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When Daily Emotions Spill into Life Satisfaction:

Age Differences in Emotion Globalizing

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Some of these analyses were presented at conferences, including as part of symposia at the *Annual Convention of the Gerontological Society of America* in 2021 and 2022. The study has been supported by an Insight Development Grant from Social Science and Humanities Research Council (SSHRC) to Meaghan Barlow, a National Institute on Aging Grant awarded to Iris B. Mauss (R01AG043592), a grant from SSHRC to Carsten Wrosch, and a National Institute on Aging grant awarded to Emily C. Willroth (R00AG071838). The materials, syntax, and data for both studies, and the pre-registration for Study 2 can be found on OSF (Barlow, 2023; osf.io/agf2x). Correspondence concerning this article should be addressed to Meaghan A. Barlow, Wilfrid Laurier University, 75 University Ave W, Waterloo, ON N2L 3C5, Canada, e-mail: mbarlow@wlu.ca

#### Abstract

Although the objective conditions of people's lives are fairly stable from day to day, daily life can feel like an emotional rollercoaster. For some people, life satisfaction hitches a ride on the emotional rollercoaster (i.e., momentary emotions spill over into broader evaluations of life). The extent to which positive and negative emotions spill over into life satisfaction is referred to as positive and negative emotion globalizing. Initial evidence suggests that emotion globalizing varies between individuals and is linked to a maladaptive psychological profile. Integrating a lifespan perspective, this is the first study to identify and describe age differences in emotion globalizing using data from two adult community samples (Study 1: N=133 women, age range=23-78; Study 2: N=137, age range=18-95). Further, we tested key boundary conditions of emotion globalizing by examining two types of emotions (i.e., current or after most stressful event of the day) and two types of satisfaction (i.e., overall life satisfaction [life satisfaction] or current day satisfaction [day satisfaction]). Specifically, we investigated how younger and older adults differed in the associations of *current* emotions with *life* satisfaction (i.e., emotion globalizing; Study 1), stressor-related emotions with life satisfaction (i.e., stressor-related emotion globalizing; Study 1), and *stressor-related* emotions with *day* satisfaction (Study 2). Results revealed that older (compared to younger) adults exhibited less negative (but not positive) emotion globalizing and stressor-related emotion globalizing. We found no age differences in the association between *stressor-related* emotions and *day* satisfaction. These findings extend insights into emotion globalizing and inform theories of emotional aging. Keywords: emotion globalizing, aging, life satisfaction

### **Public Significance Statement**

This study suggests older adults are less likely than younger adults to allow their momentary negative emotions to spill over into broad evaluations of their life. This was true when considering both current emotions at the end of the day and emotions experienced following the most stressful event of the day. These findings have implications for the role of emotions in evaluations of life satisfaction and for theories of emotional aging.

#### When Daily Emotions Spill into Life Satisfaction: Age Differences in Emotion Globalizing

Positive and negative emotion globalizing refers to the extent to which people globalize their *current* positive and negative emotions, respectively, to their evaluations of their *life more broadly* (i.e., the within-person association between current emotions and overall life satisfaction). Importantly, the objective conditions of people's lives are typically relatively stable from day to day. Yet, daily life is often described as an "emotional rollercoaster", and the characteristic emotional ups-and-downs can have important implications for well-being. While some people's broader evaluations of life remain unaffected by these temporary emotional variations, others' life satisfaction hitches a ride on the "emotional rollercoaster". Indeed, initial research suggests that individuals differ in the extent to which they globalize their *current* positive and negative emotions (i.e., how they are currently feeling) to evaluations of their *life more broadly* (i.e., how satisfied they are with their life overall), and that both positive and negative emotion globalizing is associated with a maladaptive psychological profile (i.e., more variable life satisfaction, which in turn is associated with worse psychological health and greater neuroticism; Willroth et al., 2020).

Lifespan developmental theories highlight multiple important shifts across the adult lifespan (e.g., Carstensen et al., 1999; Charles, 2010; Heckhausen et al., 2010) that may result in older adults (relative to younger adults) exhibiting less spillover from their daily emotions to how they evaluate their life more broadly. Therefore, we examined age differences in positive and negative emotion globalizing using data from two adult community samples. In addition, we sought to explore key boundary conditions (i.e., the limits of generalizability; Busse, Kach & Wagner, 2017; Whetten, 1989) of age differences in emotion globalizing by examining two types of emotions (i.e., current emotions and emotions after the most stressful event of the day) and two types of satisfaction (i.e., overall life satisfaction [life satisfaction] and current day satisfaction [day satisfaction]). Importantly, the informational value of daily emotions for evaluating one's day are much greater than for evaluations of one's life. Therefore, we sought to extend insights into emotion globalizing by examining individual and age differences in the extent to which current and stressor-related emotions impact peoples' life satisfaction in general as well as day satisfaction.

#### **Emotion Globalizing**

Consider the day-to-day life of Alissa, an elementary school teacher. On Monday, she spends many hours with a student who has been struggling to grasp long division to no avail -afrustrating and exhausting experience. On Tuesday, the student has a breakthrough -a moment filled with joy and excitement. On Wednesday, the student is transferred to another class - news that leaves her feeling disappointed and sad. Her day-to-day life is somewhat of an emotional rollercoaster, as many of our lives are, and so evaluations over different day might vary quite a bit. Yet, the overall conditions of her life more broadly have remained largely unchanged. Thus, rationally, one might expect broad evaluations of her life to remain relatively stable. However, for some people, the emotional ups and downs can impact how satisfied they are with their life as a whole. For example, while Alissa's life satisfaction may remain comparable across days, others' life satisfaction may hitch a ride on the "emotional rollercoaster". For these other people, their life satisfaction is higher on days on which they experience more positive and/or less negative emotions and lower on days they experience fewer positive and/or more negative emotions. Willroth et al. (2020) refer to this phenomenon as emotion globalizing: the extent to which a person's current positive emotions (i.e., positive emotion globalizing) and negative emotions (i.e., negative emotion globalizing) spill over into their life satisfaction.

The existing body of work examining individual differences in emotion globalizing and related concepts is limited. Only a small number of studies has explored individual differences in the within-person association between daily experiences and well-being. However, these papers did not consider the association between life satisfaction and current emotions, and instead focused on daily events (rather than emotional experiences; Oishi, Diener, Choi, Kim-Prieto, & Choi, 2007; Oishi, Schimmack, & Diener, 2001), day satisfaction (rather than life satisfaction; Diener et al., 1999), or well-being more broadly (e.g., happiness; Howell, Ksendzova, Nestingen, Yerahian, & Iyer, 2017). We are aware of only one study that directly examined individual differences in the between-person association between life satisfaction and current emotions (rather than within-person; Diener, Fujita, Tay, & Biswas, 2012). Importantly, prior to Willroth et al., (2020), no studies had examined individual differences in the within-person associations between daily current emotions and life satisfaction.

