

What Triggers Anger in Everyday Life? Links to the Intensity, Control, and Regulation of These Emotions, and Personality Traits

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Abstract

Why do people experience anger? Most of our knowledge on anger-triggering events is based on the study of reactions at a single time point in a person's life. Little research has examined how people experience anger in their daily life over time. In this study, we conducted a comprehensive examination of the situational determinants of anger over the course of 3 weeks. Using daily diary methodology, people ($N = 173$; 2,342 anger episodes) reported their most intense daily anger and, with an open-ended format, described the trigger. Participants also answered questions on anger intensity, control, and regulatory strategies, along with baseline personality trait measures. Using an iterative coding system, five anger trigger categories emerged: other people, psychological and physical distress, intrapersonal demands, environment, and diffuse/undifferentiated/unknown. Compared with other triggers, when anger was provoked by other people or when the source was unknown, there was a stronger positive association with anger intensity and lack of control. Personality traits (i.e., anger, mindfulness, psychological need satisfaction, the Big Five) showed few links to the experience and regulation of daily anger. Although aversive events often spur anger, the correlates and consequences of anger differ depending on the source of aversion; personality traits offer minimal value in predicting anger in daily life.

In the negative emotion family, anger is an odd duck. The causes of and motivational tendencies activated by anger tend to be distinct from other negative emotions. For instance, pro-social thoughts, feelings, and behaviors are inversely related to anger, whereas no consistent association has been found with anxiety and sadness (Watson & Clark, 1992). Although negatively valenced emotions are typically linked to an avoidance of threatening stimuli (e.g., Mansell, Harvey, Watkins, & Shafran, 2008), anger often initiates an approach motivational tendency that can be observed in neural, cardiovascular, and behavioral patterns (Carver & Harmon-Jones, 2009). In this study, we explored the personally significant events that determine the presence of anger.

Despite systematic reviews on the antecedents or triggers of anger (Berkowitz, 1993a), researchers have relied on a limited range of methodologies. This includes how a person responds to a laboratory provocation or how people endorsing chronically high levels of anger differ from their peers in terms of what upsets them (using personality inventories). There are exceptions where scientists gathered information from people about a

recent, single anger episode (Averill, 1983; Kassinove, Sukhodolsky, Tsytsarev, & Solovyova, 1997)—reducing retrospective bias and the loss of information from aggregating across a lifetime of angry moments.

The current daily diary study builds on this work by providing the first comprehensive examination of anger as it occurs in people's daily life. Each day for 3 weeks, participants ($N = 186$) reported their most intense anger and then described the trigger. The anger narratives ($n = 2,237$) were then coded. Participants also reported their anger intensity, control, and emotion regulation responses.

What Triggers Anger?

From an evolutionary perspective, a person feels angry when it is difficult to attain an important goal because of an externally

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caused obstruction. For anger to occur, responsibility for an aversive experience must be attributed to someone or something (e.g., Frijda, 1986). Upon attributing the blame to another person, anger motivates a response to resolve the aversive event (Sell, Tooby, & Cosmides, 2009). But not all anger occurs in the interpersonal domain. Anger is useful because it prepares a person mentally, physiologically, and cognitively to manage any obstacles that interfere with the pursuit of important goals. Anger is neither healthy nor unhealthy—it depends on what you do with this experience and how anger is expressed. If anger is expressed in a way that is out of proportion with the current situation, such as verbal or physical aggression toward a colleague who borrowed your pencil without asking, this unjust attack can be deemed unhealthy.

Theorists contend that rather than just an appraisal of a given situation (e.g., blaming someone or something), the accompaniment of frustration is what primarily determines the presence and intensity of anger (Berkowitz & Harmon-Jones, 2004). Several researchers have identified anger that occurs in nonsocial contexts. For example, studies have shown that almost half of self-reported anger episodes do not involve any external agent (e.g., getting angry at one's mistakes; Ellsworth & Tong, 2006).

Anger can also be elicited by physical discomfort, such as a headache or arthritis (Berkowitz, 1993b; Hatch et al., 1992), which validates the claim that “pain is a direct and immediate cause of anger” (Izard, 1991, p. 237). Individuals may also feel angry at themselves for feeling anxious, feeling sad, or having unwanted thoughts or impulses (Kulik & Brown, 1979; Mikulincer, 1988). This sentiment resembles the psychological vulnerability termed *experiential avoidance* (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Anger may also arise from environmental sources, such as foul odors and extreme temperatures (Anderson & Anderson, 1998; Rotton, Barry, Frey, & Soler, 1978). Thus, there are precedents for exploring just how often anger is activated beyond the difficulties of navigating the social world.

Anger can also occur for unclear reasons. Without an identifiable source of anger, the “aversively generated anger may be too diffuse and even too weak to register decidedly on the aroused person's phenomenal field” (Berkowitz & Harmon-Jones, 2004, p. 115). While the source of anger may actually be diffuse, an alternative explanation could be that the person lacks the ability to adequately identify and classify what is being felt and, thus, the source and motivational tendencies activated by these feelings (e.g., Barrett, Gross, Christensen, & Benvenuto, 2001). A deficit in emotion differentiation ability influences the capacity of individuals to respond in a healthy manner to their own emotional states. Lack of emotion differentiation might thus lead to a *more* intense anger experience that is difficult to regulate (Pond et al., 2012). The proposed mechanisms for this effect include rudimentary emotion knowledge and restricted working memory capacity to effectively use this knowledge (Kashdan, Barrett, & McKnight, 2015).

In two studies where people were asked to report on a single, recent, intense anger episode (Averill, 1983; Kassinove et al.,

1997), the majority were triggered by another person's misdeeds or negligence (over 85% in Averill, 1983; approximately 80% in Kassinove et al., 1997). Remaining episode triggers included self-directed anger (approximately 15%), something an institution did (e.g., government; approximately 7%), or something else (approximately 6%); these numbers do not sum to 100% because people often endorse multiple causes for an episode. These results suggest that anger is mostly attributed to other people but also include other sources, such as frustration about the self or another entity.

Studying the Link Between Daily Anger and Personality Variables

We examined the situational determinants of anger in everyday life by asking people to report on anger episodes each day for 3 weeks. We gave participants an open-ended response format and had independent raters code the sources of each anger episode. This methodological approach reduces the selection bias of prior studies (where participants chose a single episode that might not characterize daily life or completed Likert ratings for various predetermined triggers) and increases reliability and generalizability. Essentially, we responded to the plea of other researchers (e.g., Rozin, 2001) for descriptive approaches to understand the emergence of anger instead of prematurely limiting our study to preexisting questions.

With the availability of multiple data points on anger episodes per person (from 10 to 21), we could investigate whether and how the source of anger influenced the subsequent intensity and reactions (e.g., aggression, calming attempts). By examining anger each day for weeks, we expected to find a greater frequency of anger episodes triggered by something other than another person (greater than 20%, a number derived from previously mentioned anger studies). Based on recent emotion differentiation and anger studies, we expected participants to endorse the most intense, difficult-to-control anger in response to diffuse or unclear sources.

