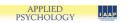
SPECIAL ISSUE



Employee regret and disappointment: Creation of a scale and foundational application of the approach/avoidance framework

Matt C. Howard | Mickey B. Smith

Mitchell College of Business, The University of South Alabama, Mobile, AL, USA

Correspondence

Matt C. Howard, 5811 Drive S., Rm. 337, Mitchell College of Business, University of South Alabama, Mobile, AL 36688, USA.

Email: mhoward@southalabama.edu

Abstract

A growing number of calls have been made for a discrete-emotions approach in organisational research, and we answer these calls by theoretically and empirically distinguishing the effects of regret and disappointment by applying the approach/avoidance framework. We predict that regret positively relates to avoidance motivation, whereas disappointment both positively relates to avoidance motivation and negatively relates to approach motivation. We also predict that approach and avoidance motivations mediate the effects of regret and disappointment on employee outcomes, including job satisfaction, organisational citizenship behaviors, voice, counterproductive work behaviors, withdrawal, and turnover intentions. To test these predictions, we conduct five studies to develop theoretically driven and psychometrically sound scales to measure both emotions—the Employee Regret and Disappointment Scales (ERDS). The results of two final studies support the distinct effects of regret and disappointment on important employee outcomes and the mediating effects of approach/avoidance motivations in these relations. We close by discussing the theoretical and practical implications with suggestions for future research.



KEYWORDS

approach/avoidance framework, disappointment, emotions, regret, scale development

INTRODUCTION

Verbruggen and van Emmerik (2020) commented, "Regret is among the most intense and most frequently occurring negative emotions" (p. 535), reflecting a growing recognition for the impact that regret can have in people's lives both within and outside the workplace. Similarly, Tan et al. (2021) demonstrated the costly effects of customer disappointment on firm-level outcomes, concluding that future researchers assess similar instances in which disappointment negatively impacts organisations. A renewed interest regarding the study of regret and disappointment in the workplace has brought to light the need to further distinguish the emotions and explain how regret and disappointment ultimately lead to important employee behaviors.

In early regret and disappointment research, scholars seemingly established the uniqueness of the two emotions (Zeelenberg & Pieters, 1999, 2004; Zeelenberg et al., 1998). However, to date, researchers rarely predict differential effects for the two emotions, and applied theoretical frameworks often treat regret and disappointment as the same (Li et al., 2018). This is further exacerbated by the lack of supported scales capturing regret and disappointment that can establish empirical evidence of construct uniqueness. To address these limitations, the current article seeks to conceptually distinguish regret and disappointment via the discrete-emotions approach (Ashkanasy & Dorris, 2017) and develop psychometrically sound and valid scales of employee regret and disappointment to advance empirical study of the two emotions in the workplace. We also integrate the approach/avoidance framework of motivation (Elliot, 1999) to explain the different motivational mechanisms activated by regret and disappointment. By doing so, we provide theoretical explanations of how the two emotions ultimately initiate different motivational and cognitive processes, producing further evidence that regret and disappointment should be studied as unique discrete emotions with significant implications for organisations.

The primary goals of this article are thus twofold. We integrate the approach/avoidance framework to conceptually bolster the uniqueness of regret and disappointment and suggest that the two emotions cause employees to engage in differing motivational strategies—ultimately cultivating a better understanding of their impacts on employee behavior (Elliot, 1999; Elliot & Covington, 2001). We argue that regret positively relates to avoidance motivation, whereas disappointment *both* positively relates to avoidance motivation and negatively relates to approach motivation. We further argue that these differing orientations cause the two emotions to produce differential effects. Specifically, we propose that regret causes employees to engage in deviant behaviors and withdraw from the organisation. On the other hand, we also propose that disappointment causes employees to engage in deviance, but they withdraw at a greater rate and perform fewer citizenship behaviors. In testing these effects, we analyze whether avoidance motivation alone mediates the relations of regret and its outcomes, and we analyze whether both approach and avoidance motivations mediate the relations of disappointment and its outcomes.

Integrating the approach/avoidance framework offers insight into the differing outcomes of similarly valenced emotions, thereby allowing more accurate predictions for important



employee behaviors. In providing this support, we satisfy specific calls for research on the approach/avoidance framework to explore differing orientations of emotions with a common valence (Carver & Harmon-Jones, 2009; Marsh et al., 2005; Radke et al., 2013) and show that valence does not entirely determine an approach or avoidance orientation, providing a deeper understanding of the framework itself. Perhaps more importantly, the current article produces insights into increasing the predictive ability and sophistication of emotions research. Those calling for a discrete-emotions approach often emphasise that specific emotions (e.g. regret and disappointment) more strongly predict relevant outcomes, whereas general emotions (e.g. negative affect) predict outcomes more broadly (Lench et al., 2011; Rupp & Spencer, 2006; Yin et al., 2014). By identifying and differentiating the effects of regret and disappointment, we provide an avenue for future researchers to better predict relevant outcomes in their research domains. In the workplace, for instance, researchers can better understand why an employee experiencing negative emotions may continue performing citizenship behaviors whereas another may not; one may be experiencing regret, whereas the other may be experiencing disappointment.

The second goal of this article is to stimulate future research with a psychometrically sound scale for measuring regret and disappointment. The study of regret and disappointment largely originated in economics to explain behavioral decision-making patterns (Bell, 1985; Loomes & Sugden, 1982), and the two emotions have also been associated in marketing with repurchase intentions, word of mouth, and other consumer behaviors (Zeelenberg & Pieters, 1999, 2004). We contend that the relative dearth of research on regret and disappointment in management and applied psychology (compared with other disciplines) is at least partially caused by the lack of a supported measure. Building upon the foundational work of prior regret and disappointment research, we employ a multiple-study process to develop the Employee Regret and Disappointment Scales (ERDS). We support the factor structure and validity of these scales, and we subsequently use them to empirically integrate the discrete-emotions approach and approach/ avoidance framework. These scales can both enhance the accuracy of the current studies and enable future research on the two emotions to progress more easily. Together, the current article provides practical benefits for the future study of employee regret and disappointment by creating the ERDS, and we also provide a robust investigation into the suitably of the approach/avoidance framework to explain the effects of the two emotions.

BACKGROUND

Regret and disappointment

Both regret and disappointment arise from discrepancies between expected and actual outcomes, but the emotions differ regarding the specific form of discrepancy (Marcatto & Ferrante, 2008; Zeelenberg et al., 1998, 2000). Regret arises from an unfavorable discrepancy between an obtained outcome and possible alternatives, occurring when the obtained outcome appears inferior to other foregone options. Disappointment arises from an unfavorable discrepancy between an obtained outcome and expectations for that outcome, such that the obtained outcome fell short of expectations. Regret and disappointment are significant predictors of important outcomes across several fields of study (e.g. economics and marketing; Loomes & Sugden, 1982, 1987; Zeelenberg & Pieters, 1999, 2004), and the two emotions may likewise predict important employee outcomes due to the many common

workplace events that can cause regret or disappointment. For example, employees are often forced to decide how to perform their work (Morgeson et al., 2005; Morgeson & Humphrey, 2006). Bolino et al. (2010) highlights that employees can incur negative reactions to their organisational citizenship behaviors (OCBs), such as an employee voluntarily replacing a malfunctioning piece of equipment rather than repairing it. In performing the act, however, their coworkers may become disgruntled at being forced to learn a new technology, resulting in the employee receiving criticism rather than praise. This would likely cause feelings of regret or disappointment, as the obtained outcome is worse than alternative and expected outcomes. In this situation and similar others, employees experiencing regret or disappointment often alter their behaviors to avoid future occurrences of the two emotions, thereby influencing employee and organisational outcomes.

Regret and disappointment are often studied together due to their similarities and perceived necessity to differentiate their dynamics. Both emotions arise from disparities regarding obtained outcomes, and they are believed to be at least somewhat concurrent; however, they do not always arise together, and one emotion is not believed to always precede the other (Zeelenberg & Pieters, 1999, 2004; Zeelenberg et al., 1998). Furthermore, prior authors have only specified that regret and disappointment arise from obtained outcomes, which may include both chosen outcomes and bestowed outcomes (Marcatto & Ferrante, 2008; Zeelenberg et al., 1998, 2000). For instance, an employee could experience regret and/or disappointment by either choosing or being forced to enroll in a lackluster training program, given present definitions and theoretical understandings of the two emotions. Because prior research has yet to differentiate regret or disappointment arising from chosen or bestowed outcomes, we likewise do not make this differentiation such that our work can more closely integrate the discreteemotions approach and approach/avoidance framework with prior research on the two emotions. Our studies do, however, pose some implications for this differentiation, and our discussion section revisits possible implications of these emotions arising from chosen or bestowed outcomes.

