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ORIGINAL PAPER

Life is a Pressure Cooker: How and Why Stress Directs Consumers to Act Unethically

Hai-Anh Tran[1] · Artyom Golossenko[2] · Samuel G. B. Johnson[3] · Mansur Khamitov[4] · Jiayan Huang[5]

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Abstract
Unethical consumer behavior, such as deceptive product returns, digital piracy, shoplifting, and falsifying online reviews, is a growing concern with significant economic and ethical implications. However, its psychological antecedents remain underexplored. This research investigates the role of stress as a key driver of unethical consumer behavior, offering a novel perspective on why consumers engage in such conduct. Grounded in conservation of resources theory, we propose that stress heightens perceived threats to personal resources, triggering rumination—repetitive, negative thoughts about potential resource losses—which, in turn, fosters unethical behaviors. Across a field study and five experiments (one reported in the Online Appendix), we provide empirical evidence supporting this mechanism. Moreover, our findings reveal that the effect of stress on unethical consumer behavior is particularly pronounced among individuals with high levels of narcissism. These insights contribute to the broader understanding of consumer ethics and have important implications for marketers, human resource managers, and policymakers seeking to curb unethical consumer practices.

Keywords Consumer stress · Stress · Unethical consumer behavior · Unethicality · Immoral consumer behavior · Immorality · Rumination · Narcissism

Unethical consumer behavior, broadly defined as actions driven by self-interest that violate social norms in the marketplace (Reynolds & Ceranic, 2007), can take various forms, including shoplifting, fraudulent returns, and unauthorized downloading of software and music (Leischnig & Woodside, 2019; Roy et al., 2024). Evidence suggests that such behavior is more prevalent than ever. For instance, nearly 50% of U.S. shoppers admit to "wardrobing" apparel, shoes, or accessories—purchasing, using, and then returning these items after use (Faithfull, 2024). This practice alone costs the U.S. retail industry $12.6 billion annually in lost sales (National Retail Federation, 2022). Even more blatantly, 1 in 11 Americans has shoplifted (Castillo, 2023) with major retailers experiencing substantial financial losses. In 2022, Walmart's Chief Financial Officer reported a 50% surge in shoplifting, leading to over $400 million in losses (Fonrouge, 2022). In the U.K., for example, shoplifting rose by 23% in 2024, reaching 492,914 incidents compared to 402,220 in 2023 (Office for National Statistics, 2024).

Notably, unethical consumer behaviors have surged during periods of heightened stress, such as the COVID-19 pandemic. For instance, visits to film piracy websites in the U.K. surged by 43% following the implementation of lockdown measures (BBC News, 2020). Similarly, during the COVID-19 pandemic, widespread hoarding of face

✉ Artyom Golossenko
golossenkoa@cardiff.ac.uk

Hai-Anh Tran
hai-anh.tran@manchester.ac.uk

Samuel G. B. Johnson
samuel.johnson@uwaterloo.ca

Mansur Khamitov
mkhamito@iu.edu

Jiayan Huang
J.Huang6@salford.ac.uk

1 Alliance Manchester Business School, University of Manchester, Booth St W, Manchester M15 6PB, UK

2 Cardiff Business School, Cardiff University, Colum Dr, Cardiff CF10 3EU, UK

3 University of Waterloo, 200 University Ave W, Waterloo, ON N2L 3G1, Canada

4 Kelley School of Business, Indiana University, 1309 E 10th St, Bloomington, IN 47405, USA

5 Salford Business School, University of Salford, Salford M5 4WT, UK

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masks and hand sanitizers deprived those in urgent need of protective supplies, highlighting another form of unethical consumer behavior driven by induced stress. Similarly, the ongoing cost-of-living crisis appears to have increased consumers' financial fraud. Global merchants around the world reported that higher prices driven by inflation are driving an increase in fraudulent disputes of legitimate credit card charges (Statista, 2025). In a recent PwC study in India (PwC, 2022), customers of 47% of surveyed companies engaged in financial and economic fraud related to credit cards, mortgage, cheques, and claims, with such engagement often attributed to the ongoing cost-of-living crisis which customers may perceive as legitimizing such behavior.

Despite increasing scholarly attention and growing evidence of the prevalence of unethical consumer behaviors, research in consumer psychology and ethics is still in its early stages when it comes to understanding their antecedents. Existing studies have identified various contributing factors, including the use of artificial intelligence (Kim et al., 2023), feelings of guilt (Mills & Groening, 2021; Motro et al., 2018), and brand misbehavior (Rotman et al., 2018). However, little is known about whether and how stress influences these behaviors. Stress is a ubiquitous part of life, arising from sources such as heavy workloads, public speaking engagements, job interviews, or global events like pandemics. Defined as a physiological and psychological reaction to events that threaten an individual's resources (Durante & Laran, 2016), stress induces anxiety (Youssef et al., 2012) and poses significant challenges to coping mechanisms.

According to Conservation of Resources (COR) theory, stress triggers sensitivity to resource threats and motivates individuals to adopt a defensive resource-conservation approach (Hobfoll, 1989, 2001). This dual response can lead to conflicting behaviors, with stress prompting both caregiving actions to alleviate stress-related anxiety (Inagaki & Eisenberger, 2016) and self-serving actions to safeguard personal resources (DeWall et al., 2008). This contradiction prompts an exploration of how stress influences consumer unethical behaviors. To address this question, we draw on COR theory to conceptualize stress as a resource threat that fosters rumination—repetitive, negative, and self-referential thoughts about potential resource losses (Selby et al., 2016). Rumination's self-referential focus (Asim et al., 2021) narrows attention to personal needs, increasing the likelihood of self-serving unethical behaviors aimed at preserving resources.

Across one field study and five experimental studies, our research makes three contributions to the literature on unethical consumer behavior, stress, and rumination. *First*, we expand the understanding of stress and consumer behaviors (Durante & Laran, 2016). While prior studies have primarily examined how stress influences consumption patterns, either amplifying or reducing purchasing behavior (Faber & O'Guinn, 1988; Kim & Gal, 2014), our research reveals its "dark side" by linking it to unethical consumer behaviors. By establishing this connection, we highlight stress as a previously underexplored yet significant driver of unethical consumer behavior, broadening the theoretical understanding of its antecedents (Rotman et al., 2018). *Second*, we broaden the consumer rumination literature. Grounded in COR theory, our research highlights rumination as a mediator of the relationship between consumer stress and unethical behavior. This extends the understanding of consumer rumination, which has largely been explored in the context of revenge behaviors following brand transgressions (Allard & McFerran, 2022; Kähr et al., 2016; Khamitov et al., 2020; Strizhakova et al., 2012). *Finally*, we extend COR theory by incorporating the person–situation interactionist perspective from Schneider (1983a, 1983b). This approach allows us to study how consumer traits, specifically narcissism—a personality trait characterized by excessive self-focus and a strong need for admiration—as a resource-consuming factor that amplifies stress-induced unethical behavior. This sheds light on the role of narcissism in shaping consumer decisions and behaviors (Bowen et al., 2022; Lambert & Desmond, 2013).

Theoretical Background and Hypotheses

Unethical Consumer Behaviors

Unethical consumer behavior is conceptualized as actions that exploit circumstances to achieve self-interested goals in violation of social norms (Veetikazhi et al., 2022). Consumer unethical behavior is particularly distinctive as it differs from other forms of unethical behavior in several ways. Unlike corporate or employee unethical behavior, which typically involves organizations or employees engaging in unethical actions toward stakeholders (Sufi et al., 2024), consumer unethical behaviors focus on the unethical actions of individual consumers within consumption-related contexts such as online shopping, service encounters, or digital platforms (Mayr et al., 2022). Consumer unethical behavior ranges from relatively minor ethical breaches, such as falsely claiming a promotion, to more severe and occasionally unlawful actions, such as shoplifting or fraudulent product returns (Kim et al., 2023). While corporate unethical behavior primarily affects consumers or investors, consumer unethical behaviors directly harm businesses through financial losses for example (He et al., 2019) and contribute to broader societal consequences, such as market inefficiencies and higher prices for ethical consumers (Van Kenhove et al., 2003).

The emergence of consumer unethical behavior is shaped by a combination of individual traits, situational influences, and the interaction between these factors (Liu et al., 2015).

Individual traits, such as low self-control (Ferraro et al., 2005) and diminished feelings of guilt or shame (Arli et al., 2016), have been linked to unethical consumer behavior. Situational factors, such as the use of AI-driven decision-making (Kim et al., 2023) or brand harmfulness (Khamitov et al., 2016; Rotman et al., 2018), can further prompt consumers to engage in unethical behaviors. Consumers often justify their unethical actions by attributing them to external, uncontrollable circumstances (Vitell, 2003) or by minimizing personal responsibility (D'Astous & Legendre, 2009). The Methodological Details Online Appendix (MDA 1) provides an overview of prior research on CUB.

However, one key situational factor that consumers frequently experience in the marketplace but has not been explored in detail is stress. In marketing, service research has demonstrated the impact of work-related stress on frontline employee behavior (e.g., Akhtar et al., 2024). However, the relationship between consumer stress and unethical behavior has received little attention. Unlike workplace stress, where the stressor and the resulting unethical behavior occur within the same context, consumer stress can originate from various sources, including the marketplace, workplace, or personal-life experiences. Understanding how stress from one domain spills over into unethical consumer behavior in another context (e.g., the marketplace) can provide valuable insights into the broader psychological mechanisms underlying unethical decision-making. Examining this spillover effect could significantly enhance our understanding of the conditions that drive unethical consumer behavior.

Consumer Stress: A Conservation of Resources Perspective

Stress is defined as "*a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering well-being*" (Lazarus & Folkman, 1984, p. 19). Any life event that challenges the status quo and requires a response, such as the need to present in front of a large audience or preparing for an important interview, can be potentially stressful (Durante & Laran, 2016). Stress occurs when individuals find it challenging to cope with the demands of an event or perceive the consequences as negative, posing a threat to their resources (Duhachek & Kelting, 2009). An especially useful theory for understanding the impact of stress on consumer behavior is the Conservation of Resources (COR) theory.

COR posits that stress threatens resources, leading to actual resource loss or undermining attempts to gain resources. Resource loss (e.g., compromised personal control, impaired optimism) is the principal element in the stress process (Hobfoll, 1989). Therefore, viewing consumer stress through the lens of COR reveals it as a high-impact individual-level factor with interconnected and negative effects on consumers. According to COR, people are motivated to preserve and gain personal resources, which could be undermined under high stress (resource loss) (Hobfoll, 1989, 2001). A situation becomes stressful only when the threat of resource loss becomes apparent (Hobfoll, 1989). Individuals respond to stressful situations by either using residual resources to restore lost resources or obtain new ones, or by withdrawing efforts to conserve resources (Ng & Feldman, 2012). For example, consumers might reduce consumption to increase their savings resources (Durante & Laran, 2016), seek out social support from family and friends to obtain new types of resources (Moschis, 2007), or abandon a purchase altogether (Albrecht et al., 2017). MDA 2 summarizes prior research on the effects of consumer stress on their behaviors.

Furthermore, COR posits that when individuals perceive their resources as depleted (e.g., due to their stress), "individuals enter a defensive mode to preserve the self" (Hobfoll et al., 2018). This defensive mode may involve resource conservation or exploration for alternative survival strategies (Hobfoll et al., 2018). It is noteworthy that the strategy of conserving resources while also providing avenues for survival raises concerns about potentially compromising moral principles for personal gains (Wolfe, 2023). Individuals perceive moral standards as adaptable to suit situational demands and pragmatic objectives (Forsyth, 1992). They may overlook unethical behavior in pursuit of survival goals (Bandura, 1999), thereby alleviating any sense of guilt associated with transgressing universal ethical norms and actively pursuing their self-interests (Baron et al., 2015; Shepherd et al., 2013).

Moreover, many stress-inducing situations arise from external factors beyond consumers' control, fostering a perception of an uncontrollable environment and diminished influence over the outcomes of their actions. This undermines the consumer's ability to self-regulate (Cutright, 2012; Durante & Laran, 2016). Consequently, they may resort to impulsive spending behaviors as a coping mechanism to alleviate stress (Burroughs & Rindfleisch, 2002; Rindfleisch et al., 1997). Furthermore, the loss of self-regulation and the perceived depletion of resources resulting from stress can drive individuals into engaging in undesirable cognitive patterns, such as rumination—the repetitive contemplation of negative thoughts about stress (Nolen-Hoeksema, 1991; Wu & Zhou, 2023). This continuous rumination, in turn, exacerbates the depletion of their resources and leads individuals to prioritize self-preservation (Kouchaki & Desai, 2015), triggering unethical behaviors. Consequently, understanding the connection between stress, rumination, and unethical behavior becomes crucial.

