



Losing control: Comparing the role of personality during two types of stressful life experiences

Kate Sweeny^{a,*}, Jennifer L. Howell^b, Victor W. Kwan^a

^a Department of Psychology, University of California, Riverside, CA 92521, United States

^b Department of Psychology, University of California, Merced, CA 95343, United States



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ABSTRACT

We compared the role of personality (neuroticism, conscientiousness, and dispositional optimism) during stressful preparation and waiting periods. Study 1 compared the role of personality in the experience of undergraduate students ($N = 120$) preparing for and awaiting their grade on a midterm exam in a 1-week longitudinal study. Study 2 extended this investigation to a sample of law school graduates ($N = 201$) taking the bar exam in a 4-month longitudinal study. Across studies, multilevel models nesting stressor phase (preparing vs. waiting) within person revealed that neuroticism was tied more strongly to negative emotions when preparing than when waiting. Our findings suggest that stressful experiences that confer a degree of control may enhance the role of emotion-relevant traits on responses to such stressors.

Personality plays a robust role in how people respond to life's challenges. For example, a recent study found that people higher in openness, conscientiousness, extraversion, and emotional stability were less emotionally reactive to stressful events (Leger, Charles, Turiano & Almeida, 2016). Beyond these "main effects" of personality on reactions to stress, the importance of personality might vary depending on the nature of the stressor people face. In the present studies, we compared the role of personality across the course of a stressful experience: a period of preparation prior to two consequential exams (a student midterm and the California bar exam) and the period following those exams spent awaiting the results.

We focus on three traits: neuroticism, conscientiousness, and dispositional optimism. Neuroticism is definitionally tied to negative emotional experiences (John & Srivastava, 1999) and has clear relevance to an investigation addressing how personality and emotional responses are intertwined. People higher in neuroticism experience stressors more frequently and are more reactive to those stressors when they arise (Bolger & Schilling, 1991), and they are more likely to perceive stressful experiences as threatening rather than challenging (Schneider, Rench, Lyons & Riffle, 2012).

Given that our studies examine academic and professional performance contexts, we anticipated that people would likely experience these stressors differently depending on their level of self-discipline and achievement motivation, qualities that help define conscientiousness (John & Srivastava, 1999). In fact, some studies have focused on the

beneficial ways conscientious people cope with stress, as in a study that found that people higher in conscientiousness reported more positive emotions in the face of a stressor due in part to their use of more problem-focused coping strategies (Bartley & Roesch, 2011).

Finally, dispositional optimism is reliably associated with greater well-being in the face of stress (Carver, Scheier & Segerstrom, 2010) and has particular relevance to stress about one's uncertain future, directing people toward either upbeat optimism or gloomy pessimism. We examine the role of these three traits in people's emotional reaction to a stressor and examine the moderating role of control over the stressor in these reactions.

1. The mixed blessing of control

Many researchers would argue that control is essential for well-being. Taylor and Brown (1988) famously presented evidence that even illusions of control are associated with enhanced well-being. Consistent with this notion, self-determination theory argues that a sense of autonomy, or control over one's behavior, is crucial for optimal functioning (Ryan & Deci, 2000). At an individual difference level, people who see themselves as in control of most outcomes (i.e., an internal locus of control) generally fare better than do people who see themselves as victims of external forces (i.e., an external locus of control; Findley & Cooper, 1983; Strudler Wallston & Wallston, 1978). Of course, control also increases one's responsibility for success or failure,

* Corresponding author.

E-mail addresses: ksweeny@ucr.edu (K. Sweeny), howell@ucmerced.edu (J.L. Howell), vkwan001@ucr.edu (V.W. Kwan).

hampering the ability to blame bad luck, fate, or other people if one falls short.