By collecting baseline personality data, we were able to examine the convergence between dimensions of trait and daily anger. Our examination of these distinct methodologies has great potential for offering insight into whether trait measures of anger are sufficient in predicting what happens in everyday life. With other personality measures of the Big Five, mindfulness, emotion regulation tendencies, and the satisfaction of basic psychological needs (for autonomy, belonging, and competence), we explored how different types of people experience and respond differently to anger-triggering events. In terms of the broad Big Five dimensions, existing work suggests that individuals endorsing lower Agreeableness endorse greater tendencies to suppress anger and engage in verbal and physical aggression in response to anger (e.g., Jones, Miller, & Lynam, 2011; Martin et al., 1999). Agreeableness shows the most consistent, inverse relationship with anger experiences and healthy regulation, compared with the other Big Five personality traits (e.g., Miller,

Zeichner, & Wilson, 2012). Smaller effects have been found for Neuroticism and Conscientiousness, particularly outward, aggressive behaviors in response to anger (Jones et al., 2011). Nonetheless, almost all of this work has been conducted at the trait level. Thus, the hypotheses concerning Big Five personality traits and their link to daily anger experience and regulation can be considered a novel contribution to a large body of work.

Based on prior work, we hypothesized that individuals endorsing greater trait mindfulness would experience less difficulty controlling their anger and less aggressive reactions following anger-triggering events (e.g., Peter et al., in press). As for which dimensions of mindfulness (e.g., describing, observing; Baer, Smith, & Allen, 2004) are most relevant to understanding anger in daily life, to our knowledge, this is the first study on this topic. Similarly, despite theory and research on the satisfaction of basic psychological needs for autonomy, competence, and relatedness as core features of a fully functional person (Ryan & Deci, 2001), there is an absence of research on whether feeling autonomous, competent, and a strong sense of belonging in the world influences what leads to anger, the intensity of anger, and how people control and react to anger. As for habitual emotion regulation strategies, there is laboratory evidence to suggest that individuals who are more reliant on cognitive reappraisal are less reactive to anger-inducing events (e.g., Mauss, Cook, Cheng, & Gross, 2007; Memedovic, Grisham, Denson, & Moulds, 2010); while individuals who are more reliant on expressive suppression experience high cardiovascular reactivity, poor memory for events, and less satisfying experiences in response to upsetting events (John & Gross, 2004), the exact influence of this personality style on specific anger-inducing events remains unclear. The current study is one of the few studies on how these habitual emotion regulation strategies relate to what happens in response to anger-inducing events in people's naturalistic environment.

Merging qualitative and quantitative approaches, the goal of this work was to provide a comprehensive survey of anger in daily life, informing theoretical contributions on anger determinants. With the advent of individual difference measures in personality and daily life, this work can provide knowledge on the types of people who showcase greater risk for anger problems and greater resilience to anger-triggering events, where anger simply becomes useful information for successful navigation of the challenges in everyday life.

METHOD

Participants

Participants were 186 college students. Due to missing data at the person level (e.g., demographics), our final sample consisted of 173 participants (133 women; $M_{age} = 23.5$, $SD = 8.75$). The racial composition of participants was 57.8% Caucasian, 12.7% Latino/Hispanic, 12.1% Asian, 7.5% African American, 1.7% Middle Eastern, 1.2% Native American, and 6.9% who identified as other.

Procedure

Participants were recruited from the psychology department at a large mid-Atlantic university through an online portal seeking students to participate in a research study. After providing informed consent, participants completed a 1.5-hour introductory session during which they completed a series of self-report questionnaires and learned how to complete the daily questionnaires using a secure URL. Participants were compensated with research course credit and a raffle ticket for one of ten \$25 certificates.

Participants completed their daily surveys at the end of each day for 3 weeks. Researchers sent weekly reminder emails to participants emphasizing compliance with daily reports. On average, participants reported 20.75 days of data ($SD = 4.91$) and a minimum of 10 daily reports.

Measures

Daily Diary Measures

Anger Trigger. Participants answered the following nightly prompt: "What caused you the most anger TODAY? Briefly describe." They wrote short narrative responses. Responses were then analyzed and categorized according to their content (see the Results section). In response to this prompt about what caused the most anger on a particular day, participants were asked about the intensity of their anger, difficulty controlling anger, and reactions.

Anger Intensity, Control, and Reactions. Anger intensity was measured by asking how angry people feel on a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*extremely*). People were then asked how difficult it was to control their anger on a 7-point Likert scale ranging from 1 (*not difficult*) to 7 (*I lost control*). Reactions to each anger episode were measured with six items, each of them beginning with the following opening stem question: "What was your reaction to being angry?" For each item, they responded on a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*very much*). The six items captured suppression ("I boiled inside but did not show it"), verbal confrontation ("If someone annoyed me I told him/her how I felt"), verbal aggression ("I said nasty things today when I was upset"), physical aggression ("I did things like slam the door when I was upset"), regret ("To what extent do you regret something you did?"), and self-soothing ("When I became angry I tried to calm myself").

Trait Measures

Anger. The 38-item Multidimensional Anger Inventory (MAI; Siegel, 1986) measures several dimensions of anger. The Frequency subscale measures how often a person feels angry (e.g., "I tend to get angry more frequently than most people"), the Duration subscale assesses how long a person tends to stay angry (e.g., "When I get angry, I stay angry for hours"), and the Magnitude subscale measures intensity of anger (e.g., "I get so angry I feel like I might lose control"). Two subscales assess a

person's typical mode of expressing anger: The five-item Anger-In subscale measures the tendency to hold in anger and brood (e.g., "When I hide my anger from others, I think about it for a long time"), and the two-item Anger-Out subscale assesses the tendency to outwardly express anger (e.g., "When I am angry with someone, I let that person know"). The Hostile Outlook subscale measures a person's tendency to view the world with hostility and disapproval (e.g., "People can bother me just by being around"). The Range of Anger-Eliciting Situations subscale measures the degree to which a person feels angry across different situations (e.g., "I get angry when someone lets me down" and "I get angry when I am delayed"). Items are rated using a 5-point Likert scale ranging from 1 (*completely un-descriptive of me*) to 5 (*completely descriptive of me*).

Big Five Personality Traits. The 44-item Big Five Inventory (BFI; John & Srivastava, 1999) is an assessment of the Big Five taxonomy of personality traits: Extraversion (e.g., "talkative," "full of energy"), Agreeableness (e.g., "generally trusting," "likes to cooperate with others"), Conscientiousness (e.g., "makes plans and follows through with them," "does a thorough job"), Neuroticism (e.g., "worries a lot," "can be tense"), and Openness to Experience (e.g., "curious about many different things," "values artistic, aesthetic experience"). Items are rated on a 5-point Likert scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*).

