The Role of Meaning in Life in Hypothesized Models with Resilience, Posttraumatic Growth, and Posttraumatic Stress

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Introduction

- Posttraumatic stress disorder (PTSD) is a possible outcome following a traumatic event, which is associated with maladaptive psychological outcomes (Panagioti et al., 2009).
- Meaning in life refers to how one perceives the importance and purpose of his or her life (Heintzelman & King, 2014). Perceived meaning is associated with lower PTSD symptoms as well as better adjustment after trauma (Zhang et al., 2015).
- Resiliency, a concept closely related to meaning (Weathers, et al., in press), refers to the ability to function at "normal" or routine levels, even when experiencing traumatic situations, intrusive memories or thoughts about a life stressor (Bonanno & Mancini, 2012).
- Posttraumatic growth (PTG), also linked to meaning (Weathers, et al., in press), is the positive psychological change one can experience as a result of struggling with a negative life event (Calhoun & Tedeschi, 1999, 2001).
- The relationship between resilience and PTG has been conflicted within the literature. At times the concepts are used interchangeably while at other times researchers use these concepts distinctively (Tedeschi, Calhoun, & Cann, 2007).
- PTG, at first was viewed as a concept that would be unrelated to PTSD, (Tedeschi & Calhoun, 1995); however, a certain amount of stress is associated with PTG (Tedeschi & Calhoun, 2004) unlike with the construct of resilience (Bonanno, 2005).
- As meaning in life is related to all the above variables, the present study aimed to better understand the relationship of resilience and PTG and PTG and PTSD symptoms by examining if meaning in life mediated these relationships. The hypotheses were:
  - H1) Meaning in life would significantly mediate the relationship between resilience and PTG.
  - H2) Meaning in life would significantly mediate the relationship between PTG and posttraumatic stress symptoms (PTSS).

Method

Participants
- The sample consisted of 664 college students from a medium-sized university located in the southern United States (31.8% male, 68.2% female; mean age = 19.51, SD age = 1.83; 77.3% White, 15.2% Black).