Building upon the insights derived from the COR theory and existing research on consumer rumination, this study examines the mediating role of rumination as a key mechanism that links consumer stress to their engagement in unethical behavior.

Consumer Stress and Unethical Behaviors

From the COR perspective, there are two distinct reasons why consumer stress might lead to unethical behaviors. *First*, consumer stress signals potential threats to the self (Botti & McGill, 2011). In situations perceived as threatening, cognitive resources are redirected toward the rapid formulation of defense mechanisms aimed at preserving one's self-regard (Hermans et al., 2011). This inclination toward self-preservation may lead consumers to prioritize their own needs, overlooking the ethical and moral principles that typically guide their decision-making (Haidt, 2001). Also, considering the self-defensive nature of behaviors under stress, consumers may find unethical behaviors more acceptable. This acceptance enables individuals to uphold a positive self-evaluation without compromising their moral self-image (Mazar et al., 2008). Previous research has indicated that employees may exhibit unethical behaviors to reduce their fear of external threats (e.g., job insecurity; Wang et al., 2022). Building upon this stream of research, we argue that consumers experiencing high levels of perceived stress may be propelled by excessive self-interest and a willingness to take risks to engage in unethical behaviors as they offer the direct means to satisfy both material and immaterial desires (Tacke et al., 2023), thereby mitigating threats to the self.

Second, stress makes consumers perceive a lack of control over their environment (Durante & Laran, 2016). Consumers who experience stress have a low sense of control and thus tend to adopt coping strategies to change the status quo (Lebel, 2016). Engaging in unethical behavior may serve as a coping mechanism for individuals contending with the loss of control. This notion is predicated on the belief that involvement in unethical behavior may afford individuals access to material resources and psychological buffers, such as financial gains, that restore their sense of control (Hershfield et al., 2012). Individuals are able to safeguard their cognitive resources by identifying opportunities that enable them to "*focus their attention on aspects of their current situation that they can alter, thereby regaining a sense of control*" (Stephan et al., 2023, p. 690). By engaging in unethical behaviors that promise potential benefits, consumers can reclaim a sense of agency that may have been compromised by stress, while also accumulating material resources that can mitigate their perceived lack of control. Therefore, we propose:

H1 *Consumer stress increases unethical behaviors.*

Rumination and Its Link Between Consumer Stress and Unethical Behavior

Rumination has been widely studied in different areas of psychology (social, clinical, and occupational health). The defining characteristic of rumination is the repetitive and recurrent thoughts triggered by a "form of discrepancy" (Martin & Tesser, 1996; Nolen-Hoeksema, 1991). Clinical psychological work views rumination as prolonged, repetitive negative thinking about the self and the cause, consequences, and symptoms of distress (Moberly & Watkins, 2008; Nolen-Hoeksema, 1991). Rumination leads to deepening of negative emotions, overthinking, and passivity in response to stressors; it predicts mental health conditions including depression, anxiety, and psychosis (Watkins, 2004). Consumer psychology research instead prioritizes a view of rumination as negative repetitive thoughts about the causes and consequences of a stressful event (Kähr et al., 2016; Strizhakova et al., 2012).

From the COR perspective, there are at least two reasons why stress might lead a consumer to ruminate more. *First*, stress narrows consumers' attention to the stressful situation and evokes a sense that the consequences of an encounter will be more negative, deterring individuals from progressing their goals (Albrecht et al., 2017; Duhachek & Kelting, 2009). Prior research documents that rumination is induced by an individual's perception that the achievement of a crucial goal (e.g., restoring resources) is threatened (Martin & Tesser, 1996). For example, when consumers experience service failure that deters them from progressing consumption goals, they are more likely to engage in rumination (Kähr et al., 2016).

Second, stress increases rumination because it signals actual or anticipated loss of valued resources or failure to gain resources (after significant investment) such as time, money, and energy (Gupta & Mukherjee, 2022; Michl et al., 2013). In response to this perceived resource threat, consumers become more vigilant and cognitively fixated on the stressor in an effort to prevent further loss or recover depleted resources (Hobfoll, 1989, 2001; Hobfoll et al., 2018). As a result of this threat appraisal, stress fosters repetitive negative thinking, or rumination, as a way of mentally managing potential loss, uncertainty, and regret, which paradoxically consumes additional psychological resources (Gupta & Mukherjee, 2022; Nolen-Hoeksema et al., 2008; Watkins, 2008).

H2 *Consumer stress increases rumination.*

Both of these pathways connecting stress to consumer rumination also have implications for downstream unethical behavior. *First*, the attentional narrowing associated with rumination can lead to a single-minded focus on satisfying needs, potentially at the expense of other considerations, such as ethical principles (Asim et al., 2021; Kruglanski et al., 2021). For example, in the workplace, rumination makes employees care more about their self-benefits, which decreases the likelihood that they exhibit helping behaviors toward others (Asim et al., 2021). If rumination similarly prompts consumers to concentrate more on their own needs/goals, they might pay less attention to ethical principles.

Second, rumination is a resource-consuming process that is experienced as aversive, which can be stopped by "doing something" (e.g., engaging in unethical behaviors) to remove the source of rumination (Nguyen et al., 2024). Specifically, rumination consumes individuals' cognitive resources because of their repeated thoughts about the potential negative impacts of the current situations on their businesses and themselves (Battisti et al., 2022). The reduction in cognitive resources associated with rumination can disrupt self-regulation (Denson et al., 2011). But ethical actions demand effort, energy, and self-regulation too, so they might be particularly challenging when resources are constrained and the cognitive load is heavy (Sweller, 2011; Ward & Mann, 2000). Unethical actions yield immediate rewards (e.g., obtaining goods without payment; Hershfield et al., 2012; Tacke et al., 2023), which serve as a ready means to mitigate resource threats. Therefore, we predict that rumination compels consumers to focus more on themselves, become oblivious to ethical principles, and accumulate resources as a coping mechanism. Taken together, we hypothesize:

H3 *Rumination mediates the effect of consumer stress on unethical behavior.*

While we formally propose the mediating role of rumination, there is a plausible alternative mechanism related to moral rationalization. Stress might make consumers engage in moral rationalization which entails reinterpreting own unethical actions as justified and acceptable, subsequently lowering moral discomfort among stressed consumers and perpetuating unethical behavior (Bandura et al., 1996; Bhattacharjee et al., 2013). We discuss this alternative account in more detail prior to addressing it in Study 5.

Moderating Effect of Consumer's Narcissism

The core principle of COR theory is that individuals actively strive to build and maintain an environment that fosters success by acquiring and safeguarding resources (Hobfoll, 1989). According to the person-situation interactionist perspective from Schneider (1983a, 1983b), individuals' traits can influence their perceptions of resources, in turn influencing how they react to stressful situations (Song et al., 2021).

One significant trait that affects how consumers view their resources is narcissism, which is marked by excessive self-focus, a strong need for admiration and success, and a lack of empathy for others (Rosenthal & Pittinsky, 2006). Narcissism is one of three interrelated personality traits, along with psychopathy and Machiavellianism, that collectively form the "Dark Triad" (Paulhus & Williams, 2002). While Machiavellianism reflects manipulative, deceitful, and highly goal-driven tendencies, psychopathy is primarily characterized by antisocial behavior, impulsivity, and a lack of empathy (Paulhus & Williams, 2002). Each of these traits has been individually linked to financial misconduct and other maladaptive behaviors (Harrison et al., 2018; Jonason et al., 2014; LeBreton et al., 2018). In the organizational context, among the Dark Triad traits, narcissism demonstrates the strongest association with deviant behavior, followed by Machiavellianism and psychopathy (O'Boyle et al., 2012). Additionally, prior research has consistently found a link between high levels of narcissism and unethical conduct and behaviors (Harrison et al., 2018; LeBreton et al., 2018; Menon & Sharland, 2010). Narcissistic individuals are also more inclined to engage in exploitative behaviors, displaying a lack of empathy alongside a marked tendency toward callousness (LeBreton et al., 2018).

Narcissism can be seen as a resource-consuming trait because highly narcissistic individuals are particularly attuned to resources that help them achieve their desired outcomes or enhance their self-image (Grijalva & Harms, 2014). As a result, these individuals are more likely to perceive stress as a direct threat to their resources. Narcissistic consumers, driven by self-interest and personal goals, become highly sensitive to resource loss due to stress. This sensitivity often leads them to engage in unethical behaviors aimed at securing personal benefits and protecting their resources (Braun, 2017). This aligns with findings indicating that, among the Dark Triad traits, only narcissism is positively associated with coping strategies focused on actively altering or resolving stressful situations (Birkás et al., 2016). In general, narcissists do not seek to avoid stressful situations; rather, they are more likely to adopt problem-focused strategies to address and manage them (Jonason & Tost, 2010). When their resources are threatened or diminished, they may resort to unethical actions to quickly recover or defend what they have lost. In contrast, consumers with low levels of narcissism typically have a diminished desire for self-importance and are less focused on acquiring resources. These individuals are less likely to view stress as a threat to their resources or personal goals and, therefore, are less inclined to engage in unethical behaviors for personal gain (Harrison et al., 2018).

A further reason why narcissism may exacerbate the effect of stress on unethical behavior relates to how narcissists are seen by third parties. In a leadership context, narcissistic leaders are less socially rewarded for behaving ethically (Wang et al., 2023), presumably because observers have evidence of a long track record of self-serving behavior and scrutinize the putatively ethical behavior more carefully and are likelier to second-guess the leader's motivations. Potentially a similar mechanism could arise in the context of consumer stress. Since one reason we behave ethically is to avoid judgment by third parties (e.g., Dana et al., 2006), a narcissistic consumer may have less to lose from behaving unethically compared to a less narcissistic consumer, because observers of the narcissistic consumer's unethical behavior may have already expected unethical behavior. Thus, narcissism may amplify the effect of stress on unethical behavior without the restraining effect of social desirability to hold the consumer's unethical behavior in check.

H4 *Narcissism moderates the relationship between consumer stress and unethical behaviors*: *the positive effect of consumer stress on unethical behaviors is stronger* (*weaker*) *in relation to high* (*vs. low*) *narcissism.*

Overview of Studies

We tested our hypotheses across six studies—five of which are presented in the manuscript, with an additional study detailed in the MDA. In the preliminary study (Study 1), we conducted a field study using negative online reviews to examine consumer stress stemming from a service failure. We then assessed the perceived authenticity of these reviews as a proxy for unethical behavior, recognizing that consumers may fabricate or exaggerate complaints in response to stress. Inauthentic reviews, which may enable consumers to gain benefits from recovery strategies (e.g., compensation), were used to test the effect of stress on consumer unethical behavior (H1). In Study 2, we conducted an experiment to examine the causal effect of consumer stress on unethical behavior toward a seller (H1). Study 3 provided further insights into the causal effects of consumer stress on actual unethical behavior (H1). Additionally, we tested the effect of stress on consumer rumination (H2) and the mediating role of rumination in the relationship between stress and consumer unethical behavior (H3). In the experiment detailed in MDA 6, we further investigated the causal link between consumer rumination and unethical consumer behavior. In Study 4, we investigated the moderating effect of narcissism on the relationship between stress and unethical consumer behavior (H4). Finally, Study 5 nuances the findings by diving deeper into sources of stress (marketplace vs. workplace) and types of unethical consumer behavior in addition to validating consumer rumination mechanism (H2) and ruling out moral rationalization.

Study 1: Preliminary Field Study of the Impact of Consumer Stress on Unethical Behavior

This field study serves as an initial exploration of the relationship between consumer stress and unethical behavior.

Method

When consumers encounter stressful situations, such as service failures, they might express their frustration by sharing their experiences through negative reviews (Herhausen et al., 2019). The language used in these reviews often predicts their behavior, including dishonesty (Nam et al., 2023; Newman et al., 2003; Packard et al., 2023). Therefore, we use actual negative online reviews to explore the impact of consumers' stress on the inauthenticity of their reviews, as a proxy for unethical behavior.