Emotion Regulation. The 10-item Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) measures different ways a person tends to manage his or her emotions. The four-item Suppression subscale measures concealment or inhibition of emotional expression (e.g., "I control my emotions by not expressing them"). The six-item Reappraisal subscale measures an individual's tendency to reframe an event in order to change his or her emotional response to it (e.g., "When I want to feel less negative emotion, I change the way I'm thinking about the situation"). Items are rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Mindfulness. The 39-item Kentucky Inventory of Mindfulness Skills (KIMS; Baer et al., 2004) assesses four facets of mindfulness. The Observing subscale measures the degree to which individuals notice or attend to various internal phenomena (i.e., cognitions, bodily sensations) and external phenomena (i.e., smells, sounds; e.g., "I notice changes in my body, such as whether my breathing slows down or speeds up"). The Acting With Awareness subscale measures awareness of the present moment and full engagement in one's current activity (e.g., "When I do things, I get totally wrapped up in them and don't think about anything else"). The Accepting Without Judgment subscale measures nonjudgmental awareness and openness to experience a wide range of situations without trying to change, avoid, or escape them (e.g., "I tell myself that I shouldn't be feeling the way I'm feeling"—reverse scored). The Describing subscale measures the ability to describe, label, or notice phe-

nomena as they come by using words in a nonjudgmental way (e.g., "I'm good at finding the words to describe my feelings"). Items are rated on a 5-point Likert scale ranging from 1 (*never or very rarely true*) to 7 (*very often or always true*).

Satisfaction of Psychological Needs. The 21-item Basic Psychological Needs Scale (BPNS; Gagné, 2003) derives from self-determination theory (SDT; Ryan & Deci, 2000), which proposes that humans have three fundamental needs: autonomy, competence, and relatedness. The BPNS contains three subscales that measure the extent to which a person feels that each of these needs is fulfilled. The seven-item Autonomy subscale measures the degree to which a person feels his or her choices and activities are self-determined (e.g., "I feel like I can decide for myself how to live my life"), the six-item Competence subscale measures sense of efficacy in one's activities (e.g., "I often do not feel very capable"—reverse scored), and the eight-item Relatedness scale measures feelings of connectedness to others (e.g., "I really like the people I interact with"). Items are rated on a 7-point Likert scale ranging from 1 (*not true at all*) to 7 (*definitely true*).

Analytic Overview

The data were conceptualized as hierarchically organized, with anger episodes (Level 1) nested within persons (Level 2). Naturalistic data entry, such as daily diary research, increases the chance of missed data entry and thus increases the likelihood of missing data. We retained data from participants who completed a minimum of 10 days of data (100% of participants in the total sample). Analyses were conducted with a series of multilevel models using HLM software version 7.01 (Raudenbush, Bryk, Cheong, & Congdon, 2000), which uses a model-based procedure (maximum likelihood estimation) that provides robust estimates for data missing at random and corrects hypothesis tests accordingly (McKnight, McKnight, Sidani, & Figueredo, 2007).

RESULTS

Preliminary Global Analyses

Participants reported 4,735 total daily entries. Of these, 865 (18.3%) entries were missing data for anger episodes, leaving 3,870 total reported anger episodes. On average, participants reported 16.77 anger episodes over the course of the study.

Because participants were asked to report what made them angry each day, some participants entered a response (i.e., their data were not missing) but reported that they did not experience an episode of anger that day. Thus, such entries were excluded if participants reported an anger episode with a rating of anger intensity as 1 (*not at all*). A total of 1,528 entries were excluded based on these criteria, leaving a final total of 2,342 anger episodes. Descriptive data for daily anger intensity, control, and reactions are displayed in Table 1. The magnitude of the correlations in Table 1 provides evidence for substantial independence

Table 1 Bivariate Correlation Matrix of Anger Outcomes

Measure	Intensity	Control Difficulty	Suppression	Confrontation	Verbal Aggression	Physical Aggression	Regret	Self-Soothing
Intensity	1	—	—	—	—	—	—	—
Control difficult	.66*	1	—	—	—	—	—	—
Suppression	.34*	.23*	1	—	—	—	—	—
Confrontation	.26*	.29*	-.08**	1	—	—	—	—
Verbal aggression	.41*	.49*	.11**	.32**	1	—	—	—
Physical aggression	.28*	.38*	.11**	.23**	.45**	1	—	—
Regret	.33*	.41*	.15**	.18**	.35**	.24**	1	—
Self-soothing	.14*	.06*	.25**	.15**	.04	-.02	.07**	1
Mean	3.15	2.16	2.59	2.81	1.96	1.49	1.67	3.74
SD	1.64	1.49	1.78	1.98	1.58	1.21	1.19	2.00

Note. * $p \leq .01$.

Table 2 Means and Standard Errors for Anger Reactions by Anger Trigger

	A. Other People		B. Psychological/Physical Distress		C. Intrapersonal Demands		D. Environment		E. Diffuse/Undifferentiated	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Intensity of anger	3.36 ^{b,c,d}	0.07	2.82 ^{a,e}	0.17	2.60 ^{a,e}	0.12	2.78 ^{a,e}	0.15	3.53 ^{b,c,d}	0.24
Difficulty controlling anger	2.34 ^{b,c,d}	0.07	1.98 ^{a,e}	0.13	1.73 ^{a,e}	0.08	1.74 ^{a,e}	0.10	2.52 ^{b,c,d}	0.25
Suppression	2.75 ^{b,c,d}	0.09	2.41 ^a	0.17	2.21 ^a	0.12	2.22 ^{a,e}	0.13	2.78 ^d	0.29
Verbal confrontation	3.04 ^{c,d,e}	0.10	2.75 ^c	0.20	2.23 ^{a,b}	0.13	2.47 ^a	0.16	2.38 ^a	0.24
Verbal aggression	2.12 ^{b,c,d}	0.09	1.49 ^{a,e}	0.09	1.62 ^{a,e}	0.08	1.73 ^a	0.16	2.33 ^{b,c}	0.35
Physical aggression	1.54 ^b	0.07	1.28 ^{a,c}	0.07	1.46 ^b	0.08	1.39	0.10	1.42	0.13
Regret	1.67 ^{d,e}	0.05	1.89 ^{c,d}	0.15	1.59 ^{b,e}	0.07	1.44 ^{b,e}	0.10	2.13 ^{a,c,d}	0.19
Self-soothing	4.01 ^{b,c,d,e}	0.11	3.09 ^a	0.16	3.31 ^a	0.18	3.41 ^a	0.18	3.01 ^a	0.20

Note. Letters A through E represent the trigger category in each column. The presence of superscripts indicates that coefficients for each anger trigger category differ significantly from each other on that row's outcome. Boldfaced values represent the trigger with the largest number of significant differences compared with other trigger categories for each anger outcome variable.

among these constructs, with the exception of anger intensity and difficulty controlling anger, which showed an unsurprisingly strong positive correlation of .66.

Justifying Within-Person Analyses of Anger Episodes

Upon calculating intraclass correlation coefficients (ICC), the data suggest sufficient within-person variability to justify an examination of anger patterns across multiple episodes per person. Specifically, here are the ICCs for each daily variable: intensity of anger = .18, difficulty controlling anger = .18, suppression = .22, verbal confrontation = .30, verbal aggression = .21, physical aggression = .19, and self-soothing = .34. Associations between anger triggers and intensity, control, and reactions are reported in Table 2.