The IDELS model (Individual Differences in Evaluating Life Satisfaction; Willroth et al., 2020) integrates previous work to develop a theoretical framework to understand emotion globalizing. This framework outlines how people evaluate their life using constructivist (i.e., constructed from temporarily accessible information; e.g., Schwarz & Clore, 1983; Schwarz & Strack, 1999) and direct-retrieval (i.e., retrieved directly from memory; e.g., Eid & Diener, 2004; Fazio, 1995; Schimmack et al., 2002) processes. Crucially, Willroth and colleagues (2020) IDELS model highlights that emotions represent a source of temporarily accessible information through which peoples' evaluations of life satisfaction are filtered. Consequently, the model details that individuals should differ substantially and reliably in the extent to which their current emotions (versus more stable sources of information) spill over into their evaluations of life satisfaction (Willroth et al., 2020).

In line with these propositions, Willroth and colleagues (2020) found that people exhibited positive and negative emotion globalizing on average and varied significantly in the extent to which they exhibited positive and negative emotion globalizing. Further, they showed that these individual differences in positive and negative emotion globalizing showed some stability over 2 months and correlated with a maladaptive psychological profile. More specifically, individuals whose levels of life satisfaction were associated with their current emotions (e.g., reporting lower levels of life satisfactions of days in which they experienced less positive, or more negative, emotion), exhibited greater variability in life satisfaction, which in turn was associated with a worse psychological profile (i.e., a composite of eudaimonic wellbeing and depressive symptoms; Willroth et al., 2020).<sup>1</sup> The idea that emotion globalizing represents a maladaptive way of responding to one's emotions is consistent with other theories highlighting that, rationally, individuals should consider emotional information only to the extent that it is relevant to the associated situation (e.g., Damasio, 1994; Damasio et al., 1991; Kunzmann & Glück, 2019; Kunzmann et al., 2014; Pfister & Böhm, 2008). Consistently, Willroth and colleagues (2022) found that a good night's sleep attenuated the extent to which individuals globalized their positive and negative affect to broader evaluations of their lives. Given sleep's importance for many affective and cognitive processes (Walker, 2009), these findings highlight that high-quality sleep may aid in the complex task of differentiating between transient emotional experiences and how well one's life is going overall. Given that a person's

<sup>&</sup>lt;sup>1</sup> As noted by Willroth and colleagues (2022), while positive emotion globalizing may seem like a good thing, it's important to consider both ends of this association. While individuals high in positive emotion globalizing will get a boost in life satisfaction when they experience higher levels of positive emotions than normal, they will also experience suppressed life satisfaction when they experience lower levels of positive emotions than normal. Therefore, both negative and positive affect globalizing lead to greater short-term variability in life satisfaction, which in turn, has been associated with a worse psychological profile (Willroth et al., 2020).

emotions in a given moment provide limited information about that person's life more broadly, people who exhibit more emotion globalizing may be less aware, or less likely to consider, the relatively low informational value of momentary emotions for evaluations of their overall life satisfaction, more globally. Notably, research has yet to explore if emotion globalizing varies across the adult life span.

#### Age Differences in Emotion Globalizing

As emotion globalizing is a relatively novel construct (Willroth et al., 2020), there is no existing empirical work addressing age differences in emotion globalizing. Given the novelty of the topic, we focus on identifying and describing the phenomenon. Based on considerations from lifespan theories and research, we discuss potential processes that could play a role in age-related differences in globalizing daily emotions to broader evaluations of life. Note, however, that we do not test the relative plausibility of different theoretical explanations. Future research is needed to examine the comparative plausibility of theoretical explanations (Haig, 2013).

Extant lifespan developmental theory highlights age-related shifts that may impact the extent to which individuals' daily emotions influence their life satisfaction (e.g., Blanchard-Fields, 2007; Carstensen et al., 1999; Charles, 2010; Heckhausen et al., 2010; Labouvie-Vief, 1990). For example, lifespan theories assume that people accumulate knowledge and expertise about life as they advance in age (see approaches to wisdom, Baltes & Smith, 2008; Baltes, Glück, & Kunzmann, 2002). This knowledge and expertise could impart older adults with a greater understanding of the limited informational value of their current emotions in the broader landscape of their life as a whole and thus reduce their levels of emotion globalizing.

Alternatively, lifespan approaches to motivation describe how development can be optimized through an opportunity-adjusted use of self-regulatory or control processes (Brandtstaedter & Renner, 1990; Heckhausen et al., 2010; Schulz & Heckhausen, 1996). In this vein, as opportunities to strive for and achieve desired goals become more limited with advancing age, self-protective processes become paramount (e.g., secondary control, Heckhausen et al., 2010; Schulz & Heckhausen, 1996). Indeed, older adults have been found to tailor their self-regulatory strategies to their age-related life context (Blanchard-Fields, 2007). In addition, as compared to young adults, older adults engage more frequently in, and benefit more from, positive reappraisals (e.g., for predicting life satisfaction, see Wrosch et al., 2000). Through such self-protective control processes, older adults may evaluate the momentary events that elicit emotions as less relevant for their life more broadly, and thus exhibit less of an association between their current emotions and life satisfaction (i.e., emotion globalizing).

#### **Boundary Conditions of Emotion Globalizing**

Emotion globalizing is thought to be a generally maladaptive process, as it does not account for the limited informational value of momentary emotions for life satisfaction. Given this, to the extent they are linked to the informational value of momentary emotions, the type of emotion and satisfaction might shape emotion globalizing. Therefore, to comprehensively identify and describe age differences in emotion globalizing, we also consider the boundaries of emotion globalizing by examining the associations between 1) stressor-related emotions (emotions in response to a stressful event) and overall life satisfaction (i.e., stressor-related emotion globalizing), and 2) stressor-related emotions and day satisfaction.

