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No Pain, No Gain: Perceptions of Adversity, Life Meaning, and Social Class

THESIS

submitted in partial satisfaction of the requirements
for the degree of

MASTER OF ARTS

in Social Ecology

by

Emma Lara Grisham

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ABSTRACT OF THE THESIS

No Pain, No Gain: Perceptions of Adversity, Life Meaning, and Social Class

By

Emma Lara Grisham

Master of Arts in Social Ecology

University of California, Irvine, 2018

Assistant Professor Paul K. Piff, Chair

People derive meaning from adverse experiences, ranging from distinct traumas (e.g., surviving a terrorist attack) to chronic hardships (e.g., financial insecurity). Building on prior work examining how disadvantaged groups process negative past experiences, we investigated whether the ways in which people make sense of, and draw meaning from, these perceived adversities in life depends on their social class backgrounds. In two correlational studies, we found inconsistent evidence for a relationship between perceived adversity and meaning in life as well as for the moderating role of social class. Using a sample of UCI students ($N = 219$), Study 1 found that perceived adversity was more strongly associated with meaning in life for lower- than higher-class individuals. Study 2 attempted to replicate this pattern of results using a sample from Amazon's Mechanical Turk (MTurk; $N = 256$), but did not find the same effects of perceived adversity and social class or their interaction. Possible explanations for these discrepant findings are explored, with recommendations for future research examining perceptions of adversity in relation to life meaning.

INTRODUCTION

“To live is to suffer, to survive is to find some meaning in the suffering.” – Friedrich Nietzsche

Folk intuitions about the connection between adversity and meaning are ubiquitous in human life. The idea that a sense of deeper purpose and meaning can be gained from suffering can be found within a number of cultural domains; they are consistent themes in religious texts (e.g., the lesson of sacrifice in the Bible), philosophical musings (e.g., Nietzsche’s theorizing about the reason for human existence), and literature (e.g., the hero’s journey narrative), and transmitted through common phrases of conventional wisdom, such as “No pain, no gain.” The enduring prevalence of this notion indicates that lay theories about adversity’s meaning-generative effects may reflect an actual underlying mechanism by which people imbue their lives with a sense of meaningfulness and purpose.

A large body of empirical work corroborates that meaning can be derived from difficulties and hardship. This work finds that people who have experienced adversity often recount those events by underscoring redemption, incorporating their struggles into their life narratives and construing those experiences as central to the development of life meaning (e.g., McAdams & Bowman, 2001). However, while the psychological literature has examined how meaning in life differs as a function of objective exposure to adversity, little is known about the role of people’s perceptions of the presence of adversity in their lives and to what extent, if any, those subjective perceptions of their adversity exposure – above and beyond their exposure to adversity itself – inform their sense of meaning in life. The current work aims to address this gap

by examining how perceptions of adversity relate to life meaning, and how this relationship may differ as a function of socioeconomic factors.

The Significance of Meaning and Its Inextricable Link to Adversity

Within the psychological literature, meaning in life has been heralded as a cornerstone of well-being (Heintzelman & King, 2014). There is little consensus on the exact definition of meaning, but most operationalizations emphasize a sense of purpose, value, and significance that guides everyday behavior (King, Hicks, Krull, & Del Gaiso, 2006). As such, the presence of meaning is regarded as uniformly positive and intrinsically tied to well-being (Steger, Frazier, Oishi, & Kaler, 2006). For example, theoretical and empirical work has related meaning to positive psychological outcomes, such as greater life satisfaction, self-esteem, optimism, positive mood, and social connectedness, as well as negative mental health indices, including lower negative affect, anxiety, depression, and psychological distress (Debats, Drost, & Hansen, 1995; Schnell, 2009; Steger & Frazier, 2005; Steger et al., 2006; Zika & Chamberlain, 1992). Given the host of evidence that meaning in life is associated with important psychological consequences, empirical attention has shifted to examine the conditions under which life meaning may be threatened, specifically exploring the potential consequences for meaning associated with experiences of adversity.

In recent years, a significant body of work has emerged documenting how meaning persists or changes in the response to traumatic and adverse experiences. Researchers have sought to address this question by examining meaning as it relates to both cumulative lifetime exposure to adversity (e.g., Krause, 2005) as well as specific types of trauma or adversity. For example, meaning has been studied in the context of military combat experiences (e.g., Owens, Steger, Whitesell, & Herrera, 2009), physical and mental health illnesses (e.g., van der Spek,

Vos, van Uden-Kraan, Breitbart, Tollenaar, Cuijpers, & Verdonck-de Leeuw, 2013), experiencing death in personal and professional settings (e.g., Boyraz, Horne, & Waits, 2015; Taubman-Ben-Ari & Weintroub, 2008), bullying victimization (Henry, Lovegrove, Steger, Chen, Cigularov, & Tomazic, 2014), natural disasters (e.g., Dursun, Steger, Bentele, & Schulenberg, 2016), and other collective traumas, such as the 9/11 terrorist attacks (e.g., Adler & Poulin, 2009; Updegraff, Silver, & Holman, 2008).

Overall, these studies have found that people typically report lower levels of meaning in life and greater psychological distress following exposure to adversity. Shattered assumptions theory proposes a possible explanation for this dip in meaning; according to this model, negative life events adversely impact life meaning because they threaten people's fundamental beliefs that the world is benevolent, meaningful, and just, and that the self is undeserving of hardship (Janoff-Bulman, 1992; Schuler & Boals, 2016). Thus, from this perspective, experiencing adversity can violate people's assumptions about the world and its meaningfulness, shattering the sense of meaning in, and understanding of, their lives that may take time to recover.