We raise the issue of control because many stressful life experiences entail periods of both high and low control. In some cases, the stressor may vacillate between these two states. For instance, many chronic illnesses fluctuate between periods of active treatment-seeking and periods when one is waiting to see if the treatment works. Similarly, major performances, like admissions and licensing exams, job interviews, and competitions often require a process of preparation, during which people have some degree of control over their fate, followed by a period of uncertainty over how their fate will unfold. For example, people prepare for an exam and then await their grade; they prepare for and then await the outcome of a job interview; and they submit manuscripts for peer review and then await reviewers' feedback.

Although these two phases of a stressful event, hereafter referred to as *preparation* and *waiting* (Sweeny & Krizan, 2013), are similar in many ways within a given context, they also differ in the degree of control people have over their outcome. That is, control over one's outcome typically disappears once the performance is over. We suspect that the importance of personality in determining how people respond to a stressor may vary as a function of control. Specifically, the role of personality in predicting emotional reactions to stress may vary between situations that confer primary control (i.e., in which people can alter their objective fate, as they can during preparation periods) and situations that confer only secondary control (i.e., when people can only alter how they adapt to or plan for their fate, as during the waiting period and beyond; see Heckhausen & Schulz, 1995).

If a particular trait predicts emotions during stressful situations via primary control (i.e., by directing efforts to alter one's objective fate), we would anticipate that personality would be more strongly linked to emotions during a preparation phase (which uniquely confers opportunities for primary control) than during a waiting phase. If a particular trait predicts emotions via secondary control (i.e., by directing efforts to adapt to or plan for one's fate), we would anticipate that personality would be equally linked to emotions during both preparation and waiting, which each confer opportunities for secondary control (see Folkman, 1984, for similar reasoning).

To illustrate, consider the role of dispositional optimism during stressful periods. If optimism promotes well-being primarily by motivating people to take action to ensure a good outcome, we would anticipate that optimism would be most strongly linked to emotions during preparation periods when such efforts are relevant. If instead optimism promotes well-being primarily by allowing people to see silver linings in even the most negative outcome (thus preemptively adapting to one's uncertain future), we would anticipate that optimism would be linked to emotions during both preparation and waiting periods, as this type of coping strategy is useful regardless of whether one has control over the future.

2. Overview and hypotheses

The goal of the current investigation was to examine the role of personality, namely neuroticism, conscientiousness, and dispositional optimism, in predicting emotions across stressful life events as they evolved from a preparation period into a waiting period. We examined this question in two studies. Study 1 used a daily diary method to assess emotional responses among undergraduate students across one week following a midterm exam as they awaited their grade. Study 2 used bi-weekly online surveys to assess emotional responses among law graduates across four months after they took the California bar exam as they awaited their results. Similar methods have been successfully used to study these populations (Shrout, Herman, & Bolger, 2006; Thompson & Bolger, 1999). We tested competing hypotheses: A given trait could have a stronger effect during preparation than waiting (i.e., if primary control is a primary avenue by which the trait influences emotions), or a given trait could exert equal influence during preparation and waiting

(i.e., if secondary control is a primary avenue by which the trait influences emotions).¹

3. Study 1

3.1. Participants

Undergraduate students ($N = 120$; 68% women; 17% White, 40% Asian or Pacific Islander, 36% Latinx, 2% Black or African-American, 5% multiple/other) were recruited in a psychology course for a study about their experience with a midterm exam. All students in the course were invited to participate; the sample size was thus limited by the size of the course.² Participants received extra credit in the course if they participated (students could complete an alternative assignment for extra credit if they did not wish to participate).

3.2. Procedure

Participants completed the first survey two weeks before their first midterm exam in the course ($M = 10$ days pre-exam, range 0–14 days). After the exam, participants completed four surveys approximately once a day as they waited for their instructor to post grades online. After the instructor posted grades, participants completed a final questionnaire within 24 h after learning their grade ($M = 84.59\%$, $SD = 12.56\%$). For the purpose of our analyses, we focus on the first survey (*preparation*) and the final waiting survey, completed at the “moment of truth” (just prior to checking one's grade; *waiting*). We chose only to focus on one time point in the waiting period for two reasons. First, we only had one survey in the preparation phase and did not want to have differential specification of our variables between preparation and waiting. Second, the moment of truth is typically considered the peak experience of waiting (see Sweeny, 2018). Importantly, the analyses and results presented here are substantively identical when using different measurement points during the wait. Of the sample that completed the first questionnaire (preparing phase), 93% completed the relevant waiting survey. Full materials are available at <https://osf.io/fuh5t/>.