Further, the most thorough discussion and analysis of regret and disappointment is the work of Zeelenberg and Pieters (see Zeelenberg, 1999; Zeelenberg & Beattie, 1997; Zeelenberg & Breugelmans, 2008; Zeelenberg & Pieters, 1999, 2004, 2007; Zeelenberg et al., 1998, 2000). Zeelenberg and Pieters conceptually distinguished regret and disappointment in the context of customer decision-making, cementing the definitions that are now widespread in research. The authors also showed that the two emotions relate to important customer behaviors in an array of settings, and the effects of the two emotions vary in magnitude but have consistent directions. In general, both emotions have positive relations with detrimental customer outcomes and negative relations with beneficial customer outcomes, and disappointment is a stronger predictor than regret. In considerations for future work, Zeelenberg and Pieters called for the application of modern theory to determine the cause of the two emotions' differential effects.

Other authors have also analyzed the joint effects of regret and disappointment beyond the work of Zeelenberg and Pieters (Bault et al., 2016; Cho et al., 2017; Jang et al., 2013), but these authors have not fully adopted their suggestions. In most studies, both emotions are described in tandem and expected to have similar, if not identical, relations with antecedents and outcomes. If two emotions indeed produce similar or identical effects, then there is little reason to distinguish them. If two emotions produce differing effects, however, then our understanding of regret and disappointment is insufficient. We propose that



the latter is the case, and we apply the approach/avoidance framework to make differential predictions for the two emotions.

Approach/avoidance framework

People have the natural motivational tendency to approach positive stimuli and avoid negative stimuli, which is the well-supported premise of the approach/avoidance framework (Elliot, 1999; Elliot & Church, 1997; Elliot & Covington, 2001). Indeed, people continuously strive to secure pleasing stimuli (e.g. status, security, and friendship) and go through great lengths to avoid distressing stimuli (e.g. loss of resources, reductions to autonomy, and bodily harm). Even newborns show signs of approach and avoidance tendencies, and the separate brain structures that activate these responses may be the cause of these seemingly innate instincts (Elliot & Covington, 2001; Young, 2002). Beyond behaviors, many other aspects of the human experience relate to approach or avoidance orientations. Of relevance, certain emotions have also been suggested to correspond to approach and avoidance tendencies.

As Crawford and Cacippo (2002, p. 449) state, "A primary function of affective processing is to trigger approach and avoidance responses." When striving toward a goal, certain events may elicit unique emotions. For instance, two individuals might have the same goal they are seeking to achieve. However, one individual may see the potential pain of failing to achieve the goal and experience emotions relating to avoidance motivation. The second individual, however, may see potential rewards for achieving the goal and experience emotions relating to approach motivation. Thus, not only do emotions alter approach or avoidance tendencies toward goals, but emotions also effect reactions to goal-related stimuli (e.g. outcomes of goal achievement).

Several factors must be considered to determine the approach or avoidance orientation of an emotion. Although orientations are determined by more than valence alone, valence certainly plays a central role. Emotions with positive valences (e.g. joy and gratitude) tend to relate to an approach orientation, whereas emotions with negative valences (e.g. sadness and fear) tend to relate to an avoidance orientation (Ferris et al., 2013; Roseman, 2008; Updegraff et al., 2004). The orientation of an emotion is also influenced by whether it relates to a loss, nonloss, gain, or nongain (Ferris et al., 2013; Roseman, 2008; Updegraff et al., 2004). Emotions that relate to losses result in an increased avoidance orientation; those that relate to nonlosses¹ result in a reduced avoidance orientation; those that relate to gains result in an increased approach orientation; and those that relate to nongains² result in a reduced approach orientation. For instance, jealousy is a negative emotion stemming from the fear of loss (e.g. jealous partner), resulting in an avoidance orientation; whereas envy is a negative emotion stemming from desire for gain (e.g. envious coworker), resulting in an approach orientation (Parrott & Smith, 1993; Salovey, 1991). The focus on (non)loss or (non)gain is the critical mechanism that ties negatively valenced emotions to separate outcomes through differing motivational mechanisms. We expect regret and disappointment to operate similarly.

We suggest that both emotions relate to an increased avoidance motivation, but only disappointment relates to a reduced approach motivation. Regarding an increased avoidance motivation, both emotions have a negative valence and stem from a perceived loss, as a person would lose the possibility to obtain outcomes associated with foregone opportunities when experiencing both regret and disappointment (Zeelenberg, 1999; Zeelenberg & Pieters, 1999, 2004, 2007). It would be beneficial for a person to then be sensitive to negative information

arising from this and related stimuli, thereby avoiding perceived losses and other negative outcomes in the future. Therefore, both emotions relate to an increased avoidance motivation.

Regarding a reduced approach motivation, it is important to consider the discrepancies that cause the two emotions. Regret arises due to a discrepancy between an obtained outcome and possible alternative outcomes, whereas disappointment arises due to a discrepancy between an obtained outcome and expectations for that outcome. In the case of regret, a person may believe that their choice met expectations, but the alternatives could have exceeded expectations. Although the person may perceive a loss, they may not necessarily perceive a nongain. That is, the person loses possibilities associated with their other opportunities, but they nevertheless keep their intended outcome that largely prevents perceptions of nongain. For this reason, regret will not promote the person to be any more or less sensitive to positive information arising from that choice, resulting in regret being unrelated to an approach orientation. In the case of disappointment, the person believes that their choice did not meet expectations, which may result in perceptions of both loss and nongain. That is, the person again loses possibilities associated with their other opportunities, but they also did not obtain their intended outcome—thereby producing perceptions of nongain. This may cause the person to be less sensitive to the positive information arising from their choice, resulting in a reduced approach orientation.

To clarify in two examples, Employee A spends \$600 to buy a machine at work. Afterward, they discover that they could have purchased the machine elsewhere for \$500, causing the employee to feel regret. Employee A would likely perceive a loss (e.g. negative outcome), as they missed the opportunity to spend less money; however, they would not necessarily perceive a nongain (e.g. no positive outcome), as they still purchased the machine for their originally intended price. This perception of loss but not nongain would increase Employee A's avoidance motivation but have no impact on their approach motivation. Alternatively, Employee B is separately attempting to buy a machine at work for \$600. When they attempt to pay for the machine, they discover that the price is \$700, causing them to feel disappointment. They would likely perceive a loss (e.g. negative outcome), as they had the opportunity to spend less money taken from them; however, they would also perceive a nongain (e.g. no positive outcome), as they also were unable to purchase the machine for their originally intended price. This perception of loss and nongain would increase Employee B's avoidance motivation and reduce their approach motivation. Together, regret and disappointment both follow the presumed avoidance of loss assumed within much of the approach/avoidance literature (Elliot et al., 2013), but disappointment is an emotional response also built upon considerations of nongain. We suggest that both emotions have a positive relation with avoidance motivation, but only disappointment has a relation with approach motivation.

Hypothesis 1. (a) Regret and disappointment have similar positive relations with avoidance motivation, but (b) only disappointment negatively relates to approach motivation.

We expect regret and disappointment to have a negative impact on desirable employee outcomes (i.e. job satisfaction, OCB, and voice) and a positive impact on detrimental employee outcomes (e.g. withdrawal, turnover intentions, and counterproductive work behaviors [CWB]) due to their association with avoidance motivation (Lee & Allen, 2002; Shockley et al., 2012; Spector & Fox, 2002). We also expect most relations of regret and disappointment to vary in strength. Disappointment should exert stronger negative effects on desirable employee outcomes and stronger positive effects on certain detrimental employee outcomes than regret,



as disappointment also relates to a reduced approach motivation. In essence, regret influences outcomes solely via avoidance motivation, producing an important impact on outcomes; however, when approach and avoidance motivation are independently activated through disappointment, the relations between disappointment and employee outcomes are stronger.