First, we sought to examine stressor-related emotion globalizing. On a day-to-day basis, people are confronted with hassles and uplifts capable of impacting well-being (e.g., Almeida, 2005; Almeida et al., 2022; DeLongis et al., 1982; Kanner et al., 1981). Given the negative between-person association of daily hassles with life satisfaction (e.g., Bai et al., 2021;

Chamberlain & Zika, 1990; Udayar et al., 2022), it is possible that people's evaluations of their life may also vary in the extent to which they are filtered through their emotions following the day's most stressful event. In other words, people may vary in the degree to which their stressorrelated emotions spill over into their life satisfaction. Importantly, current emotions (i.e., current positive and negative emotions at the end of the day) may be more readily accessible than stressor-related emotions (i.e., the greatest extent to which you felt positive and negative emotions following the most stressful event of that same day). Therefore, while people may exhibit stressor-related emotion globalizing on average, the magnitude of stressor-related emotion globalizing should be smaller than current emotion globalizing. Like with emotion globalizing, given shifts across the lifespan (e.g., Carstensen et al., 1999; Charles, 2010; Heckhausen et al., 2010), older adults may weigh their stressor-related emotions less heavily when evaluating their life more generally, as compared to younger adults. In particular, decreased stressor exposure (Almeida et al., 2022), negative affective reactivity (Brose, Schmiedek, Lövdén, & Lindenberger, 2011; Stawksi et al., 2019), and negative affect variability (Scott et al., 2014) may result in less spillover of older adults' negative stressor-related emotions into their broader evaluations of life.

Second, we sought to examine the association between stressor-related emotions and day satisfaction (how satisfied one is with one's day), and age differences in this association. Contrary to life satisfaction, a person's daily stressor-related emotions should be more relevant for and coupled with day satisfaction. In this regard, associations between stressor-related emotions and *day* satisfaction may not represent a "globalizing process" in the same way as associations between stressor-related emotions and *life* satisfaction. For example, if a person experiences a more stressful event (i.e., family emergency) as compared to a less stressful event

(i.e., traffic jam) on a given day, it seems rational that they would be less satisfied with the more stressful day. Therefore, considering the greater informational value of daily stressor-related emotions for satisfaction with one's day relative to one's life, the magnitude of the average association of stressor-related emotions with day satisfaction should be greater than with life satisfaction. It is however unclear to what extent age-related shifts would explain variability in this association.

#### **Current Research**

The present studies sought to extend existing research on emotion globalizing by examining age differences in positive and negative emotion globalizing. Further, we explored important boundary conditions by examining these age differences across three levels: associations between current emotions and life satisfaction (i.e., emotion globalizing), associations between stressor-related emotions and life satisfaction (i.e., stressor-related emotion globalizing), and associations between stressor-related emotions and day satisfaction.

In Study 1, we sought to extend previous research using an expanded subset of the same dataset that demonstrated people exhibit emotion globalizing on average and vary in the extent to which they exhibit emotion globalizing (Willroth et al., 2020). We expected that people would also exhibit stressor-related emotion globalizing on average (although to a lesser extent than emotion globalizing) and vary in the extent to which they exhibit stressor-related emotion globalizing. Further, we expected that older adults would exhibit less emotion globalizing and stressor-related emotion globalizing (both positive and negative), relative to younger adults. In Study 2, we used data from another sample to examine age differences in the association between stressor-related emotions and day satisfaction. Because current emotions were not collected in Study 2, we were not able to examine age differences in the association between

current emotions and day satisfaction. The research questions, measures, and analysis plan for Study 2 were pre-registered (Barlow, 2023; osf.io/agf2x). However, given the exploratory nature of these analyses, we did not set out with directed hypotheses.

The present research has several noteworthy features. First, we used data from two community samples with wide age ranges (Study 1: younger = 23-42 years old, older = 51-78 years old, collected 2014-2016; Study 2: younger = 18- 34 years old, older = 64-95 years old, collected 2017-2018). Further, while previous research has examined emotion globalizing in exclusively women samples (Willroth et al., 2020), Study 2 includes data from men and women. The use of these more representative samples in terms of sample population, age, and gender expands the generalizability of emotion globalizing research. Finally, the present research examines various levels of assessment for both emotions (i.e., current vs. stressor-related) and satisfaction (i.e., life satisfaction vs. day satisfaction). In doing so, these findings build on previous research by systematically examining the boundary conditions of emotion globalizing.

#### Study 1

#### Method

#### **Transparency and Openness**

We follow the APA Journal Article Reporting Standards (JARS; Appelbaum et al., 2018). This study was not pre-registered. We report all measures and manipulations that were analyzed to address our research questions, how we determined sample size, and any data exclusions. This study included additional measures and manipulations, but they are beyond the scope of the present research. The study materials, syntax, and data can also be found on OSF (Barlow, 2023; osf.io/agf2x).

#### **Participants and Procedure**

These analyses used archival data from a larger study, therefore sample size was determined by data availability. This study collected data from a community sample of women (aged 23-78) who were recruited from the San Francisco Bay Area through online advertisements, posters, and participant mailing lists. Consistent with the local population, the sample was diverse in ethnicity (reported by younger and older adults, respectively: 8.7, 6.3% Black/African American; 37.7, 9.4% Asian/Asian American; 34.8, 48.4% White/European American; 4.5, 1.6% Latino/Hispanic American) and income (in USD: 21.8% < \$25,000, 24% \$25,001 - \$50,000, 24.1% \$50,001 - \$100,000, \$23.3% > \$100,000, and 6.8% did not report).

The study recruited women between 25 and 80 years of age that had experienced a stressful life event in the past 6 months. The goal was to have a younger and an older age group, representing younger adults and older adults. This study enlisted a total of 160 participants. Consistent with the analyses pre-registered for Study 2, 27 participants (17%) in Study 1 were excluded from analyses if they did not provide data on all daily variables of interest (i.e., current emotions, stressor-related emotions, and life satisfaction) on at least 5 days. The final sample size was 133. Younger participants (n = 69) had a mean age of 31 (range: 23-42 years old), and older participants (n = 64) had a mean age of 64 (range: 51-79 years old).

Relevant to these analyses, participants completed an entrance survey online, including demographic information. Following the entrance survey, participants completed online daily diaries at the end of the day before going to bed for 16 days. Of note, the daily diaries were divided into two sets of 8 to reduce participant burden and increase the total number of surveys completed ( $M_{lag}$  between waves = 62.89 days, SD = 5.63 days). On average, included participants completed 14.58 daily diaries (SD = 1.42, range = 8-16). These diaries contained measures of (in order): current emotions, emotions after the most stressful event of the day, and

life satisfaction. Participants were compensated \$30 for the entrance survey, and 60\$ USD for completing at least 60% of the daily diaries. Informed consent was obtained prior to participation, and all study procedures were approved by the UC Berkeley Committee for Protection of Human Subjects (Berkeley Romantic Relationship, Emotion, and Wellness Study, Protocol #: 2014 –10-6844).

#### Measures

Age Group. As part of the entrance survey, participants reported their age. Participants' ages were recoded into two age groups: young adults = -0.5; older adults = +0.5.