3.3. Measures

3.3.1. Personality

Participants completed measures of personality in the first survey. Participants completed the conscientiousness (9 items; $M = 3.62$, $SD = 0.63$, $\alpha = 0.81$) and neuroticism subscales (8 items; $M = 3.33$, $SD = 0.70$, $\alpha = 0.78$) of the Big Five Inventory (John & Srivastava, 1999) and the Life Orientation Test-Revised (minus the filler

¹ The analyses presented here are secondary analyses within the datasets and were not preregistered. Participants did not provide consent for data to be posted publicly, but the dataset is available by request.

² In both studies, we recruited as many people as possible for our samples. Because this is the first inquiry of which we are aware to examine a multilevel interaction of different phases of a stressor (within-person) with a continuous personality trait (between-persons), we did not have an estimate of the anticipated size of the effects, the standard errors, or the interclass correlation upon which to base a simulation for power analysis. Even if we had, power analyses would not have decided our sample size, and consistent with expert recommendations, we do not feel comfortable conducting a post-hoc power analysis, which are inherently flawed (Gelman, 2018). Nevertheless, because the test was within-subjects, our level-2 sample exceeded most recommendations to detect small-to-medium effects of an independent level-1/level-2 interactions at $1-B = .80$ and $\alpha = .05$, even with a moderate ICC (i.e., .30; see Maas & Hox, 2005). Of course, we were likely powered below $1-B = .80$ to detect all three interaction effects, given the possibility of multicollinearity. As such, we recommend readers attend to our results keeping our somewhat modest sample sizes in mind.

Table 1
Bivariate correlations between study variables.

	Neuroticism	Optimism	Preparing: Negative emotion	Preparing: Positive emotion	Waiting: Negative emotion	Waiting: Positive emotion
Study 1						
Conscientiousness	−0.26**	.36**	−0.29**	.30**	−0.06	.11
Neuroticism		−0.36**	.52**	−0.43**	.18*	−0.27**
Optimism			−0.34**	.40**	−0.21*	.27**
Preparing:						
Negative emotion				−0.41**	.49**	−0.28**
Positive emotion					−0.22*	.60**
Waiting:						
Negative emotion						−0.42**
Study 2						
Conscientiousness	−0.19**	.26**	−0.22**	.05	−0.19*	.11
Neuroticism		−0.47**	.54**	−0.25**	.24**	−0.17*
Optimism			−0.37**	.23**	−0.27**	.20**
Preparing:						
Negative emotion				−0.38**	.47**	−0.05
Positive emotion					−0.25**	.41**
Waiting:						
Negative emotion						−0.39**

Note: ** $p < .01$, * $p < .05$, + $p < .10$.

items) to assess dispositional optimism (6 items; Scheier, Carver & Bridges, 1994; for all, 1 = strongly disagree, 5 = strongly agree; $M = 3.33$, $SD = 0.70$, $\alpha = 0.78$).

3.3.2. Emotions

In each survey, participants reported state positive emotions (to what extent are you currently feeling...inspired, relieved, grateful, happy, content, at peace; $M_{overall} = 2.93$, $SD_{overall} = .77$, as across time points $> .86$) and negative emotions (hostile, upset, ashamed, afraid, disappointed, regretful, depressed, discouraged, angry; for all, 1 = very slightly or not at all, 5 = extremely; $M_{overall} = 1.67$, $SD_{overall} = .67$, as across time points $> .91$). To develop this measure, we adapted the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) to include a broader range of emotions (including low-arousal emotions and emotions specific to our interests, e.g., relieved, disappointed).