Regarding desirable employee outcomes, avoidance motivation relates to a greater sensitivity to negative information, and employees with heightened avoidance motivation experience reduced satisfaction, engage in fewer OCBs, and perform fewer voice behaviors (Ferris et al., 2011; Ferris et al., 2013; Howard, 2019). For this reason, we expect both regret and disappointment to negatively relate to these desirable employee outcomes. At the same time, approach motivation relates to a greater sensitivity to positive information. Employees experiencing disappointment would also be less sensitive to positive aspects of their work, which may not be true with regret. These employees are expected to experience even greater decreases in satisfaction, engage in fewer OCBs, and perform fewer voice behaviors (Lee & Allen, 2002; Shockley et al., 2012; Spector & Fox, 2002). That is, the activation of avoidance motivation alone because of felt regret should lend to negative relationships with employee outcomes, but the additional impact that disappointment has on reducing approach motivation will lead to larger reductions in employee outcomes. Thus, although both emotions may have a negative impact on desirable employee outcomes, we expect disappointment to have a larger impact.

Hypothesis 2. Compared with regret, disappointment has a stronger negative relation with (a) job satisfaction, (b) OCBs, (c) and voice.

Regarding detrimental employee outcomes, we expect regret and disappointment to positively relate to withdrawal, turnover intentions, and CWBs. Withdrawal is commonly considered a collection of behaviors that impede organisational productivity by allocating less effort to work duties (Hanisch & Hulin, 1990, 1991; Scott & Barnes, 2011). Withdrawal is known to occur due to both the presence of negative stimuli and the absence of positive stimuli. For instance, an employee may become demotivated and allocate less efforts toward their work due to an abusive supervisor (presence of negative stimuli; Hanisch & Hulin, 1990, 1991) and a lack of rewards (absence of positive stimuli; Scott & Barnes, 2011). Disappointment's ties to both heightened sensitivities to negative stimuli (avoidance motivation) and reduced sensitivities to positive stimuli (approach motivation) can cause employees to more strongly perceive both effects, wherein they may believe that their work environment includes more detrimental elements and fewer beneficial elements—resulting in even greater work withdrawal. Alternatively, regret is only associated with heightened sensitivities to negative stimuli, and we therefore predict that disappointment has a larger influence on withdrawal behaviors than regret.

Further, conceptual models of turnover intentions and voluntary turnover include emotionladen appraisals. For instance, Lee and Sturm (2017) proposed regret to be a key component in the turnover process by initiating a cognitive process akin to rumination—suggesting a positive relation between regret and turnover. Others have also posited the sensemaking role that negative emotions, such as regret and disappointment, play in employee decision processes, specifically whether to remain in an organisation (e.g. Rothausen et al., 2017). Again, a central problem in the literature is that few authors consider how regret and disappointment differentially relate to turnover, despite supporting rationale for their differing relations. Like withdrawal, turnover is also known to occur from the presence of negative stimuli (e.g. abusive



supervision; Rothausen et al., 2017) and the absence of positive stimuli (e.g. appropriate compensation; Lee & Sturm, 2017). We contend that disappointment is more strongly related to turnover intentions than regret, which again arises from disappointment's relation with both motivational mechanisms (i.e. approach and avoidance).

Hypothesis 3. Compared with regret, disappointment has a stronger positive relation with (a) work withdrawal (b) and turnover intentions.

Prior research has supported a positive relation between negatively valence emotions and CWBs (Lee & Allen, 2002; Shockley et al., 2012), and we expect the effects of regret and disappointment to follow suit. Unlike the effects detailed above, however, we propose that regret and disappointment do not produce differing effects on CWBs. CWBs are commonly studied as behaviors occurring in response to an unfavorable event, and they are much less often studied as responses to the lack of positive events (Fox et al., 2001). For instance, many prior reviews describe CWBs as reactions to perceived injustices and transgressions, wherein the actor retaliates to "make things even" (Andersson & Pearson, 1999; Cortina et al., 2001). Such arguments strongly focus on reactions to negative stimuli with few considerations for positive stimuli (or lack thereof). In turn, prior researchers have most commonly associated CWBs with avoidance orientations, although some nuance can be seen in the exact types of CWBs studied (e.g. Ferris et al., 2016). Because both disappointment and regret relate to an avoidance orientation, the relations of both emotions with CWBs should only marginally differ.

Before continuing, we emphasise the importance of demonstrating this relation. Our hypotheses above each predict that disappointment has stronger effects on outcomes than regret. If only these relations were investigated, then it could be argued that disappointment is simply a more potent emotion. By supporting that the two emotions produce similar effects on some outcomes as guided by theory, we show that the approach/avoidance framework can identify nuanced effects of regret and disappointment, and one emotion is simply not a stronger predictor than the other in all circumstances. Instead, disappointment is a stronger predictor for outcomes influenced, at least in part, by approach motivation, whereas it is a comparable predictor for outcomes influenced by avoidance motivation alone. In these latter instances, regret is just as influential as disappointment, further highlighting the importance of regret. Therefore, testing the hypothesis below can provide a robust assessment of the validity of the applied framework.

Hypothesis 4. Employee regret and disappointment have similar relations with CWBs.

We contend that regret and disappointment ultimately impact employee outcomes through the activation of approach/avoidance motivations (Elliott & Thrash, 2002). The mediating mechanisms of approach/avoidance motivations elucidate the different paths that regret and disappointment travel to positive and negative employee behaviors. For instance, these paths explain how experiencing these emotions progresses to engaging in fewer positive behaviors (e.g. OCBs and voice), more negative behaviors (e.g. withdrawal, turnover intentions, and CWBs), and possessing lowered perceived satisfaction. Prior research has largely studied regret, and disappointment to a lesser extent, as anticipated emotions (e.g. Neneh, 2019; Steffel & Williams, 2018). In the current study, our focus is on experienced regret and disappointment.

We contend that measuring felt regret and disappointment offer a more proximal predictor to motivational mechanisms and responsive behavior—particularly in the workplace.

In line with expectations regarding our prior hypotheses, we expect avoidance motivation to mediate the relations between both emotions and each of the studied outcomes, whereas we expect approach motivation to mediate the relations between only disappointment and each outcome. Regret and disappointment both initiate an avoidance temperament to avoid stimuli associated with certain behaviors, causing employees to engage in fewer positive behaviors and more negative behaviors. Conversely, only disappointment relates to approach mechanisms as well, causing employees to engage in even fewer positive behaviors and even more of certain negative behaviors. Thus, we hypothesise the following:

Hypothesis 5. (a) Only avoidance motivation mediates the relations between regret and outcomes, (b) whereas approach and avoidance motivations mediate the relations between disappointment and outcomes.

SUMMARY OF STUDIES

We argued that regret relates to avoidance motivation whereas disappointment relates to both avoidance and approach motivation, which causes the two emotions to have differing influences on employee outcomes. A visual representation of our conceptual model is provided in Figure 1. Despite the importance of regret and disappointment, two barriers prevent their meaningful study. Little is known about the frequency of the two emotions at work. Even if regret and disappointment have notable impacts on employees, their infrequency may prevent meaningful investigation. Also, no supported measure exists to gauge employee regret and disappointment. Without adequate measures, quantitative investigations could be misleading and even useless. For these reasons, we perform an initial investigation to address the first barrier, followed by a four-study process to address the second barrier and develop new ERDS to gauge the perceived experience of the two emotions in the context of the workplace. Afterward, two empirical studies test our proposed hypotheses.

INITIAL EXPLORATORY INVESTIGATION

We perform a preliminary investigation to (a) determine the frequency of the regret and disappointment at work and (b) obtain critical incidents of employee regret and disappointment that can subsequently be used to develop a measure of the two emotions at work.