We first scraped online review data from TripAdvisor for the 100 most popular restaurants in London over a 5-year period (2013–2018). Because our research focused on stressful experiences, similar to Chevalier and Mayzlin (2006), we included only online reviews about service failures (i.e., one- or two-star ratings as those reviews describe consumers' negative experiences). The resulting dataset includes 3638 reviews.

To measure stress, we conducted a text analysis of negative reviews to capture the intensity of stress expression. Specifically, the intensity of consumers' stress was operationalized as the proportion of stress-related words appearing in each negative review. The list of stress-related words was derived from the validated stress dictionary developed by Wang et al. (2016). The stress scores were computed using the Linguistic Inquiry and Word Count (LIWC) software (Pennebaker et al., 2015), which identifies and quantifies the proportion of dictionary-based word categories within the text. A higher stress score indicates a greater proportion of stress-related words in a review, reflecting a higher level of expressed stress.

To measure authenticity, we followed Moon et al. (2021) and also employed LIWC software. LIWC automatically analyzes text and generates an *authenticity score*. A higher authenticity score indicates that the reviewer's language is more honest, personal, and self-disclosing, whereas a lower score reflects a more guarded, distanced, or strategic communication style (Pennebaker et al., 2015).

We also included several control variables in the study. When lying, people tend to use more negative and emotional words (Newman et al., 2003), so we control for the proportion of negation and emotional words (i.e., anger) in a review using the negation and anger dictionaries from LIWC. We also controlled for each restaurant's rating and total number of reviews, as proxies for quality and popularity, respectively. These variables signify the "power" of the restaurants (Walsh et al., 2016), which is pertinent because power dynamics in interactions can influence people's unethical behaviors (Dubois et al., 2015).

Consumers who avoid high-risk behavior also might avoid unethical behaviors (Schwabe et al., 2018), so we include a prevention focus measure, using the proportion of prevention-related words in the review (Gamache et al., 2015). Moreover, we control for reviewers' expertise, based on the number of reviews they have posted previously, and whether each review received a response from the firm. We also determine whether the review was written on the weekend; timing can influence unethical behaviors (Kouchaki & Smith, 2014). By introducing year and month dummies, we account for the potential effects of macro-socioeconomic trends on consumer behavior.

Mobile reviews share some similarities; consumers often post reviews through their mobile devices immediately after consumption, whereas they likely turn to nonmobile devices after a longer delay (Li et al., 2021). Therefore, we clustered the standard errors in all specifications to the mobile review level and estimated the impact of consumer stress on review authenticity using a robust ordinary least squares estimator. MDA 3 contains the summary statistics and correlation matrix.

Results

Reviews that include more stressful language tended to exhibit lower authenticity ($B = -1.66$, $p < .001$), in support of H1 (see Table 1).

Robustness Check

Study 1 faces potential endogeneity issues due to omitted time-variant participant characteristics. To mitigate this, we utilize a Gaussian copula method known for its effectiveness in handling simultaneity, measurement errors, and omitted variables (Eckert & Hohberger, 2023). This involves introducing a Gaussian copula term in regressions, derived from the inverse of the standard normal cumulative distribution function (CDF) of the endogenous variable (consumer stress) and its estimated CDF. It is important to note that this approach requires the endogenous variable to be adequately non-normally distributed (Eckert & Hohberger, 2023); otherwise, large standard errors may lead to misleading conclusions of insignificance.

Table 1 Effect of stress on review authenticity

	Review Authenticity (1)	Review Authenticity (2)
Stress	−1.65***	−1.66***
	(0.30)	(0.37)
Anger		0.13
		(0.94)
Negation		2.35**
		(0.28)
Prevention Focus		−0.64
		0.96
Management Response		0.09
		(1.55)
Reviewer Contribution		−0.25*
		(0.36)
Restaurant Overall Rating		−2.12
		(2.97)
Restaurant Total Reviews		2.61**
		(1.82)
Year dummies	NO	YES
Weekend dummies	NO	YES
Month dummies	NO	YES
Restaurant fixed effects	NO	YES
Clustered SE	NO	Write via Mobile
Observations	3638	3638

Model (1) excludes the control variables, and Model (2) includes them. The numbers in parentheses are standard errors, clustered according to whether a review was written on a mobile device

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$

In Study 1, we confirmed the non-normal distribution of the stress variable through a Shapiro–Wilk test (W=.87, V=263.94, Z=14.47, p<.001), justifying the use of the Gaussian copula approach. When adding Gaussian copula variable to the model, Table 2 demonstrates that reviews that include more stressful language tended to exhibit lower authenticity ($B = -1.05$; $p = .087$). Therefore, the primary findings from Study 1 remain robust against potential endogeneity concerns.

Discussion

Study 1 offers preliminary field evidence suggesting that consumer stress, as reflected in negative online reviews, diminishes the authenticity of these reviews. However, we acknowledge the limitations of measuring unethical behavior in a field study, as authenticity may not fully capture all aspects of unethical behavior. Additionally, Study 1 does not

Table 2 The effect of stress on review authenticity with Copula

	Review Authenticity
Stress	−1.05*
	(0.15)
Anger	0.08
	(0.35)
Negation	0.23**
	(0.06)
Prevention	−0.63
	(1.23)
Management Response	0.10
	(0.77)
Reviewer Contribution	−0.25*
	(0.03)
Restaurant Overall Rating	−2.12
	(1.64)
Restaurant Total Reviews	2.59**
	(0.11)
Gaussian Copula term of Stress	−1.28**
	(0.68)
Year dummies	YES
Weekend dummies	YES
Month dummies	YES
Restaurant fixed effects	YES
Clustered SE	Write via Mobile
Observations	3638

The figures reported in parentheses are standard errors clustered to whether a review was written via mobile or not

*$p < 0.10$, **$p < 0.05$ and ***$p < 0.01$

establish a causal relationship between consumer stress and unethical behavior. Study 2 addresses this gap.

Study 2: Experimental Evidence of the Effect of Consumer Stress on Unethical Behavior

Study 2 aims to provide findings on the causal relationship between consumer stress and their unethical behaviors.

Method

We recruited 180 U.K. participants from Prolific who were employed full-time (52% women; M_{age}=38.6 years). Two participants were excluded for ignoring instructions, leaving a final sample of 178 participants. To manipulate stress, in line with Durante and Laran (2016), we asked participants to reflect on different aspects of their current job. In the stress condition, they had to summarize stress-inducing aspects related to their work (i.e., "We first want you to reflect on the aspects of your job that currently cause you stress. Identify specific challenges or concerns related to your work that are particularly burdensome. In the space provided below, please provide a summary of these stressful aspects of your work"). In the no stress condition, participants described a typical day and aspects they appreciated about their job (i.e., "We first want you to reflect on your current job (or your primary job if you have more than one) and consider what aspects make you enjoy the position. In the space provided below, please describe a typical day at work, highlighting the elements that you find favourable about your job"). In both conditions, participants then reported their current stress levels (Durante & Laran, 2016). The measurements we used in Studies 2, 3, and 4, 5 are listed in MDA 4.

Next, we asked participants to imagine they had recently purchased a new sweater. However, due to their own fault, the sweater was damaged; they indicated what they would tell the seller about the sweater (i.e., "We now want you to imagine that you recently went shopping and purchased a new sweater. Upon returning home, while trying on the sweater, it got entangled due to a mishap involving your nail and a sharp object in your surroundings. Opting not to keep the damaged sweater, you decide to bring it to the seller. If you inform them that the sweater was already damaged when you bought it, they will allow you to return the product without any charges. However, if you admit that the damage was your mistake, you will be responsible for covering the repair costs out of your own pocket. In the space below, please write down what you think you would have said to the seller about your sweater").

To assess unethical behavior, two independent coders assessed these responses (=0 if participants told the truth; =1 if participants lied by providing a different reason for an exchange or refund). Intercoder reliability was high (r = .95), and the few discrepancies were resolved through discussion.

Results

Participants reported greater stress in the stress versus no stress condition [M_{stress} = 4.01, SD = 1.64; $M_{no\ stress}$ = 2.55, SD = 1.58; $F(1, 176) = 36.29$, $p < .001$; η^2= .17], so the manipulation worked as intended. Whereas 75.58% (65 of 86) of respondents indicated that they would lie in the stress condition, only 41.30% (38 of 92) people lied in the no stress condition ($p < .001$, Fisher's exact test), in support of H1.

Discussion

Study 2 offers additional insights into the effect of stress on consumer unethical behavior by demonstrating its causal relationship. However, it did not capture actual unethical behavior. To address this limitation, we conducted Study 3 to examine the causal effect of consumer stress on actual unethical behavior and to explore the mediating role of rumination.

Study 3: Consumer Stress, Rumination, and Actual Unethical Behavior

Study 3 addresses the mediating effect of rumination on the relationship between consumer stress and actual unethical behaviors.

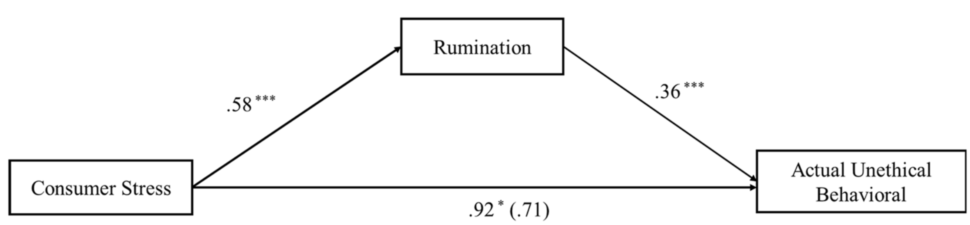
Method

We recruited 165 U.S. participants from MTurk (53% women; M_{age} = 28.7 years), whom we told that a market research company was developing cognitive testing tools for employee recruitment and sought their feedback on task design. To manipulate stress, we used a variation of the Montreal Imaging Stress Task (see MDA 5; Dedovic et al., 2005; Fennis et al., 2022). In the stress condition, participants solved math problems with a time constraint and were told that their performance was 10% below average; in the no stress condition, they solved problems without any time constraint and were told that their performance was comparable to others'. We then measured stress and rumination as in Study 2. Finally, participants completed a measure of actual unethical behavior, using a visual search task (Roeser et al., 2016; Rotman et al., 2018). In particular, participants were presented with a total of 20 matrices, each consisting of three rows and four columns filled with 13-digit numbers, including one or two decimals (e.g., 5.72; see figure in MDA 5). Participants had 10 s to scrutinize each matrix and were tasked with finding two numbers that added up to 10 within that time frame. Each viewing included two buttons where participants had to state whether they found the two numbers or not. Asserting that they solved the matrix led to a $.50 increase in reward, while choosing the "Not found" option resulted in no reward gain. There was no requirement to recall or report the two numbers after the 10 s, and no verification of results, allowing participants the opportunity to deceive. They could increase their rewards if they made false statements about their performance outcomes. Participants were simply asked to report how many matrices they solved. However, a program was implemented to record their actual correct answers and the answers they reported. Participants were debriefed about the deception at the end of the study.

Results

The stress manipulation was successful, such that participants reported more stress in the stress compared with the no stress condition [M_{stress} = 4.85, SD = 1.76; $M_{no\ stress}$ = 3.44, SD = 1.84; $F(1, 163) = 24.83$, $p < .001$; $\eta^2 = .13$]. To capture actual unethical behaviors, we calculated the discrepancy between the number of correct answers that participants reported and their actual correct answers, which were monitored by our program. A larger difference indicates a higher level of actual unethical behavior. Participants in the stress condition engaged in more unethical behavior compared with those in the no stress condition [M_{stress} = 2.78, SD = 3.18; $M_{no\ stress}$ = 1.86, SD = 2.60; $F(1, 163) = 4.11$, $p = .044$; $\eta^2 = .03$], again in support of H1. They also were more prone to rumination when experiencing stress [M_{stress} = 3.02, SD = 1.46; $M_{no\ stress}$ = 2.44, SD = 1.36; $F(1, 163) = 7.03$, $p = .009$; $\eta^2 = .04$]. According to Hayes's (2013) PROCESS macro (Model 4, 5000 bootstraps), consumer stress exerted a significant indirect effect on actual unethical behaviors, through rumination as a mediator (B = .21, 95% CI = [0.01; 0.56], in support of H2 (see Fig. 1).