**Current Emotions.** On each diary day, participants were asked to indicate the extent to which they currently felt a list of emotions on a Likert type scale ranging from 1 (*very slightly or not at all*) to 7 (*extremely*). Daily current positive emotions were indexed as the average ratings across 7 emotions: amused, energetic, calm, happy, interested, excited, and content ( $\omega_w = .79, \omega_b = .83$ , ICC = .41). Daily current negative emotions were indexed as the average rating across 6 emotions: anxious, lonely, sad, annoyed, angry, and distressed ( $\omega_w = .82, \omega_b = .93$ , ICC = .39). Average levels of positive and negative emotions were computed as the average across the 16 days. Average levels were standardized before being entered into the main analyses.

**Stressor-Related Emotions.** On each diary day, participants were asked to write about the most stressful event of the day, and then while considering the stressful event, indicate the greatest amount they felt a list of emotions during the most stressful event of their day on a Likert-type scale ranging from 1 (*very slightly or not at all*) to 7 (*extremely*). Daily stressorrelated positive emotions were indexed as the average ratings across the same 7 emotions that were rated for "current emotions": amused, energetic, calm, happy, interested, excited, and content ( $\omega_w = .78$ ,  $\omega_b = .86$ , ICC = .33). Daily stressor-related negative emotions were indexed as the average rating across the same 6 emotions that were rated for "current emotions": anxious, lonely, sad, annoyed, angry, and distressed ( $\omega_w = .71$ ,  $\omega_b = .91$ , ICC = .35). Average levels of positive and negative stressor-related emotions were computed as the average across the 16 days. Averages levels were standardized before being entered into the main analyses.

**Life Satisfaction.** On each diary day, participants completed a 3-item version of the Satisfaction with Life Scale (Diener et al., 1985) using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The items are as follows: "In most ways my life is close to my ideal"; "The conditions of my life are excellent"; and "I am satisfied with my life." Daily life satisfaction was indexed as the average of these items each day ( $\omega_w = .70$ ,  $\omega_b = .98$ , ICC = .84).

#### Results

Analyses were conducted in R Studio (R Core Team, 2021). Descriptive statistics (Table 1) were computed using the *psych* package (Revelle, 2019), and reliabilities were computed using the *omegaSEM* function (Geldhof, Preacher, & Zyphur, 2014) in the *multilevelTools* package (Wiley, 2020). The main analyses (Table 2) were conducted using the *nlme* package (Pinheiro et al., 2019). To address our main research questions, we conducted two sets of multilevel models (days nested within people) for current emotions (Model 1a) and stressor-related emotions (Model 1b; see Table OSM 1 for equations)<sup>2</sup>. Each model estimated positive

<sup>&</sup>lt;sup>2</sup> It is important to reiterate these data were collected in two 8-day bursts about two months apart. Given the potential impact on the results, we also ran the models for the two 8-day bursts occasions separately. The pattern of findings was consistent across models. One exception is that the age difference in positive emotion globalizing was more pronounced in the first burst (B = -0.12, p = .052, 95% CI [-0.24,0.001]) than in the second burst (B = -0.07, p = .186, 95% CI [-0.17,0.03]), such that older adults also reported less positive emotion globalizing, but the effect was not statistically significant in either burst. Given the largely consistent patterns, we chose to proceed with the model including all 16 days to maximize the number of observations.

and negative emotion globalizing separately. For these models, all negative emotion items (both current and stressor-related) were reverse coded to facilitate interpretation. In this way, higher coefficients for positive and negative emotion composites can be interpreted as representing more positive and negative emotion globalizing, respectively. Follow-up simple slope analyses for statistically significant interactions were conducted using the *reghelper* package (Hughes, 2021). Of note, all models were estimated without controlling for mean life satisfaction levels (unadjusted) and controlling for mean life satisfaction on the intercepts and slopes (adjusted). While a summary of the results for both the unadjusted and adjusted models are presented in Table 2, we will focus solely on the adjusted results in the main body of the manuscript because the pattern of results is consistent across models.

**Current Emotions (Model 1a).** First, we estimated Level-1 models to determine the association of person-centered variations of current emotions (i.e., around the person's mean level) with life satisfaction. We examined the slope effects to determine if, on average, people exhibit positive and negative emotion globalizing. The analyses revealed statistically significant slope effects (positive: B = 0.20, SE = 0.02, t = 9.22, p < .01; negative: B = 0.21, SE = 0.03, t = 8.01, p < .01), indicating that the average levels of both positive and negative current emotion globalizing (i.e., the association between current emotions and life satisfaction) were different from zero.

In addition, we examined the random effect about the slopes to determine if there were individual differences in positive and negative emotion globalizing. The analyses revealed these random effects were statistically significant (positive:  $\tau = 0.14$ , p < .01; negative:  $\tau = 0.19$ , p <.01), indicating the presence of individual differences in positive and negative emotion globalizing. These findings are consistent with the analyses, interpretations, and conclusions of Willroth and colleagues (2020) paper using a subset of the same dataset (i.e., the first 8 out of 16 daily diaries).

Next, we estimated Level-2 models to simultaneously examine the between-person effects of age group on the variability in participants' intercept (i.e., average levels of life satisfaction) and slope values (i.e., emotion globalizing). We examined the cross-level age group by emotion interaction to determine if there were age differences in positive and negative emotion globalizing. The analyses revealed a statistically significant difference between younger and older adults in negative emotion globalizing (B = -0.14, SE = 0.05, t = 2.92, p < .01), but not positive emotion globalizing (B = -0.02, SE = 0.04, t = -0.46, p = .65). Follow-up simple slope analyses indicate that younger adults exhibit higher levels of negative emotion globalizing (B = 0.28, SE = 0.03, t = 8.08, p < .01) as compared to older adults (B = 0.13, SE = 0.04, t = 3.68, p < .01). Of note, these Level-2 models also revealed no statistically significant effects of age group on the intercept (positive: B = -0.23, SE = 0.22, t = -1.01, p = .31; negative: B = -0.41, SE = 0.21, t = -1.94, p = .054), suggesting that average levels of life satisfaction did not differ between age groups.

**Stressor-Related Emotions (Model 1b).** First, we estimated Level-1 models to determine the association of person-centered variations in stressor-related emotions (i.e., around the persons' mean level) on life satisfaction. We examined the slope effects to determine if, on average, people exhibit positive and negative stressor-related emotion globalizing. The analyses revealed statistically significant slope effects (positive: B = 0.08, SE = 0.02, t = 3.82, p < .01; negative: B = 0.10, SE = 0.02, t = 4.98, p < .01), indicating that the average levels of both positive and negative stressor-related emotion globalizing (i.e., the association between emotions following the most stressful event of the day and life satisfaction) were different from zero.

In addition, we examined the random effect about the slopes to determine if there were individual differences in positive and negative stressor-related emotion globalizing. The analyses revealed these random effects were statistically significant (positive:  $\tau = 0.11$ , p = .03; negative:  $\tau = 0.14$ , p < .01), indicating the presence of individual differences in stressor-related emotion globalizing.