However, people who have experienced adversity do not always respond to these events with dramatic reductions in meaning and psychological well-being; in fact, people often demonstrate resilience in the face of adversity, demonstrating only modest declines, if any, in their sense of meaning. For example, people who demonstrate personal growth after a traumatic experience report greater meaning than those who do not, suggesting that individuals who exhibit posttraumatic growth are better able to buffer the meaning-diminishing consequences of adversity (Triplett, Tedeschi, Cann, Calhoun, & Reeve, 2012). In addition, possessing a strong sense of meaning itself may also serve as a protective factor against the damaging consequences associated with adversity (Kleiman & Beaver, 2013). Individuals with more meaning in life

report lower levels of depressive symptoms and posttraumatic stress disorder severity following distressing events (Krause, 2007; Owens et al., 2009). Together, these findings indicate that meaning and adversity are inextricably related such that adverse experiences can often contribute to enhanced meaning, which, in turn, can boost resilience in the face of future adversity.

Research on posttraumatic growth, resilience, and meaning making have all documented an association between experienced adversity and meaning. However, empirical work thus far has limited its focus to the objective quantification of prior adversity exposure, and has yet to consider the potential role of subjective perceptions of adversity when exploring the adversity-meaning relationship. Despite the lack of empirical attention directed toward perceived adversity, we argue that people's perceptions of the adversity they face may be just as important for their sense of life meaning as actual exposure to adverse experiences.

There is reason to believe that people's perceptions of their adversity exposure likely differ from their actual experiences with adversity. Perceived adversity should be more malleable and susceptible to change than experienced adversity, which should remain unaffected by external factors. Indeed, previous work has shown that people's perceptions of the adversity they have faced in life can be influenced by information about the relative advantages of their social group over those that have been historically underprivileged (Phillips & Lowery, 2015). In contrast, previous exposure to adversity is typically measured in the format of a checklist, in which individuals indicate whether they have or have not experienced a discrete negative life event (e.g., Blum, Silver, & Poulin, 2014). It is on this basis that we assume that people assess their perceived adversity exposure in relative terms, by comparing themselves to some implicit or explicit standard, while being more likely to report their objective exposure in an absolute sense, through the selection of only negative events that they have previously experienced.

Thus, guided by this distinction in our approach to the current work, we propose that perceived and experienced adversity should be independently and differentially related to meaning in life. Prior research has documented the importance of social comparison for well-being, demonstrating how relative evaluations often matter more for well-being outcomes than actual absolute criteria (e.g., Lyubomirsky, 2001; Wheeler & Miyake, 1992). For example, people's relative income is more closely associated with their satisfaction with life than is their absolute income, suggesting that, in terms of psychological well-being, having more money than others is more beneficial than having lots of money (Cheung & Lucas, 2016). Thus, because perceived adversity in the present studies is conceptualized as a relative measure, we expect that perceptions of adversity will be a stronger predictor of life meaning than experienced adversity.

In addition, we also predict that perceiving more adversity should be related to a greater sense of meaning in life. Research on posttraumatic growth and narrative identity demonstrates that meaning is similarly generated across types of adverse and traumatic experiences, and from common lessons learned through the experience, rather than the characteristics of the experience per se (e.g., McLean & Pratt, 2006; Park, Edmondson, Fenster, & Blank, 2008; Triplett et al., 2012). Thus, it appears that meaning is often derived as people come to terms with the subjective understanding that they have experienced adversity, rather than the actual event of adversity itself, suggesting that the subjective processing and perception of an adverse experience may be more consequential in terms of life meaning than the specifics of the adverse event. Therefore, we expect that people who hold the view that they have endured much adversity will report more life meaning.

Considering the Role of Social Class

While there is reason to believe that perceptions of adversity are related to greater life meaning, it is probable that this relationship differs depending on the context in which it is considered and the characteristics of the social groups in which it is examined. One such factor that may moderate the link between perceived adversity and life meaning is social class. Social class is likely to be particularly relevant in this context because, in recent years, it has been considered a cultural factor, one that predicts divergent sets of beliefs and values for different classes (e.g., Cohen & Varnum, 2016; Dietze & Knowles, 2016). For example, people who identify as belonging the lower classes are more likely to endorse a valorizing view of hard work, discipline, and perseverance in the face of hardship (e.g., Lamont, 2009; Tang & Tzeng, 1992).

The valorization of overcoming obstacles among the lower classes is also consistent with related work on system justification theory, which argues that legitimizing the status quo serves a psychologically palliative function (Jost & Banaji, 1994). According to this perspective, groups that are often most disadvantaged by the status quo are also more likely to endorse system-justifying beliefs, such as the notion that the economic system is fair and that all that is needed to succeed is hard work (e.g., Jost, Banaji, & Nosek, 2004). In this way, the valuation of enduring sacrifice and difficulties in life by lower-class individuals may represent system-justifying beliefs that can facilitate the generation of meaning by perceiving adversity as a beneficial experience.

Just as there is evidence to support the notion that the relationship between perceived adversity and life meaning will be stronger for lower-class individuals, there too is support for the converse, that higher-class people will be less likely to gain meaning from adversity. People of higher-class backgrounds tend to be more satisfied with their lives, and experience more

positive, and less negative, affect on a regular basis, all of which are factors that positively predict meaning in life (Allan, Garriott, & Keene, 2016; King et al., 2006; Lachman & Weaver, 1998; Piff & Moskowitz, 2017; Steger & Frazier, 2005). Similarly, the upper classes also report better mental and physical health outcomes, and fewer adverse experiences (e.g., Chen & Miller, 2012; Chen & Miller, 2013; Seery, Holman, & Silver, 2010). Thus, it is likely that higher-class individuals derive meaning from these and other sources and, therefore, have less need to generate meaning through adversity. Therefore, given the abundance of evidence to suggest a moderating role of social class, we propose that lower-class individuals will experience greater gains in life meaning, as they increasingly perceive their lives to entail more adversity.