Participants

Participants (N = 48, $M_{\text{age}} = 33.58$, $SD_{\text{age}} = 10.35$, 33% female, 75% Caucasian) were recruited from MTurk and provided a small amount of monetary compensation. All participants were currently working (100%). MTurk is an online platform that connects individuals willing to perform small tasks on their computer, such as taking a survey, with those who need these tasks performed. Studies have shown results using MTurk to be valid (Aguinis et al., 2021; Buhrmester et al., 2011; Paolacci & Chandler, 2014; Shapiro et al., 2013). For all studies, we

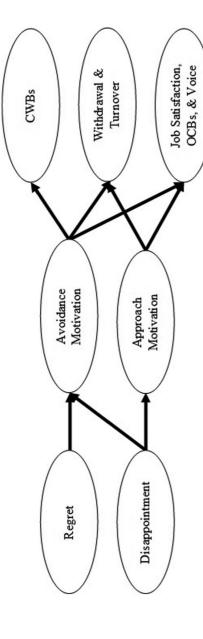


FIGURE 1 Visual representation of study model. CWBs, counterproductive work behaviors, OCBs, organizational citizenship behaviors



restricted MTurk participation to users who had previously completed at least 50 tasks with a 95% or greater lifetime approval rate.

Procedure

Participants signed up for the study via MTurk. They provided their digital informed consent and completed the survey online. Then, they were debriefed about the study.

Measures

A 10-item survey was administered. Participants were provided definitions of regret and disappointment, and they were asked to estimate the frequency that they felt these two emotions at work (two items). Then, participants were asked to describe the (1) most and (2) most recent time that they felt (a) regret and (b) disappointment at work (four items). Also, for these four items, participants were asked to provide the duration since the event occurred (four items).

Results and discussion

Supporting Information S1 includes the reported frequencies of regret and disappointment at work, wherein both had a relatively normal distribution with a median response of "A Few Times a Year." The median time since participants *last* felt regret at work was 30 days (M=108 days, SD=194 days), which suggests that employees feel regret at work on a regular basis. The median time since participants felt the *most* regret at work was 365 days (M=815 days, SD=1190 days). As participants remembered feelings of regret for a year or more after their occurrence, the emotion is likely to have a large and lasting impact on employees. Alternatively, the median time since participant *last* felt disappointment at work was 51 days (M=194 days, SD=577 days). Although less frequent than regret, this results still suggest that employees feel disappointment at work on a regular basis. The median time since participants felt the *most* disappointment at work was 410 days (M=806, SD=970). Again, as participants remembered feelings of disappointment for a year or more after their occurrence, this result suggests that the emotion has a large and lasting impact on employees.

We also analyzed the descriptions of events that caused regret and disappointment. The descriptions of regret-related events were often similar to the following: "I waited until the last minute to finish something and now I'm exhausted and tired and everyone's waiting for me to finish. Yikes!" (Participant 5), "I wished I had fully completed one task at a time, instead of partially completing them all" (Participant 45), and "I felt regret when I didn't say a proper goodbye to a colleague who was leaving. I was mad that she was leaving and the way she left" (Participant 31). The descriptions of disappointment-related events were often similar to the following: "When I was working really hard and was denied a promotion or raise" (Participant 21), "When one of my coworkers failed to turn in their assignment on time thus losing a partner so our boss took his anger out on all of us" (Participant 22), and "When I was given a Christmas bonus and it wasn't as much as the other employees" (Participant 11). Together, these results show that regret and disappointment occur frequently enough to meaningfully investigate, and they provided a set of critical incidents to develop a measure.

SCALE DEVELOPMENT PROCESS

We undergo a four-study process to create appropriate measures of the two constructs, and we apply suggestions of prior authors to do so (Brown, 2015; Costello & Osborne, 2005; Hinkin, 1995, 1998; Howard, 2016, 2018). The process includes the creation and reduction of an overrepresentative item list (Study 1), an exploratory analysis into the scale's factor structure (Study 2), a confirmatory analysis into the scale's factor structure (Study 3), and a test of the scale's concurrent and discriminant validity (Study 4). Due to page length limitations, we are unable to report these studies in the primary text, and we instead refer readers to Supporting Information S2 for the full reporting of our scale development process. These studies produce scales with sound psychometric properties and validity evidence to measure employee regret and disappointment, which we label the ERDS (Appendix A). These scales enable the current studies and future authors to adequately measure and investigate employee disappointment and regret.

REGRET AND DISAPPOINTMENT AND THE APPROACH/ AVOIDANCE FRAMEWORK

The current article suggested that employee regret and disappointment differently relate to outcomes due to their relations with approach and avoidance motivations, and we perform two studies to test our five proposed hypotheses. Empirical Study 1 performs these tests using a cross-sectional design, and Empirical Study 2 performs these tests using a time-separated design.

In conducting the time-separated study, we measure demographics at Time 1, regret and disappointment 1 week later at Time 2, approach and avoidance motivations another week later at Time 3, and all outcomes a third week later at Time 4. We chose this research design for two reasons. First, including a temporal separation to assess our relations of interest partially addresses concerns regarding common method bias (Conway & Lance, 2010; Podsakoff et al., 2003). Common method bias is known to be pervasive in cross-sectional designs, which inflates observed relations. By using a time-separated design, we reduce the influence of common method bias and provide greater assurances that our observed effects are substantive rather than statistical artifacts alone. Second, we hypothesise mediated effects, and mediation inherently involves causality (Hayes, 2009; MacKinnon et al., 2012). A requirement for supporting causality is temporal precedence, and we believe that including a week between measurement occasions could provide a temporal precedence that would enable at least a partial observation of our hypothesised effects naturally emerging. Thus, including a time-separated study provides large benefits, as it prevents a sole reliance on cross-sectional designs in the current article.

Empirical Study 1—Cross-sectional

Participants

Participants (N = 128, $M_{\rm age} = 33.50$, $SD_{\rm age} = 9.85$, 39% female, 96% American) were recruited from MTurk and provided a small amount of monetary compensation. All participants were



currently working (100%). Those that failed any attention checks were removed. All statistics, including the sample size, reflect the sample after removing these participants.

Procedure

Participants signed up for the study via MTurk. They provided their digital informed consent and completed the survey online. Then, they were debriefed about the study.

Measures

Employee regret and disappointment

The ERDS was administered, which includes nine items for employee regret ($\alpha = .93$) and 11 items for employee disappointment ($\alpha = .95$).

Job satisfaction

The 5-item job satisfaction scale created by Brayfield and Rothe (1951) was administered ($\alpha = .89$), which is detailed above.

Organisational citizenship behaviors

OCBs were measured with the 13-item scale of Williams and Anderson (1991) ($\alpha = .83$). Although this scale includes two dimensions (OCB-Individual and OCB-Organisation), these two dimensions were investigated together in the current study. An example item is "Helps others who have been absent."

Voice

Voice was measured with the 6-item scale of Van Dyne and LePine (1998) (α = .95). An example item is "I develop and make recommendations concerning issues that affect this workgroup."

Counterproductive work behaviors

CWBs were measured with the 19-item scale of Bennett and Robinson (2000) ($\alpha = .94$). This scale also includes two dimensions (CWB-Individual and CWB-Organisation), which we investigated tougher in the current study. An example item is "Made fun of someone at work."

Work withdrawal

Work withdrawal was measured with the 12-item scale of Hanisch and Hulin (1990, 1991) ($\alpha = .89$). An example item is "Messing with equipment so that you cannot get work done."

Turnover intentions

Turnover intentions was measured with a scale adopted from the work of Hanisch and Hulin (1990, 1991), which included a total of four items ($\alpha = .95$). An example item is "I often think about quitting my job."



Approach and avoidance motivations

Approach ($\alpha = .94$) and avoidance ($\alpha = .85$) motivations were measured with the scale of Ferris et al. (2013), which includes six items to measure each dimension. An example item is "My goal at work is to fulfill my potential to the fullest in my job."

Results

Table 1 includes Cronbach's alphas, correlations, and partial correlations controlling for job satisfaction, whereas Table 2 includes regression analyses of both employee regret and disappointment predicting all outcomes. We also performed several relative importance analyses. Relative importance analysis statistically compares the relations of several predictors with an outcome (Stadler et al., 2017; Tonidandel & LeBreton, 2011; Tonidandel et al., 2009). Contrasted with regression or structural equation modeling alone when comparing multivariate relations (i.e. contrasting betas), relative importance analysis better addresses concerns with predictor intercorrelations (e.g. multicollinearity) and other biases that may skew results, and it also provides a statistical significance test of differences in the predictors' relations with the outcome (Stadler et al., 2017; Tonidandel & LeBreton, 2011; Tonidandel et al., 2009). In short, relative importance analyses can determine whether a predictor has a significantly stronger relation with an outcome than another predictor, and it better accounts for biasing influences than other analyses (e.g. regression and structural equation modeling). Relative importance analysis can provide a direct assessment of our proposed hypotheses, making it the ideal analyses for the current investigation. The results of our relative importance analyses are included in Table 2.