Anger Triggers and Daily Anger Intensity, Control, and Reactions

Coding Anger Categories. Our method of coding anger triggers was an iterative top-down (categories developed from prior

research and theory) and bottom-up (categories driven by the data) categorization process (see the online appendix for the coding manual). Four coders were trained to answer the question, "Who or what kind of situation made this person angry?" to categorize responses. Each response was assigned to one category and, if applicable, secondary categories. Specific labels used during initial rounds of coding (e.g., "significant other," "co-worker," "friend") were collapsed into broader groups (e.g., "other people").

From an initial list of 33 subcategories, we collapsed these data into the following five superordinate categories: other people (63.3%), psychological/physical distress (14.3%), intrapersonal demands (11.2%), environment (7.3%), and diffuse/undifferentiated (3.9%); see Table 3.

Other people included anger that was blamed on another person, a group of people, and all social interactions. *Psychological/physical distress* included anger derived from one's thoughts, feelings, and bodily sensations. *Intrapersonal demands* included anger attributed to personal tasks, activities, and obligations that people felt a need to accomplish (e.g., chores, personal mistakes). *Environment* included anger attributed to environmental factors (e.g., weather, technology

Table 3 Anger Trigger Categories, Definitions, Examples, Frequencies, and Percentages

Anger Trigger	Definition	Frequency	Percentage
Other people	Person/living being, group of people, or once-living person/being to blame for anger. Any social event. No face-to-face interaction required.	1,416	63.3
Psychological/physical distress	Internally derived thoughts, feelings, bodily sensations.	320	14.3
Intrapersonal demands	Nonsocial demands or obligations that need to be completed or accomplished.	250	11.2
Environment	Location where people can be and all of its nonliving components/possessions. Nonsocial situations that are blamed and are not directly related to distressing thoughts.	163	7.3
Diffuse/undifferentiated	Source of anger is unknown or anger is spread throughout other areas of life.	88	3.9
Total		2,237	

malfunctions). *Diffuse/undifferentiated* included vague sources of blame or an acknowledgment of an unknown source (e.g., life, nothing really, just annoyed).

Reliability was calculated using Cohen's kappa coefficient to measure the agreement between coders. All discrepancies between coders were resolved through discussions with the coders and first author. The average inter-rater reliability between the trained coders for total episodes was excellent ($k = .88$; separate categories ranged from .78 to .92).

Comparing Anger Triggers. Anger triggers were represented by five dummy-coded (0, 1) variables, one for each anger trigger category, entered simultaneously in each model. By removing the intercept, all five dummy-coded variables can be entered together and each intercept can be interpreted as the mean outcome score for each anger trigger (Nezlek, 2001). We examined the effects of each anger trigger on outcomes via procedures for comparing fixed effects (Bryk & Raudenbush, 1992, pp. 48–52). Chi-square results reference tests of the anger trigger categories against one another in terms of their mean levels on the outcome variable. In reporting our results, to increase readability, we use the word *more* to reflect a stronger association between the independent and dependent variables, and *less* to reflect a weaker association.

Outcome: Anger Intensity. Individuals reported more intense anger in response to an undifferentiated trigger compared with psychological and/or physical distress ($\chi^2 = 6.55, p < .01$), intrapersonal demands ($\chi^2 = 12.33, p < .001$), or the environment ($\chi^2 = 7.83, p < .01$). When anger was triggered by other people, individuals endorsed more intense anger compared with psychological and/or physical distress ($\chi^2 = 9.69, p < .01$), intrapersonal demands ($\chi^2 = 36.0, p < .001$), or the environment ($\chi^2 = 16.13, p < .001$).

Outcome: Anger Control. Individuals reported more difficulty controlling anger in response to an undifferentiated trigger compared with psychological and/or physical distress

($\chi^2 = 4.01, p < .05$), intrapersonal demands ($\chi^2 = 8.87, p < .01$), or the environment ($\chi^2 = 9.57, p < .05$). When anger was triggered by other people, individuals reported more difficulty controlling anger compared with psychological and/or physical distress ($\chi^2 = 7.72, p < .01$), intrapersonal demands ($\chi^2 = 40.14, p < .001$), or the environment ($\chi^2 = 29.87, p < .001$).

Outcome: Anger Suppression. Individuals used suppression more often in response to anger triggered by other people compared with intrapersonal demands ($\chi^2 = 18.18, p < .001$) or the environment ($\chi^2 = 17.50, p < .001$).

Outcome: Verbal Confrontation. Individuals responded with verbal confrontation more often when anger was triggered by another person compared with intrapersonal demands ($\chi^2 = 33.91, p < .001$), the environment ($\chi^2 = 11.95, p < .001$), or an undifferentiated trigger ($\chi^2 = 7.24, p < .01$). Interestingly, individuals were also more likely to use verbal confrontation when the anger trigger was psychological and/or physical distress compared with intrapersonal demands ($\chi^2 = 6.28, p < .05$).

Outcome: Aggression. Individuals endorsed more verbal aggression when angered by an undifferentiated trigger compared with psychological and/or physical distress ($\chi^2 = 5.43, p < .05$) or intrapersonal demands ($\chi^2 = 3.92, p < .05$). When anger was triggered by other people, individuals endorsed more verbal aggression compared with episodes triggered by psychological and/or physical distress ($\chi^2 = 31.51, p < .001$), intrapersonal demands ($\chi^2 = 21.77, p < .001$), or the environment ($\chi^2 = 5.69, p < .05$). When anger was triggered by other people, individuals endorsed more physical aggression compared with episodes triggered by psychological and/or physical distress ($\chi^2 = 9.30, p < .01$). Individuals endorsed more physical aggression when angered by intrapersonal demands compared with psychological and/or physical distress ($\chi^2 = 3.78, p < .05$).

Outcome: Regret. Individuals reported more regret following episodes triggered by undifferentiated triggers compared

with other people ($\chi^2 = 5.45, p < .05$), intrapersonal demands ($\chi^2 = 6.70, p < .01$), or the environment ($\chi^2 = 10.06, p < .01$). Also, individuals reported more regret following episodes triggered by psychological and/or physical distress compared with intrapersonal demands ($\chi^2 = 3.84, p < .05$) or the environment ($\chi^2 = 7.30, p < .05$). When anger was triggered by other people, individuals reported more regret compared with episodes triggered by the environment ($\chi^2 = 5.08, p < .05$).

Outcome: Self-Soothing. Individuals endorsed more effort to calm themselves when angered by other people compared with psychological and/or physical distress ($\chi^2 = 32.04, p < .001$), intrapersonal demands ($\chi^2 = 16.28, p < .001$), the environment ($\chi^2 = 13.62, p < .001$), or undifferentiated triggers ($\chi^2 = 22.17, p < .001$).

Taken together, results indicate that when people are angered by another person, they are most likely to react by lashing out (verbally or physically) or protecting the self (soothing). When individuals are unable to clearly identify what triggered their anger (diffuse/undifferentiated), individuals experience the most intense anger, control difficulties, tendency to suppress feelings, and regret; notably, these reactions are less likely when individuals are angered by a great deal of demands or when they get insulted.