Present Studies

Given the findings from previous research on adversity, meaning, and social class, the current work aims to address the gaps in the literature by exploring both the relationship between perceived adversity and meaning in life as well as the moderating role of social class. We hypothesize first that perceived adversity will positively predict meaning in life, such that people who perceive themselves as having enduring greater hardship will indicate that their lives are more meaningful. However, we also predict that the link between perceptions of adversity and life meaning will differ as a function of social class. Because of the cultural dictates underlying in the lower classes' beliefs and values, we predict that the association between perceiving adversity and meaning in life will be stronger for lower-, compared to higher-class, individuals. Importantly, this work seeks to demonstrate that this pattern of findings will hold even when considering the influence of prior experienced adversity, life satisfaction, positive and negative affect, and ethnicity.

CHAPTER 1: STUDY 1

In Study 1, we sought to investigate the relationship between perceived adversity and meaning in life, and test social class as a moderator of this relationship. Because of the novelty of these research questions, this study is designed to thoroughly explore meaning in life using multiple measurements. There has been recent debate in the meaning in life literature about the use of the Meaning in Life Questionnaire, which had been previously considered the gold standard in the field for evaluating the presence of and search for meaning; researchers have criticized this scale by asserting that it often conflates meaning with life satisfaction and positive affect, and thus may be unduly influenced by these covariates. Thus, to address this issue in our work, we included three measures of meaning in life, as well as the aforementioned covariates in the present study. In doing so, Study 1 was an initial test of our hypotheses, that greater perceived adversity will predict more meaning in life and that the relationship between these variables will be especially strong for lower-class individuals.

Method

Participants and Procedure

We collected data from 219 undergraduate students ($M_{age} = 21$, 78.1% Female) at the University of California, Irvine. Participants completed measures of perceived adversity, meaning in life, positive and negative affect, and life satisfaction in random order. Following this, participants then reported demographic information, including age, gender, race/ethnicity, parents' income, parents' education, and social class. The sample was racially and ethnically diverse, with most students identifying as Asian or Asian American (42.2%) and Hispanic/Latinx (33.6%), followed by White (19.9%), Middle Eastern (8.1%), African American (4.3%), Other (3.8%), Pacific Islander/Native Hawaiian (2.4%), and Native American (.5%).

Measures

Dependent variables

Meaning in life. Meaning in life was assessed via three separate meaning measures: the Meaning in Life Questionnaire, the Krause (2004) items, and the meaningfulness subscale of the Sense of Coherence Scale.

The Meaning in Life Questionnaire (MLQ) measures two dimensions of meaning in life via two subscales: the presence of and the search for meaning in life (Steger et al., 2006). Participants responded to 10 items, with 5 items assessing how much they felt their lives had meaning (e.g., “My life has a clear sense of purpose”; $\alpha = .89$) and 5 items assessing how much they were striving to find meaning (e.g., “I am searching for meaning in my life”; $\alpha = .88$). Statements were rated according to a 7-point scale (1 = *Absolutely untrue* to 7 = *Absolutely true*), with separate composite scores created for both subscales (presence: $M = 4.80$, $SD = 1.28$; search: $M = 5.21$, $SD = 1.15$). Given the research questions being tested, only scores for the presence of meaning in life were used in my analyses, with higher numbers indicating a stronger sense of meaning.

The meaning measure from Krause (2004) included 8 items assessing the extent to which participants identified a clear and significant purpose in their lives ($\alpha = .84$). Participants rated their agreement with each statement on a 4-point scale (1 = *Strongly disagree* to 4 = *Strongly agree*). The statements were, “I have a system of values and beliefs that guide my daily activities,” “I have a philosophy of life that helps me understand who I am,” “I feel I am living fully,” “I feel I have found a really significant meaning in my life,” “In my life, I have clear aims and goals,” “I have a sense of direction and purpose in life,” “I feel good when I think of what I have done in the past,” and “I am at peace with my past.” Scores were summed and averaged to

create a composite score, with higher numbers indicating a stronger sense of the presence of meaning in life ($M = 2.81$, $SD = .50$).

The meaningfulness subscale of the Sense of Coherence (SOC) scale consisted of 8 items that measure the extent to which people feel that life has emotional meaning and that obstacles are seen as challenges rather than burdens (Antonovsky, 1993; $\alpha = .86$). Participants rated each statement on a 7-point scale that varies in accordance with the question being asked. For example, the response options for the statement, “Until now your life has had:,” range from 1 (*No clear goals or purpose*) to 7 (*Very clear goals and purpose*). Responses to each statement were averaged to create a composite score, with higher scores indicating more meaning in life ($M = 4.98$, $SD = 1.04$).

Independent variables

Perceptions of adversity. Perceived adversity was assessed via a novel, face-valid measure ($\alpha = .84$). Participants indicated their agreement with 6 statements on a 7-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). The statements were, “I have worked hard for what I have in life,” “Much of what I have in life has been given to me” (reverse coded), “What I have in life has come relatively easily to me” (reverse coded), “My life has been relatively easy” (reverse coded), “I have worked hard to get where I am today,” and “I have felt challenged in important aspects of my life.” Responses were averaged to create a single, composite score, with higher numbers representing perceptions of greater adversity in life ($M = 5.02$, $SD = 1.09$).

Social class. Social class was measured using the MacArthur Scale of Subjective Social Status (Adler & Ostrove, 1999). This measure presents participants with an image of a ladder with ten rungs and asks them to imagine it as representing the socioeconomic hierarchy in the United States. The top rung represents people with the most money, most education, and the best

jobs, whereas the bottom run represents people with the least money, least education, and worst jobs. Participants are then asked to indicate where they fall, relative to others, with higher numbers indicating higher socioeconomic status ($M = 5.59$, $SD = 1.36$). Previous work has shown this measure to be a valid, reliable, and robust predictor of class-related outcomes (e.g., Kraus, Piff, & Keltner, 2009; Piff, Kraus, Côté, Cheng, & Keltner, 2010).