Regret was predicted to have a smaller relation with approach motivation than disappointment, whereas both were predicted to have similar relations with avoidance motivation. Disappointment had a significant relation with both motivations (approach, $\beta=-.48$, p<.01; avoid, $\beta=.38$, p<.01), whereas regret had a significant relation with only avoidance (approach, $\beta=.04$, p>.05; avoid, $\beta=.25$, p<.01). Relative importance analyses indicated that regret had a smaller relation with approach motivation than disappointment (95% confidence interval [CI] = .08, .36), and regret and disappointment did not significantly differ in their relation with avoidance motivation (95% CI = -.06, .23). These results support Hypotheses 1a and 1b.

Compared with disappointment, regret was predicted to have a smaller relation with job satisfaction, OCBs, and voice. Disappointment had a significant and negative relation with each of these outcomes (job satisfaction, $\beta=-.68$, p<.01; OCBs, $\beta=-.35$, p<.01; voice, $\beta=-.32$, p<.01), whereas regret had a nonsignificant relation to these outcomes (job satisfaction, $\beta=-.11$, p>.05; OCBs, $\beta=-.02$, p>.05; voice, $\beta=-.05$, p>.05). The relative importance analysis indicated that regret had a smaller relation with these outcomes compared with disappointment (job satisfaction, 95% CI = .25, .54; OCBs, 95% CI = .02, .25; voice, 95% CI = .003, .22). These results support Hypotheses 2a–2c.

Regret and disappointment were predicted to have significant relations with withdrawal and turnover intentions, but the relations of regret were predicted to be smaller than those of disappointment. Disappointment had a significant and positive relation with these outcomes (work withdrawal, $\beta = .51$, p < .01; turnover intentions, $\beta = .62$, p < .01), whereas regret did not (work withdrawal, $\beta = .09$, p > .05; turnover intentions, $\beta = -.07$, p > .05). The relative importance analysis indicated that regret had a smaller relation with these outcomes compared

TABLE 1 Correlations of all measures administered in Empirical Study 1

	Mean	SD	1	2	3	4	'n	9	7	∞	6	10
1. Regret	3.75	1.39	(.93)	.38**	I	11	14	.16	.26**	.13	90	.36**
2. Disappointment	3.36	1.43	.40**	(.95)	I	16	11	.14	.40**	.30**	10	.35**
3. Job satisfaction	4.68	1.40	15	64**	(68.)	I	I	I	1	1	1	
4. OCBs	4.16	.73	12	34**	.41**	(.83)	.37**	.01	.03	.07	.40**	15
5. Voice	5.07	1.22	18*	34**	.41**	.47**	(56.)	.01	90	90:	.42**	15
6. CWBs	1.75	.82	.30**	.35**	25**	14	28**	(.94)	.52**	.25**	20*	80.
7. Work withdraw	2.72	1.39	.29**	.54**	42**	16	22*	**89.	(88)	.49**	13	.18*
8. Turnover intentions	3.23	1.93	.19*	**09.	**69.—	25**	25**	.25**	.61**	(.95)	03	.20*
9. Approach motivation	5.15	1.37	16	47**	.62**		.55**	39**	36**	44**	(.94)	08
10. Avoidance motivation	3.74	1.51	.40**	.48**	34**	24**	27**	.16	.30**	.36**	29**	(.85)

Abbreviations: CWBs, counterproductive work behaviors; OCBs, organizational citizenship behaviors; SD, standard deviation. Note: Correlations above the diagonal are controlled for job satisfaction. Cronbach's alphas are listed on diagonal.

p < .05, ** p < .01.

TABLE 2 Regression and relative importance analyses of employee regret and disappointment in Empirical Study 1

	Job satisfaction	OCBs	Voice	Work withdraw	Turnover intentions	CWBs	Approach motivation	Avoidance motivation
1. Regret	.11	.02	05	60.	07	.19*	.04	.25**
2. Disappointment68**	**89	35**	32**	.51**	.62**	.28**	48**	.38**
R^2	.42	.12	.12	.30	.36	.15	.22	.29
RIA 95% CI	.25, .54	.02, .25	.003, .22 .07, .36	.07, .36	.17, .49	06, .14 .08, .36	.08, .36	06, .23

Note: Figures above dashed line are standardised beta coefficients and R² values. Figures below dashed line are 95% confidence intervals indicating the statistical significance of relative importance analyses.

Abbreviations: CI, confidence interval; CWBs, counterproductive work behaviors; OCBs, organizational citizenship behaviors; RIA, relative importance analysis. p < .05, ** p < .01.



with disappointment (work withdrawal, 95% CI = .07, .36; turnover intentions, 95% CI = .17, .49). These results support Hypotheses 3a and 3b.

Regret and disappointment were predicted to have significant and roughly equal relations with CWBs. Disappointment had a significant and positive relation with this outcome (CWBs, $\beta = .28$, p < .01) as did regret (CWBs, $\beta = .19$, p < .05). The relative importance analysis indicated that regret and disappointment did not significantly differ in their relations with this outcome (CWBs CI = -.06, .14). These results support Hypothesis 4. We do not test Hypothesis 5 in Empirical Study 1, as it involves mediated relations that cannot be adequately tested via a cross-sectional research design.

Lastly, we replicated all Empirical Study 1 analyses while controlling for gender and age (Supporting Information S3) and when using structural equation modeling (Supporting Information S4). All statistically significant results remained statistically significant, and all nonstatistically significant results remained nonstatistically significant. These replicated effects strongly support the robustness of our findings.

Discussion

The results of Empirical Study 1 supported each tested hypothesis. Both emotions had significant, positive, and similar relations with avoidance motivation, but only disappointment had a significant and negative relation with approach motivation. The difference in the relations with approach motivation was statistically significant. Disappointment had significant and negative relations with job satisfaction, OCBs, and voice behaviors, whereas regret did not have a significant relation with these three outcomes. The differences in the relations of the two emotions were statistically significant for each of these outcomes. Again, disappointment had significant and positive relations with work withdraw and turnover intentions, whereas regret did not have significant relations with these outcomes. The relation of disappointment with work withdrawal and turnover intentions was significantly larger than regret. Lastly, the two emotions had significant and positive relations with CWBs, which were not significantly different.

Although these results support the proposed orientations of regret and disappointment, they suffer from certain methodological concerns. The data were collected using a cross-sectional design, which may inflate observed relations (Conway & Lance, 2010; Podsakoff et al., 2003). Cross-sectional designs also do not adequately lend themselves to tests of mediation, which are necessary to test Hypothesis 5. Thus, we perform a second study using a time-separated design.

Empirical Study 2—Time separated

Participants

Participants (N=515, $M_{\rm age}=32.88$, $SD_{\rm age}=9.34$, $M_{\rm tenure}=4.90$, $SD_{\rm tenure}=4.77$, 44% female, 84% American) were recruited from MTurk and provided monetary compensation. All participants were currently working (100%). Because Empirical Study 2 included many attention checks (8), those that failed more than one fourth of the attention checks were removed. All statistics, including the sample size, reflect the sample after removing these participants.

Procedure

Participants signed up for the study via MTurk. They provided their digital informed consent and completed the first survey online (Time 1, 515 participants). Each week for the following 3 weeks, the participants completed Time 2 (297 participants), Time 3 (248 participants), and Time 4 (222 participants) surveys. At the conclusion of the fourth survey, they were debriefed about the study.

Measures

All measures applied in Empirical Study 1 were applied in Empirical Study 2. Demographic characteristics were measured at Time 1. Regret (α = .94), disappointment (α = .94), and job satisfaction (α = .91) were measured at Time 2. Approach (α = .92) and avoidance (α = .86) motivations were measured at Time 3. OCBs (α = .87), voice (α = .94), CWBs (α = .92), work withdrawal (α = .85), and turnover intentions (α = .91) were measured at Time 4.