Trait Variables and Daily Anger

We examined associations between trait variables and daily anger intensity, and anger control and reactions. Trait continuous predictors were grand-mean-centered (i.e., based on the mean of the full sample). In the model presented below, there were i anger episodes nested within j participants. The γ_{01} coefficient represents the estimate for a given trait variable predicting a given anger outcome. For each trait variable, subscales were entered into separate models. Estimates for each subscale are represented by separate coefficients. Essentially, there were no predictors at Level 1, and trait variables were entered at Level 2.

A similar set of models was conducted for each trait variable predicting anger intensity, control, and responses. Thus, hypotheses involving trait variables were tested at Level 2 (i.e., person level). Results are reported in Table 4. Because of the large number of tests used to examine the links between daily anger and trait personality, we used $p < .01$ as our criterion to determine statistical significance.

Trait and Daily Anger. Higher trait frequency of getting angry related to more difficulty controlling anger ($b = .04, t = 3.36, p < .01$). Trait duration of anger was not significantly related to the daily experience of anger. Greater trait magnitude of anger related to more difficulty controlling anger ($b = .06, t = 4.13, p < .01$). The trait tendency to hold anger in and brood (Anger-In) related to more intense daily anger ($b = .04, t = 2.83, p < .01$) and more difficulty controlling anger ($b = .05, t = 3.43, p < .01$). The trait tendency to express anger outwardly

(Anger-Out) related to less use of verbal aggression ($b = -.11, t = -3.13, p < .01$).

A more hostile outlook was associated with less effort to self-soothe in response to anger ($b = -.10, t = -3.34, p < .01$). The trait endorsement of a greater range of anger-eliciting situations was unrelated to the daily experience of anger.

Personality Traits and Daily Anger. All Big Five personality traits failed to show any statistically significant associations with daily anger experiences.

Emotion Regulation Strategies and Daily Anger. Use of suppression was related to more regret after an anger episode ($b = .02, t = 2.63, p < .01$). Reappraisal was not significantly related to daily anger experiences.

Mindfulness and Daily Anger. All four dimensions of mindfulness traits (Observing, Acting With Awareness, Acceptance Without Judgment, and Describing subscales) failed to show any statistically significant associations with daily anger experiences.

Satisfaction of Basic Psychological Needs and Daily Anger. People who reported greater satisfaction of their need for autonomy reported less difficulty controlling their anger ($b = -.02, t = -2.85, p < .01$). Satisfaction of one's need for competence and relatedness were unrelated to daily anger experiences.

Sex Differences in Daily Anger

We examined whether men differed from women in their daily anger episodes. Sex was coded using a contrast variable (women = 1, men = -1) and entered at Level 2. No predictors were entered at Level 1. Results showed that men were more likely than women to use verbal confrontation ($b = -.29, t = -2.19, p < .05$). Tests for sex differences between daily anger intensity, control, and all other reactions to anger were nonsignificant. There were no sex differences for daily anger triggers ($ps > .15$). That is, men and women did not differ in their typical anger experiences and reactions.

DISCUSSION

Our data suggest that 70–82% of the variance in daily anger occurs at the within-person level, yet nearly all existing research on anger has been limited to between-person analyses (via trait surveys and single-occasion laboratory experiments). These findings offer a justification for our daily diary approach to understanding the nature of anger in people's lives. Following the coding of qualitative responses to anger triggers each day for several weeks, we conducted a comprehensive examination of how specific anger-inducing events are related to the intensity, control, and regulation of anger. The results suggest that the

Table 4 Trait Personality Measures Predicting Daily Anger Outcomes

Measure	Intensity		Control Difficulty		Suppression		Confrontation		Verbal Aggression		Physical Aggression		Regret		Self-Soothing	
	b	t	b	t	b	t	b	t	b	t	b	t	b	t	b	t
MAI																
Frequency	0.02	1.57	0.04	3.36*	0.01	0.61	-0.00	-0.08	0.02	1.86	0.01	1.25	0.03	2.58**	-0.04	-1.77
Magnitude	0.05	2.60**	0.06	4.13*	0.03	1.03	-0.01	-0.20	0.03	1.82	0.03	1.67	0.03	2.30**	-0.06	-2.08**
Duration	0.02	0.55	0.04	1.57	0.05	1.23	-0.09	-1.82	-0.00	-0.12	-0.01	-0.35	-0.01	-0.29	-0.12	-2.53**
Arousal	0.02	1.74	0.03	3.75*	0.01	0.95	-0.00	-0.28	0.01	1.69	0.01	1.34	0.02	2.41**	-0.03	-1.84
Range	0.02	1.54	0.03	2.24**	0.02	0.90	-0.03	-1.33	0.01	0.91	0.01	0.55	0.01	1.04	-0.04	-1.86
Hostility	0.01	0.46	0.04	2.36**	0.02	0.75	-0.04	-1.38	0.04	1.58	0.01	0.93	0.01	0.53	-0.10	-3.34*
Anger-In	0.04	2.83*	0.05	3.43*	0.02	0.70	-0.03	-1.02	0.04	2.21**	0.01	0.66	0.03	2.44**	-0.06	-2.21**
Anger-Out	-0.03	-0.69	-0.04	-1.19	0.01	0.18	0.04	0.80	-0.12	-3.13*	-0.05	-1.47	-0.07	-2.48**	0.02	0.30
BFI																
Extraversion	-0.01	-0.55	-0.01	-1.70	-0.01	-1.13	-0.01	0.45	-0.01	-1.05	-0.01	-0.94	-0.01	-1.31	0.01	-0.33
Agreeableness	-0.01	-0.65	-0.01	-1.29	-0.02	-1.71	0.02	1.22	0.00	-0.15	-0.01	-0.86	-0.01	-0.86	0.03	1.89
Conscientiousness	-0.02	-1.76	-0.02	-1.86	-0.02	-1.06	0.03	1.24	-0.01	-1.53	0.00	0.35	-0.01	-1.60	0.02	2.20**
Neuroticism	0.01	1.35	0.01	1.19	0.01	1.02	-0.03	-1.87	0.01	0.93	0.00	0.27	0.01	1.73	-0.02	-1.29
Openness	0.00	0.10	-0.02	-0.88	0.01	1.26	0.01	0.43	0.00	0.20	0.00	0.38	0.00	0.16	0.01	0.63
ERQ																
Suppression	-0.00	-0.03	0.01	1.13	0.00	0.25	-0.01	-0.39	0.02	1.95	0.01	1.35	0.02	2.63*	-0.02	-1.12
Reappraisal	0.01	1.48	0.00	0.47	0.00	-0.30	0.01	0.60	0.00	-0.36	0.00	0.21	0.00	0.42	0.03	1.74
KIMS																
Observe	-0.00	-0.38	0.01	1.24	0.02	2.01**	0.02	1.30	0.00	0.40	0.01	0.52	0.00	0.08	0.02	1.44
Description	-0.02	-1.77	-0.02	-2.24**	0.01	0.40	-0.01	-0.42	-0.03	-2.21**	-0.01	-0.77	-0.02	-2.12**	0.01	0.41
Awareness	-0.02	-1.54	-0.01	-1.00	-0.01	-0.82	0.03	1.28	-0.02	-1.25	0.02	1.64	0.01	1.05	0.01	0.32
Acceptance	-0.02	-2.35**	-0.02	-2.11**	-0.02	-1.59	0.01	0.56	-0.02	-1.95	-0.00	-0.26	-0.01	-2.16**	-0.02	-1.33
BPNS																
Autonomy	-0.02	-2.15**	-0.02	-2.85*	-0.02	-1.59	0.00	0.01	-0.02	-2.34**	-0.01	-1.54	-0.02	-2.22**	0.03	1.68
Competency	-0.01	-0.79	-0.01	-0.72	-0.00	-0.17	0.00	0.10	0.00	0.31	0.02	0.66	-0.00	-0.31	0.03	1.13
Relatedness	0.01	0.68	0.00	-0.46	-0.00	-0.17	0.03	1.89	0.00	0.06	-0.01	-0.62	-0.01	-0.80	0.03	2.14**