Fig. 1 Mediating role of rumination in the relationship between consumer stress and actual unethical behavior



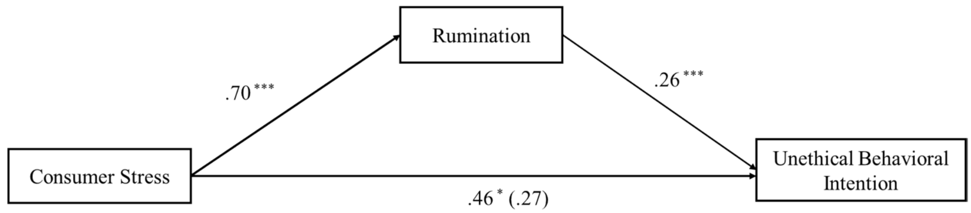
Indirect effects:
Consumer Stress -> Rumination -> Actual Unethical Behavior: B = .21; 95% CI [0.01; .0.56]

Note. We report the direct effect of consumer stress on unethical behavioral intention when rumination is included without parentheses and the direct effect when rumination is not included in parentheses.

The indirect effect is significant when confidence intervals do not include 0

* $p < 0.05$; *** $p < 0.01$

Fig. 2 Mediating role of rumination in the relationship between consumer stress and unethical behavioral intention



Indirect effects:
Consumer Stress -> Rumination-> Unethical Behavioral Intention: B = .18; 95% CI [0.04; .0.38]

Note. We report the direct effect of consumer stress on unethical behavioral intention when rumination is included without parentheses and the total effect when rumination is not included in parentheses.

The indirect effect is significant when confidence intervals do not include 0

* $p < 0.05$; *** $p < 0.01$

Discussion

Study 3 supports our prediction that rumination explains the impact of consumer stress on actual unethical behavior. To further validate our conceptual model and investigate the impact of rumination on unethical consumer behavior, we conducted an experimental study in which we manipulated consumers' rumination (see MDA 6). The findings provide evidence of a positive relationship between consumer rumination and unethical behavior.

Study 4: The Moderating Effect of Narcissism

Study 4 uses an established scale to capture unethical behavioral intention and provides a further test of the mediating effect of rumination on the relationship between consumer stress and unethical behavioral intentions.

A further purpose of Study 4 is to examine the moderating effect of narcissism on the relationship between consumer stress and unethical behaviors (H4). We hypothesize that consumers higher in narcissism might exhibit a larger effect of stress on unethical behavior for two reasons: because such consumers are especially attuned to stress-induced threats to their resources, and because they have less to lose from behaving unethically, since their unethical behavior only confirms the expectations of observers rather than providing new negative information.

Method

We randomly assigned 175 U.K. participants from Prolific (60% women; M_{age} = 40.4 years) to a stress or no stress condition, manipulating stress in line with Griskevicius et al. (2013). In the stress condition, participants read an adapted newspaper article from *The Guardian*, discussing an impending economic recession. Participants in the no stress condition instead read about how regular relaxation exercises can foster mental equilibrium and tranquility (see MDA 7). After participants summarized the key points from their assigned article, we assessed their stress and rumination using the same scales as in Studies 2 and 3. We then administered a narcissism scale ($\alpha = .84$; Jones & Paulhus, 2014) and an unethical behavioral intention scale ($\alpha = .93$; Van Kenhove et al., 2003) (see MDA 4).

Results

The manipulation was successful: Participants in the stress condition reported more stress than those in the no stress condition [M_{stress} = 4.13, SD = 1.53; $M_{no\ stress}$ = 2.43, SD = 1.23; $F(1, 173) = 65.66$, $p < .001$; $\eta^2 = .27$]. In support of H1, participants in the stress condition reported significantly stronger unethical behavioral intention than those in no stress condition [M_{stress} = 2.92, SD = 1.43; $M_{no\ stress}$ = 2.46, SD = 1.14; $F(1, 173) = 5.56$, $p = .019$; $\eta^2 = .03$]. They also were more likely to ruminate in the stress condition than in no stress condition [M_{stress} = 3.62, SD = 1.26; $M_{no\ stress}$ = 2.91, SD = .91; $F(1, 173) = 18.18$, $p < .001$; $\eta^2 = .09$].[1]

With a mediation analysis (PROCESS Model 4, 5000 bootstraps; Hayes, 2013), we identify a significant indirect effect of rumination, such that it helps explain the impact of stress on unethical behavioral intentions (B = .18, 95% CI = [.04, .38]), in support of H2 (see Fig. 2). That is, stress makes consumers ruminate more, which in turn prompts them to exhibit unethical behavioral intentions.

Using a moderation analysis (PROCESS Model 1, 5000 bootstraps; Hayes, 2013), we identify a significant interaction effect between consumer stress and narcissism on unethical behavioral intention (B = .35, p=.04), supporting H4. Figure 3 illustrates this moderating effect.

[1] MDA 8 provides additional analysis in which we examine the effect of stress on each type of consumer unethical behavioral intention suggested by Van Kenhove et al. (2003).

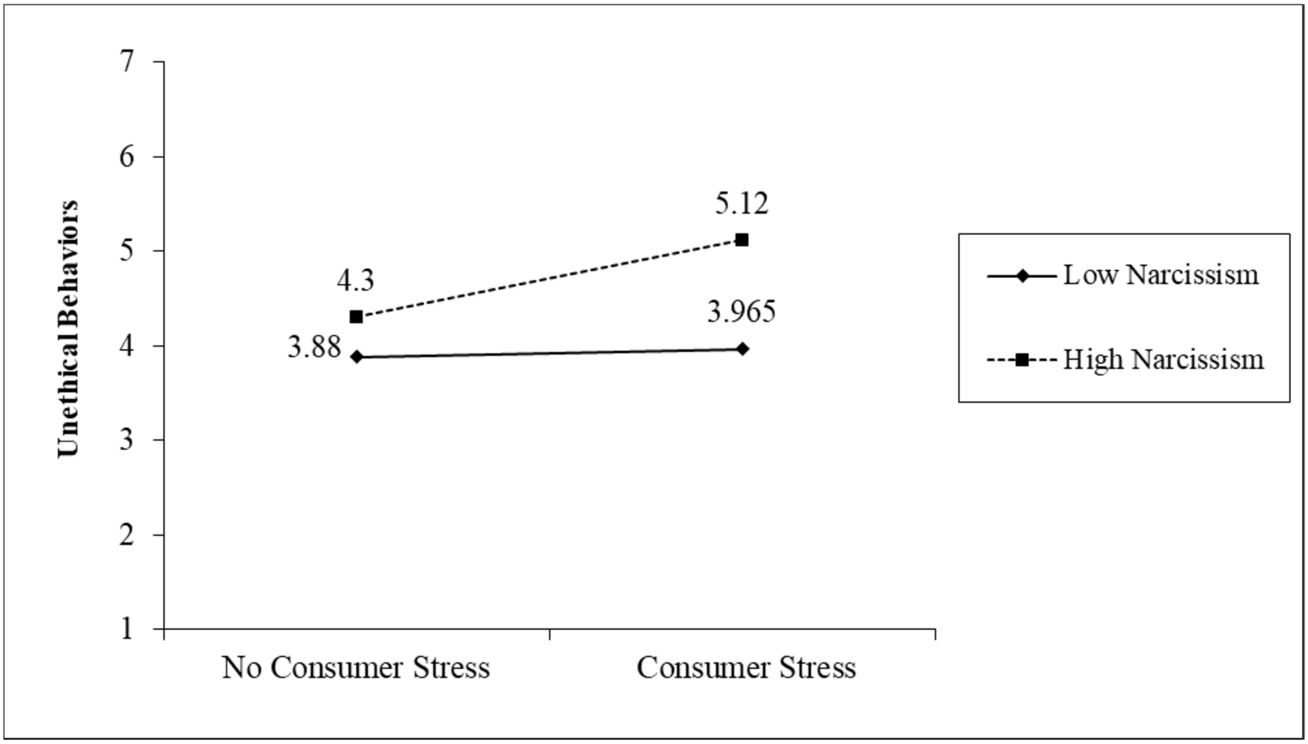


Fig. 3 Moderating role of narcissism in the relationship between consumer stress and unethical behavioral intentions

Discussion

Study 4 provides evidence that the consumer personality trait of narcissism strengthens the effect of stress on consumer behavior. Narcissistic consumers have more to gain from unethical behavior (as they are particularly motivated to regain resources threatened by stress) and less to lose (as they are already viewed as unethical by observers). Consistent with this theorizing, our findings show that the effect of stress on unethical behavior is stronger for consumers with higher levels of narcissism. This study offers valuable insights into how personality traits, in conjunction with stress, can lead to unethical consumer behaviors.

Study 5: Consumer Stress Sources, Types of Unethical Behavioral Intention, and Ruling out Alternative Mechanism

Studies 1–4 have provided insights into how consumer stress influences unethical behavioral intentions and behavior. However, stress can originate from different sources (e.g., workplace, marketplace), which may lead to distinct outcomes. Although the studies so far have found both within-domain effects (e.g., stress-related language in product reviews in Study 1) and cross-domain effects (e.g., workplace stress affecting unethical product return behavior in Study 2), these studies did not directly compare the magnitude of these effects. Therefore, the key purpose of this pre-registered Study 5 (https://aspredicted.org/4yq4er.pdf) is to examine how workplace-induced stress versus marketplace-induced stress affects different types of unethical behavioral intention.

Further, beyond validating the rumination mechanism, we explore moral rationalization as an alternative psychological mechanism. Moral rationalization involves reinterpreting unethical actions as acceptable or justified, thereby reducing moral discomfort (Bandura et al., 1996; Bhattacharjee et al., 2013). By including moral rationalization as an alternative mediator, we aim to determine whether consumers' unethical intentions under stress arise primarily from emotional-cognitive depletion (rumination) or from motivated moral reasoning (moral rationalization).

Method

A total of 1002 participants from the United States (54.2% women; $M_{age} = 45.3$ years) were recruited from two online panels, Prolific ($n = 502$) and Connect ($n = 500$) for the sake of robustness and generalizability, and received monetary compensation for their time. Participants were randomly assigned to one of three experimental conditions by reading a short vignette presented as a news-style article, similar to the procedure in Study 4 (see MDA 9). In the workplace stress condition, participants read a passage describing an individual experiencing anxiety related to his job and the broader economy. In the marketplace stress condition, participants read about the same individual experiencing stress and frustration in their role as a consumer. In the no stress condition, participants read an affect-neutral descriptive passage about U.S. national parks.

Next, unethical behavioral intention was assessed using four measures. First, unethical consumer return intention was measured using a two-item scale based on the sweater scenario from Study 2, which assessed intention to dishonestly return a self-damaged item for a refund ($\alpha = .90$). Second, participants completed an 11-item consumer unethical behavior intention scale adapted from prior work (Liu et al., 2018; see MDA 4). Analyses focused on its three dimensions: active/illegal unethical intentions ("Drinking or eating something in a supermarket without paying for it", 4 items; $\alpha = .83$), questionable/legal unethical intentions (e.g., "Not saying anything when the waiter or waitress miscalculates a bill in your favor", 5 items; $\alpha = .84$), and no-harm/no-foul unethical intentions (e.g., "Installing software on your computer without buying it", 2 items; $\alpha = .77$). Together, these four measures constitute the four dimensions of unethical consumer behavioral intention assessed in this study. Participants also completed the same stress and rumination ($\alpha = .92$) measures as in the prior studies, along with a measure of moral rationalization (e.g., "It is acceptable to engage in behaviors that save money or effort, even if they are somewhat unethical"; $\alpha = .95$). The study concluded with basic demographics.

Results

A one-way ANOVA was first conducted to check the effectiveness of the stress manipulation. The overall model was significant, $F(2, 999) = 78.77$, $p < .001$, $\eta^2 = .136$. Because the assumption of homogeneity of variances was violated (Levene's $F = 11.81$, $p < .001$), Games–Howell post hoc tests were used for follow-up comparisons. As intended, participants in the no stress condition ($M = 2.28$, SD = 1.54) reported significantly lower stress than participants in either the workplace stress condition ($M = 3.67$, SD = 1.90; $p < .001$) or the marketplace stress condition ($M = 3.89$, SD = 1.81; $p < .001$). The two stress conditions did not differ significantly from one another ($p = .282$), confirming the effectiveness of the manipulation.