Results

Cronbach's alphas, correlations, and partial correlations controlling for job satisfaction are included in Table 3. Results of our regression and relative importance analyses are included in Table 4. Disappointment had a significant relation with both motivations (approach, $\beta=-.49$, p<.01; avoid, $\beta=.31$, p<.01), as did regret (approach, $\beta=.19$, p<.05; avoid, $\beta=.21$, p<.01). The relative importance analysis indicated that regret had a smaller relation with approach motivation than disappointment (95% CI = .06, .22), but regret and disappointment did not differ in their relation with avoidance motivation (95% CI = -.03, .12). These results support Hypotheses 1a and 1b.

Disappointment had a significant and negative relation with job satisfaction ($\beta = -.47$, p < .01), OCBs ($\beta = -.18$, p < .05), and voice ($\beta = -.28$, p < .01), whereas regret had a nonsignificant relation with these three outcomes (job satisfaction, $\beta = -.03$, p > .05; OCBs, $\beta = -.06$, p > .05; voice, $\beta = .10$, p > .05). The relative importance analysis indicated that regret had a smaller relation with two of these outcomes compared with disappointment (job satisfaction, 95% CI = .07, .23; OCBs, 95% CI = -.03, .07; voice, 95% CI = .003, .12). These results support Hypotheses 2a and 2c, but not Hypothesis 2b.

Disappointment had significant and positive relations with work withdrawal (β = .43, p < .01) and turnover intentions (β = .38, p < .01), but regret did not (work withdrawal, β = .05, p > .05; turnover intentions, β = .00, p > .05). The relative importance analysis indicated that regret had a smaller relation with these outcomes compared with disappointment (work withdrawal, 95% CI = .01, .23; turnover intentions, 95% CI = .02, .17), supporting Hypotheses 3a and 3b.

Disappointment had a significant and positive relation with CWBs (β = .30, p < .01), whereas regret's relation very closely approached statistical significance (CWBs, β = .15, p = .06). The relative importance analysis indicated that regret and disappointment did not significantly differ in their relations with this outcome (CWBs, 95% CI = -.03, .12). These results support Hypothesis 4.

TABLE 3 Correlations of all measures administered in Empirical Study 2

	Mean	SD	1	2	3	4	ĸ	9	7	∞	6	10
1. Regret	3.73	1.42	(.94)	.57**	I	05	.07	.26**	.17*	.04	.16*	.31**
2. Disappointment	3.17	1.39	.59**	(.94)	I	02	01	.28**	.24**	80.	01	.27**
3. Job satisfaction	4.54	1.51	31**	49**	(.91)	I	1	1	I	I	I	
4. OCBs	5.37	.87	18**	22**	.42**	(.87)	.53**	35**	13	00.	.21**	05
5. Voice	4.97	1.27	07	21**	.42**	.61**	(.94)	12	01	05	.37**	08
6. CWBs	2.03	.92	.33**	.39**		.44**	24**	(.92)	.51**	.20**	14*	.10
7. Work withdrawal	2.71	1.26	.32**	.46**		33**		.56**	(.85)	.42**	00.	.13
8. Job withdrawal	3.47	1.83	.24**	.39**		28**	31**	.36**	.64**	(.91)	.04	00.
9. Approach motivation	5.24	1.17	11	37**		.43**	.53**	32**	40**	46**	(.92)	.03
10. Avoidance motivation	4.10	1.32	.40**	<u>*</u>	40**	20**	23**	.22**	.32**	.27**	26**	(98.)

Abbreviations: CWBs, counterproductive work behaviors; OCBs, organizational citizenship behaviors; SD, standard deviation. Note: Correlations above the diagonal are controlled for job satisfaction. Cronbach's alphas are listed on diagonal.

p < .05, ** p < .01.

Regression and relative importance analyses of employee regret and disappointment in Empirical Study 2 TABLE 4

ce on				
Avoidance motivation	.21**	.31**	.22	04, .12
Approach motivation	.19*	49**	.16	16, .22
Ap	Г.	4.	Γ.	0.
CWBs	.15 ^a	.30**	.17	03, .12 .06, .22
Job withdraw	.00	.38**	.15	.02, .17
Work withdraw	.05	.43**	.21	.01, .23
Voice	.10	28**	.05	.003, .12 .01, .23
OCBs	90.—	18*	.05	03, .07
Job satisfaction	03	47**	.24	.07, .23
	1. Regret	2. Disappointment47**	R^2	RIA 95% CI

Note: Figures above dashed line are standardised beta coefficients and R² values. Figures below dashed line are 95% confidence intervals indicating the statistical significance of relative importance analyses.

Abbreviations: CI, confidence interval; CWBs, counterproductive work behaviors; OCBs, organizational citizenship behaviors; RIA, relative importance analysis.

p < .05, ** p < .01.

p = 0.06.



The indirect effects of regret and disappointment on outcomes through approach and avoidance motivations were tested using Hayes's PROCESS macro, which calculates bootstrapped estimates and CIs. Because regret significantly related to only avoidance motivation, approach motivation was not included in tests of regret's indirect effects.

The indirect effect of regret was significant in predicting job satisfaction (z = -.14, 95% CI = -.23, -.07), OCBs (z = -.04, 95% CI = -.08, -.004), voice (z = -.08, 95% CI = -.16, -.03), work withdrawal (z = .08, 95% CI = .03, .15), and turnover intentions (z = .11, 95% CI = .03, .20). It approached significance for CWBs (z = .25, 95% CI = -.003, .06). For most tests, the direct effect was still significant (job satisfaction, t = -2.71, 95% CI = -.32, -.05; OCBs, t = -1.58, 95% CI = -.16, .02; voice, t = .28, 95% CI = -.11, .14; CWBs, t = 4.27, 95% CI = .10, .28; work withdrawal, t = .08, 95% CI = .03, .15; turnover intentions, t = 2.31, 95% CI = .03, .38), indicating that avoidance motivation only partially mediates the effect between regret and outcomes. These results support Hypothesis 5a.

The joint indirect effect of disappointment was significant in predicting job satisfaction $(z=-.31,\ 95\%\ CI=-.42,\ -.22)$, voice $(z=-.20,\ 95\%\ CI=-.31,\ -.11)$, CWB $(z=.06,\ 95\%\ CI=.02,\ .11)$, work withdrawal $(z=.13,\ 95\%\ CI=.07,\ .21)$, and turnover intentions $(z=.22,\ 95\%\ CI=.11,\ .34)$. It was not significant in predicting OCBs $(z=-.11,\ 95\%\ CI=-.18,\ -.06)$. Again, the direct effect was significant in the majority of cases (job satisfaction, $t=-4.58,\ 95\%\ CI=-.35,\ -.14$; OCBs, $t=-.66,\ 95\%\ CI=-.12,\ .06$; voice, $t=.13,\ 95\%\ CI=-.11,\ .13$; CWBs, $t=4.32,\ 95\%\ CI=.11,\ .29$; work withdrawal, $t=4.76,\ 95\%\ CI=.17,\ .40$; turnover intentions, $t=3.39,\ 95\%\ CI=.12,\ .47$), indicating that approach and avoidance motivations only partially mediate the effect between disappointment and outcomes. These results support Hypothesis 5b.

Lastly, we replicated all Empirical Study 2 analyses while controlling for gender, age, and job tenure (Supporting Information S3) and when using structural equation modeling (Supporting Information S4). All statistically significant results remained statistically significant, and all nonstatistically significant results remained nonstatistically significant. These replicated effects strongly support the robustness of our findings.

Discussion

The results of Empirical Study 2 almost entirely replicated those of Empirical Study 1. Both emotions related to approach and avoidance motivations as predicted, and the difference in the relations with approach motivation was statistically significant. The two emotions had relations that were significantly different with job satisfaction and voice, but this was not the case for their relations with OCBs. The differences in the relations of the two emotions were statistically significant for work withdrawal and turnover intentions. The two emotions had roughly equal relations with CWBs, as predicted. Approach and avoidance motivations mediated most all significant effects of regret and disappointment, providing explanatory mechanisms to detail their notable relations. Together, all hypotheses were supported except for the predicted differing relations of regret and disappointment with OCBs.