Next, we estimated Level-2 models to simultaneously examine the between-person effects of age group on the variability in participants' intercept (i.e., average levels of life satisfaction) and slope values (i.e., stressor-related emotion globalizing). We examined the cross-level age group by emotion interaction to determine if there were age differences in positive and negative stressor-related emotion globalizing. The analyses revealed a statistically significant difference between younger and older adults in negative stressor-related emotion globalizing (B = -0.13, SE = 0.04, t = -3.32, p < .01), but not positive stressor-related emotion globalizing (B = -0.13, SE = 0.04, t = -3.32, p < .01), but not positive stressor-related emotion globalizing (B = -0.17, SE = 0.03, t = -0.33, p = .74). Follow-up simple slope analyses indicate that younger adults (B = 0.17, SE = 0.03, t = 6.04, p < .01), but not older adults (B = 0.03, SE = 0.03, t = 1.21, p = .23), exhibit negative stressor-related emotion globalizing. Of note, these Level-2 models also revealed no statistically significant effects of age group on the intercept (positive: B = -0.27, SE = 0.23, t = -1.20, p = .23; negative: B = -0.18, SE = 0.20, t = -0.91, p = .36), indicating that average levels of life satisfaction were not different between age groups.

Supplemental Analyses: Age Differences in Variability of Daily Emotion and Life Satisfaction. Older (compared to younger) adults' tend to avoid highly arousing negative situations (e.g., Livingstone & Isaacowitz, 2015), and report decreased stressor exposure (Almeida et al., 2022). Consequently, older adults may experience a limited range of negative emotion due to this avoidance, or they may experience less deviations from their typical level of negative emotion due to less frequent exposure to stressors that might cause deviations from their typical level. Consistently, older adults experience less negative affect variability as compared to younger adults (Scott, Mogle, Urban, & Almeida, 2016). Therefore, it is important to consider that the presented age-related differences in negative emotion globalizing and negative stressor-related emotion globalizing may be due to decreased variability in daily emotions and/or life satisfaction.

Accordingly, we described age-related patterns in variability of daily emotions and life satisfaction. To do so, we first computed individuals' standard deviations (iSD) for each measure of daily emotions and life satisfaction. We then conducted t-tests to determine whether younger and older adults differed in the extent to which they exhibited within-person variability in these constructs. These analyses revealed that, consistent with previous research, older adults reported less within-person variability in current positive emotions (t = 11.88, p <.01), current negative emotions (t = 7.37, p <.01), stressor-related positive emotions (t = 4.48, p <.01), stressor-related negative emotions (t = 4.82, p <.01), and life satisfaction (t = 6.76, p <.01). In addition, we also extracted the residuals of an empty model predicting life satisfaction and found that age group was a significant predictor of these residuals (t = -2.68, p = .01).

Next, we sought to determine whether the age-related differences in emotion globalizing held after accounting for age-related differences in variability. First, we re-ran the main analyses controlling for individuals' standard deviation (iSD) in the relevant daily emotions. The original pattern of results held. Full results of these models can be found in Table OSM2. Second, we re-ran the main analyses using heterogeneous variance models. These models mirror the original analyses, but they allow us to estimate the random effects, and relax the standard heterogeneity assumption (i.e., residuals are equal across the sample) such that the between- and within-person

random effects are modeled at the group-level. In other words, in the context of this study, these analyses allowed us to model and account for differences in the random effects (i.e., r<sub>it</sub>, u<sub>0i</sub>, u<sub>1i</sub>) between younger and older adults. The original pattern of results held when implementing heterogeneous variance models. Full results of the heterogeneous variance models can be found in Table OSM3. Altogether, these results suggest the presented age-related differences in negative emotion globalizing and negative stressor-related emotion globalizing are not due to decreased variability in daily emotions and/or life satisfaction.

#### Study 2

#### Method

#### **Transparency and Openness**

We follow the JARS (Appelbaum et al., 2018). The analytic plan for this study was preregistered (Barlow, 2023; osf.io/agf2x). We report all measures that were analyzed to address our research questions, how we determined sample size, any data exclusions, and all manipulations. Additional measures were collected but are beyond the scope of the present research. The study materials, syntax, and data can be found on OSF (Barlow, 2023; osf.io/agf2x).

#### **Participants and Procedure**

This study utilized archival data from the Emotion Regulation Study (ERS), therefore sample size was determined by data availability. The ERS collected data from an age-stratified community sample of younger and older adults who were recruited through newspaper advertisements in the greater Montreal area and online advertisements on a university classifieds website. The sole recruitment criterion was that people had to be between 18 and 35 years old or 65+ years old to participate. The ERS enlisted a total of 146 participants ( $n_{young} = 73$ ,  $n_{old} = 73$ ) who returned their daily diaries. As noted in the pre-registration, participants were excluded from analyses if they did not provide data on all daily variables of interest (i.e., stressor-related emotions, and day satisfaction) on at least 5 days (17%). The final sample size was 137 (62% women [ $n_{women} = 85$ ]). Younger participants (n = 72) had a mean age of 23 (range: 18-34 years old; 65% women [ $n_{women} = 47$ ]), and older participants (n = 65) had a mean age of 75 (range: 64-95 years old; 58% women [ $n_{women} = 38$ ]). While ethnicity was not included in this archival dataset, the sample was diverse in income (in CAD: 26.3% < \$ 17,000, 29.2% \$17,001 -\$51,000, 24.1% \$51,001 - \$85,000,15.3% > \$85,000, and 5.1% did not report).

Relevant to the present analyses, participants completed a baseline questionnaire in-lab, including demographic measures. Following the in-lab assessment, participants completed seven daily diaries at the end of each day. These diaries included measures of emotions during or after the most stressful event of the day, and then day satisfaction. Participants were asked to return the daily diary questionnaires through the mail using a prepaid postage envelope. After completing the baseline questionnaire, participants were compensated \$50 CAD for their participation. Informed consent was obtained prior to participation. All procedures and methods were approved by the Concordia University Research Ethics Board (Emotions and Self-Regulation: A Daily-Diary Study, Certification #: 30008491).

#### **Materials**

Age Group. As part of the baseline assessment, participants reported their age. Participant's age was recoded into two age groups: young adults = -0.5; older adults = +0.5.

