesized path model by regressing disruption of core beliefs on stress. Results suggested that stress did not significantly predict disruption of core beliefs, $t(30) = -.22$, $\beta = -.04$, $p = .83$. Second, I tested whether disruption of core beliefs predicted intrusive rumination by regressing intrusive rumination onto disruption of core beliefs, controlling for stress; results suggested that disruption of core beliefs predicted more intrusive rumination, $t(29) = 2.20$, $\beta = .38$, $p = .04$. Third, I tested whether intrusive rumination predicted deliberate rumination by regressing deliberate rumination onto intrusive rumination, controlling for disruption of core beliefs and stress; results suggested that intrusive rumination predicted more deliberate rumination, $t(28) = 4.64$, $\beta = .59$, $p < .01$. Fourth, I tested whether deliberate rumination predicted growth by regressing growth onto deliberate rumination, controlling for intrusive rumination, disruption of core beliefs, and stress; results suggested that growth was unrelated to

deliberate rumination, $t(27) = 1.90$, $\beta = .28$, $p = .07$. Based on the above analyses, Hypothesis 1 was partially supported in that disruption of core beliefs predicted greater intrusive rumination and intrusive rumination predicted greater deliberate rumination. However, stress was unrelated to disruption of core beliefs and deliberate rumination was unrelated to growth.

Phase 2: Testing Growth Motivation as a Unique Predictor of Growth

Phase 2 analyses tested whether growth motivation was uniquely related to growth, controlling for the hypothesized path model tested in Phase 1 analyses. When I regressed growth onto growth motivation, controlling for stress, disruption of core beliefs, and intrusive and deliberate rumination, growth motivation was unrelated to growth, $t(26) = -.40$, $\beta = -.05$, $p = .69$. Thus, Hypothesis 2 was not supported. Figure 2 (Appendix E) shows results from the path analyses.

DISCUSSION

The current research examined how short-term cross-cultural educational travel may create cognitive changes that lead to personal growth. The purpose was to determine if growth due to a chosen challenge followed the same pathway as trauma (based on the Posttraumatic Growth model; Tedeschi & Calhoun, 1996), and if self-reported desire for personal development contributed to growth above and beyond this model. No research has empirically examined whether the aspects of PTG (core belief breakdown, intrusive rumination, and deliberate rumination) occur during or following short-term cross-cultural travel. Growth motivation is a factor not included in the PTG framework. Growth motivation may make people more likely to experience growth due to intentionally seeking out and engaging in experiences that promote personal growth, and desiring personal growth from these experiences. I hypothesized that (1) growth follows the same cognitive pathway for short-term cross-cultural travel as suggested by the PTG model, and (2) growth motivation predicts growth above and beyond the PTG model variables.

Results revealed partial support for Hypothesis 1. In the first path of the regression, stress did not significantly predict a breakdown of core beliefs. The nature of and controllability of stress relating to self-selected travel, however, may explain the absence of this effect. Perhaps people who chose to attend a study abroad program were excited (instead of stressed), or were more prepared to handle the stress of travel. Also, maybe the expectancy of travel allowed people to anticipate and brace for challenges they

might encounter during the experience. Finally, people may have chosen study abroad programs that were less uncomfortable or potentially shocking to them.

Another potential explanation for stress not contributing to a breakdown of core beliefs is that the limited time and scope of the study abroad experience negated or minimized feelings of stress. It could be that students were able to enjoy their experience (instead of feel stressed during it) because they knew there was a definitive end to their time traveling. Also, the social support of traveling with a group and leader / instructor also may have reduced stress. Given the short time frame of the experience, the activities and agenda may have been highly structured, again reducing feelings of stress. Also, knowing that their trip was organized and overseen by their university may have reduced stress or anxiety. In addition, many participants probably had the ability to stay in contact with family and friends through modern technology. Perhaps being able to “stay connected” lessened stress during travel. Ultimately, what initiates a disruption of core beliefs in a study abroad sample remains unknown.

In the second path, disruption of core beliefs (when controlling for stress) was significantly related to more intrusive rumination. This finding is consistent with Cann et al. (2011), who stated that intrusive rumination is often necessary in the immediate aftermath of a major life event. Given the six week timeframe following the study abroad programs, it is not surprising that participants reported experiencing intrusive rumination at the time of the survey. Intrusive rumination may have ranged from seemingly mundane thoughts triggered by their daily routine (choices about food, clothing, social situations) to intrusive thoughts triggered by returning to familiar beliefs or practices that

feel different when seen through the lens of their cross-cultural experience (attending church, participating in classroom debate, describing their experience to friends or family). Finally, intrusive rumination could be prompted through modern technology in the form of social media and news reports.

