



Abstract

Trauma research has identified that individuals can experience **posttraumatic growth (PTG)** – positive changes resulting from struggling with a stressful life event. The following five domains comprise PTG: **Appreciation of Life, New Possibilities, Personal Strength, Relating to Others, and Spiritual Change**. Studies suggest that **religion influences PTG**. However, these studies assume that the positive changes that are measured by the **PTG Inventory (PTGI)** are equally indicative of growth for everyone, but some researchers have noted items within the **Spiritual Change** domain may not be defined as personal growth among the non-religious. Therefore, the purpose of this study was to examine the relationships among **religion, subjective definitions of growth, and PTG** by comparing **American Christians, American non-religious people, Japanese Buddhists, and Japanese non-religious people**. MANOVAs revealed significant group differences in three out of the five domains of PTG: **Personal Strength, Appreciation of Life, and Spiritual Change**. Post hoc tests showed American Christians and non-religious Americans had **higher scores than Japanese Buddhists and non-religious Japanese people** for both **Personal Strength and Appreciation of Life**. For the **Spiritual Change** domain, American Christians had significantly **higher scores** than Americans who were not religious, Japanese Buddhists, and Japanese non-religious people. Additionally, significant group differences were found for four domains for subjective definitions of growth. For **Spiritual Change**, American Christians gave significantly **higher ratings**, whereas for **Relating to Others, Appreciation of Life, and New Possibilities**, Japanese Buddhists and non-religious Japanese people gave **higher ratings** than American Christians and non-religious American people. Additional analyses on the correlations between actual growth and subjective definitions of growth showed that American Christians had the highest positive correlations. Implications, limitations, and future directions are discussed.

Introduction

Posttraumatic Growth (PTG) refers to the positive psychological changes experienced as a result of struggling with a stressful or traumatic life event.

The **Posttraumatic Growth Inventory (PTGI)** is the most widely used scale available to assess these positive changes in the aftermath of trauma. The inventory is comprised of 21 items that measure growth across five domains: **Appreciation of Life, New Possibilities, Personal Strength, Relating to Others, and Spiritual Change** (Tedeschi & Calhoun, 1996).

Studies, thus far, have assumed that a variety of positive changes that are included in the **PTGI** are equally indicative of growth for everyone, but as Calhoun, Cann, and Tedeschi (2010) noted, items that comprise the **Spiritual Change** domain, such as "I have a stronger religious faith" may not be defined as personal growth among non-religious people. Furthermore, Taku (in press) suggests that some positive changes may indicate personal growth for some individuals more than others.

Despite concerns about the universality of the **Spiritual Change** domain, various researchers have identified that **religion** has an influence on overall PTG. Previous studies showed that PTG is related to religious affiliation, religious participation, religiousness, and positive religious coping strategies (Abu-Raiya & Pargament, 2011; Schultz, Tallman, & Altmeyer, 2010).

The current study aims to build on existing research by examining the **individual and cross-cultural differences** and the role of **religious affiliation in actual PTG and subjective definitions of PTG**.

Question

Do cross-cultural differences and religious affiliation influence both how growth is viewed (subjective definitions of growth) and how growth is experienced (actual growth)?

Purpose

Examine relationships among religions, subjective definitions of growth, and actual PTG, comparing religious and non-religious people in both United States and Japan.

Methods

Participants and Procedure

The overall sample contained a total of 752 undergraduate students. The sample was divided between American ($n = 468$) and Japanese participants ($n = 284$), and then further divided into four groups: American Christians, non-religious Americans, Japanese Buddhists, and non-religious Japanese. American participants were recruited from a Midwestern university in the United States, while Japanese participants were recruited from an education university in Southern Japan. American participants had an average age of 19.72 ($SD = 3.34$). Japanese participants had an average age of 19.90 ($SD = .99$). Total PTGI scores for the four groups were as follows: American Christians 58.87 ($SD = 22.02$), non-religious Americans 50.80 ($SD = 20.22$), Japanese Buddhists 44.45 ($SD = 19.64$), and non-religious Japanese 43.63 ($SD = 19.88$), indicating a moderate degree of growth experienced.

All participants were given a consent form that outlined all the potential risks of participating, confidentiality, and where they could obtain help if they experienced any psychological distress due to their participation, if any should occur. Once consent forms were read and signed, participants were administered a questionnaire that evaluated a variety of variables (e.g., demographics, PTGI, etc).

Demographic Variables	American $n = 468$		Japanese $n = 284$	
	Frequency	Percentage	Frequency	Percentage
Gender				
Male	120	25.60%	113	39.80%
Female	348	74.20%	170	59.5%
Other/unreported	1	.20%	1	.40%
Ethnicity				
Caucasian	367	78.3%	0	0.00%
Japanese	0	0.00%	283	99.60%
African American	48	10.20%	0	0.00%
Arabic/Middle Eastern	17	3.60%	0	0.00%
Asian/Pacific Islander	15	3.20%	1	0.40%
Other/unreported	21	4.70%	0	0.00%
Religious Affiliation				
Christianity	357	69.00%	0	0.00%
Buddhism	0	0.00%	143	51.60%
Non-Religious (e.g., Atheist, Agnostic)	70	15.20%	101	36.5%
Other	38	16.80%	40	11.90%

Measures

Assessment of Actual PTG

The PTGI (Tedeschi & Calhoun, 1996; Japanese version: Taku et al., 2007) was used to measure the actual PTG. On a 6-point Likert scale (0 = I did not experience this change at all; 5 = I experienced this change to a very great degree), participants indicated the degree to which they experienced each of the 21 changes as a result of their most highly stressful life event within the past 5 years.