Covariates

Positive and negative affect. Positive and negative affect were measured using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegan, 1988). The PANAS is comprised of 20 different emotion and feeling states, with 10 positive and negative affect descriptors each. Positive affect items include, “interested,” “excited,” and “inspired” ($\alpha = .90$), whereas negative affect items included, “distressed,” “hostile,” and “jittery” ($\alpha = .87$). Participants were asked to indicate the extent to which they feel each emotion on average, with response options from 1 = *Very slightly or not at all* to 5 = *Extremely*. Responses to each item were summed and averaged to create a composite score for both positive and negative affect, with higher scores indicating more of that type of affect experienced in daily life (positive: $M = 3.32$, $SD = .74$; negative: $M = 2.05$, $SD = .72$).

Satisfaction with life. Life satisfaction was measured using the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). The SWLS is a 5-item scale that assesses global cognitive judgments of one’s life satisfaction ($\alpha = .82$). Participants indicate how much they agree or disagree with statements such as, “In most ways my life is close to my ideal” on a 7-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). Responses are averaged to create a composite, with higher numbers corresponding to greater satisfaction with life ($M = 4.43$, $SD = 1.19$).

Results

Table 1 presents descriptive data from our models. Four linear regression models were used to test the main effects of perceived adversity and social class as well as their interaction for each meaning in life measure and an overall meaning composite. Figures 1-4 present the results for these analyses.

For scores from the MLQ presence subscale, the results confirmed our hypotheses, such that both greater perceived adversity ($b = .37, p < .001$) and higher social class ($b = .28, p < .001$) were associated with a stronger sense of meaning in life. However, these main effects were qualified by the predicted interaction: the relationship between perceived adversity and meaning in life was stronger for lower-class individuals than it was for their higher-class counterparts ($b = -.19, p = .003$). Simple slopes analyses revealed that, in fact, the relationship between perceived adversity and meaning was only significant for lower-class individuals ($b = .37, p < .001$); meaning in life and perceptions of adversity were unrelated for higher-class participants ($b = .04, p = .71$). Importantly, these relationships held controlling for the known covariates (adversity: $b = .18, p = .01$; social class: $b = .12, p = .06$; interaction: $b = -.14, p = .02$).

Regression models for meaning generated from the Krause (2004) measure and the meaningfulness subscale of the SOC showed the same pattern. There was a significant main effect of both perceived adversity (Krause: $b = .41, p < .001$; SOC: $b = .48, p < .001$) and social class (Krause: $b = .24, p < .001$; SOC: $b = .29, p < .001$), which were qualified by the predicted interaction (Krause: $b = -.19, p = .003$; SOC: $b = -.18, p = .003$). For both the Krause and SOC measures, the main effect of perceived adversity (Krause: $b = .25, p < .001$; SOC: $b = .24, p < .001$) and the interaction (Krause: $b = -.15, p = .005$; SOC: $b = -.12, p = .007$) held controlling for race/ethnicity, life satisfaction, and positive and negative affect. However, the same was not true

for the main effect of social class; once accounting for the covariates, social class either became nonsignificant (Krause: $b = .07, p = .21$) or marginally significant (SOC: $b = .08, p = .08$).

Testing the simple slopes for both interactions revealed the same pattern found with the MLQ meaning measure. For lower-class individuals, perceiving more adversity in life is related to greater life meaning (Krause: $b = .18, p < .001$; SOC: $b = .34, p < .001$), whereas the same relationship is not significant for higher-class people (Krause: $b = .05, p = .14$; SOC: $b = .12, p = .10$).

Because all meaning measures showed the same pattern of results, we standardized the data to test our hypotheses using an overall meaning composite score. The combined measure had good reliability ($\alpha = .87$) so we used a linear regression model with the standardized data. As with the individual meaning measures, we found a significant main effect for both perceived adversity ($b = .41, p < .001$) and for social class ($b = .26, p < .001$), which were qualified by the predicted interaction ($b = -.20, p < .001$). These effects held controlling for race/ethnicity, life satisfaction, and positive and negative affect (perceived adversity: $b = .21, p < .001$; social class: $b = .09, p = .03$; interaction: $b = -.15, p < .001$).

Simple slopes analyses determined that the same pattern held for the composite meaning measure. The relationship between perceived adversity and meaning in life was stronger for lower-class individuals ($b = .61, p < .001$) than for their higher-class counterparts ($b = .23, p < .001$). However, while individual meaning measures found that the relationship was nonsignificant for higher-class people, that was not the case when testing this interaction using the overall meaning measure; for these individuals, the relationship was weaker, but still significant.

Study 1 Discussion

The results of Study 1 show initial support for our hypotheses, finding that people who perceived themselves as having had experienced more adversity in life also felt that their lives were more meaningful and that this was especially true for lower-, compared to higher-class, individuals. In fact, this effect was stronger than predicted when looking at each meaning measure independently, which found that there was no significant relationship for these higher-class individuals at all. However, the results for the overall meaning measure indicated that, for higher-class individuals, perceiving greater adversity does correspond to a stronger sense of meaning in life, but to a lesser extent than it does for their lower-class counterparts. These findings provide initial support that lower-class individuals may uniquely benefit from perceiving greater adversity, by finding their lives to be more meaningful. However, the generalizability of these findings may be limited by the nature of the sample and, thus, to bolster these claims, these relationships need to be tested within a different population. The consistency of our findings across meaning in life measures served as sufficient evidence for the exclusive reliance on the most commonly used measure in the field, the MLQ, in future work.