In the third path, deliberate rumination was associated with more intrusive rumination when controlling for stress and breakdown of core beliefs, which is consistent with the PTG model. The high level of deliberate rumination suggests the study abroad experience led to serious contemplation by participants. Perhaps as participants are reminded about their experience through intrusive rumination, they take time to engage in more deliberate thinking about their experience and its meaning. As they are reminded of their time abroad, they may begin seeing themselves in a new light, questioning assumptions about lifestyle, and rethinking their values and goals. As they describe what they achieved and witnessed, maybe they find themselves inspired to chase new ambitions.

In the fourth path, growth was unrelated to deliberate rumination when holding constant for intrusive rumination, breakdown of core beliefs, and stress, although this association was marginal ($\beta = .28, p = .07$). One explanation for this may be that purposeful thinking is more critical to develop growth after a traumatic experience than after a challenging but positive life event, like cross-cultural travel. On the other hand, maybe the PTGI was not the best measure to capture growth following a cross-cultural travel experience. For example, items like “I have a stronger religious faith” and “I have a better understanding of spiritual matters,” are simply not suited to measuring growth

following travel for educational, as opposed to religious or spiritual, purposes. More appropriate measures to capture growth after cross-cultural travel might include items such as increased openness to cultural diversity, reexamination of personal values, new ways of thinking, and increased independence and self-reliance. Overall, the findings for Phase 1 analyses suggest that some aspects of the PTG model are applicable to a short-term study abroad experience. Specifically, a disruption of core beliefs predicts intrusive rumination, which goes on to predict deliberate rumination. In addition, clarification is needed on what initiates the challenge to core beliefs during short-term cross-cultural travel. Finally, the absence of significant findings in the final step of the analysis means it cannot be concluded that growth is achieved following the PTG model in a study abroad sample.

Phase 2 tested whether growth motivation was uniquely related to growth, controlling for all variables in Phase 1 analyses. Results revealed growth motivation did not significantly contribute to growth, leading to the rejection of Hypothesis 2. Perhaps growth motivation contributes to participants deciding to attend a study abroad program but does not contribute to perceived growth; that is to say, participants in this sample may have higher PGIS than people who did not attend study abroad programs. On another note, having participants self-report on their motivation to grow may not accurately reflect whether they are truly individuals who seek out opportunities to grow. Maybe observer ratings (such as professors of the study abroad classes, or tour guides when abroad) could assess who is capitalizing on the study abroad experience, although observer reporting brings with it its own set of biases and limitations. Finally, the fact

that growth may not have been measured accurately suggests that growth motivation may lead to growth in a way that was not fully captured in this study. Figure 2 demonstrates the results of the path analyses.

LIMITATIONS

This study has limitations that should be considered in regards to the validity of its findings. First, this study had a small sample size. Given the complexity of the path model being tested, it is possible that significant results were not detected due to lack of power (especially by the final steps). Considering that participation in the research was voluntary and there were no incentives, it is not surprising the response rate was low (response rate of individuals who completed the entire survey is 23.4%). In the future, efforts should be made to increase sample size when attempting to replicate or expand upon these findings. Second, all measures were self-reported, which raises questions about how accurately an individual can assess their experiences and their views about themselves. A third limitation is self-selection bias. Individuals in this study self-selected to attend study abroad, and later chose to participate in the survey. The people who chose to participate in this research may not be representative of all study abroad participants' experiences. A final limitation is that measures were only collected after the study abroad experience. This lack of pre-trip data means we cannot measure actual change but only reported change, and causality cannot be determined. Based on these limitations, future studies should include a larger sample, multiple data collection styles, pre-trip measures, and a longer (or multiple) follow-up period.

CONCLUSION

Saxe et al. (2012) asked, “Why should a ten-day informal educational experience have long-lasting impact? What accounts for the changes in the attitudes and behavior...?” (p. 30). This study attempted to do just that – address what accounts for change following a short-term cross-cultural travel experience. Although the PTG model originated to measure growth following trauma, this study has shown that when applied to a study abroad sample certain aspects remain important, namely a disruption of core beliefs and both intrusive and deliberate rumination. While some pieces have shown to be important from this research, other areas require further investigation: namely, what initiates the challenge to core beliefs? What other factors may contribute to growth? And, how do you effectively measure growth for this type of experience? I believe the PTG model provides some important factors that contribute to growth following travel, but finding or developing a more refined set of measurements may create a more comprehensive model. It is hoped that this research contributes to the development of a new model to reliably assess growth following challenging but positive life events. Other potential events that may fit this type of model could include: becoming a parent for the first time, graduating college, joining the workforce, or getting married. This research also prompts questions about how the study abroad experience could be modified to encourage the most growth for participants: What will allow for the most impactful study abroad experience? How can we make these impacts long lasting? These are the next set of questions to explore.