3.4. Results

Table 1 presents bivariate correlations between all study variables. Table 2 presents the results of multilevel models with phase ($-0.5 =$ preparing, $0.5 =$ waiting) nested within individuals, predicting negative and positive emotions from phase, the main effect of each grand-mean centered trait, and the interaction between each centered trait and phase, controlling for midterm grade (centered). The intercepts, therefore, represent the average emotion score for the average participant across both periods. Analyses were conducted in SAS 9.4 using restricted maximum likelihood in PROC MIXED.

For negative emotion, results showed a main effect of phase, such that negative emotion was higher during preparation than waiting, and main effects of neuroticism and dispositional optimism, such that participants higher in neuroticism and lower in dispositional optimism reported more negative emotion in general. Conscientiousness was not related to negative emotion.

Central to our competing hypotheses, we found an interaction between phase and neuroticism. Table 3 reports the simple effects of each personality trait on negative emotion and positive emotion, controlling for midterm grade, separately for preparing and waiting. As this table reveals, neuroticism more strongly predicted negative emotion during preparation, $b = 0.58$, $se = 0.10$, $p < .0001$, than during waiting, $b = 0.22$, $se = 0.10$, $p = .02$. Neither conscientiousness nor dispositional optimism significantly interacted with phase to predict negative emotion.

For positive emotion, the second results column in Table 2, a main

Table 2
Results from multilevel models linking personality to positive and negative emotions.

	Negative Emotion <i>b</i> (<i>se</i>)	Positive Emotion <i>b</i> (<i>se</i>)
Study 1		
Intercept	1.64 (0.05)**	2.83 (0.06)**
Phase ^a	−0.36 (0.07)**	−0.58 (0.08)**
Conscientiousness	−0.10 (0.09)	.23 (0.10)*
Neuroticism	.40 (0.08)**	−0.36 (0.09)**
Dispositional optimism	−0.24 (0.09)**	.24 (0.10)*
Conscientiousness x Phase	.14 (0.12)	−0.02 (0.13)
Neuroticism x Phase	−0.36 (0.11)**	.20 (0.12)
Optimism x Phase	−0.10 (0.12)	−0.16 (0.12)
Midterm grade	−0.002 (0.004)	.005 (0.005)
Study 2		
Intercept	2.26 (0.05)**	2.54 (0.05)**
Phase ^a	−0.23 (0.07)**	−0.09 (0.06)
Conscientiousness	−0.16 (0.08) ⁺	.01 (0.08)
Neuroticism	.39 (0.07)**	−0.16 (0.07)*
Dispositional optimism	−0.24 (0.09)*	.20 (0.09)*
Conscientiousness x Phase	.01 (0.11)	.13 (0.10)
Neuroticism x Phase	−0.42 (0.10)**	.09 (0.09)
Dispositional optimism x Phase	−0.07 (0.13)	−0.04 (0.12)
Exam outcome ^b	.32 (0.14)*	−0.14 (0.13)

Note: ** $p < .01$, * $p < .05$, + $p < .10$.

^a $-0.5 =$ preparing, $+0.5 =$ waiting.

^b 0 = pass, 1 = fail. Personality measures were grand-mean centered.

effect of phase revealed that, like negative emotion, positive emotion was higher during preparation than waiting. Main effects of all three traits also emerged, such that participants higher in conscientiousness, lower in neuroticism, and higher in dispositional optimism reported greater positive emotion.

Similar to negative emotion, we found an interaction between phase and neuroticism for positive emotion, but it fell below traditional standards for statistical significance. As Table 3 shows, neuroticism related somewhat more negatively to positive emotion during preparation, $b = -0.45$, $se = 0.11$, $p < .0001$, than during waiting, $b = -0.26$, $se = 0.11$, $p = .02$. Neither conscientiousness nor dispositional optimism significantly (or near-significantly) interacted with phase to predict positive emotion.³

³ We also asked participants about the importance of the midterm exam with two items (“It is important to me that I do well on my upcoming midterm”; “Doing well on my upcoming midterm is important to my career plans”). The

Table 3
Simple effects of personality on negative and positive emotions.