OVERALL DISCUSSION

Regret and disappointment continue to draw the interest of organisational scholars, but certain barriers in the literature may be hindering this research from steadily advancing. To address these barriers, we applied the discrete-emotions approach (Lench et al., 2011; Yin et al., 2014) and the approach/avoidance framework (Elliot, 1999; Elliot & Covington, 2001) to explain how regret and disappointment differentially impact important employee outcomes. We first performed an initial study to show that regret and disappointment are relatively common in organisations and may produce potent effects. We then developed a theoretically grounded set of scales (ERDS) in a four-study process, which we applied in two subsequent studies to uncover the unique relations of the two emotions. Both emotions were related to an array of workplace outcomes (e.g. OCBs, withdraw, and CWBs), which were explained by their differing relations to approach and avoidance motivations. The effects of regret were mediated by avoidance motivation alone, whereas the effects of disappointment were mediated by approach and avoidance motivation. These findings produce many implications for both research and practice.

Theoretical implications and future research directions

According to the discrete-emotions approach, similarly valenced emotions do not necessarily lead to the same outcomes (Diefendorff & Greguras, 2008; Rupp & Spencer, 2006). Our study further supports this argument. Although they have a similar valence, the relations of regret and disappointment differed based on their associations with approach and avoidance motivations. This is in line with prior research, which has shown that approach and avoidance motivations have been associated with many outcomes beyond those studied in the current article (Ferris et al., 2011; Ferris et al., 2013; Howard, 2019; Roseman, 2008; Updegraff et al., 2004). Indeed, prior research has shown that the underlying approach or avoidance orientation of an emotion influences the way people react to that emotion. People are more likely to address the source of negative emotions with an approach orientation, whereas they are more likely to escape the source of negative emotions with an avoidance orientation (Corr, 2013; Elliot et al., 2013). Although we linked regret and disappointment with their respective outcomes due to associations with positive or negative information, future research should assess when their outcomes can also be identified by whether people address or escape the negative stimuli. For instance, a person experiencing ample regret regarding their work may have an instinct to "cut their losses" and leave their organisation, whereas a person experiencing disappointment may have conflicting urges to both turnover and address the shortcomings of their workplace. If so, instances of disappointment may be perceived as more addressable, as it is associated with approach orientations and regret is not. At the same time, organisations may particularly suffer from employees experiencing regret, as they may perceive their situations as unable to be addressed and less likely to identify avenues to resolve their negative emotions. Similarly, many other important workplace outcomes have been linked to approach or avoidance motivations, which can now be linked to regret and disappointment. For instance, Howard (2019) recently supported significant relations of approach motivation with social courage, providing an avenue to investigate employee regret and disappointment with the recently developed construct.

It should be further recognised that our application of the approach/avoidance framework supports our finding that regret and disappointment meaningfully differ in their effects. This application also builds upon extant work integrating the framework with discrete emotions (Lench et al., 2011; Yin et al., 2014). Future research should apply broader applications of the approach/avoidance framework to explore other discrete emotions and



their motivational underpinnings. Notably, prior research has associated certain individual differences with approach or avoidance orientations, including personality (Elliot, 1999; Elliot & Covington, 2001). Those higher in neuroticism, for example, are more likely to notice negative aspects of their environment due to heightened avoidance orientations, which may result in greater regret and disappointment. We urge future authors to explore this possibility and determine whether more than situations alone predict the occurrence of these two emotions.

Alternatively, we focused on motivational orientations resulting from the experience of regret and disappointment that lead to different employee outcomes, but there are other theoretical perspectives that might be informed by and offer further insights to our findings. For instance, Elfenbein (2007) provided a process model of emotional experience at work. Building upon our foundational work, future researchers could further integrate regret and disappointment into this framework to elucidate the self-regulatory processes employees initiate upon feeling the emotions, which would add additional explanatory power to how regret and disappointment ultimately impact employee outcomes as exemplars of postemotional responses. Affective events theory (Weiss & Cropanzano, 1996) lends another set of explanatory mechanisms to how employees respond to situations, wherein regret and disappointment directly link to attitudinal states (e.g. job satisfaction and commitment), which may subsequently bolster the relations of regret and disappointment with turnover and even metrics of performance.

One of the largest challenges hindering research distinguishing regret and disappointment has been the absence of a psychometrically sound measure. The other primary goal of this article was to develop such a scale. We present the ERDS with confidence in its validity, and we further assured of its value based upon our findings from the empirical studies. Now, scholars interested in studying regret and disappointment have a supported scale, which has been rigorously analyzed for its content, convergent, and discriminant validity. The creation of the ERDS also provides empirical evidence that regret and disappointment can be empirically distinguished. Therefore, although the development of measures is typically limited to functional benefits, the development of our newly created measure also provides theoretical insights.

The current results also uncover insights regarding regret and disappointment that are not directly associated with the approach/avoidance framework.³ Both regret and disappointment arise from obtained outcomes, and obtained outcomes can either be chosen or bestowed (Loomes & Sugden, 1987; Marcatto & Ferrante, 2008; Zeelenberg et al., 1998, 2000). For instance, a person could choose to enroll in a training program (chosen) or they can be selected to enroll (bestowed). Prior research has not differentiated the dynamics of regret or disappointment arising from chosen or bestowed outcomes. To more closely integrate the approach and avoidance framework with extant literature and encourage the future use of this integration, we likewise did not differentiate regret or disappointment arising from chosen or bestowed outcomes.

Our results indicate, however, that regret and disappointment may have differences regarding chosen or bestowed outcomes. We developed the ERDS via critical incidents obtained in Study 1, as we intended our measure to represent instances that frequently occur at work. In doing so, our regret items only refer to chosen outcomes, whereas our disappointment items refer to both chosen and bestowed outcomes. This finding indicates that feeling regret from bestowed outcomes may be rare, and future research should assess whether this is a possibility at all. Perhaps, the definition of regret should be revised to reflect a sole occurrence due to chosen outcomes, which would be a departure from prior research (Marcatto & Ferrante, 2008;



Zeelenberg et al., 1998, 2000). On the other hand, disappointment may function differently whether arising from chosen or bestowed outcomes. Our exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) suggested that all disappointment items load onto a common factor, but disappointment arising from these two different sources may function differently in specific environments. Our purpose was to show that the ERDS scale functions appropriately in general workplace samples; however, we call on future authors to reassess the dimensionality of our disappointment dimension in specific contexts that may exacerbate the differences in these items, and we also call on authors to assess possible differences in the relations of these types of disappointment. Notably, disappointment arising from chosen outcomes may frequently be co-occurring with regret, whereas disappointment arising from bestowed outcomes may not. It may also be the case that disappointment more strongly relates to outcomes only in contexts where outcomes are bestowed, whereas regret may have stronger effects in contexts where outcomes are chosen.

Identifying these differences in regret and disappointment may also lead to further avenues to differentiate the two emotions. Emotions arising from chosen outcomes may be more associated with the self and internal attributions, whereas emotions arising from bestowed outcomes may be more associated with others and external attributions. Such a distinction is relevant to attribution theories (Hewett et al., 2018; Malle, 2011). For either emotion to arise, people must observe and evaluate an outcome, during which they undergo a range of cognitive processes. These may include identifying whether the outcome was due to internal or external and stable or unstable causes. The occurrence of regret and disappointment may depend on certain combinations of these conditions. Regret may only arise when the event was perceived to be due to internal causes, whereas disappointment may arise when perceived to be due to either internal or external causes. The severity of the two emotions may also be determined by whether the causes are perceived to be stable or unstable. People may perceive unstable causes as "bad luck," whereas they may perceive stable causes as troubling issues. Although differentiating regret and disappointment based on chosen or bestowed outcomes was not a goal of the current manuscript, our results nevertheless encourage of future authors to investigate such differences.