CHAPTER 2: STUDY 2

The aim of Study 2 was to refine the methods and conceptually replicate the findings of Study 1. The previous study tested my hypotheses within a sample of college students, a group shown to be markedly different from non-college educated Americans in psychologically significant ways, including the extent to which meaning is present in their lives (Henrich, Heine, & Norenzayan, 2010; Steger, Oishi, & Kashdan, 2009). Thus, given that the generalizability of findings from such a sample is limited, Study 2 sought to reexamine the relationships between perceived adversity, social class, and meaning in life using a more diverse sample of participants from Amazon's Mechanical Turk (MTurk). In addition to the use of a different sample, Study 2 aimed to improve upon the methodological rigor of the previous study by including an additional covariate: cumulative lifetime exposure to experienced adversity. While it is indeed likely that people's subjective perceptions of adversity in life are linked to their objective adversity exposure, we argue that these constructs are separable and that perceptions of adversity are not wholly based on past adverse experiences. By accounting for the role of experienced adversity, Study 2 was better able to isolate the extent to which perceptions of adversity alone predict meaning in life, above and beyond objective exposure to adversity.

Method

Participants and Procedure

We collected data from 256 MTurk participants ($M_{age} = 36.09$, 45.7% Female) on Amazon's Mechanical Turk. Participants first reported, in random order, their trait positive and negative affect, life satisfaction, and meaning in life using the same measures described in Study 1. Following this, participants then indicated their subjective perceptions of, and objective exposure to, adversity. Finally, participants reported the same demographic information as

indicated in Study 1, including age, race/ethnicity, and social class. The sample disproportionately identified as White (81.2%), with fewer participants identifying as Black (6.9%), Asian American (7.8%), Hispanic/Latinx (5.7%), Native American or Pacific Islander (1.6%), and Other (1.2%).

Measures

Independent variables

Perceptions of adversity. Perceptions of adversity were assessed using five items used in previous research (Phillips & Lowery, 2015). Items were, “My life has been full of hardships”; “There have been many struggles I have suffered”; “My life has had many obstacles”; “My life has been easy” (reverse scored); and “I have had many difficulties in life that I could not overcome” ($\alpha = .85$). Participants rated their agreement on each item using a 7-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). Responses to each item will be averaged to create a composite, with higher scores indicating greater perceived adversity ($M = 4.43$, $SD = 1.33$).

Social class. Social class was measured using the same scale as in Study 1 ($M = 4.87$, $SD = 1.75$).

Dependent variables

Meaning in life. Meaning in life was measured via the presence subscale of the MLQ ($M = 4.96$, $SD = 1.48$), as described previously in Study 1 ($\alpha = .92$).

Covariates

Objective exposure to adversity. Participants reported their experienced adversity by indicating whether they had ever experienced each of 14 negative events. Items were adapted from the Brief Trauma Questionnaire (Schnurr, Vielhauer, Weathers, & Findler, 1999) and the Stressful Life Events measure (Silver, Holman, McIntosh, Poulin, Gil-Rivas, & Pizarro, 2006).

The list of events included five categories: own illness or injury (e.g., involvement in a serious accident, serious illness), violence (e.g., physical attack, forced sexual contact), bereavement (e.g., loss of a loved one), social/environmental stress (e.g., unsafe housing, financial hardship), and disaster (e.g., fire, flood). The total number of instances of adversity was treated as a continuous variable ($M = 3.35$, $SD = 2.59$). Because this variable was positively skewed, a square root transformation was performed to create a distribution more approximately normal and to decrease the influence of extreme scores.

Positive and negative affect. Trait positive ($\alpha = .91$) and negative affect ($\alpha = .95$) was measured via the PANAS, as described in Study 1 (positive: $M = 3.32$, $SD = .82$; negative: $M = 1.67$, $SD = .87$).

Satisfaction with life. Life satisfaction ($M = 4.62$, $SD = 1.54$) was measured via the same measured described in Study 1, the SWLS ($\alpha = .92$).

Results

Table 2 presents descriptive information about the variables in our model. Regression analyses revealed a significant main effect of social class ($b = .18$, $p = .009$), a marginal interaction ($b = .12$, $p = .06$), but no significant effect of perceived adversity ($b = -.10$, $p = .15$). However, controlling for race/ethnicity, life satisfaction, positive and negative affect, and experienced adversity, all significant and marginal effects disappeared, and perceived adversity ($b = .10$, $p = .13$), social class ($b = 0$, $p = .94$) and their interaction ($b = -.07$, $p = .20$) became nonsignificant.

Discussion

The results of Study 2 failed to replicate the pattern of findings from Study 1. Although Study 1 found that lower-class individuals who perceived their lives to include more adversity reported

greater meaning in life and that the same was not true for their higher-class counterparts, Study 2 did not find any relationship between perceived adversity and meaning in life, nor did social class moderate this nonexistent relationship.

CHAPTER 3: GENERAL DISCUSSION AND CONCLUSIONS

Research finds that, although people who have experienced adversity often report negative psychological outcomes, they also derived greater life meaning from these difficult experiences. In the current investigation, we sought to extend this prior work by exploring how perceptions of adversity exposure – rather than adversity exposure itself – were related to the presence of meaning in life. Across two studies, we investigated this relationship within higher- and lower-class individuals while accounting for a number of important covariates, which were race/ethnicity, life satisfaction, positive and negative affect, and objective exposure to adverse experiences. In doing so, we attempted to ascertain the unique contribution of perceived adversity to meaning in life above and beyond factors that are known to be associated with both meaning in life as well as social class.

The two studies produced disparate results. In Study 1, perceived adversity was a significant predictor of meaning, such that people who felt that they had endured more hardship also reported having more meaningful lives. Social class was found to moderate this relationship, with perceptions of adversity only predicting greater meaning in life for lower-, but not higher-class, individuals. However, although Study 2 attempted to conceptually replicate this interaction using a previously published measure and a complementary sample, no significant effects were observed. In this sample, people's reported meaning in life did not differ as a function of their perceptions of adversity nor of their social class background. Because of the inconsistency in these findings, any firm conclusions would be unfounded until this discrepancy is resolved with future empirical testing.