Measures
- *Meaning in Life* was measured using the *Purpose in Life test - Short Form* (PIL-SF; Schulenberg, Schnetzer, & Buchanan, 2011) and the Presence scale of the *Meaning in Life Questionnaire* (MLQ; Steger et al., 2006).
- *Posttraumatic Growth* was assessed via the *Posttraumatic Growth Inventory – Short Form* (PTGI-SF; Cann et al., 2010).
- *Resilience* was measured using the *Brief Resilience Scale* (BRS; Smith et al., 2008).
- *Posttraumatic Stress Symptoms* were assessed through the Posttraumatic Stress Disorder Checklist – Civilian version (PCL-C; Weathers et al., 1993).
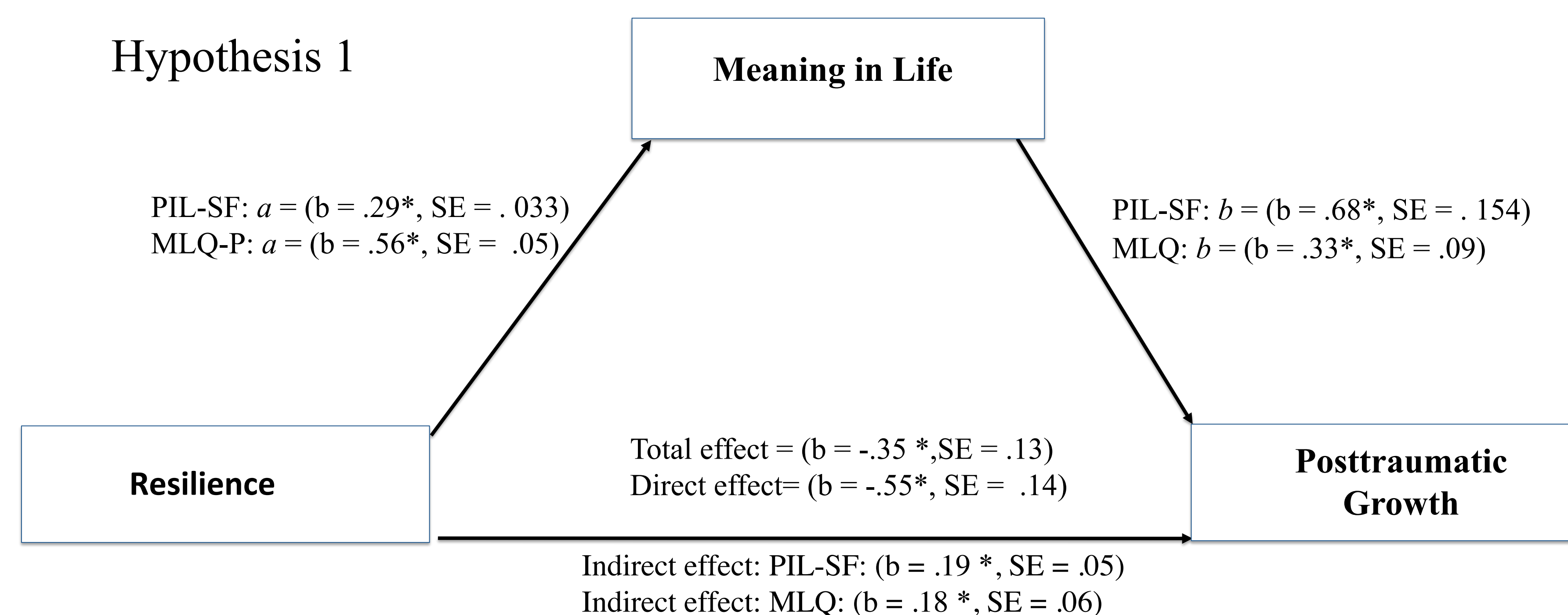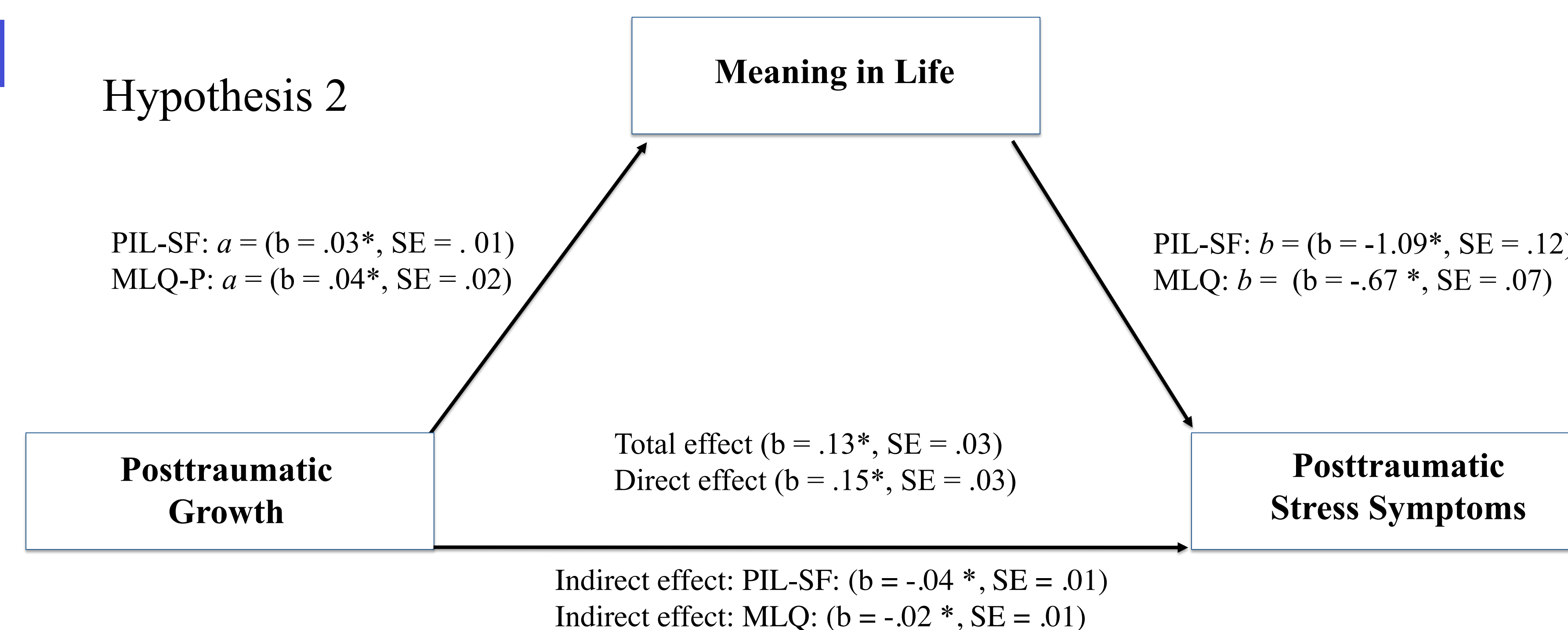
Method Continued