Lastly, calls have been made for event-oriented research approaches, wherein researchers assess the dynamics of individual events in the workplace (Chen et al., 2020; Morgeson et al., 2015). Significant advances could be made regarding both regret and disappointment by utilising this approach, and many important events identified by event-oriented approaches could have their effects explained by integrating our findings on regret and/or disappointment. For instance, prior researchers have proposed that performing poorly on project requirements could cause team members to disengage and turnover (Morgeson et al., 2015). Such occasions are likely to cause regret, as the team members would observe a discrepancy between their obtained outcome and possible alternatives (e.g. performing well). By integrating our current perspective, future researchers could assess the exact conditions that produce regret in such an event but also whether regret is the mediating mechanism that causes an employee to turnover. It is possible that those who do not feel regret in such an occasion would not turnover, causing regret to be a pivotal link in the casual chain that could be targeted in future interventions to reduce turnover. When paired with our present discovery that employees report regret more frequently than disappointment, such a finding would likewise indicate that regret is extremely important, and the emotion could be identified as a key driver of important workplace outcomes.



Practical implications

Negative emotions appear to be a hindrance to employee performance (Shockley et al., 2012), which should ultimately impact firm performance. Negative emotions may impact the functionality and effectiveness of several human resource activities—namely, training and development. For instance, training could pose a potential hazard to the experience of regret and disappointment. If an employee felt as though they did not see the results that they expected from a training protocol (e.g. potential promotion and improved performance), the employee might feel regret or disappointment. This could lead employees to devalue training, forgo subsequent opportunities, and possibly even perform deviant behaviors.

Personnel decisions (e.g. hiring, promotion, and raises) are likely to have a large impact on the experience of regret and disappointment—particularly when the decisions are unfavorable toward an employee. If the employee does not receive a promotion or raise, that employee may experience regret for missed opportunities or disappointment for engaging in behaviors that they thought would lead to a promotion or raise (e.g. OCBs). Thus, the employee would be less likely to engage in extra role behaviors in the future, and they could even go to the extreme of seeking employment elsewhere. Ultimately, there are a variety of different scenarios that organisational leaders would need to minimise experiences and reactions to regret and disappointment.

Limitations

We closely followed the recommendations of prior researchers in developing measures (e.g. Hinkin, 1995, 1998), and we also utilised a time-lagged design in exploring the unique effects of regret and disappointment on workplace outcomes via approach and avoidance orientations. Although we are confident in our results, the study is not without limitations.

The current article heavily relied on MTurk samples. Although some authors have criticised the use of MTurk samples, many others have suggested that MTurk samples are appropriate dependent on the context and research questions (Cheung et al., 2017; Harms & DeSimone, 2015). Because the current article was interested in the dynamics of employees across a variety of occupations, our use of employed MTurk participants was appropriate for our research questions because they represented a multitude of industries (Supplemental Material E). Future researchers should consider, however, investigating the dynamics of regret and disappointment in contexts that may be particularly relevant. Further, many authors have also showed that results obtained with MTurk samples are valid (Behrend et al., 2011; Landers & Behrend, 2015; Miller et al., 2017; Woo et al., 2015). It should be noted, though, that certain aspects of our samples may not be representative of the general population. For instance, our samples included more men than women, and it may have also been overrepresentative of other demographics. Thus, future research should consider replicating the results of the current studies using alternative sample sources that may be more representative of the general population.

The current article also relied on self-reports. Because emotions are most often gauged through self-report, we felt that this research design was necessary for initial investigations into employee regret and disappointment. To alleviate some concerns with single-source self-reports, such as common method bias, the current article employed a time-separated research design (Conway & Lance, 2010; Podsakoff et al., 2003). Despite these efforts, future research should further study employee disappointment and regret using peer and supervisor reports and other

robust research designs. Neuroimaging has shown to be a promising method to study the complex dynamics of emotions, especially on a microtime scale (Buhle et al., 2014; Servaas et al., 2013), which should be considered in future research. Likewise, a panel-design study could better assess casual effects surrounding regret and disappointment, and it could also investigate within-person dynamics and change regarding the two emotions.

Because the current article was meant to serve as a foundational investigation into employee regret and disappointment, many other relations remain to be tested. Particularly, no moderating effects were tested. Regret and disappointment may have certain boundary conditions, such that they no longer influence important outcomes in certain contexts (e.g. supportive work environments). Likewise, only partial mediation was supported in the current article, and other mediators could be tested to explain the relation of regret and disappointment with outcomes. Although it would still be expected that disappointment would have a stronger influence on outcomes than regret, considering the patterns of our direct effects, other mediating mechanisms may produce differing patterns to explain the differences in these relations

Similarly, as shown in Supporting Information S3, the results of Empirical Studies 1 and 2 did not significantly differ when controlling for age, gender, or tenure. Other control variables could be used, however, to ensure that our results are consistent when accounting for additional relations. Future researchers should therefore replicate the current results while controlling for a wider range of variables. Likewise, we replicated the results of Empirical Studies 1 and 2 by conducting supplemental covariance-based structural equation modeling analyses to ensure that our results did not arise due to our chosen analytic method in the primary text. The model results aligned with our theoretical proposals in the primary text, supporting that our results are robust and did not occur due to our chosen analytic method. Supporting Information S4 includes the statistical results and reporting of these covariance-based structural equation models.

CONCLUSION

The goal of the current article was to (a) offer a systematic study of regret and disappointment that conceptually and empirically demonstrates how the two emotions operate as distinct constructs and (b) provide a validated scale for future research. The results of seven studies achieved these goals. Employee regret and disappointment were shown to be measurable constructs that have unique relations with important outcomes. The relations of both constructs were partially explained by the approach/avoidance framework, although the results suggested that much more has yet to be discovered. Thus, we provided an initial basis to study employee regret and disappointment, providing clear directions for future research and practice.

CONFLICT OF INTEREST

The authors declare they have no conflict of interest.

ETHICS STATEMENT

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee of the authors (Educational and



Behavioral Research IRB) and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

DATA AVAILABILITY STATEMENT

All data can be provided as supplemental materials and/or hosted on a public personal website if accepted for publication.

ENDNOTES

- ¹ Nonloss refers to situations that do not result in a negative outcome, wherein these situations may or may not result in a positive outcome. In these situations, people may feel at ease (reduced avoidance motivation) because they are not worried about negative outcomes, but they are not necessarily drawn to these situations (no effect on approach motivation) because they may or may not be compelled by positive outcomes.
- ² Nongain refers to situations that do not result in a positive outcome, wherein these situations may or may not result in a negative outcome. In these situations, people are explicitly not drawn to them (reduced approach motivation) because they are not compelled by positive outcomes, but they are not necessarily at ease (no effect on avoidance motivation) because they may or may not be worried about negative outcomes.
- ³ We thank the reviewer for highlighting these observations in our work.

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SUPPORTING INFORMATION

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APPENDIX: EMPLOYEE REGRET AND DISAPPOINTMENT SCALES

Below are several statements about *your feelings in regard to your work (i.e. your job)* to which you may disagree or agree. Using the response scale below, indicate the extent that you disagree or agree that the following statements describe your feelings in regard to your work (i.e. your job). Please answer in regard to how you feel in [timeframe].

- 1 Strongly Disagree
- 2 Disagree
- 3 Slightly Disagree
- 4 Neither Disagree or Agree
- 5 Slightly Agree
- 6 Agree
- 7 Strongly Agree
- 1. I would redo many things if I could.
- 2. I wish that I had approached my tasks differently.
- 3. I wish that I had done things differently.
- 4. There are certain opportunities that I should have taken.
- 5. I should have put more effort into my work.
- 6. If I could, I would do many things differently.
- 7. If I could, I would change many of my decisions
- 8. I wish that I talked to my boss before doing certain things.
- 9. If I could go back, there are certain things that I would NOT do.
- 10. I did NOT get what I deserved.
- 11. I was denied resources that I thought I would receive.
- 12. Many things turned out worse than I expected.
- 13. To my surprise, many things at work did NOT result in my favor.
- 14. My effort was NOT as effective as I expected.
- 15. To my surprise, I did NOT get a promotion that I deserved.
- 16. My coworkers unexpectedly let me down.



- 17. To my surprise, I did NOT get the recognition that I deserved.
- 18. Things unexpectedly changed at work for the worse.
- 19. Although I did my work, the outcome was surprisingly disappointing.
- 20. Unexpectedly, my boss was negative towards my work.

Note: Items 1 through 9 represent the Employee Regret subscale. Items 10 through 20 represent the Employee Disappointment subscale.