Therefore, given these mixed results, we can only offer cautious interpretations about how these findings can inform the literature. The relationships found in Study 1 tentatively

support the notion that perceiving hardship in life may be more beneficial for the lower class who are at greater risk of encountering adversity. It is possible that, because higher-class individuals have greater access to resources by definition, they will be better able to avoid a number of adversities that are directly tied to resource availability (e.g., financial hardship, poorer health care, poorer quality education, housing insecurity). As such, it may not be especially adaptive for these individuals to associate meaning with adversity. In contrast, lower-class individuals may have more to gain from believing that adversity confers meaning or from generating meaning from adversity. While the current studies did not directly investigate meaning-making processes, it is possible that the lower-class individuals who are best able to maintain their sense of meaning in life are those most prone to creating meaning from difficulties and hardships.

If it is indeed the case that perceiving adversity is related to greater meaning in life, then this research could have important implications for the adversity and meaning literature. Prior work has almost exclusively focused on the negative outcomes associated with adversity, largely neglecting any potential benefits related to adversity exposure. While our position is not meant to sing the praises of experiencing adverse or traumatic events, this is reason to believe that being exposed to adversity may not be a unilaterally negative experience. For example, recent work has emerged, finding that people who have experienced adversity felt more compassion and empathy for those who were suffering, which explained their increased prosocial and charitable behavior (Lim & DeSteno, 2016). In addition, other work has discovered that people who reported moderate amounts of adversity exposure had better mental health and well-being outcomes than those who had no history of adversity (Seery, Holman, & Silver, 2010). Thus, these findings suggest that adversity may be associated with positive, as well as negative outcomes. Therefore,

additional work is needed to further explore other possible positive interpersonal and intergroup consequences that could be acquired through hardship.

Limitations and Future Directions

Although this work is the first to address an overlooked question in the adversity and meaning literature, it contains several methodological shortcomings that limit the conclusions that can be drawn. The inconsistent relationship between perceived adversity and meaning in life across Studies 1 and 2 may be attributable to the use of different measures for perceptions of adversity. In attempting to conceptually replicate this relationship, we lost the ability to directly compare the predictive power of perceived adversity across studies. It is plausible that these two perceived adversity measures are so different from each other that they may in fact be assessing distinct constructs; however, because both measures are not included within the same dataset, it is impossible with these data to clearly conclude that is the case. Thus, it remains unclear why the relationship failed to replicate. Future work should investigate whether the results from Study 1 were a false positive or the results from Study 2 a false negative.

In addition to this measurement issue, the sample used in Study 2 may not be the most appropriate for investigating the empirical questions at hand. MTurk workers participate in brief research studies and are compensated very minimally for their effort; for example, typical MTurk compensation rates are well below \$1 for 10 minutes of work. Thus, given the low compensation rates for this type of research participation, it is very likely that higher-class individuals are not seeking out this voluntary opportunity to engage in research for minimal payoff. Therefore, while our sample does indicate a normal distribution across social class categories, these relatively higher-class MTurk workers may differ from higher-class individuals from the broader

population so much that they may not be sufficiently represented in our data to detect an effect of social class.

Thus, given these limitations, future work should aim to clarify whether perceptions of adversity and the presence of meaning in life are indeed related, and whether that relationship differs as a function of social class. Work should be conducted that uses a more representative sample and identifies the most appropriate measure for perceived adversity. Because this construct is only recently being explored, researchers may consider developing and validating a new scale for perceptions of adversity in future studies. Additionally, if consistent evidence emerges that perceived adversity is related to meaning in life, then experimental work is needed to determine causality and, specifically, whether inducing people to consider ways in which their lives has been difficult may be one way to prompt meaning-making. If this is the case, a successful manipulation of perceived adversity could provide one means by which to confer the benefits of adversity without the possibility of experiencing the host of negative outcomes that come with such exposure. For example, perhaps inducing people to simply consider ways in which their lives have been difficult may initiate meaning-generative processes and lead to greater reported sense of meaning.

Additionally, the findings from Study 1 present a different question: if these results are indeed robust and generalizable, and the meaning that higher-class people have in their lives is not dependent upon their perceptions of adversity, then in what do these individuals find meaning? If higher-class individuals do find more life meaning than lower-class people, but not in hardship, then it may be useful to uncover the sources of meaning in the lives of the elite. Perhaps interventions could be developed to direct lower-class individuals toward sources of meaning that may be accessible, but have been otherwise overlooked in their lives. In this way,

this work could inform processes to remedy the meaning gap and cultivate a more meaningful existence for the lower class.

Finally, future researchers may consider adopting an alternative approach to exploring the relationship between perceptions of adversity and meaning in life. When introducing this idea, we acknowledged the ample evidence for the existence of a folk intuition about the link between adversity and meaning and, while it may be unclear whether such a relationship truly exists, research should further examine the extent to which people believe that it does. For example, if people believed that lower-class individuals gained more from enduring adversity than their higher-class counterparts, this lay perception could influence how lower-class people are treated, both at an interpersonal and societal level. Holding this belief may offer a justification as to why it is acceptable to deny the lower-class social programs or government resources; if these individuals benefit from toiling, then why should other people, let alone the government, intervene? Thus, this avenue of empirical work could inform our understanding of what motivates support for political policies, such as social security and welfare programs.

Conclusion

A significant body of work has explored the relationship between adversity and meaning in life with an exclusive focus on objective exposure to adverse experience. Research has yet to examine to what extent subjective perceptions of adversity relate to life meaning. The current studies were the first to address this empirical gap, by investigating whether people who perceive themselves as having had experienced adversity find their lives to be more meaningful within the context of social class. While findings from these two studies failed to provide conclusive evidence for such a relationship, future work should consider the role that subjective experience plays in meaning making to offer a comprehensive evaluation of the adversity-meaning link.