A one-way MANOVA examined whether the three stress conditions influenced participants' unethical behavioral intention. Box's M was significant ($p = .044$), so Pillai's Trace was used as the more robust statistic. The multivariate effect of stress was marginally significant, Pillai's Trace = .014, $F(8, 1994) = 1.79$, $p = .075$, $\eta^2 = .007$, indicating some overall differences across conditions on the combined unethical intention measures. To complement the multivariate analysis and provide an overall indicator of participants' unethical tendencies, we computed an aggregated index of unethical consumer behavior intentions by summing the four intention measures (unethical consumer return intentions, active/illegal intentions, questionable/legal intentions, and no-harm/no-foul intentions). A one-way ANOVA on this aggregated index revealed a significant effect of stress condition, $F(2, 999) = 3.38$, $p = .034$, $\eta^2 = .007$. Post hoc Games–Howell comparisons indicated that participants in the marketplace stress condition reported significantly higher aggregated unethical intentions than those in the no stress condition ($p = .037$), whereas no other pairwise differences were significant ($ps \geq .170$).

Consistent with these aggregate findings, follow-up univariate ANOVAs revealed significant effects of stress condition on three of the four unethical intention dimensions (see MDA 9). Stress conditions significantly affected unethical consumer return intention, $F(2, 999) = 3.03$, $p = .049$, $\eta^2 = .006$; active/illegal unethical intention, $F(2, 999) = 3.80$, $p = .023$, $\eta^2 = .008$; and questionable/legal unethical intention, $F(2, 999) = 3.39$, $p = .034$, $\eta^2 = .007$. No significant differences emerged for no-harm/no-foul unethical intention, $F(2, 999) = 0.53$, $p = .587$. Figure 4 provides a visual summary of the mean levels of each unethical intention dimension (and the aggregate index) across the three stress conditions.

Post hoc Games–Howell comparisons (see MDA 9) showed a consistent pattern across all outcomes exhibiting significant main effects: participants in the marketplace stress condition reported higher unethical intention than those in the no stress condition. For unethical consumer return intention, individuals in the marketplace stress condition expressed greater willingness to dishonestly return a self-damaged item than those in the no stress condition ($p = .047$). A similar pattern was observed for active/illegal unethical intentions ($p = .044$) and questionable/legal unethical intentions ($p = .028$). In contrast, the workplace stress condition did not significantly differ from either the no stress or marketplace stress conditions on any outcome.

Mediation

We first tested the proposed mediation model using unethical consumer return intention as the dependent variable. Using PROCESS Model 4 with multicategorical coding (no stress = reference group), both workplace stress and marketplace stress significantly increased rumination (workplace stress vs. no stress: $B = 0.84$, SE = 0.11, $p < .001$; marketplace stress vs. no stress: $B = 0.82$, SE = 0.11, $p < .001$), whereas neither stress condition affected moral rationalization ($ps > .43$). In the outcome model, rumination ($B = 0.12$, SE = 0.03, $p < .001$) and moral rationalization ($B = 0.77$, SE = 0.03, $p < .001$) positively predicted unethical consumer return intentions, while the direct effects of stress were

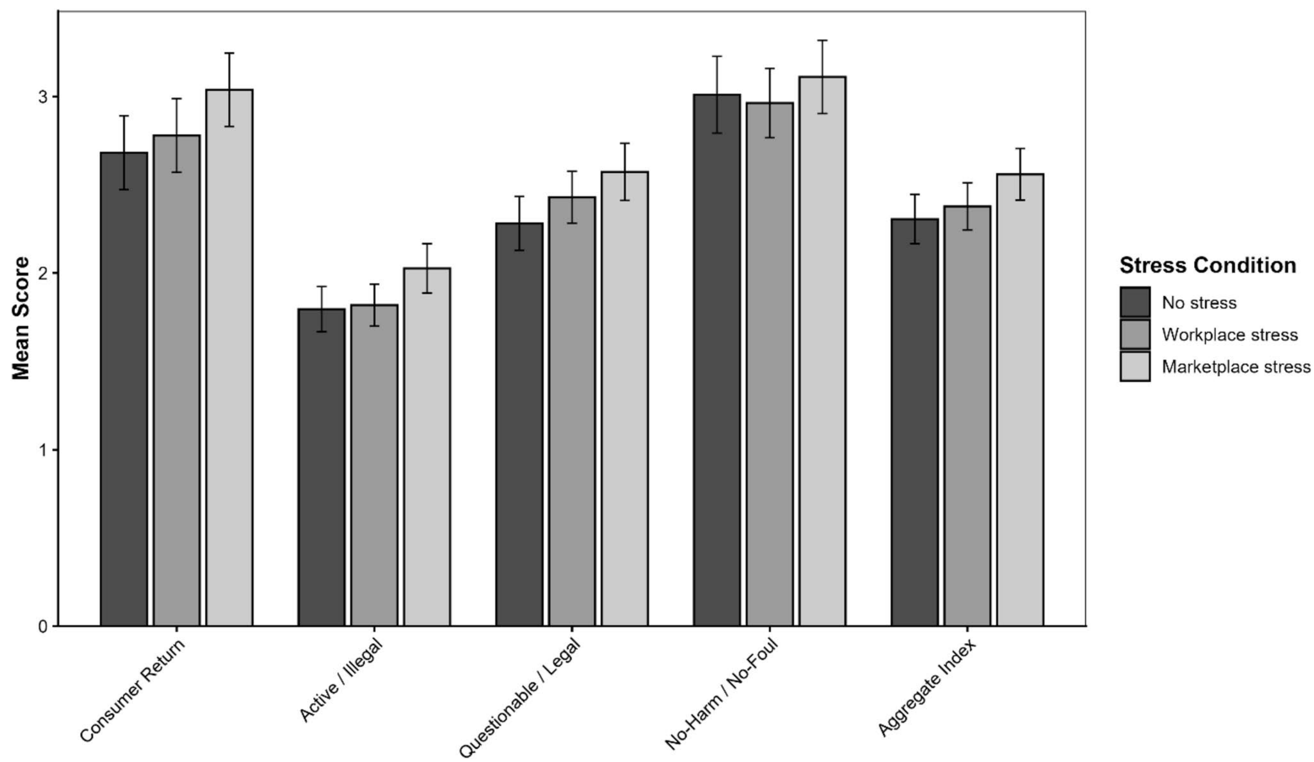


Fig. 4 Mean unethical behavioral intentions across stress conditions (95% CIs shown) for each intention domain and the aggregated unethical behavior index

nonsignificant (ps > .12). Bootstrapped indirect effects (5000 samples) revealed that rumination significantly mediated the effect of both workplace stress ($B = 0.10$, 95% CI [0.04, 0.18]) and marketplace stress ($B = 0.10$, 95% CI [0.03, 0.17]) relative to the no stress condition. Indirect effects through moral rationalization were not significant, with confidence intervals including zero. These results indicate that stress increased unethical intentions indirectly through heightened rumination, but not through moral rationalization. A comparable pattern emerged for the remaining unethical intention outcomes (active/illegal and questionable/legal unethical intentions), and this same pattern was also evident in the aggregated unethical consumer behavior intentions index. Across all three models, rumination significantly mediated the effect of stress on unethical intentions, whereas moral rationalization did not serve as a significant mediator. For the no-harm/no-foul unethical intention outcome, neither mediator was significant. Full mediation results for all outcomes are reported in the MDA 9.

Discussion

Study 5 supports the conclusions of prior studies while adding further nuance. First, we find that stress increases unethical behavioral intentions primarily through heightened rumination rather than through moral rationalization, further supporting our mediation hypothesis (H3) and ruling out a plausible alternative account. Second, we find widespread effects of stress on different types of unethical behavior—unethical product returns, illegal behaviors, and questionable behaviors (e.g., "getting too much change and not saying anything"; Liu et al., 2018)—although the effect did not reach significance for no-harm/no-foul behavior. Third, we found stronger evidence for within-domain unethical behavior (i.e., from marketplace stress) than cross-domain (i.e., from workplace stress). This suggests that consumers are more prone to recover threatened resources from a source that is congruent with the threat. One possibility is that this occurs because stressors from a given domain induce ruminative thoughts pertaining to that domain, prompting consumers to take unethical actions related to those thoughts. We revisit this and other directions and their implications in our General Discussion.

General Discussion

Unethical consumer behavior is a pressing issue, yet its psychological triggers remain insufficiently understood. Our research uncovers a previously overlooked driver of unethical behavior: stress. Because stress prompts individuals to adopt resource-conservation strategies (Hobfoll, 1989, 2001), we hypothesized that stressed consumers would deprioritize ethical considerations in favor of self-interest. Across field and experimental studies, we provide evidence that stress leads to deceptive behaviors, including the use of less authentic language in reviews, heightened intentions to engage in unethical acts, and a greater tendency to cheat. These effects are driven by rumination, as stressed consumers repeatedly dwell on potential resource losses, ultimately justifying unethical conduct. Despite increasing interest in consumer ethics (Kim et al., 2023; Mills & Groening, 2021; Strizhakova et al., 2012), and the growing real-world relevance of these behaviors, the connection between stress, rumination, and unethical behaviors has remained unexplored until now.

Theoretical Implications

Our research makes three contributions to the literature on consumer stress, unethical behaviors, and consumer rumination. *First*, we draw on COR theory to offer a theoretical explanation for our findings, demonstrating that consumer stress, which threatens personal resources, can trigger unethical consumer behaviors as a means of resource acquisition. While emerging marketing studies have begun to explore the effects of stress on consumer behaviors, such as saving and impulsive buying (e.g., Albrecht et al., 2017; Baker & Wakefield, 2012; Durante & Laran, 2016), far less is known about its role in driving unethical consumer behaviors. Specifically, there is a limited understanding of whether and how stress contributes to the darker side of consumer conduct, including unethical actions. Research in related disciplines, such as organizational behavior and psychology, has produced mixed findings regarding the relationship between individual stress and unethical behavior. While some studies suggest that stress increases unethical conduct (Raza et al., 2023; Ye et al., 2024), others indicate that stress can have the opposite effect, fostering prosocial behavior instead (Nitschke et al., 2022; Von Dawans et al., 2012). Notably, these studies typically investigate stress and unethical behavior within the same context, such as the workplace. Our research expands this perspective by demonstrating that consumer stress arising in one domain, such as work or personal life, can spill over and drive unethical behavior in an entirely different setting, such as the marketplace. This insight highlights the *spillover effect* of stress, shedding light on its darker, antisocial consequences for consumers.

Importantly, our results also imply that stress triggered within the same domain (e.g., marketplace stress) appears to have a stronger effect on consumers' unethical behavioral intentions than stress originating from other domains, such as the workplace. In other words, the within-domain effect is stronger than cross-domain spillover effects. By presenting this novel perspective, our findings contribute to the consumer stress literature (see MDA 2) and offer a deeper understanding of the negative repercussions of stress on ethical decision-making in the marketplace.

Second, our research extends the application of COR theory by incorporating consumer rumination and unethical behavior into its framework. COR theory suggests that perceived resource depletion due to stress can lead individuals to engage in undesirable cognitive patterns, such as rumination—the repetitive contemplation of negative thoughts associated with stress (Nolen-Hoeksema, 1991; Wu & Zhou, 2023). Building on this theory, we identify consumer stress as a unique resource threat that intensifies rumination, which, in turn, drives unethical behavior. By establishing rumination as the mechanism through which consumer stress influences unethical actions, we expand prior literature that has predominantly examined rumination in the context of firm wrongdoing (e.g., Allard & McFerran, 2022; Lisjak et al., 2015; Porath et al., 2010; Strizhakova et al., 2012), rather than as a consequence of consumers' own psychological experiences, such as stress. Additionally, our findings offer new insights into the drivers of unethical consumer behavior. While previous studies have primarily focused on situational factors, such as cultural or social norms and brand transgressions (e.g., Mills & Groening, 2021; Rotman et al., 2018), or psychological factors like loneliness (Gentina et al., 2018) and guilt (Kim et al., 2023), we broaden this discourse by highlighting the critical role of stress and rumination as underexplored psychological triggers of unethical consumer behaviors.