Note. MAI = Multidimensional Anger Inventory; BFI = Big Five Inventory; ERQ = Emotion Regulation Questionnaire; KIMS = Kentucky Inventory of Mindfulness Skills; SPNS = Basic Psychological Needs Scale. * $p \leq .01$. ** $p \leq .05$. Because of the large number of tests used to examine the links between daily anger and trait personality, we used $p < .01$ as our criterion to determine statistical significance.

types of anger-inducing or anger-triggering events are important to understanding the nature of anger in everyday life.

We identified five overarching categories of anger triggers in daily life: other people, psychological/physical distress, intrapersonal demands, environment, and diffuse/undifferentiated. Consistent with prior studies on anger, the most commonly reported cause of anger was other people. However, something other than another person preceded/triggered a large portion (36.7%) of anger episodes. This supports theoretical models suggesting that people often experience anger in response to the goal obstructions caused by nonhuman, external circumstances.

Two main findings emerged. First, individuals reported that anger episodes triggered by other people resulted in more intense anger, difficulty controlling anger, suppression of anger, verbal confrontation, verbal aggression, physical aggression, and self-soothing compared with other anger triggers. That is, interpersonal triggers related to people lashing out at others or self-care. These findings are consistent with the social function of anger whereby angry individuals use aggressive and approach-oriented behaviors to resolve aversive situations.

The second main finding was that the most intense and difficult-to-regulate reactions to anger followed episodes triggered by an undifferentiated source. This support work suggests a person's ability to understand and clarify experiences (i.e., emotion differentiation) is positively related to healthy emotion regulation (Kashdan et al., 2015). Poor emotion differentiators are more likely to misinterpret, amplify, and dwell on physiological responses to emotional arousal (Barrett, Wilson-Mendenhall, & Barsalou, 2014) and use other ineffective strategies to down-regulate negative emotions (e.g., Erbas, Ceulemans, Lee Pe, Koval, & Kuppens, 2014; Kashdan, Ferssizidis, Collins, & Muraven, 2010). Pond and colleagues (2012) found that when people were angry, those high in emotion differentiation reported less aggressive tendencies compared to low differentiators. High differentiators also reported less frequent provocation and less aggression in response to feeling intense anger. Perhaps interventions to improve emotional awareness and differentiation can improve how people experience provocative situations, including healthier anger reactions.

More broadly, the current study demonstrates the complexities of anger-triggering events that occur in people's daily lives. Anger occurs in response to social and nonsocial events, from interpersonal spats to not meeting a self-imposed goal. When others provoke anger, people lash out at others and seek to soothe themselves. But when people experience an anger-triggering event that is difficult to understand, their emotional response tends to be intense, and reactions are difficult to control. The implication is that the function of anger—to protect the self and remove goal obstructions—may mitigate anger intensity and facilitate coping processes. Getting ambushed with anger from an undifferentiated source leaves people with an unclear problem and resolution. As a result, anger may be more intense, and healthy emotion regulation may be more difficult.

Notably, our daily diary results differed from prior research in which people reported on a single anger experience such that we found 63% of triggers to be interpersonal in nature, whereas prior studies found 80% or higher (Averill, 1983; Kassinove et al., 1997). When comparing our results to these prior studies, there is the possibility of biases such that when asked to recall a single anger-triggering event, interpersonal events are viewed as more salient, with a longer-lasting impact than intrapersonal events. When asked to report events as they occur each day over several weeks, researchers can gain access to how one day differs from another, inviting opportunities for a greater diversity of events. A comprehensive understanding of anger will require intensive repeated measurement on the contexts when anger is more or less likely, and how this emotion is experienced and expressed. To capture the contextual influences, a single data point per participant is insufficient.

Another set of important findings stems from tests of the link between personality traits and daily anger episodes. Surprisingly, broad personality traits (i.e., the Big Five) were less relevant to the operation of anger in everyday life compared with more molecular dimensions, such as trait anger and the degree to which basic psychological needs are satisfied. This is surprising, as prior meta-analytic findings have shown that Conscientiousness has a moderate, consistent association with aggressive responding to anger, and both Neuroticism and Agreeableness show meaningful associations with dispositional measures of anger (Jones et al., 2011); other studies show similar relationships with a broader range of anger-related trait scales (e.g., Martin et al., 1999; Pease & Lewis, 2015). Other work, however, suggests that examining singular associations between personality trait dimensions and anger might be too crude of an approach. Specifically, particular personality trait profiles have shown links to healthy anger patterns—being an agreeable person may buffer the link between Neuroticism and aggressive responses to anger (e.g., Ode, Robinson, & Wilkowski, 2008), and being a conscientious person may buffer the link between Neuroticism and the ability to control the expression of anger (Pease & Lewis, 2015). Thus, future work might benefit by adopting a person-centric instead of a variable-centric approach, exploring the personality profiles with the strongest ties to the healthy and unhealthy experiences and manifestations of anger in daily life (a special issue of *Journal of Personality* has been devoted to this topic; Kashdan & McKnight, 2011). Additionally, almost all of the existing work on the Big Five personality traits and anger has been explored at the between-person level with global surveys. Thus, we know surprisingly little about how basic personality traits are linked to the daily experience and regulation of anger. This point is emphasized more generally by Affleck, Zautra, Tennen, and Armeli (1999):

We, like most, have been tempted to draw within-person inferences from across-persons associations. For example, in early cross-sectional studies of stressful life events, correlations between the number of events and health problems

were taken by many to mean that when a person experiences a stressful event, he or she would be more likely to become ill. No such inference can be made without observing people when they are under stress and when they are not. An across-persons correlation, moreover, *can* depart markedly from a within-person correlation. We cannot emphasize this enough . . . between-persons and within-person correlations can differ not only in magnitude but also in direction and that a statistically significant positive between-persons association can emerge when not a single individual in the group shows a positive within-person association! (p. 748)

Thus, we believe our findings in this study offer a provocative addition to a large body of work on personality traits and anger, much of which has been limited to global instead of daily or moment-to-moment assessments. These two methodologies work in tandem to understand general human tendencies and what occurs in response to particular events and temporal periods from one day to the next (e.g., Fleeson, 2004).