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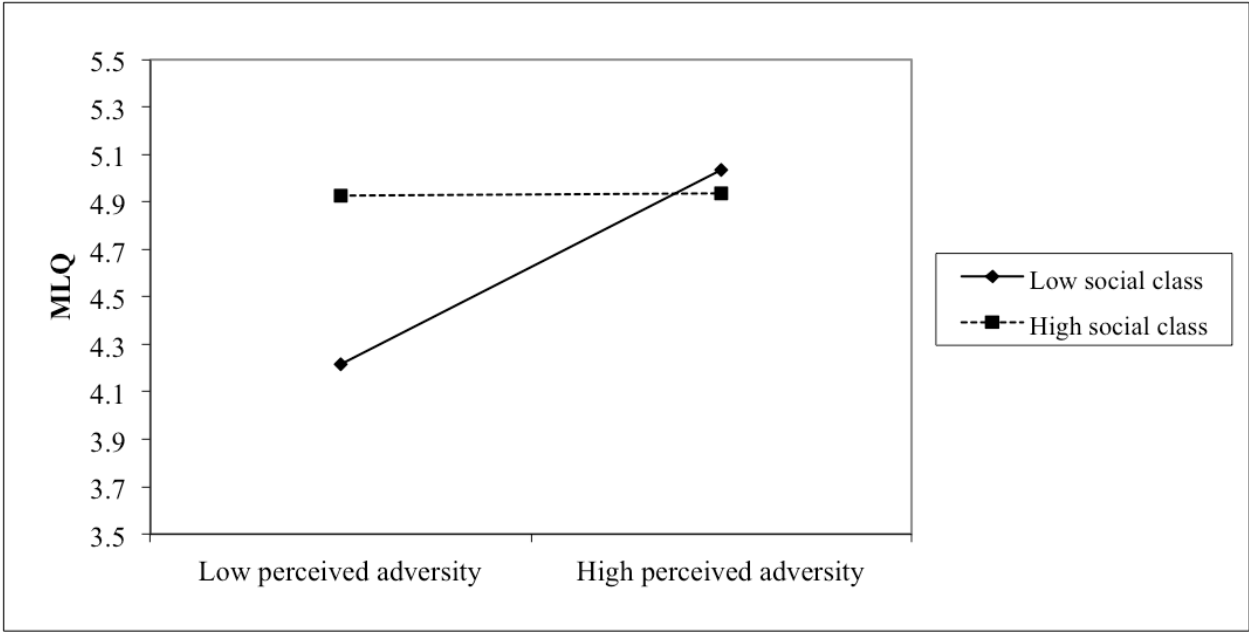


Figure 1. Study 1 Interaction Results for MLQ Presence.

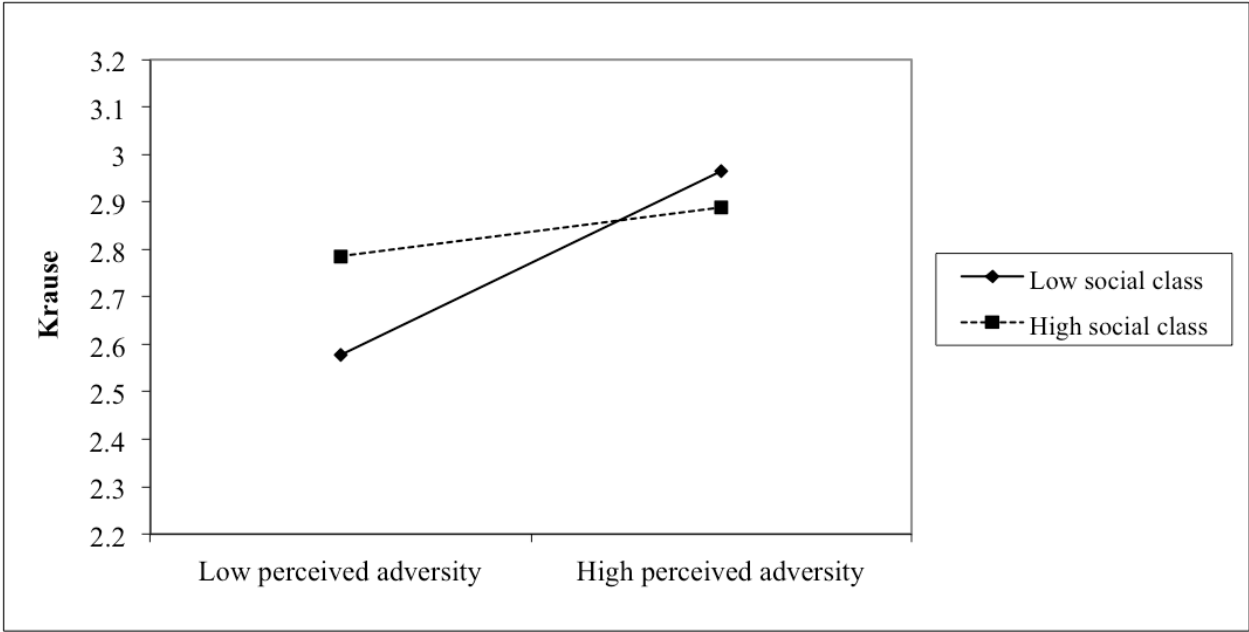


Figure 2. Study 1 Interaction Results for Krause Measure.