Finally, our research adds to the understanding of how consumer personality traits influence their unethical behaviors under stress. Our findings indicate that narcissism as a personality trait strengthens the association between consumer stress and unethical behaviors. This moderating effect may occur because narcissistic consumers have more to gain from unethical behavior (they are more attuned to resource threats; Paulhus & Williams, 2002), because they have less to lose (their image is already consistent with selfish behavior on the part of observers; Wang et al., 2023), or both. Prior research in other disciplines has shown the effects of narcissism on unethical behaviors. For example, Jonason et al. (2012) found that narcissism was positively associated with self-reported cheating in employees. Similarly, Braun (2017) discovered that narcissistic individuals were more likely to engage in workplace deviance, such as lying, stealing, or sabotaging others. Furthermore, in the academic environment, narcissistic students show a higher possibility of cheating; and the underlying reason for this relationship is the lack of guilt experienced by these college students (Brunell et al., 2011). We extend this line of research by examining narcissism as a key consumer personality trait that shapes perceptions of resources, thereby amplifying the relationship between stress and unethical behavior. Our findings provide additional insights into the dark side of narcissism in consumers' behaviors (Bowen et al., 2022).

Practical Implications

Our findings offer important practical implications for managers and marketers, policymakers, and consumers seeking to manage unethical behavior in the marketplace, particularly under stressful conditions. This is particularly relevant given the high levels of stress reported among U.S. adults, with 61% indicating elevated stress (Haeffele, 2023). Unethical consumer behaviors are also widespread; for example, one in eleven consumers has engaged in shoplifting (Castillo, 2023), resulting in significant financial losses for firms, such as Walmart, which reported over \$400 million in losses in 2022 (Fonrouge, 2022; PwC, 2022; Statista, 2025).

For managers and marketers, our results indicate that stress, whether experienced within or outside the marketplace, can increase unethical behavioral intentions in marketplace settings. Notably, stress originating within the same domain (e.g., marketplace stress) exerts a stronger effect than stress arising from other domains, such as the workplace. Managers and marketers should therefore actively monitor and minimize stress-inducing conditions in the marketplace. This includes addressing immediate situational factors, such as long waiting times, as well as anticipating and mitigating broader stressors linked to macro-level crises. Furthermore, direct interactions between staff and consumers, particularly in offline contexts, may help identify signs of consumer stress or rumination that precede unethical behavior. Training customer-facing employees to recognize and appropriately respond to such cues may therefore help mitigate these effects.

Our findings also highlight the moderating role of narcissism. Consumers with higher levels of narcissistic traits are more susceptible to engaging in unethical behavior under stress. Given that prior research suggests narcissistic consumers tend to view brands as sources of security and self-enhancement (Rindfleisch et al., 2009), managers and marketers may consider communications that emphasize reassurance, reliability, and self-affirmation, thereby reducing the perceived need for self-serving actions.

For policymakers, our findings underscore the importance of interventions that help consumers understand the consequences of unethical behavior. Policymakers can take an active role in helping consumers reframe their perception of unethical behaviors, highlighting that such self-serving actions not only harm their personal reputation and society but may also expose them to legal action, civil, and even criminal liability. Importantly, because stress originating within the same domain (e.g., the marketplace) exerts a stronger effect on consumer unethical behavior than stress arising from other domains, policy efforts should prioritize reducing stressors embedded in marketplace environments. Policies and public campaigns that educate consumers about the reputational, social, and legal consequences of unethical actions combined with regulations aimed at minimizing marketplace-specific stressors can help mitigate these tendencies and promote ethical decision-making. This is especially relevant during economic downturns or other high-pressure societal events.

For consumers themselves, they should understand how stress affects their thinking, particularly how tendencies such as rumination can shape their responses. To navigate this, it is important to develop a proactive awareness of one's stress levels and their potential impact on ethical decision-making in the marketplace. Recognizing when stress is accumulating, and how it may distort judgment, allows consumers to pause and respond more thoughtfully. In addition, being mindful that certain traits, such as narcissism, can increase the likelihood of unethical behavior under stress stands to help consumers remain vigilant. By acknowledging these influences, consumers can take practical steps—such as managing stress, reflecting before acting, and considering the broader consequences of their choices. Ultimately, cultivating this self-awareness enables consumers to reduce the negative effects of stress, make more ethical decisions, and uphold both personal integrity and broader societal well-being.

Further Research and Limitations

These findings open several areas of potential inquiry. First, although we have provided evidence that rumination is a key mediator between stress and unethical behaviors, other mechanisms also might contribute. Perhaps stressed consumers experience less anticipatory guilt (Kim et al., 2023) or less perceived control (Durante & Laran, 2016), which could interfere with self-regulation and lead to unethical behavior too. Further, even though our Study 5 attempted to rule out moral rationalization as an alternative explanation, future work should examine such possibility more comprehensively. We also call for research into the constituent links between rumination and unethical behavior, which might be driven by greater self-focus (Winterich et al., 2014), shorter-term focus (Robins & Beer, 2001), or both. Additionally, prior research has suggested that "stress may induce rumination by undermining self-regulation, or the capacity to engage in self-control over one's behavior" (Michl et al., 2013, p. 3). We therefore encourage future research to examine whether self-regulation could formally serve as a mechanism explaining the relationship between consumer stress and rumination, which in turn may lead to unethical behavior. Investigating this potential serial mediation pathway and quantifying their respective contributions could be a useful direction for future research. Stress effects also are not monolithic; our resource-conservation perspective motivates the possibility that stresses induced by various kinds of resource depletion might lead to different forms of unethical behavior (e.g., financially induced stress with theft; time-induced stress with corner-cutting).

Second, what explains why some consumers seem to be immune to this effect? Despite the significant differences in unethical behavior across conditions, the absolute means remained relatively low (i.e., below the scale midpoint). Some consumers appear to view moral rules as black-and-white; they believe stealing or cheating is always wrong and unacceptable (Love et al., 2016). Beliefs that morality is more objective (Goodwin & Darley, 2008), deontological (Conway & Gawronski, 2013), "sacred" (Tetlock, 2003), or identity-central (Aquino & Reed, 2002) might dampen the effects we find. Conversely, personality traits marked by excessive self-focus (e.g., egocentrism, machiavellianism; Rosenthal & Pittinsky, 2006), shorter time horizons (e.g., myopic discounting; Duclos & Khamitov, 2019), or greater rumination (e.g., neuroticism; Mooradian, 1996) might exacerbate them. Other individual differences, such as income, might also contribute to heterogeneity in the effect of stress. Our theory suggests that because higher-income consumers have access to more resources than lower-income consumers, stress may be less likely to trigger rumination and its consequent increase in unethical behavior. Third, although we focus on unethical behavior, our theory potentially extends to a wide range of other effects of consumer stress. On the dark side, stress might lead consumers to dehumanize employees (Henkel et al., 2018) or boycott a business (Sen et al., 2001). Gaining a more precise understanding of the interplay between consumer well-being (e.g., subjective and eudaimonic well-being; Luchs et al., 2021; Williams et al., 2022) and unethical behavior also presents exciting opportunities for consumer psychologists to comprehensively grasp the phenomenon of unethical behavior. On the brighter side, some stress-induced resource-conservation strategies could have positive effects, such as ethical consumption (Gupta & Sen, 2013), donations (Johnson & Grimm, 2010), and helping (Inagaki & Eisenberger, 2016), which can build long-term resources (Faber & Häusser, 2022; Haws et al., 2014). Researchers might examine whether some consumers are more susceptible to one pathway or the other, or even to both simultaneously or sequentially. From a well-being perspective, it would be valuable to understand how the positive and negative consequences of stress can mollify or intensify the original sense of stress.

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Data availability The data that support the findings of this study are available from the corresponding author upon reasonable request.

Declarations

Conflict of interest The authors declare that there are no conflicts of interest.

Ethical Approval This study received ethical approval from the Alliance Manchester Business School, University of Manchester, UK. All procedures involving human participants were conducted in accordance with the ethical standards and guidelines of the institution and adhered to the relevant national and international regulations.

Informed Consent Informed consent was obtained from all participants involved in the research.

References

Akhtar, M. W., Garavan, T., Syed, F., Huo, C., Javed, M., & O'Brien, F. (2024). Despotic leadership and front-line employee deviant work behaviors in service organizations: The roles of moral disengagement and moral identity. *Journal of Service Research, 27*(4), 600–616.

Albrecht, C. M., Hattula, S., & Lehmann, D. R. (2017). The relationship between consumer shopping stress and purchase abandonment in task-oriented and recreation-oriented consumers. *Journal of the Academy of Marketing Science, 45*, 720–740.

Allard, T., & McFerran, B. (2022). Ethical branding in a divided world: How political orientation motivates reactions to marketplace transgressions. *Journal of Consumer Psychology, 32*(4), 551–572.

Aquino, K., & Reed, A., II. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology, 83*(6), 1423.

Arli, D., Leo, C., & Tjiptono, F. (2016). Investigating the impact of guilt and shame proneness on consumer ethics: A cross-national study. *International Journal of Consumer Studies, 40*(1), 2–13.

Asim, M., Zhiying, L., Nadeem, M. A., Ghani, U., Arshad, M., & Yi, X. (2021). How authoritarian leadership affects employee's helping behavior? The mediating role of rumination and moderating role of psychological ownership. *Frontiers in Psychology, 12*, Article 667348.

Baker, J., & Wakefield, K. L. (2012). How consumer shopping orientation influences perceived crowding, excitement, and stress at the mall. *Journal of the Academy of Marketing Science, 40*, 791–806.

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review, 3*(3), 193–209.

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology, 71*(2), 364–374.

Baron, J., Scott, S., Fincher, K., & Metz, S. E. (2015). Why does the cognitive reflection test (sometimes) predict utilitarian moral judgment (and other things)? *Journal of Applied Research in Memory and Cognition, 4*(3), 265–284.

Battisti, M., Hatak, I., & Zhou, H. (2022). Rumination and entrepreneurial well-being: It's complicated! *Revue De L'entrepreneuriat/review of Entrepreneurship, 2*(HS2), 133–158.

BBC News. (2020). Coronavirus: UK film piracy surges during lockdown. *BBC News*. Retrieved March 12, 2025, from https://www.bbc.co.uk/news/technology-52443185

Bhattacharjee, A., Berman, J. Z., & Reed, A., II. (2013). Tip of the hat, wag of the finger: How moral decoupling enables consumers to admire and admonish. *Journal of Consumer Research, 39*(6), 1167–1184.

Birkás, B., Gács, B., & Csathó, Á. (2016). Keep calm and don't worry: Different dark triad traits predict distinct coping preferences. *Personality and Individual Differences, 88*, 134–138.

Botti, S., & McGill, A. L. (2011). The locus of choice: Personal causality and satisfaction with hedonic and utilitarian decisions. *Journal of Consumer Research, 37*(6), 1065–1078.

Bowen, K. T., Musarra, G., & Ou, Y. C. (2022). How and when narcissism and faith in humanity drive sustainable consumption. *Psychology & Marketing, 39*(9), 1706–1724.

Braun, S. (2017). Leader narcissism and outcomes in organizations: A review at multiple levels of analysis and implications for future research. *Frontiers in Psychology, 8*, Article 260159.

Brunell, A. B., Staats, S., Barden, J., & Hupp, J. M. (2011). Narcissism and academic dishonesty: The exhibitionism dimension and the lack of guilt. *Personality and Individual Differences, 50*(3), 323–328.

Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research, 29*(3), 348–370.

Castillo, L. (2023). Must-know shoplifting statistics. Gitnux. Retrieved January 5, 2024, from https://gitnux.org/shoplifting-statistics/

Chevalier, J. A., & Mayzlin, D. (2006). The effect of word of mouth on sales: Online book reviews. *Journal of Marketing Research, 43*(3), 345–354.

Conway, P., & Gawronski, B. (2013). Deontological and utilitarian inclinations in moral decision making: A process dissociation approach. *Journal of Personality and Social Psychology, 104*(2), 216.

Cutright, K. M. (2012). The beauty of boundaries: When and why we seek structure in consumption. *Journal of Consumer Research, 38*(5), 775–790.

Dana, J., Cain, D. M., & Dawes, R. M. (2006). What you don't know won't hurt me: Costly (but quiet) exit in dictator games. *Organizational Behavior and Human Decision Processes, 100*(2), 193–201.

D'Astous, A., & Legendre, A. (2009). Understanding consumers' ethical justifications: A scale for appraising consumers' reasons for not behaving ethically. *Journal of Business Ethics, 87*, 255–268.

Dedovic, K., Renwick, R., Mahani, N. K., Engert, V., Lupien, S. J., & Pruessner, J. C. (2005). The Montreal imaging stress task: Using functional imaging to investigate the effects of perceiving and processing psychosocial stress in the human brain. *Journal of Psychiatry & Neuroscience, 30*(5), 319–325.