In examinations of trait-state associations, we found that dimensions of trait anger only showed small to moderate links to daily anger. People endorsing a greater frequency of anger episodes (trait) reported more difficulty controlling their anger; people endorsing high-magnitude anger (trait) reported anger that was difficult to control and more regret following daily anger experiences. Despite the presence of significant associations, these findings suggest that trait measures of anger are less than satisfactory in predicting day-to-day anger experiences and reactions. These data are simply one more data point suggesting that people are either unskilled and/or unaware about many of their subjective, physiological, and behavioral patterns (Dunning, Heath, & Suls, 2004). Of course, one of the goals of psychotherapy, whether delivered by a therapist or self-initiated, is to improve self-awareness and knowledge to make better life decisions. Our concern is that much of what is known about anger in the scientific literature is predicated on the assumption that people excel at reporting their general tendencies across space and time, and the current findings suggest that the reliance on global self-reports should be reconsidered.

As for other personality traits, we found evidence to suggest that trait mindfulness is not a useful predictor of how anger is experienced or managed in daily life. More fine-grained assessments of anger, including behavioral observations, can provide additional insight as to the type of people (i.e., personalities) who are best equipped to use anger effectively for healthy outcomes, and how this can be taught to others. Finally, we found evidence to suggest that individuals who feel a greater sense of autonomy in their lives respond in a healthier manner to anger-triggering events. Specifically, a greater satisfaction of the need for autonomy predicated better control of anger following anger episodes. Because this is the first study of how the satisfaction of psychological needs is relevant to anger in daily life, these findings should be considered tentative. Nonetheless, as a primary

element of well-being (Ryan & Deci, 2000, 2001), these findings offer insights into the link between the brighter and darker sides of human functioning. Longitudinal and laboratory studies are needed to disentangle whether the personality dimensions under study are correlates, causes, or consequences of anger experiences and reactions.

LIMITATIONS AND FUTURE DIRECTIONS

While our daily diary study provides a detailed account of what triggers anger in everyday life, several limitations should be considered. First, although we examined individual differences in anger experiences (e.g., emotion regulation skills, trait anger, mindfulness, Big Five traits), there are a multitude of characteristics that require consideration for their theoretical relevance. For example, perfectionists may be more likely than others to experience self-anger because they tend to be self-critical and hold themselves responsible for negative events (e.g., Hewitt, Mittelstaedt, & Wollert, 1989).

Research suggests that perfectionism is positively related to self-harm inclinations, as measured by stabbing a voodoo doll that represented them (Chester, Merwin, & DeWall, in press). Second, our investigation of anger episodes was restricted to sources of anger, not appraisals of anger-inducing situations. Certain appraisals (e.g., fairness, moral violation, control) might enhance the likelihood or severity of an angry reaction by heightening the unpleasantness of a given situation. Third, we measured only a small number of possible responses to anger. Future studies should measure other means that people use in response to anger (e.g., withdrawal, acceptance, apologizing). Fourth, although we asked people to report on anger episodes each day for 3 consecutive weeks, there is still a bias in collecting only a subset of events—people's self-endorsed, most meaningful moment of anger. It is difficult to conduct a more comprehensive study of anger in daily life, yet a multimethod approach that includes neurobiological, behavioral, and subjective changes may offer new insights. Fifth, although most of our analyses focused on within-person data, with an average of 20.75 days of reporting per participant, our sample had an uneven distribution of men (23%) and women (77%). Our reporting of minimal evidence of sex differences should be considered tentative until future studies are conducted with a larger number of male participants. In a similar vein, because emotion regulation abilities often require multiple decades to fully develop, there is great benefit in moving beyond a college student sample by adopting a life span perspective—to determine how the current findings vary based on chronological age and developmental events. Finally, we used a qualitative, descriptive approach to explore the triggers of anger in people's everyday life. Despite the need to study the emergence of emotions and behaviors without predetermined categories

(Rozin, 2001), we recognize that the conceptual basis of our coding system is new and awaits replication.

CONCLUDING REMARKS

Despite the pervasiveness of anger in humans, little has been learned about situations that induce the most intense, difficult-to-regulate anger in the context of day-to-day living. Prior research on anger has been heavily focused on other people as the source of anger, with minimal research on how anger manifests over time in people's naturalistic environment. Using a daily diary approach, we asked people to provide details on the sources of angry episodes over the course of 3 weeks.

Our study provides novel insights into what induces the most anger in people's daily lives. We identified sources of anger that do not include another person, which highlights the need to extend this line of research to nonsocial contexts. We also showed that anger reactions are dependent on the trigger. Of the triggers under study, when a person's response to anger was triggered by another person or when the source of anger could not be clearly identified, the anger experienced was the most intense and difficult to control, and reactions tended to be the most problematic. Thus, while the many instances of anger might have something in common in that something aversive occurs, the correlates and consequences appear to differ according to the specific type of aversion. Finally, we found connections between particular personality traits and what happens when anger is triggered in daily life. In general, we found evidence to suggest that global assessments of personality provide minimal predictive value in understanding how anger is experienced and/or regulated in daily life, offering additional empirical support for the notion that researchers must be careful in extrapolating about what humans do in their naturalistic environment from one day to the next from personality trait assessments (e.g., Affleck et al., 1999); all such assumptions are empirical questions that require testing. Our comprehensive analysis of anger episodes provides knowledge on a neglected topic, with the hopes that more attention and resources will be devoted to this unpleasant, approach-oriented emotional state.

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References

- Affleck, G., Zautra, A., Tennen, H., & Armeli, S. (1999). Multilevel daily process designs for consulting and clinical psychology: A preface for the perplexed. *Journal of Consulting and Clinical Psychology, 67*, 746–754.
- Anderson, C. A., & Anderson, K. B. (1998). Temperature and aggression: Paradox, controversy, and a (fairly) clear picture. In R. G. Geen & E. Donnerstein (Eds.), *Human aggression: Theories, research, and implications for social policy* (pp. 247–298). San Diego, CA: Academic Press.
- Averill, J. R. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist, 38*, 1145–1160.
- Baer, R. A., Smith, G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*, 191–206.
- Barrett, L. F., Gross, J., Christensen, T. C., & Benvenuto, M. (2001). Knowing what you're feeling and knowing what to do about it: Mapping the relation between emotion differentiation and emotion regulation. *Cognition & Emotion, 15*, 713–724.
- Barrett, L. F., Wilson-Mendenhall, C. D., & Barsalou, L. W. (2014). A psychological construction account of emotion regulation and dysregulation: The role of situated conceptualizations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (2nd ed., pp. 447–465). New York: Guilford Press.
- Berkowitz, L. (1993a). *Aggression: Its causes, consequences, and control*. New York: McGraw-Hill.
- Berkowitz, L. (1993b). Pain and aggression: Some findings and implications. *Motivation and Emotion, 17*, 277–293.
- Berkowitz, L., & Harmon-Jones, E. (2004). Toward an understanding of the determinants of anger. *Emotion, 4*, 107–130.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models*. Newbury Park, CA: Sage.
- Carver, C. S., & Harmon-Jones, E. (2009). Anger is an approach-related affect: Evidence and implications. *Psychological Bulletin, 135*, 183–204.
- Chester, D. S., Merwin, L. M., & DeWall, C. N. (in press). Maladaptive perfectionism's link to aggression and harm: Emotion regulation as a mechanism. *Aggressive Behavior*.
- Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment implications for health, education, and the workplace. *Psychological Science in the Public Interest, 5*, 69–106.
- Ellsworth, P. C., & Tong, E. M. (2006). What does it mean to be angry at yourself? Categories, appraisals, and the problem of language. *Emotion, 6*, 572–586.
- Erbas, Y., Ceulemans, E., Lee Pe, M., Koval, P., & Kuppens, P. (2014). Negative emotion differentiation: Its personality and well-being correlates and a comparison of different assessment methods. *Cognition & Emotion, 28*, 1196–1213.
- Fleeson, W. (2004). Moving personality beyond the person-situation debate: The challenge and the opportunity of within-person variability. *Current Directions in Psychological Science, 13*, 83–87.
- Frijda, N. H. (1986). *The emotions*. Cambridge: Cambridge University Press.

- Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion, 27*, 199–223.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*, 348–362.
- Hatch, J. P., Moore, P. J., Borchering, S., Cyr-Provost, M., Boutros, N. N., & Seleshi, E. (1992). Electromyographic and affective responses of episodic tension-type headache patients and headache-free controls during stressful task performance. *Journal of Behavioral Medicine, 15*, 89–112.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*, 1152–1168.
- Hewitt, P. L., Mittelstaedt, W., & Wollert, R. (1989). Validation of a measure of perfectionism. *Journal of Personality Assessment, 53*, 133–144.
- Izard, C. E. (1991). *The psychology of emotions*. New York: Plenum Press.
- John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality, 72*, 1301–1334.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford Press.
- Jones, S. E., Miller, J. D., & Lynam, D. R. (2011). Personality, antisocial behavior, and aggression: A meta-analytic review. *Journal of Criminal Justice, 39*, 329–337.
- Kashdan, T. B., Barrett, L. F., & McKnight, P. E. (2015). Unpacking emotion differentiation: Transforming unpleasant experience by perceiving distinctions in negativity. *Current Directions in Psychological Science, 24*, 10–16.
- Kashdan, T. B., Ferrissizidis, P., Collins, R. L., & Muraven, M. (2010). Emotion differentiation as resilience against excessive alcohol use: An ecological momentary assessment in underage social drinkers. *Psychological Science, 21*, 1341–1347.
- Kashdan, T. B., & McKnight, P. E. (2011). Dynamic, contextual approaches to studying personality in the social world. *Journal of Personality, 79*, 1177–1190.
- Kassinove, H., Sukhodolsky, D. G., Tsytsarev, S. V., & Solovyova, S. (1997). Self-reported anger episodes in Russia and America. *Journal of Social Behavior & Personality, 12*, 301–324.
- Kulik, J. A., & Brown, R. (1979). Frustration, attribution of blame, and aggression. *Journal of Experimental Social Psychology, 15*, 183–194.
- Mansell, W., Harvey, A., Watkins, E. R., & Shafran, R. (2008). Cognitive behavioral processes across psychological disorders: A review of the utility and validity of the transdiagnostic approach. *International Journal of Cognitive Therapy, 1*, 181–191.
- Martin, R., Wan, C. K., David, J. P., Wegner, E. L., Olson, B. D., & Watson, D. (1999). Style of anger expression: Relation to expressivity, personality, and health. *Personality and Social Psychology Bulletin, 25*, 1196–1207.
- Mauss, I. B., Cook, C. L., Cheng, J. Y., & Gross, J. J. (2007). Individual differences in cognitive reappraisal: Experiential and physiological responses to an anger provocation. *International Journal of Psychophysiology, 66*, 116–124.
- McKnight, P. E., McKnight, K. M., Sidani, S., & Figueredo, A. J. (2007). *Missing data: A gentle introduction*. New York: Guilford Press.
- Memedovic, S., Grisham, J. R., Denson, T. F., & Moulds, M. L. (2010). The effects of trait reappraisal and suppression on anger and blood pressure in response to provocation. *Journal of Research in Personality, 44*, 540–543.
- Mikulincer, M. (1988). Reactance and helplessness following exposure to unsolvable problems: The effects of attributional style. *Journal of Personality and Social Psychology, 54*, 679–686.
- Miller, J. D., Zeichner, A., & Wilson, L. F. (2012). Personality correlates of aggression: Evidence from measures of the five-factor model, UPPS model of impulsivity, and BIS/BAS. *Journal of Interpersonal Violence, 27*, 2903–2919.
- Nezlek, J. B. (2001). Multilevel random coefficient analyses of event- and interval-contingent data in social and personality psychology research. *Personality and Social Psychology Bulletin, 27*, 771–785.
- Ode, S., Robinson, M. D., & Wilkowski, B. M. (2008). Can one's temper be cooled? A role for agreeableness in moderating neuroticism's influence on anger and aggression. *Journal of Research in Personality, 42*, 295–311.
- Pease, C. R., & Lewis, G. J. (2015). Personality links to anger: Evidence for trait interaction and differentiation across expression style. *Personality and Individual Differences, 74*, 159–164.
- Peters, J. R., Smart, L. M., Eisenlohr-Moul, T. A., Geiger, P. J., Smith, G. T., & Baer, R. A. (in press). Anger rumination as a mediator of the relationship between mindfulness and aggression: The utility of a multidimensional mindfulness model. *Journal of Clinical Psychology*.
- Pond, R. S., Jr., Kashdan, T. B., DeWall, C. N., Savostyanova, A., Lambert, N. M., & Fincham, F. D. (2012). Emotion differentiation moderates aggressive tendencies in angry people: A daily diary analysis. *Emotion, 12*, 326–337.
- Raudenbush, S. W., Bryk, A. S., Cheong, Y. F., & Congdon, R. T. (2000). *HLM 5: Hierarchical, linear and nonlinear modeling*. Chicago: Scientific Software International.
- Rotton, J., Barry, T., Frey, J., & Soler, E. (1978). Air pollution and interpersonal attraction. *Journal of Applied Social Psychology, 8*, 57–71.
- Rozin, P. (2001). Social psychology and science: Some lessons from Solomon Asch. *Personality and Social Psychology Review, 5*, 2–14.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78.

- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, **52**, 141–166.
- Sell, A., Tooby, J., & Cosmides, L. (2009). Formidability and the logic of human anger. *Proceedings of the National Academy of Sciences*, **106**, 15073–15078.
- Siegel, J. M. (1986). The Multidimensional Anger Inventory. *Journal of Personality and Social Psychology*, **51**, 191–200.
- Watson, D., & Clark, L. A. (1992). On traits and temperament: General and specific factors of emotional experience and their relation to the five-factor model. *Journal of Personality*, **60**, 441–476.

SUPPORTING INFORMATION

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Appendix Coding Open-Ended Descriptions of Anger Triggers