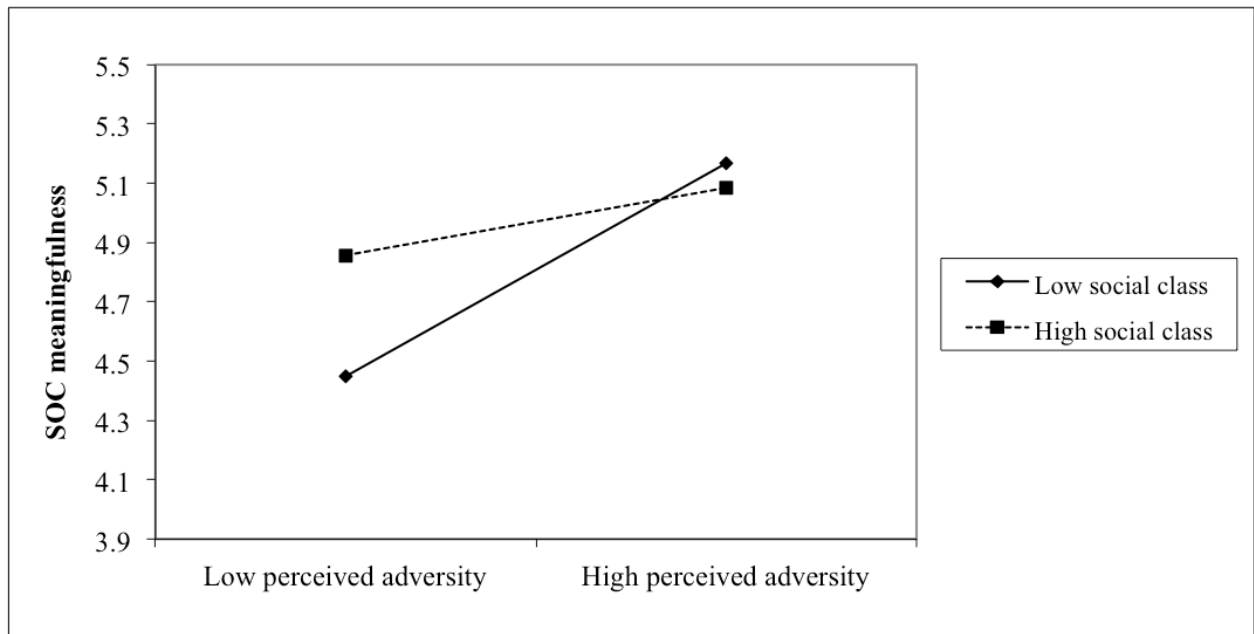


Figure 3. Study 1 Interaction Results for SOC Meaningfulness Subscale.

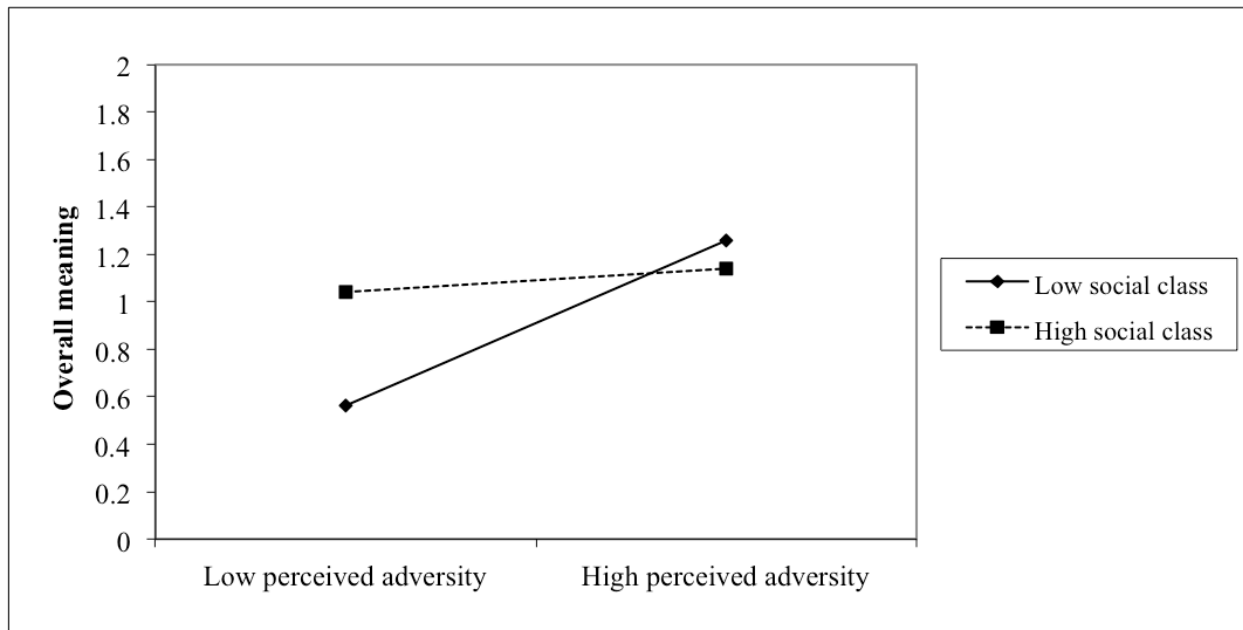


Figure 4. Study 1 Interaction Results for Overall Meaning Measure.

Table 1**Descriptive Statistics for Study 1**

Variables	<i>M (SD)</i>	Possible range	Observed range
Age	21 (3.97)	18+	18-64
Social class	5.60 (1.36)	1-10	3-8
Perceived adversity	5.01 (1.09)	1-7	1-7
MLQ presence	4.79 (1.29)	1-7	1-7
MLQ search	5.21 (1.15)	1-7	1-7
Krause meaning	2.81 (.51)	1-4	1.13-4
SOC meaningfulness	4.99 (1.04)	1-7	1.25-7

Table 2Descriptive Statistics for Study 2

Variables	<i>M (SD)</i>	Possible range	Observed range
Age	36.09 (11.92)	18+	18-72
Social class	4.88 (1.75)	1-10	1-9
Perceived adversity	4.44 (1.31)	1-7	1-7
Experienced adversity	3.35 (2.58)	0-14	0-14
MLQ presence	4.96 (1.46)	1-7	1-7
MLQ search	4.31 (1.68)	1-7	1-7