Denson, T. F., Pedersen, W. C., Friese, M., Hahm, A., & Roberts, L. (2011). Understanding impulsive aggression: Angry rumination and reduced self-control capacity are mechanisms underlying the provocation–aggression relationship. *Personality and Social Psychology Bulletin, 37*(6), 850–862.

DeWall, C. N., Baumeister, R. F., Gailliot, M. T., & Maner, J. K. (2008). Depletion makes the heart grow less helpful: Helping as a function of self-regulatory energy and genetic relatedness. *Personality and Social Psychology Bulletin, 34*(12), 1653–1662.

Dubois, D., Rucker, D. D., & Galinsky, A. D. (2015). Social class, power, and selfishness: When and why upper and lower class individuals behave unethically. *Journal of Personality and Social Psychology, 108*(3), 436.

Duclos, R., & Khamitov, M. (2019). Compared to dematerialized money, cash increases impatience in intertemporal choice. *Journal of Consumer Psychology, 29*(3), 445–454.

Duhachek, A., & Kelting, K. (2009). Coping repertoire: Integrating a new conceptualization of coping with transactional theory. *Journal of Consumer Psychology, 19*(3), 473–485.

Durante, K. M., & Laran, J. (2016). The effect of stress on consumer saving and spending. *Journal of Marketing Research, 53*(5), 814–828.

Eckert, C., & Hohberger, J. (2023). Addressing endogeneity without instrumental variables: An evaluation of the Gaussian copula approach for management research. *Journal of Management, 49*(4), 1460–1495.

Faber, N. S., & Häusser, J. A. (2022). Why stress and hunger both increase and decrease prosocial behaviour. *Current Opinion in Psychology, 44*, 49–57.

Faber, R. J., & O'Guinn, T. C. (1988). Compulsive consumption and credit abuse. *Journal of Consumer Policy, 11*(1), 97–109.

Faithfull, M. (2024, January 2). "Wardrobing" and fraud add to $743 billion retail returns headache. *Forbes*. https://www.forbes.com/sites/markfaithfull/2024/01/02/wardrobing-and-fraud-add-to-743-billion-retail-returns-headache/

Fennis, B. M., Gineikiene, J., Barauskaite, D., & van Koningsbruggen, G. M. (2022). Acute stress can boost and buffer hedonic consumption: The role of individual differences in consumer life history strategies. *Personality and Individual Differences, 185*, Article 111261.

Ferraro, R., Shiv, B., & Bettman, J. R. (2005). Let us eat and drink, for tomorrow we shall die: Effects of mortality salience and self-esteem on self-regulation in consumer choice. *Journal of Consumer Research, 32*(1), 65–75.

Fonrouge, G. (2022, December 6). Rising thefts at Walmart could lead to price jumps, store closures, CEO says. *CNBC*. Retrieved January 5, 2024, from https://www.cnbc.com/2022/12/06/walmart-ceo-says-shoplifting-could-lead-to-price-jumps-store-closures.html

Forsyth, D. R. (1992). Judging the morality of business practices: The influence of personal moral philosophies. *Journal of Business Ethics, 11*, 461–470.

Gamache, D. L., McNamara, G., Mannor, M. J., & Johnson, R. E. (2015). Motivated to acquire? The impact of CEO regulatory focus on firm acquisitions. *Academy of Management Journal, 58*(4), 1261–1282.

Gentina, E., Shrum, L. J., & Lowrey, T. M. (2018). Coping with loneliness through materialism: Strategies matter for adolescent development of unethical behaviors. *Journal of Business Ethics, 152*, 103–122.

Goodwin, G. P., & Darley, J. M. (2008). The psychology of meta-ethics: Exploring objectivism. *Cognition, 106*(3), 1339–1366.

Grijalva, E., & Harms, P. D. (2014). Narcissism: An integrative synthesis and dominance complementarity model. *Academy of Management Perspectives, 28*(2), 108–127.

Griskevicius, V., Ackerman, J. M., Cantú, S. M., Delton, A. W., Robertson, T. E., Simpson, J. A., Thompson, M. E., & Tybur, J. M. (2013). When the economy falters, do people spend or save?

Responses to resource scarcity depend on childhood environments. *Psychological Science, 24*(2), 197–205.

Gupta, A. S., & Mukherjee, J. (2022). Long-term changes in consumers' shopping behavior post-pandemic: An exploratory study. *International Journal of Retail & Distribution Management, 50*(12), 1518–1534.

Gupta, R., & Sen, S. (2013). The effect of evolving resource synergy beliefs on the intentions–behavior discrepancy in ethical consumption. *Journal of Consumer Psychology, 23*(1), 114–121.

Haeffele, P. (2023). *55% of Americans are unable to enjoy life due to stress: Report.* Becker's Behavioral Health. Retrieved January 5, 2024, from https://www.beckersbehavioralhealth.com/behavioral-health-mental-health/55-of-americans-are-unable-to-enjoy-life-due-to-stress-report.html

Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review, 108*(4), 814.

Harrison, A., Summers, J., & Mennecke, B. (2018). The effects of the dark triad on unethical behavior. *Journal of Business Ethics, 153*, 53–77.

Haws, K. L., Winterich, K. P., & Naylor, R. W. (2014). Seeing the world through green-tinted glasses: Green consumption values and responses to environmentally friendly products. *Journal of Consumer Psychology, 24*(3), 336–354.

Hayes, A. F. (2013). Mediation, moderation, and conditional process analysis. In *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.

He, Y., Zhang, J., Zhou, Y., & Yang, Z. (2019). "Monkey see, monkey do?": The effect of construal level on consumers' reactions to others' unethical behavior. *Journal of Business Ethics, 156*(2), 455–472.

Henkel, A. P., Boegershausen, J., Hoegg, J., Aquino, K., & Lemmink, J. (2018). Discounting humanity: When consumers are price conscious, employees appear less human. *Journal of Consumer Psychology, 28*(2), 272–292.

Herhausen, D., Ludwig, S., Grewal, D., Wulf, J., & Schoegel, M. (2019). Detecting, preventing, and mitigating online firestorms in brand communities. *Journal of Marketing, 83*(3), 1–21.

Hermans, E. J., Van Marle, H. J., Ossewaarde, L., Henckens, M. J., Qin, S., Van Kesteren, M. T., ... & Fernández, G. (2011). Stress-related noradrenergic activity prompts large-scale neural network reconfiguration. *Science, 334*(6059), 1151–1153.

Hershfield, H. E., Cohen, T. R., & Thompson, L. (2012). Short horizons and tempting situations: Lack of continuity to our future selves leads to unethical decision making and behavior. *Organizational Behavior and Human Decision Processes, 117*(2), 298–310.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513.

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology, 50*(3), 337–421.

Hobfoll, S. E., Halbesleben, J., Neveu, J. P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior, 5*(1), 103–128.

Inagaki, T. K., & Eisenberger, N. I. (2016). Giving support to others reduces sympathetic nervous system-related responses to stress. *Psychophysiology, 53*(4), 427–435.

Johnson, J. W., & Grimm, P. E. (2010). Communal and exchange relationship perceptions as separate constructs and their role in motivations to donate. *Journal of Consumer Psychology, 20*(3), 282–294.

Jonason, P. K., Lyons, M., Baughman, H. M., & Vernon, P. A. (2014). What a tangled web we weave: The dark triad traits and deception. *Personality and Individual Differences, 70*, 117–119.

Jonason, P. K., Slomski, S., & Partyka, J. (2012). The dark triad at work: How toxic employees get their way. *Personality and Individual Differences, 52*(3), 449–453.

Jonason, P. K., & Tost, J. (2010). I just cannot control myself: The dark triad and self-control. *Personality and Individual Differences, 49*(6), 611–615.

Jones, D. N., & Paulhus, D. L. (2014). Introducing the short dark triad (SD3) a brief measure of dark personality traits. *Assessment, 21*(1), 28–41.

Kähr, A., Nyffenegger, B., Krohmer, H., & Hoyer, W. D. (2016). When hostile consumers wreak havoc on your brand: The phenomenon of consumer brand sabotage. *Journal of Marketing, 80*(3), 25–41.

Khamitov, M., Grégoire, Y., & Suri, A. (2020). A systematic review of brand transgression, service failure recovery and product-harm crisis: Integration and guiding insights. *Journal of the Academy of Marketing Science, 48*(3), 519–542.

Khamitov, M., Rotman, J. D., & Piazza, J. (2016). Perceiving the agency of harmful agents: A test of dehumanization versus moral typecasting accounts. *Cognition, 146*, 33–47.

Kim, S., & Gal, D. (2014). From compensatory consumption to adaptive consumption: The role of self-acceptance in resolving self-deficits. *Journal of Consumer Research, 41*(2), 526–542.

Kim, T., Lee, H., Kim, M. Y., Kim, S., & Duhachek, A. (2023). AI increases unethical consumer behavior due to reduced anticipatory guilt. *Journal of the Academy of Marketing Science, 51*(4), 785–801.

Kouchaki, M., & Desai, S. D. (2015). Anxious, threatened, and also unethical: How anxiety makes individuals feel threatened and commit unethical acts. *Journal of Applied Psychology, 100*(2), 360.

Kouchaki, M., & Smith, I. H. (2014). The morning morality effect: The influence of time of day on unethical behavior. *Psychological Science, 25*(1), 95–102.

Kruglanski, A. W., Szumowska, E., Kopetz, C. H., Vallerand, R. J., & Pierro, A. (2021). On the psychology of extremism: How motivational imbalance breeds intemperance. *Psychological Review, 128*(2), 264.

Lambert, A., & Desmond, J. (2013). Loyal now, but not forever! A study of narcissism and male consumer–brand relationships. *Psychology & Marketing, 30*(8), 690–706.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Lebel, R. D. (2016). Overcoming the fear factor: How perceptions of supervisor openness lead employees to speak up when fearing external threat. *Organizational Behavior and Human Decision Processes, 135*, 10–21.

LeBreton, J. M., Shiverdecker, L. K., & Grimaldi, E. M. (2018). The dark triad and workplace behavior. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 387–414.

Leischnig, A., & Woodside, A. G. (2019). Who approves fraudulence? Configurational causes of consumers' unethical judgments. *Journal of Business Ethics, 158*, 713–726.

Li, H., Qi, R., Liu, H., Meng, F., & Zhang, Z. (2021). Can time soften your opinion? The influence of consumer experience valence and review device type on restaurant evaluation. *International Journal of Hospitality Management, 92*, Article 102729.

Lisjak, M., Bonezzi, A., Kim, S., & Rucker, D. D. (2015). Perils of compensatory consumption: Within-domain compensation undermines subsequent self-regulation. *Journal of Consumer Research, 41*(5), 1186–1203.

Liu, Y., Zhao, X., & Liu, Y. (2018). Stress and unethical consumer attitudes: The mediating role of construal level and materialism. *Personality and Individual Differences, 135*, 85–91.

Liu, Z., Yang, Z., Zeng, F., & Waller, D. (2015). The developmental process of unethical consumer behavior: An investigation grounded in China. *Journal of Business Ethics, 128*(2), 411–432.

Love, E., Staton, M., & Rotman, J. D. (2016). Loyalty as a matter of principle: The influence of standards of judgment on customer loyalty. *Marketing Letters, 27*, 661–674.

Luchs, M. G., Mick, D. G., & Haws, K. L. (2021). Consumer wisdom for personal well-being and the greater good: Scale development and validation. *Journal of Consumer Psychology, 31*(3), 587–611.

Martin, L. L., & Tesser, A. (1996). Some ruminative thoughts. In R. S. Wyer (Ed.), *Advances in social cognition* (pp. 1–47). Lawrence Erlbaum Associates.

Mayr, K., Schwendtner, T., Teller, C., & Gittenberger, E. (2022). Unethical customer behaviour: Causes and consequences. *International Journal of Retail & Distribution Management, 50*(13), 200–224.

Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of self-concept maintenance. *Journal of Marketing Research, 45*(6), 633–644.

Menon, M. K., & Sharland, A. (2010). Narcissism, exploitative attitudes, and academic dishonesty: An exploratory investigation of reality versus myth. *Journal of Education for Business, 86*(1), 50–55.

Michl, L. C., McLaughlin, K. A., Shepherd, K., & Nolen-Hoeksema, S. (2013). Rumination as a mechanism linking stressful life events to symptoms of depression and anxiety: Longitudinal evidence in early adolescents and adults. *Journal of Abnormal Psychology, 122*(2), 339.