		Preparing <i>b</i> [CI _{95%}]	Waiting <i>b</i> [CI _{95%}]
Study 1			
Conscientiousness	Positive emotion	0.23 [−0.01, 0.47]	0.22 [−0.02, 0.46]
	Negative emotion	−0.17 [−0.38, 0.04]	−0.04 [−0.25, 0.18]
Neuroticism	Positive emotion	−0.45 [−0.67, −0.23]	−0.26 [−0.47, −0.04]
	Negative emotion	0.58 [0.39, 0.77]	0.22 [0.03, 0.41]
Optimism	Positive emotion	0.32 [0.09, 0.54]	0.16 [−0.69, 0.39]
	Negative emotion	−0.20 [−0.40, 0.002]	−0.29 [−0.49, −0.09]
Study 2			
Conscientiousness	Positive emotion	−0.06 [−0.24, 0.12]	0.07 [−0.11, 0.25]
	Negative emotion	−0.16 [−0.35, 0.03]	−0.15 [−0.34, 0.04]
Neuroticism	Positive emotion	−0.21 [−0.37, −0.04]	−0.12 [−0.28, 0.05]
	Negative emotion	0.60 [0.42, 0.77]	0.17 [−0.003, 0.35]
Optimism	Positive emotion	0.22 [0.01, 0.43]	0.19 [−0.02, 0.39]
	Negative emotion	−0.21 [−0.43, 0.02]	−0.28 [−0.50, −0.05]

Note: If bolded, the 95% CI for the estimate does not include 0 (i.e., $p < .05$). Analyses control for exam grade (Study 1) or exam outcome (Study 2).

4. Study 2

Study 1 provided some support for primary control as the mechanism between neuroticism and emotional responses to stress, such that neuroticism was more strongly linked to negative and somewhat more strongly linked to positive emotion during a preparatory period than during a waiting period. Our findings for conscientiousness and dispositional optimism point to the possibility that secondary control is a mechanism between these traits and emotional responses to stress, although null results (in this case, for the interaction effects) are difficult to interpret with confidence. Study 2 provided a conceptual replication of Study 1 in a more significant and stressful context: the bar exam.

4.1. Participants

Law graduates ($N = 203$ for relevant analyses; 61% female; 67% White, 25% Asian or Pacific Islander, 7% Latinx, 1% Black or African-American) taking the California bar exam in July 2013 were recruited for a longitudinal study via student bar associations, alumni offices, and relevant listservs. We made all efforts to recruit as large of a sample as possible prior to the bar exam date. Participants received an Amazon gift card of up to \$100 for participating, depending on how many surveys they completed (\$10/survey).

4.2. Procedure

Participants were recruited in the two months prior to taking the bar exam and completed the first survey prior to the start of the exam ($M = 14$ days, range 0–16 days), while participants were still studying. Participants then completed surveys approximately once every two weeks during the four-month wait for bar exam results, a total of eight surveys. After results were posted (pass/fail decisions are posted online), participants completed a final questionnaire within 24 h after learning their bar exam result. For the purpose of our analyses, and consistent with Study 1, we focus on the first survey (*preparing*) and the final waiting survey, completed at the “moment of truth” (within 24 h prior to learning one’s result; *waiting*). As in Study 1, results are substantively identical when comparing preparation with each of the other waiting time points. Of the sample that completed the first questionnaire (preparing phase), 92% completed the relevant waiting

survey. Full materials are available at <https://osf.io/d35ap/>.