**Stressor-Related Emotions.** Participants were asked to write about the most stressful event of the day, and then to indicate the extent to which they experienced a list of emotions during or after the stressful event on a Likert-type scale ranging from 0 (*very slightly or not at all*) to 4 (*extremely*). To keep the emotion rating scale consistent across studies, we recoded the

scale such that: 0 = 1, 1 = 2.5, 2 = 4, 3 = 5.5, and 4 = 7. Daily stressor-related positive emotions were indexed as the average ratings across 3 emotions: excited, calm, proud ( $\omega_w = .53$ ,  $\omega_b = .72$ , ICC = .39). Daily stressor-related negative emotions were indexed as the average rating across 4 emotions: sad, anxious, angry, lonely ( $\omega_w = .58$ ,  $\omega_b = .84$ , ICC = .42). Average levels of positive and negative emotions were computed as the average across the 7 days. Averages levels were standardized before being entered into the main analyses.

**Day Satisfaction.** Participants completed 3 items adapted from the Satisfaction with Life Scale (Diener, et al., 1985) using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The items were as follows: "In most ways my day was close to my ideal", "The conditions of my day were excellent", and "I am satisfied with my day". Daily day satisfaction was indexed as the average of these items each day ( $\omega_w = .90$ ,  $\omega_b = .98$ , ICC = .47). **Results** 

Analyses used the same software and packages as Study 1. Refer to Table 1 for descriptive statistics. For the main analyses (Table 2), we conducted a set of multilevel models predicting day satisfaction (Model 2) by stressor-related positive and negative emotions, separately. For these models, all stressor-related negative emotion items were reverse coded to facilitate interpretation. In this way, higher coefficients for positive and negative emotion composites can be interpreted as representing a greater within-person association with day satisfaction. Of note, all models were estimated without controlling for mean day satisfaction levels (unadjusted) and controlling for mean day satisfaction on the intercepts and slopes (adjusted). While a summary of the results for both the unadjusted and adjusted models are presented in Table 2, we will focus mainly on the adjusted results, noting only any inconsistent findings in the unadjusted models. **Day Satisfaction (Model 2).** First, we estimated Level-1 models to determine the association of person-centered variations of stressor-related emotions (i.e., around the persons' mean level) on day satisfaction. We examined the slope effects to determine if, on average, people exhibit and association between positive and negative emotions following the most stressful event of the day and day satisfaction. These analyses revealed statistically significant slope effects (positive: B = 0.50, SE = 0.05, t = 9.89, p < .01; negative: B = 0.65, SE = 0.06, t = 10.51, p < .01), indicating that, on average, people exhibited an association between both positive and negative stressor-related emotions and day satisfaction that was different from zero.

In addition, we examined the random effect about the slopes to determine if there were individual differences in these associations. The analyses revealed these random effects about the slopes were statistically significant (positive:  $\tau = 0.25$ , p < .01; negative:  $\tau = 0.33$ , p < .01), indicating the presence of individual differences in the associations between positive and negative stressor-related emotions and day satisfaction.

Finally, we estimated Level-2 models to simultaneously examine the between-person effects of age group on the variability in participants' intercept (i.e., average levels of day satisfaction) and slope values (i.e., the association between positive and negative stressor-related emotions and day satisfaction). We examined the cross-level age group by emotion interaction to determine if there were age differences in the associations between positive and negative stressor-related emotions and day satisfaction. However, the analyses revealed the effect of age group on both slopes was not statistically significant (positive: B = -0.09, SE = 0.10, t = -0.93, p = .35; negative: B = -0.10, SE = 0.12, t = -0.75, p = .45), indicating that average levels of stressor-related emotion globalizing were not different between age groups. Of note, these analyses revealed a statistically significant effect of age group on the intercept in the positive, but

not negative emotion model (positive: B = 0.75, SE = 0.19, t = 3.92, p < .01; negative: B = 0.19, SE = 0.20, t = 0.97, p = .33). Notably, the effect of age group on the intercept was statistically significant in both the positive and negative unadjusted models (positive: B = 0.70, SE = 0.20, t = 3.47, p < .01; negative: B = 0.70, SE = 0.20, t = 3.46, p < .01). The statistically significant effects were such that older participants reported higher average levels of day satisfaction than their younger participants.

#### Discussion

The present studies extend emotion globalizing research by examining age differences and key boundary conditions in emotion globalizing in two community-dwelling adult samples. As summarized in Table 3, the findings indicate that older, relative to younger, adults exhibit less negative emotion globalizing and less negative stressor-related emotion globalizing. No age differences were found in positive emotion globalizing, positive stressor-related emotion globalizing, or the associations of positive and negative emotions with day satisfaction. In addition, we also observed that on average people exhibited an association between positive and negative emotions (i.e., current and stressor-related) and daily satisfaction (i.e., life and day), and people varied systematically in these associations. Finally, the association between current emotions and life satisfaction (i.e., emotion globalizing) was larger than the association between stressor-related emotions and life satisfaction (i.e., stressor-related emotion globalizing), and the association between stressor-related emotions and day satisfaction was the largest.

#### Age Differences in Emotion Globalizing

Foundational emotion globalizing research outlines that while people typically exhibit both positive and negative emotion globalizing on average, they also vary reliably in the extent to which they exhibit positive and negative emotion globalizing (Willroth et al., 2020). Extending this work, we demonstrate that these individual differences in the extent to which individual globalize their emotions (both current and stressor-related) are explained, in part, by the individuals' age. Specifically, older adults exhibited less negative (but not positive) emotion globalizing and stressor-related emotion globalizing, relative to younger adults. These findings highlight that like other relatively stable individual differences (e.g., Big Five; Chopik & Kitayama, 2017; Willroth et al., 2020), the extent to which people exhibit emotion globalizing may change with age. Further, while the present research focused on identifying and describing age differences in emotion globalizing, these findings could be explained by extant theory. More specifically, lifespan developmental theories highlight the accrued knowledge and expertise associated with time lived as age-related strengths that allow older adults to shift their perspective and navigate life more successfully than their younger counterparts (e.g., Carstensen et al., 1999; Charles, 2010; Heckhausen et al., 2010). In this way, improved understanding of the nature, meaning, source, and relevance of their emotions (e.g., Kunzmann & Glück, 2019; Mankus et al., 2016; Tsaousis & Kazi, 2013), may result in older adults exhibiting less emotion globalizing via their better understanding of the limited informational value of daily events and emotions, relative to their younger counterparts. Thus, the observed age differences in emotion globalizing point to the utility of considering lifespan developmental research and theory to identify potential mechanisms of emotion globalizing.