Subjective Definitions of PTG

Subjective definitions of growth were measured using the modified version of the PTGI. On a 5-point Likert scale (1 = does not represent growth at all; 5 = represents growth to a very great degree), participants indicated the degree to which they believed each of the 21 changes of the PTGI represented growth.

References

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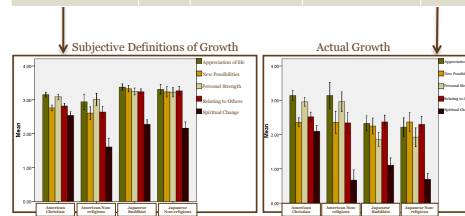
Subjective Definitions of Growth and Religions Correlate with Posttraumatic Growth

Kanako Taku, Ph.D., Valarie Pierson, and Melissa Sawa
Department of Psychology, Oakland University

Results

This section is currently being revised. Please check back soon or e-mail Dr. Taku at taku@oakland.edu

MANOVA model	Score Range	American		Japanese		Statistical Results	R ²
		Christian $n = 357$ $M (SD)$	Non-Religious $n = 59$ $M (SD)$	Buddhist $n = 145$ $M (SD)$	Non-religious $n = 90$ $M (SD)$		
Appreciation of Life							
Actual Growth	0 - 5	3.14 (1.35)	3.14 (1.47)	2.33 (1.24)	2.21 (1.33)	$F(3, 630) = 19.37, p < .001$	.09
Subjective Definition	1 - 5	3.15 (.69)	2.94 (.86)	3.38 (.60)	3.31 (.71)	$F(3, 648) = 7.21, p < .001$	.32
New Possibilities							
Actual Growth	0 - 5	2.36 (1.29)	2.36 (1.24)	2.25 (1.32)	2.37 (1.31)	$F(3, 630) = .25, n.s.$	.00
Subjective Definition	1 - 5	2.76 (.78)	2.61 (.70)	3.33 (.58)	3.24 (.78)	$F(3, 648) = 30.24, p < .001$	.12
Personal Strength							
Actual Growth	0 - 5	2.96 (1.24)	2.96 (1.12)	1.85 (1.18)	1.92 (1.31)	$F(3, 630) = 36.37, p < .001$	.15
Subjective Definition	1 - 5	3.09 (.71)	3.02 (.68)	3.25 (.61)	3.23 (.71)	$F(3, 648) = 2.97, p < .05$	.01
Relating to Others							
Actual Growth	0 - 5	2.52 (1.31)	2.34 (1.13)	2.37 (1.10)	2.30 (1.10)	$F(3, 630) = 1.60, n.s.$	.01
Subjective Definition	1 - 5	2.82 (.72)	2.64 (.64)	3.24 (.52)	3.27 (.67)	$F(3, 648) = 25.64, p < .001$	.12
Spiritual Change							
Actual Growth	0 - 5	2.09 (1.67)	.67 (1.16)	1.11 (1.21)	.69 (.85)	$F(3, 630) = 38.22, p < .001$	.16
Subjective Definition	1 - 5	2.54 (1.07)	1.61 (.97)	2.28 (.82)	2.17 (.94)	$F(3, 648) = 16.50, p < .001$	.10



Discussion

Implications The results of the MANOVAs demonstrate that religious affiliation as well as culture have an impact on both PTG and subjective definitions of growth. Consistent with previous cross-cultural studies (e.g., Taku, Cann, Tedeschi, & Calhoun, 2009), Americans (religious and non-religious) reported greater PTG within the **Personal Strength** domain compared to the Japanese (religious and non-religious); however, no cultural differences were present in the **New Possibilities** and **Relating to Others** domains. This finding suggests some domains of PTG (e.g., **New Possibilities, Relating to Others**) are not affected by culture or religious affiliation, whereas others (e.g., **Personal Strength, Spiritual Change**) are more culture-specific.

Results on the subjective definitions show that Japanese people, regardless of their religious affiliation, are more likely to believe that each of the 21 changes, except for the items of the **Spiritual Change** domain, are highly indicative of personal growth compared to Americans. This result is surprising, given that the PTGI was originally developed in the US; nevertheless, the critical point is that there are individual differences even among the American sample in the degree to which the variety of positive changes are considered to be personal growth.

The correlations for actual growth and subjective definitions of growth demonstrate that while differences exist, how one views growth and how one experiences growth is highly correlated. However, it is important to note that American Christians had the highest positive correlations. This could be due to a number of reasons. 1) They view the changes of the PTGI as growth and, therefore, report these changes because they anticipate or assume they are expected. 2) American Christians experience the variety of changes found under the PTGI and then report these changes as growth solely because they experienced them. 3) Since American Christians may be more religious than their non-religious counterparts, perhaps this is why they are likely to report items under the **Spiritual Change** domain as growth. Place this thought in conjunction with the postulation that they may be more likely to experience **Spiritual Change**, and light is shed on the possible reasons for their more consistent scores between subjective definitions of growth and actual growth.

Limitations

While some inferences can be made between religious affiliation and cultural differences in the subjective definitions of growth. This study cannot produce definitive answers due to the way the groups were divided. A sample that contained American Buddhists and Japanese

Future Directions

Christians, would have strengthened the current study. Additionally, the level of religiousness was not examined, meaning practicing Christians and Buddhists were categorized with those who labeled themselves as Christian or Buddhist but do not play an active role in their religion or have less faith in it.

Future research should take the subjective definitions into consideration when measuring Posttraumatic Growth.