4.3. Measures

Participants completed the same measures of conscientiousness ($M = 3.72$, $SD = .65$, $\alpha = .81$), neuroticism ($M = 2.94$, $SD = .75$, $\alpha = .83$), dispositional optimism ($M = 3.59$, $SD = .60$, $\alpha = .77$), positive emotions ($M_{overall} = 2.84$, $SD_{overall} = .71$, as across time points $> .83$), and negative emotions ($M_{overall} = 2.15$, $SD_{overall} = .80$, as across time points $> .90$) as in Study 1.

4.4. Results

Bivariate correlations among study variables are in Table 1, and the results of our analyses appear in Table 2. As in Study 1, results showed a main effect of phase on negative emotion, such that negative emotion was higher during preparation than waiting. Main effects of all three traits also emerged, such that participants lower in conscientiousness, higher in neuroticism, and lower in dispositional optimism (marginally in the latter case) reported more negative emotion.

As in Study 1, we also found an interaction between phase and neuroticism. Table 3 again shows the simple effects of each personality trait on negative emotion and positive emotion, controlling for exam outcome, separately for preparing and waiting. These findings revealed that neuroticism more strongly predicted negative emotion during preparation, $b = .60$, $se = .09$, $p < .0001$, than during waiting, $b = .17$, $se = 0.09$, $p = .01$. As in Study 1, neither conscientiousness nor dispositional optimism significantly interacted with phase to predict negative emotion.

For positive emotion, results showed main effects of neuroticism and dispositional optimism, such that participants lower in neuroticism and higher in dispositional optimism reported greater positive emotion. In contrast to Study 1, none of the traits interacted with phase to predict positive emotion.⁴

5. General discussion

Two studies examined whether the relationship between personality and emotion might differ as the controllability of a stressor changes over time. Across both studies, neuroticism predicted emotion,

(footnote continued)

mean of participants’ responses was quite high (4.5 out of 5), and controlling for perceived importance in the multilevel models did not alter the pattern of findings.

⁴ As in Study 1, we asked participants about the importance of the bar exam with two items (“It is important to me that I do well on the bar exam”; “Doing well on my upcoming bar exam is important to my career plans”). The mean of participants’ responses was quite high (4.7 out of 5), and controlling for perceived importance in the multilevel models did not alter the pattern of findings.

particularly negative emotion, more in the preparation phase than in the waiting phase. However, we did not find significant differences between the preparation and waiting phases in the relationships between conscientiousness or dispositional optimism and emotion. These findings point to the possibility that for neuroticism, the link between personality and (negative) emotional reactions to stress may be driven more by primary control mechanisms (i.e., efforts to change one's objective outcomes) than secondary control mechanisms (i.e., efforts to plan for or adapt to one's objective outcomes). In contrast, the findings are consistent with the possibility that conscientiousness and dispositional optimism may affect emotional responses to stressful situations via secondary control mechanisms, which are relevant during both preparation and waiting.

5.1. Implications

Our findings have two implications for theory regarding personality and stress. First, although neuroticism may predict emotionality while one has primary control over one's outcome, its effects appear to be attenuated in situations when one is left only with secondary control. It seems that the situation moderates whether neuroticism amplifies (or mitigates) emotional responses. In situations that confer primary control, like the period of preparation preceding an exam, neuroticism is predictably associated with negative emotionality in response to stress. By contrast, after people lose primary control over their outcome, as they do during waiting periods of the sort examined here, neuroticism becomes less influential. Instead, the situational lack of primary control seems to partially overpower neuroticism, leading those high and low in neuroticism to experience negative emotions at more similar levels. Of course, our studies were not designed to test the mechanisms of these links, and thus alternative explanations remain viable. For example, it may be that the stressor was more salient during the preparation period compared to the waiting period, and perhaps neuroticism exerts more influence over emotions in the face of a particularly salient stressor. Although inconclusive at this point, our findings can serve as a foundation for more nuanced investigations into the processes by which neuroticism exacerbates negative emotions during stressful life experiences.