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APPENDIX A: TABLE 1

Table 1: Number of participants who attended each study abroad location

Location	Frequency	Percent
United Kingdom / England	7	21.9%
Cuba	4	12.5%
Taiwan / Hong Kong	4	12.5%
Italy	3	9.4%
Poland	3	9.4%
Ecuador	3	9.4%
Brazil	2	6.3%
Netherlands	2	6.3%
India	2	6.3%
Malawi	1	3.1%
Germany	1	3.1%
Total	32	100%

APPENDIX B: TABLE 2

Table 2: Means and standard deviations of all measures

Measure	Mean	Standard Deviation
Culture Shock ¹	0.75	0.57
PSS – 4 ¹	2.13	2.29
CBI ¹	3.00	1.35
ERRI – Intrusive ¹	1.74	0.92
ERRI – Deliberate ¹	2.13	0.89
GMI – Reflective ¹	5.37	1.14
GMI – Experiential ¹	6.00	0.56
PGIS – II ¹	3.91	0.67
PTGI ²	53.13	25.89

Scales for each measure:

Culture Shock: 0 (not at all) to 4 (always)

PSS / Perceived Stress Scale: 0 (never) to 4 (very often)

CBI / Core Beliefs Inventory: 0 (not at all) to 5 (very great degree)

ERRI / Event-Related Rumination Inventory: 0 (not at all) to 3 (often)

GMI / Growth Motivation Index: 1 (never) to 7 (always)

PGIS / Personal Growth Initiative Scale: 0 (strongly disagree) to 5 (strongly agree)

PTGI / Posttraumatic Growth Inventory: 0 (did not experience) to 5 (experienced a very great degree)

¹ = item mean

² = scale mean

APPENDIX C: TABLE 3

Table 3: Correlations of measures

	1	2	3	4	5	6	7	8
1. Culture Shock								
2. PSS - 4	.28							
3. CBI	-.30	-.04						
4. ERRI – Intrusive	-.33	-.07	.38*					
5. ERRI – Deliberate	-.27	-.07	.56**	.72**				
6. PGIS - II	-.36*	-.06	.61**	.33	.57**			
7. GMI – Experiential	-.03	-.05	.27	.32	.41*	.40*		
8. GMI - Reflective	-.38	-.19	.48**	.40*	.54**	.64**	.41*	
9. PTGI	-.35*	-.03	.85**	.50**	.68**	.56**	.26	.49**

*Correlation is significant at the .05 level (2-tailed)

**Correlation is significant at the .01 level (2-tailed)

PSS = Perceived Stress Scale

CBI = Core Beliefs Inventory

ERRI = Event-Related Rumination Inventory

PGIS = Personal Growth Initiative Scale

GMI = Growth Motivation Index

PTGI = Posttraumatic Growth Inventory

APPENDIX D: FIGURE 1

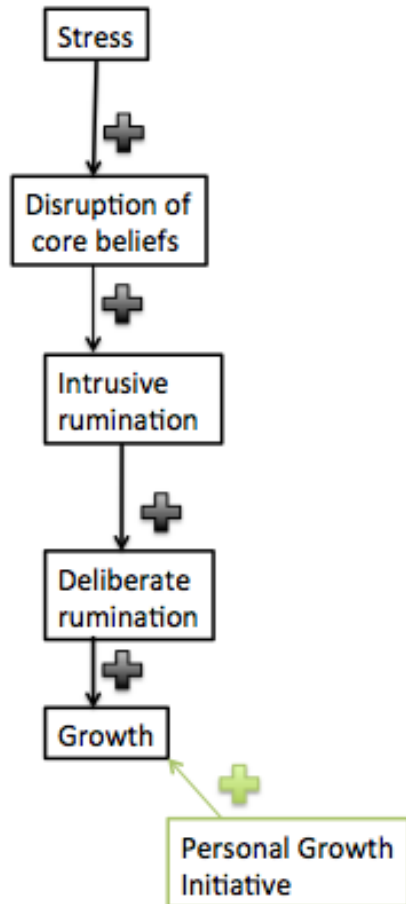


Figure 1: Hypothesized pathway for achieving growth following short-term cross-cultural travel