Importantly, the findings demonstrate age differences in negative, but not positive, emotion globalizing. This pattern is consistent with the notion that the accrued knowledge and experience associated with time lived may manifest through the utilization of self-protective motivational processes (e.g., secondary control, Heckhausen et al., 2010; Schulz & Heckhausen, 1996), such as cognitive processes that alter threat-related perceptions (e.g., positive reappraisals; Lazarus & Folkman, 1984). Through these processes, older (as compared to younger) adults may reappraise the daily events that elicit emotions as less relevant for their general life satisfaction. In support of this possibility, compared to younger adults, older adults have been found to engage more frequently in positive reappraisals, and benefit more from these reappraisals during stressful life circumstances (i.e., better life satisfaction; Wrosch et al., 2000). However, to our knowledge, research has yet to examine age differences in the use and consequences of reappraisal processes for positive events and emotions. In this way, while age-related shifts may allow older adults to use positive reappraisals to avoid exhibiting less negative emotion globalizing, this may not be the case for positive emotion globalizing. In addition, the reported pattern may be explained by research highlighting older adults' tendency to allocate their attention away from negative stimuli (relative to positive or neutral stimuli; Carstensen & DeLiema, 2018; Isaacowitz et al., 2006). Accordingly, when evaluating their life, older adults may exhibit a bias against weighing their negative emotions, resulting in lower average levels of emotion globalizing among older adults.

Of note, the analysis also revealed that while older (relative to younger) adults were found to report higher average levels of day satisfaction (Study 2), no age differences emerged when examining life satisfaction (Study 1). These findings highlight the need to differentiate between more proximal and global ratings of satisfaction, and add to a body of work examining age-related changes in life satisfaction. Past research demonstrates stable or improving profiles of life satisfaction, at least until approximately 65 to 70 years old (Gana et al., 2012; Gerstorf et al. 2008; Mroczek & Spiro, 2005; Schilling, 2006), with significant individual differences in declines beyond this age (Gerstorf et al. 2008; Mroczek & Spiro, 2005). Altogether, the present findings raise the possibility that avoiding emotion globalizing may represent a pathway to maintaining life satisfaction well into old age.

#### **Boundary Conditions of Emotion Globalizing**

Extending the original conceptualization of emotion globalizing to stressor-related emotions, the results revealed a similar pattern such that while people typically exhibited both positive and negative stressor-related emotion globalizing (although to a lesser degree than emotion globalizing), they also vary reliably in the extent to which they exhibit positive and negative stressor-related emotion globalizing (see Table 3 for results summary). These findings build on theoretical work exploring factors impacting individual differences in life satisfaction (Willroth et al., 2020). More specifically, these findings suggest that people vary not only in the extent to their current emotions spill over into evaluations of their life, but also their stressorrelated emotions. Further, consistent with the notion that when evaluating one's life at the end of the day, current emotions (i.e., current positive and negative emotions at the end of the day) are more readily accessible than stressor-related emotions (i.e., the greatest extent to which you felt positive and negative emotions following the most stressful event of that same day), individuals exhibited less stressor-related emotion globalizing on average (relative to emotion globalizing).

In addition, the present research further tested the boundary conditions of emotion globalizing by examining the association between stressor-related emotions and day satisfaction. We demonstrated that people typically exhibit an association between both positive and negative stressor-related emotions and day satisfaction, and they also vary substantially in the extent to which they exhibit these associations. Importantly, consistent with the notion that stressor-related emotions have greater informational value for day satisfaction relative to life satisfaction, the size of the associations between stressor-related emotions and day satisfaction are larger than current- and stressor-related emotion globalizing (refer to Table 3 for results summary). Further, the results suggest that the individual differences in the associations between positive and negative stressor-related emotions and day satisfaction do not very systematically with age. Altogether, these findings suggest that the associations between stressor-related emotions and day satisfaction may not be indicative of a "globalizing process", but rather represent a substantively separate phenomena from emotion globalizing.

#### **Limitations and Future Directions**

The present studies advance lifespan and emotion globalizing theory and research by examining age differences in the associations between daily emotions (i.e., current and stressorrelated) and satisfaction (i.e., life and day) in two adult community samples. However, these two studies are not without limitations.

First, we cannot disentangle age and cohort effects in the present data. Therefore, future research should aim to examine age differences in emotion globalizing using sequential, longitudinal designs. Further, future research could use experimental methods to examine age difference in the impacts of manipulating emotions on ratings of life satisfaction, to unravel the causal association between emotional experience and life satisfaction. Future research should also consider employing more fine-grained data collection methods (e.g., event-based ecological momentary assessments of emotion; Shiffman et al., 2008) to determine the extent to which age differences in stressor-related emotion globalizing processes manifest on an event-by-event basis (as compared to a day-to-day retrospective basis).

Second, the reported results stem from two adult community samples. While the wide age ranges, community recruitment, and inclusion of both women and men represent strengths of this study, several factors limit the generalizability of these findings. In particular, both samples were collected in North American cities, and information on race and ethnicity was only collected for one sample (Study 1). Further, to provide a more complete picture of age-related changes in emotion globalizing and allow for the identification of a turning point (i.e., at what age exactly does emotion globalizing begin to decrease), future research should utilize lifespan samples including adults in midlife.

Third, the reported results examined the boundary conditions of emotion globalizing by expanding measures of emotions (from current to stressor-related) and satisfaction (from life to day). While this represents an important extension of previous emotion globalizing work, it should be noted that the available data did not allow us to examine the association between current emotions and day satisfaction (i.e., the extent to which current emotions at the end of the day are associated with satisfaction with one's day), and age differences in such an association. While current emotions likely provide limited informational value for evaluations of one's life more broadly, future research examining all four associations in a single sample would allow for better comparisons. Further, in discussing differences in the associations between stressor-related emotions with life satisfaction vs. day satisfaction, it is possible the differential patterns are due to something distinct about the samples (i.e., gender or age group distribution). To provide some insight into the role of gender in explaining the different patterns between studies, we re-ran the analyses for Study 2 separately for men and women. Results were consistent across men and women, consistent with the notion that the different patterns may not be due to different gender distributions in the samples. However, Studies 1 and 2 differed in multiple ways from one another and thus we cannot conclusively explain why their results differed.

Fourth, while several theoretically plausible underlying mechanisms for the reported age differences in emotion globalizing have been outlined, the present studies did not directly test any of these mechanisms. Future research is needed to examine and compare the explanatory

power of each of these mechanisms to determine the underlying causes.

Finally, given past research linking both positive and negative emotion globalizing to a maladaptive psychological profile (Willroth et al., 2020), the lower levels of negative emotion globalizing in older adults can be interpreted as an age-related advantage. It should be noted, however, that the present analyses did not test the associations between emotion globalizing and well-being. Future research should aim to 1) replicate previous findings linking emotion globalizing to a maladaptive psychological profile, 2) extend this work to examine the associations of stressor-related emotion globalizing with psychological well-being, 3) examine the consequences of both types of emotion globalizing for psychological health, and 4) examine whether any of these associations are moderated by age, such that they may be more or less pertinent for older, relative to younger, people.