A second contribution of the present work is to demonstrate that responses to the same stressor (the possibility of failing an exam) can shift over time. One particularly interesting finding that emerged in both studies was that the preparation phase was more emotionally extreme than the waiting phase. When people were preparing for their exam, they reported both more negative emotion and more positive emotion (although the positive emotion effect fell shy of traditional standards for statistical significance in Study 2). This pattern suggests that the experience of waiting might prompt a type of emotional numbing, perhaps similar to learned helplessness (Bandura, 2003; Hammack, Cooper & Lezak, 2012). Of course, evidence suggests that people are not entirely numb during this stressful experience; negative emotionality, anxiety, and worry rise toward the end of waiting periods (Sweeny & Andrews, 2014). Nonetheless, our findings suggest that preparation periods are relatively more emotional, combining moments of high stress with moments of satisfying progress, in contrast to the paralysis endemic to waiting.

5.2. Limitations and future directions

Four important limitations need to be addressed in future studies. First, although we offer theoretical and statistical reasons for the pattern of emotionality we found for neuroticism, future research should expand these findings to other personality traits by both investigating other traits that are directly related to emotion (e.g., the positive-emotionality component of extraversion; Naragon-Gainey, Watson & Markon, 2009) and examining indirect relationships between traits and emotions with greater statistical power.

A second limitation of the present study is that we only examined one type of stressor: academic performance. This context was useful to provide a clear delineation of preparation and waiting phases and clear change in the controllability of the outcome. Moreover, the fact that we largely replicated the results that we observed in undergraduates in a group of law graduates taking their bar exam lends credence to the external validity of these findings for other important waiting periods. Nevertheless, future studies should examine the extent to which the present findings generalize to other periods of preparation and waiting (e.g., applying for jobs, bidding on a home, adopting a child), as well as other populations, cultural contexts, or measures.

Third, some might be concerned that we did not directly assess perceptions of control during the two phases. Given that people necessarily had primary control over their outcome before the exam (i.e., they could study and prepare) and lacked primary control after the exam (i.e., they could not do anything to change their score), we inferred from the circumstances that participants felt greater control over their exam during the preparatory phase than during the waiting phase. We also included a measure of perceived control during the preparation phase in each study, when perceptions of control might viably vary across participants. In Study 1, over 90% of participants indicated a level of control over their outcome above the midpoint on a 5-point scale ($M = 3.9$), and in Study 2, over 80% of participants indicated a level of control above the midpoint ($M = 3.5$). Given that participants could do nothing to alter their exam performance in either study once they entered the waiting phase, it seems reasonable to assume that perceived control over their outcome dropped considerably (perhaps to zero) at this point. Nonetheless, future studies can provide a more fine-grained test of the role of control in the link between personality and emotional responses to stress by manipulating and measuring the controllability of a given outcome.

Finally, the present study offers only an initial examination of the relationship between personality and stress while awaiting uncertain news. Future studies can examine other individual differences (e.g., locus of control) as well as potential moderators of the present effects. For instance, research suggests that expectation management strategies like bracing for the worst or embracing optimism can change the nature of the wait (e.g., Sweeny, Carroll, & Shepperd, 2006). It is possible that these strategies confer a sense of predictability over an unpredictable outcome ("I'm sure I failed" or "I'm sure it will turn out fine") and therefore would moderate the observed interaction between neuroticism and stressor phase. Examining people's use of coping strategies will better elucidate the process by which individual differences influence reactions across the time course of a stressor, as well as the factors that exacerbate or undermine these reactions.

6. Conclusion

The adage "there are no atheists in foxholes" suggests that extreme stress and fear can provoke people to believe in a higher power, regardless of their prior disposition. Similarly, our results suggest that the foxhole of a stressful waiting period, marked by vexing uncertainty and a frustrating lack of control, may render the importance of one's dispositional tendency toward or against negative emotion relatively inconsequential.

Declarations of Competing Interest

None.

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