APPENDIX E: FIGURE 2

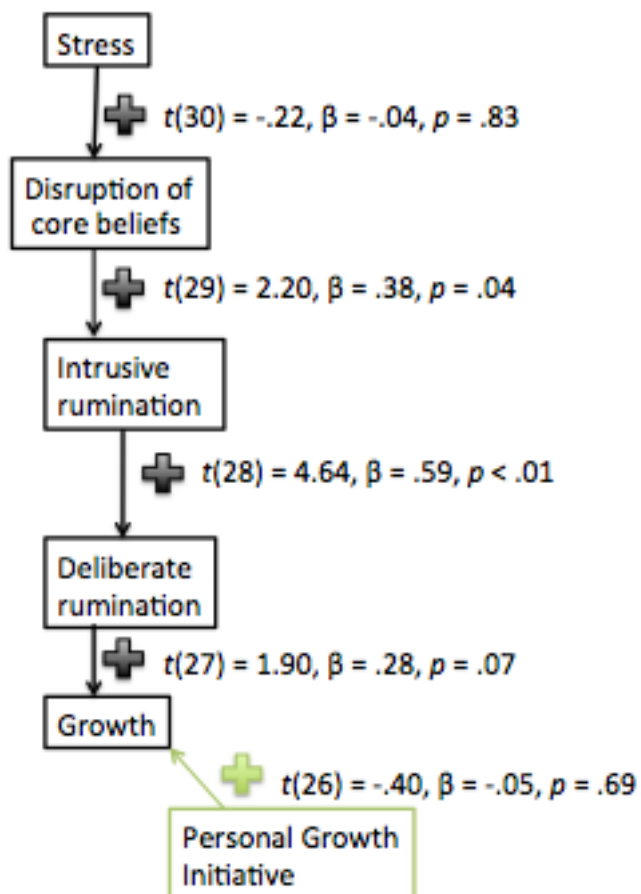


Figure 2: Results from path analyses

APPENDIX F: RECRUITMENT EMAIL

The Office of Education Abroad in conjunction with the Department of Psychology at UNC Charlotte is conducting research about the impact of the study abroad experience. Since you have recently returned from a spring break program, you are eligible to participate. The study is entirely online and all multiple choice. It will take approximately 10 minutes and needs to be done in one sitting.

Please note that this survey is separate from the program evaluation you will receive via email, which we request you complete in order to assess your program experience on-site.

The Office of Education Abroad would greatly appreciate your participation. Below is the link to the survey:

[Link.com](#)

Thank you!

APPENDIX G: CULTURE SHOCK MEASURE

Answer choices: *Always (4), Most of the time (3), Sometimes (2), Rarely (1), Not at all (0)*

Thinking back to your study abroad experience, did you ever feel strain from the effort to adapt to a new culture?

Thinking back to your study abroad experience, did you ever feel confused when trying to cope with the new culture?

Thinking back to your study abroad experience, did you ever feel lost or out of place in the new culture?

APPENDIX H: PERCEIVED STRESS SCALE – 4

The questions in this scale ask you about your feelings and thoughts **during your study abroad experience**. Please indicate how often you felt or a thought a certain way.

Answer choices: 0=never, 1=almost never, 2=sometimes, 3=fairly often, 4=very often

1. During your study abroad experience, how often did you feel that you were unable to control the important things in your life?
2. During your study abroad experience, how often did you feel confident in your ability to handle your personal problems?
3. During your study abroad experience, how often did you feel that things were going your way?
4. During your study abroad experience, how often did you feel difficulties were piling up so high that you could not overcome them?

APPENDIX I: CORE BELIEFS INVENTORY

Some events that people experience are so powerful that they ‘shake their world’ and lead them to seriously examine core beliefs about the world, other people, themselves, and their future.

Please reflect upon your **study abroad** experience and indicate **the extent to which it led you to seriously examine each of the following core beliefs.**

0= Not at all

1= To a very small degree

2= To a small degree

3= To a moderate degree

4= To a great degree

5= To a very great degree

1. Because of the program, I seriously examined the degree to which I believe things that happen to people are fair.
2. Because of the program, I seriously examined the degree to which I believe things that happen to people are controllable.
3. Because of the program, I seriously examined my assumptions concerning why other people think and behave the way that they do.
4. Because of the program, I seriously examined my beliefs about my relationships with other people.
5. Because of the program, I seriously examined my beliefs about my own abilities, strengths and weaknesses.
6. Because of the program, I seriously examined my beliefs about my expectations for my future.
7. Because of the program, I seriously examined my beliefs about the meaning of my life.
8. Because of the program, I seriously examined my spiritual or religious beliefs.
9. Because of the program, I seriously examined my beliefs about my own value or worth as a person.