#### Conclusion

Despite the relative stability of the objective conditions of our lives from day to day, daily life is often described as an emotional rollercoaster. The present studies sought to extend emotion globalizing research by examining age differences in emotion globalizing across several boundary conditions (i.e., current vs. stressor-related emotions, life satisfaction vs. day satisfaction) in two community-dwelling adult samples. The results revealed that, relative to younger adults, older adults exhibited less negative emotion globalizing and negative stressorrelated emotion globalizing. No age differences were found in positive emotion globalizing, positive stressor-related emotion globalizing, or the associations between stressor-related emotions and day satisfaction. These findings provide important insights on emotion globalizing and contribute to theories of emotional and lifespan development.

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## Table 1.

	Study 1				Study 2				
	0	verall	Younger	Older	0	verall	Younger	Older	
	( <i>N</i> = 133)		( <i>n</i> = 69)	( <i>n</i> = 64)	( <i>N</i> = 137)		( <i>n</i> =72)	( <i>n</i> = 65)	
Constructs	Range	Mean (SD)	Mean (SD)	Mean (SD)	Range	Mean (SD)	Mean (SD)	Mean (SD)	
Age	23 - 79	45.12 (17.62)	30.55 (5.64)	63.66 (6.24)	18 - 95	47.44 (26.59)	22.83 (3.96)	74.69 (7.01)	
Current emotions									
Positive	1.50 - 5.75	3.34 (0.67)	3.32 (0.73)	3.38 (0.60)	-	-	-	-	
Negative	1.01 - 4.30	1.92 (0.67)	2.03 (0.66)	1.79 (0.67)	-	-	-	-	
Stressor-related emotions									
Positive	1.19 - 5.03	2.51 (0.64)	2.42 (0.58)	2.60 (0.68)	1.07 - 5.57	2.63 (0.87)	2.68 (0.87)	2.57 (0.86)	
Negative	1.73 – 5.97	3.55 (0.82)	3.55 (0.82)	3.55 (0.83)	1.05 - 5.07	2.30 (0.84)	2.65 (0.85)	1.91 (0.64)	
Daily Satisfaction									
Life satisfaction	1.02 - 7.00	4.69 (1.35)	4.78 (1.32)	4.59 (1.39)	-	-	-	-	
Day satisfaction	-	-	-	-	1.33 - 7.00	4.45 (1.24)	4.10 (1.02)	4.84 (1.35)	

# Descriptive Statistics of Study Variables in Study 1 and 2

## Table 2.

## Results from Study 1 (N = 133; Models 1a and 1b) and Study 2 (N = 137; Model 2)

	Unadjusted				Adjusted for Mean Levels of Satisfaction			
	Positive Emotions		Negative Emotions		Positive Emotions		Negative Emotions	
	B (SE)	T Ratio	B (SE)	T Ratio	B (SE)	T Ratio	B (SE)	T Ratio
Model 1a Association between Current Emotions and Life Satisfaction (Emotion Globalizing)								
1. Levels								
Life satisfaction	4.69 (0.12)	39.96**	4.69 (0.12)	39.95**	4.69 (0.11)	42.16**	4.69 (0.10)	44.68**
Association	0.20 (0.02)	9.26**	0.21 (0.02)	8.86**	0.20 (0.02)	9.22**	0.21 (0.03)	8.01**
2. Age Differences								
Life satisfaction	-0.18 (0.24)	-0.79	-0.18 (0.24)	-0.78	-0.23 (0.22)	-1.01	-0.41 (0.21)	-1.94
Association	-0.02 (0.04)	-0.49	-0.14 (0.05)	-2.90**	-0.02 (0.04)	-0.46	-0.14 (0.05)	-2.92**
Model 1b	Association between Stressor-Related Emotions and Life Satisfaction (Stressor-Related Emotion Globalizing)						balizing)	
1. Levels								
Life satisfaction	4.67 (0.12)	39.90**	4.67 (0.12)	39.90**	4.67 (0.11)	40.78**	4.67 (0.10)	46.78**
Association	0.08 (0.02)	3.84**	0.10 (0.02)	5.08**	0.08 (0.02)	3.82**	0.10 (0.02)	4.98**
2. Age Differences								
Life satisfaction	-0.19 (0.23)	-0.79	-0.19 (0.23)	-0.79	-0.27 (0.23)	-1.20	-0.18 (0.20)	-0.91
Association	-0.02 (0.04)	-0.39	-0.13 (0.04)	-3.34**	-0.01 (0.05)	-0.33	-0.13 (0.04)	-3.32**
Model 2         Association between Stressor-Related Emotions and Day Satisfaction					action			
1. Levels								
Day satisfaction	4.43 (0.11)	42.07**	4.43 (0.11)	41.99**	4.43 (0.10)	44.11**	4.43 (0.09)	48.39**
Association	0.51 (0.05)	10.63**	0.61 (0.06)	10.71**	0.50 (0.05)	9.89**	0.65 (0.06)	10.51**
2. Age Differences								
Day satisfaction	0.70 (0.20)	3.47**	0.70 (0.20)	3.46**	0.75 (0.19)	3.93**	0.20 (0.20)	0.97
Association	-0.09 (0.09)	-0.89	-0.03 (0.12)	-0.25	-0.09 (0.10)	-0.94	-0.10 (0.13)	-0.76

\*\* p < .01

## Table 3.

# Summary of Findings by Boundary Condition

Construct	Emotion globalizing	Stressor-related emotion	Association between stressor-related		
		globalizing	emotions and day satisfaction		
Emotion Type	Current positive and negative emotions	Stressor-related positive and negative emotions	Stressor-related positive and negative emotions		
Emotion Measure	Current emotions at the end of day	Emotions after day's most stressful event	Emotions after day's most stressful event		
Satisfaction Measure	Life satisfaction	Life satisfaction	Day satisfaction		
Results	Study 1	Study 1	Study 2		
	Model 1a	Model 1b	Model 2		
Findings					
1. Average levels $> 0$	Positive: Yes $(B = .20)$	Positive: Yes $(B = .08)$	Positive: Yes $(B = .49)$		
	Negative: Yes $(B = .21)$	Negative: Yes $(B = .10)$	Negative: Yes $(B = .65)$		
2. Individual differences	Positive: Yes ( $\tau = 0.14$ )	Positive: Yes ( $\tau = 0.11$ )	Positive: Yes ( $\tau = 0.25$ )		
	Negative: Yes ( $\tau = 0.19$ )	Negative: Yes ( $\tau = 0.14$ )	Negative: Yes ( $\tau = 0.33$ )		
3. Age differences	Positive: No $(B =02)$	Positive: No $(B =01)$	Positive: No $(B =09)$		
-	Negative: Yes $(B =14)$	Negative: Yes $(B =13)$	Negative: No $(B =10)$		