Procedures
- Data were collected via an online participant recruitment and management system.
- Upon consent, participants were asked to complete an online battery of self-report measures, which included the aforementioned scales and forms.
- Excluded from analyses: 197 univariate outliers identified through standardized scores and 11 multivariate outliers identified through Mahalanobis distance.
- Bootstrapping and path-analysis techniques were used to test the main hypotheses (Hayes, 2013).

Results

Hypothesis 1

Meaning in Life

PIL-SF: a = (b = .29*, SE = . 033)
MLQ-P: a = (b = .56*, SE = .05)

PIL-SF: b = (b = .68*, SE = . 154)
MLQ: b = (b = .33*, SE = .09)

Resilience

Total effect = (b = -.35 *, SE = .13)
Direct effect= (b = -.55*, SE = .14)

Posttraumatic Growth

Indirect effect: PIL-SF: (b = .19 *, SE = .05)
Indirect effect: MLQ: (b = .18 *, SE = .06)

Hypothesis 2

Meaning in Life

PIL-SF: a = (b = .03*, SE = . 01)
MLQ-P: a = (b = .04*, SE = .02)

PIL-SF: b = (b = -1.09*, SE = .12)
MLQ: b = (b = -.67 *, SE = .07)

Posttraumatic Growth

Total effect (b = .13*, SE = .03)
Direct effect (b = .15*, SE = .03)

Posttraumatic Stress Symptoms

Indirect effect: PIL-SF: (b = -.04 *, SE = .01)
Indirect effect: MLQ: (b = -.02 *, SE = .01)

Path coefficients for simple mediation analysis on post-traumatic stress symptoms. *Note.* * indicates 95% Bias-corrected and accelerated confidence intervals not containing zero.

Discussion

H1) Meaning in life did significantly mediate the relationship between resilience and PTG.
- Resilience was associated with greater PTG through the indirect effect of meaning in life.
- Previous research has found that resilience and PTG are two different trajectories following a potentially traumatic event and thus may be seen as unrelated and different outcomes (Bonanno, 2005). Consequently, it makes sense that in our sample resilience predicted less PTG. However, when meaning in life was incorporated, the negative relationship between resilience and PTG was lessened.

H2) Meaning in life did significantly mediate the relationship between PTG and posttraumatic stress symptoms (PTSS).
- PTG was associated with less PTSS partially through the indirect effect of meaning in life.
- The main effect of PTG on PTSS was significantly positive and thus is consistent with the literature. Some researchers explain the positive association between PTG and PTSS by arguing that a certain amount of stress is necessary for PTG to occur (Tedeschi & Calhoun, 2004).
- The indirect effect of meaning in life lessened the positive relationship between PTG and PTSS.

Conclusions:
1) Meaning in life, no matter how measured, led to better predictions of PTG and resilience and less PTSS.
2) Addressing the presence of meaning in life may help those who have experienced a traumatic events and report PTSS.
3) More research needs to be conducted in order to better understand the relationships between these variables and to validate these models.
4) Limitations:
   - The sample was a non-clinical college sample and thus results cannot be generalized to clinical population.
   - Moreover, the cross-sectional nature of the study impedes to make inferences about causality.

References

For a complete list of references, please refer to the handout.

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