Mills, P., & Groening, C. (2021). The role of social acceptability and guilt in unethical consumer behavior: Following the crowd or their own moral compass? *Journal of Business Research, 136*, 377–388.

Moberly, N. J., & Watkins, E. R. (2008). Ruminative self-focus and negative affect: An experience sampling study. *Journal of Abnormal Psychology, 117*(2), 314.

Moon, S., Kim, M. Y., & Iacobucci, D. (2021). Content analysis of fake consumer reviews by survey-based text categorization. *International Journal of Research in Marketing, 38*(2), 343–364.

Mooradian, T. A. (1996). Personality and ad-evoked feelings: The case for extraversion and neuroticism. *Journal of the Academy of Marketing Science, 24*(2), 99–109.

Moschis, G. P. (2007). Stress and consumer behavior. *Journal of the Academy of Marketing Science, 35*, 430–444.

Motro, D., Ordóñez, L. D., Pittarello, A., & Welsh, D. T. (2018). Investigating the effects of anger and guilt on unethical behavior: A dual-process approach. *Journal of Business Ethics, 152*, 133–148.

Nam, J., Balakrishnan, M., De Freitas, J., & Brooks, A. W. (2023). Speedy activists: How firm response time to sociopolitical events influences consumer behavior. *Journal of Consumer Psychology, 33*(4), 632–644.

National Retail Federation (NRF). (2022). *Retail security survey: The state of national retail security and organized retail crime.* NRF. Retrieved August 1, 2023, from https://nrf.com/research/national-retail-security-survey-2022

Newman, M. L., Pennebaker, J. W., Berry, D. S., & Richards, J. M. (2003). Lying words: Predicting deception from linguistic styles. *Personality and Social Psychology Bulletin, 29*(5), 665–675.

Ng, T. W., & Feldman, D. C. (2012). Employee voice behavior: A meta-analytic test of the conservation of resources framework. *Journal of Organizational Behavior, 33*(2), 216–234.

Nguyen, B., Tran, H. A., Stephan, U., Van, H. N., & Anh, P. T. H. (2024). "I can't get it out of my mind"—Why, how, and when crisis rumination leads entrepreneurs to act and pivot during crises. *Journal of Business Venturing, 39*(4), Article 106395.

Nitschke, J. P., Forbes, P. A., & Lamm, C. (2022). Does stress make us more—or less—prosocial? A systematic review and meta-analysis of the effects of acute stress on prosocial behaviours using economic games. *Neuroscience & Biobehavioral Reviews, 142*, Article 104905.

Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology, 100*(4), 569.

Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science, 3*(5), 400–424.

O'Boyle, E. H., Jr., Forsyth, D. R., Banks, G. C., & McDaniel, M. A. (2012). A meta-analysis of the dark triad and work behavior: A social exchange perspective. *Journal of Applied Psychology, 97*(3), 557–579.

Office for National Statistics (ONS). (2024). *Crime in England and Wales: Year ending September 2024.* ONS. Retrieved February 21, 2025, from https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/crimeinenglandandwales/yearendingseptember2024

Packard, G., Moore, S. G., & Berger, J. (2023). Consumer insights from text analysis. *Journal of Consumer Psychology, 33*(4), 615–620.

Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality, 36*(6), 556–563.

Pennebaker, J. W., Boyd, R. L., Jordan, K., & Blackburn, K. (2015). *The development and psychometric properties of LIWC2015*. University of Texas at Austin.

Porath, C., MacInnis, D., & Folkes, V. (2010). Witnessing incivility among employees: Effects on consumer anger and negative inferences about companies. *Journal of Consumer Research, 37*(2), 292–303.

PwC. (2022). *PwC's global economic crime and fraud survey 2022: India insights*. PwC. Retrieved October 15, 2025 from https://www.pwc.in/consulting/forensics/pwcs-global-economic-crime-and-fraud-survey-2022.html

Raza, B., St-Onge, S., & Ullah, S. (2023). Abusive supervision and deviance behaviors in the hospitality industry: The role of intrinsic motivation and core self-evaluation. *Tourism Management, 98*, 1–12.

Reynolds, S. J., & Ceranic, T. L. (2007). The effects of moral judgment and moral identity on moral behavior: An empirical examination of the moral individual. *Journal of Applied Psychology, 92*(6), 1610.

Rindfleisch, A., Burroughs, J. E., & Denton, F. (1997). Family structure, materialism, and compulsive consumption. *Journal of Consumer Research, 23*(4), 312–325.

Rindfleisch, A., Burroughs, J. E., & Wong, N. (2009). The safety of objects: Materialism, existential insecurity, and brand connection. *Journal of Consumer Research, 36*(1), 1–16.

Robins, R. W., & Beer, J. S. (2001). Positive illusions about the self: Short-term benefits and long-term costs. *Journal of Personality and Social Psychology, 80*(2), 340.

Roeser, K., McGregor, V. E., Stegmaier, S., Mathew, J., Kübler, A., & Meule, A. (2016). The dark triad of personality and unethical behavior at different times of day. *Personality and Individual Differences, 88*, 73–77.

Rosenthal, S. A., & Pittinsky, T. L. (2006). Narcissistic leadership. *The Leadership Quarterly, 17*(6), 617–633.

Rotman, J. D., Khamitov, M., & Connors, S. (2018). Lie, cheat, and steal: How harmful brands motivate consumers to act unethically. *Journal of Consumer Psychology, 28*(2), 353–361.

Roy, R., Som, A., Naidoo, V., & Rabbanee, F. K. (2024). How envy encourages beliefs in unethical consumer behaviour: The role of religiosity and moral awareness. *Journal of Business Ethics, 193*(2), 345–361.

Schneider, B. (1983a). An interactionist perspective on organizational effectiveness. In K. S. Cameron & D. A. Whetten (Eds.), *Organizational effectiveness: A comparison of multiple models* (pp. 27–54). Academic.
Schneider, B. (1983b). Work climates: An interactionist perspective. In N. W. Feimer & E. S. Geller (Eds.), *Environmental psychology: Directions and perspectives* (pp. 106–128). Praeger.
Schwabe, M., Dose, D. B., & Walsh, G. (2018). Every saint has a past, and every sinner has a future: Influences of regulatory focus on consumers' moral self-regulation. *Journal of Consumer Psychology, 28*(2), 234–252.
Selby, E. A., Kranzler, A., Panza, E., & Fehling, K. B. (2016). Bidirectional-compounding effects of rumination and negative emotion in predicting impulsive behavior: Implications for emotional cascades. *Journal of Personality, 84*(2), 139–153.
Sen, S., Gürhan-Canli, Z., & Morwitz, V. (2001). Withholding consumption: A social dilemma perspective on consumer boycotts. *Journal of Consumer Research, 28*(3), 399–417.
Shepherd, D. A., Patzelt, H., & Baron, R. A. (2013). I care about nature, but…": Disengaging values in assessing opportunities that cause harm. *Academy of Management Journal, 56*(5), 1251–1273.
Song, Y. H., Skarlicki, D. P., Shao, R., & Park, J. (2021). Reducing customer-directed deviant behavior: The roles of psychological detachment and supervisory unfairness. *Journal of Management, 47*(8), 2008–2036.
Statista. (2025). *E-commerce fraud*. Statista. Retrieved October 15, 2025 from https://www.statista.com/study/110998/e-commerce-fraud/
Stephan, U., Zbierowski, P., Pérez-Luño, A., Wach, D., Wiklund, J., Alba Cabañas, M., Barki, E., Benzari, A., Bernhard-Oettel, C., Boekhorst, J. A., Dash, A., Efendic, A., Eib, C., Hanard, P.-J., Iakovleva, T., Kawakatsu, S., Khalid, S., Leatherbee, M., Li, J., … Zahid, M. M. (2023). Act or wait-and-see? Adversity, agility, and entrepreneur wellbeing across countries during the COVID-19 pandemic. *Entrepreneurship Theory and Practice, 47*(3), 682–723.
Strizhakova, Y., Tsarenko, Y., & Ruth, J. A. (2012). "I'm mad and I can't get that service failure off my mind" coping and rumination as mediators of anger effects on customer intentions. *Journal of Service Research, 15*(4), 414–429.
Sufi, A. F., Raja, U., & Butt, A. N. (2024). Impact of peer unethical behaviors on employee silence: The role of organizational identification and emotions. *Journal of Business Ethics, 190*(4), 821–839.
Sweller, J. (2011). Cognitive load theory. *Psychology of learning and motivation* (Vol. 55, pp. 37–76). Academic.
Tacke, F., Knockaert, M., Patzelt, H., & Breugst, N. (2023). When do greedy entrepreneurs exhibit unethical pro-organizational behavior? The role of new venture team trust. *Journal of Management, 49*(3), 974–1004.
Tetlock, P. E. (2003). Thinking the unthinkable: Sacred values and taboo cognitions. *Trends in Cognitive Sciences, 7*(7), 320–324.
Van Kenhove, P., De Wulf, K., & Steenhaut, S. (2003). The relationship between consumers' unethical behavior and customer loyalty in a retail environment. *Journal of Business Ethics, 44*, 261–278.
Veetikazhi, R., Kamalanabhan, T. J., Malhotra, P., Arora, R., & Mueller, A. (2022). Unethical employee behaviour: A review and typology. *The International Journal of Human Resource Management, 33*(10), 1976–2018.
Vitell, S. J. (2003). Consumer ethics research: Review, synthesis, and suggestions for the future. *Journal of Business Ethics, 43*(1–2), 33–47.
Von Dawans, B., Fischbacher, U., Kirschbaum, C., Fehr, E., & Heinrichs, M. (2012). The social dimension of stress reactivity: Acute stress increases prosocial behavior in humans. *Psychological Science, 23*(6), 651–660.
Walsh, G., Albrecht, A. K., Kunz, W., & Hofacker, C. F. (2016). Relationship between online retailers' reputation and product returns. *British Journal of Management, 27*(1), 3–20.
Wang, W., Campbell, E. M., Duffy, M. K., & Liu, J. (2023). When narcissists exemplify ethics: Contingent consequences of ethical leadership. *Journal of Applied Psychology, 108*(8), 1372–1390.
Wang, W., Hernandez, I., Newman, D. A., He, J., & Bian, J. (2016). Twitter analysis: Studying US weekly trends in work stress and emotion. *Applied Psychology, 65*(2), 355–378.
Wang, Y., Xiao, S., & Ren, R. (2022). A moral cleansing process: How and when does unethical pro-organizational behavior increase prohibitive and promotive voice. *Journal of Business Ethics, 176*(1), 175–193.
Ward, A., & Mann, T. (2000). Don't mind if I do: Disinhibited eating under cognitive load. *Journal of Personality and Social Psychology, 78*(4), 753.
Watkins, E. D. (2004). Adaptive and maladaptive ruminative self-focus during emotional processing. *Behaviour Research and Therapy, 42*(9), 1037–1052.
Watkins, E. R. (2008). Constructive and unconstructive repetitive thought. *Psychological Bulletin, 134*(2), 163–206.
Williams, P., Escalas, J. E., & Morningstar, A. (2022). Conceptualizing brand purpose and considering its implications for consumer eudaimonic well-being. *Journal of Consumer Psychology, 32*(4), 699–723.
Winterich, K. P., Mittal, V., & Morales, A. C. (2014). Protect thyself: How affective self-protection increases self-interested, unethical behavior. *Organizational Behavior and Human Decision Processes, 125*(2), 151–161.
Wolfe, A. (2023). *Whose keeper? Social science and moral obligation*. University of California Press.
Wu, Q., & Zhou, N. (2023). Work stress and personal and relational well-being among Chinese college teachers: The indirect roles of sense of control and work-related rumination. *Psychology Research and Behavior Management, 16*, 2819–2828.
Ye, Y., Liu, P., & Zhang, L. (2024). Customer mistreatment and unethical pro-organizational behavior: A daily diary study examining the roles of status threat. *International Journal of Contemporary Hospitality Management, 36*(6), 2125–2143.
Youssef, F. F., Dookeeram, K., Basdeo, V., Francis, E., Doman, M., Mamed, D., Maloo, S., Degannes, J., Dobo, L., Ditshotlo, P., & Legall, G. (2012). Stress alters personal moral decision making. *Psychoneuroendocrinology, 37*(4), 491–498.