APPENDIX J: EVENT-RELATED RUMINATION INVENTORY – SHORT FORM

Intrusive items and deliberate items are presented separately, with instructions specific to each set of items. The scale used is:

- 0= Not at all
- 1= Rarely
- 2= Sometimes
- 3= Often

Intrusive Rumination:

After an experience like study abroad, people sometimes, but not always, find themselves having thoughts about their experience even though they don't try to think about it.

Indicate for the following items how often, if at all, you had the experiences described during the weeks immediately after the event.

1. I thought about the event when I did not mean to.
2. Thoughts about the event came to mind and I could not stop thinking about them.
3. I could not keep images or thoughts about the event from entering my mind.
4. Thoughts, memories, or images of the event came to mind even when I did not want them.
5. I found myself thinking about what had happened.

Deliberate Rumination:

After an experience study abroad, people sometimes, but not always, deliberately and intentionally spend time thinking about their experience. Indicate for the following items how often, if at all, you deliberately spent time thinking about the issues indicated during the weeks immediately after the event.

1. I thought about whether I could find meaning from my experience.
2. I thought about whether changes in my life have come from dealing with my experience.
3. I thought about whether I have learned anything as a result of my experience.
4. I thought about whether the experience has changed my beliefs about the world.
5. I forced myself to deal with my feelings about the event.

APPENDIX K: POSTTRAUMATIC GROWTH INVENTORY

Indicate for each of the statements below the degree to which this change occurred in your life as a result of your study abroad program, using the following scale.

- 0= I did not experience this change as a result of my experience.
- 1= I experienced this change to a very small degree as a result of my experience.
- 2= I experienced this change to a small degree as a result of my experience.
- 3= I experienced this change to a moderate degree as a result of my experience.
- 4= I experienced this change to a great degree as a result of my experience.
- 5= I experienced this change to a very great degree as a result of my experience.

1. I changed my priorities about what is important in life.
2. I have a greater appreciation for the value of my own life.
3. I developed new interests.
4. I have a greater feeling of self-reliance.
5. I have a better understanding of spiritual matters.
6. I more clearly see that I can count on people in times of trouble.
7. I established a new path for my life.
8. I have a greater sense of closeness with others.
9. I am more willing to express my emotions.
10. I know better that I can handle difficulties.
11. I am able to do better things with my life.
12. I am better able to accept the way things work out.
13. I can better appreciate each day.
14. New opportunities are available which wouldn't have been otherwise.
15. I have more compassion for others.
16. I put more effort into my relationships.
17. I am more likely to try to change things which need changing.
18. I have a stronger religious faith.
19. I discovered that I'm stronger than I thought I was.
20. I learned a great deal about how wonderful people are.
21. I better accept needing others.

APPENDIX L: GROWTH MOTIVATION INDEX

Please rate how often you do the following things on a scale of 1 to 7. Please consider each item individually.

1	2	3	4	5	6	7
Never			Periodically			Always

1. I try to do things that I find personally enjoyable or engaging.
2. I love the projects or work that I do.
3. The important activities in my life are often activities that involve the people I love.
4. I make sure to spend time with people who are dear to me.
5. I actively seek new conceptual or philosophical perspectives from which to think about life, even if they mean I've been wrong all along.
6. I ask people what they think about various social issues (on topics like politics, religion, culture, economics, lifestyles) in order to understand divergent points of view and to develop my ability to think about life.
7. I choose new projects or activities based on whether I can develop intellectually from them.
8. I consciously think about my relation to society and culture.

APPENDIX M: PERSONAL GROWTH INITIATIVE SCALE – II

Please mark how much you agree or disagree with that statement. Use the following scale:

- 0= Disagree Strongly
- 1= Disagree Somewhat
- 2= Disagree A Little
- 3= Agree A Little
- 4= Agree Somewhat
- 5= Agree Strongly

1. I set realistic goals for what I want to change about myself.
2. I can tell when I am ready to make specific changes in myself.
3. I know how to make a realistic plan in order to change myself.
4. I take every opportunity to grow as it comes up.
5. When I try to change myself, I make a realistic plan for my personal growth.
6. I ask for help when I try to change myself.
7. I actively work to improve myself.
8. I figure out what I need to change about myself.
9. I am constantly trying to grow as a person.
10. I know how to set realistic goals to make changes in myself.
11. I know when I need to make a specific change in myself.
12. I use resources when I try to grow.
13. I know steps I can take to make intentional changes in myself.
14. I actively seek out help when I try to change myself.
15. I look for opportunities to grow as a person.
16. I know when it's time to change specific things about myself.