

Coping with non-purchase: Managing the stress of inaction regret

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Abstract

This research presents a framework based on coping theory to explain the different ways of managing the stress of regret for inaction. We theorize that primary appraisals of goal-relevance and secondary appraisals of reversibility affect how consumers cope with the stress of inaction regret resulting in different behavioral outcomes. Prior research has focused on two outcomes of regret for inaction—inaction inertia and dissonance reduction—that result in the decreased intent to avail of a similar future opportunity. This research proposes that these are not inevitable outcomes, but rather coping responses. Further, if the forgone opportunity is appraised to be goal-relevant and reversible, consumers engage in active coping that results in increased behavioral intent.

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One of the authors went to Brazil a few years ago and visited a street fair. A painting caught her eye and it was love at first sight. She recognized immediately that it was perfect for her living room design goal, which was to highlight unique pieces from her travels. For a number of reasons she did not buy the painting: too much luggage, too cumbersome to carry on the long journey ahead, and the reluctance to incur a substantial expense so early in the trip. The pangs of regret she experiences are still intense. She feels like flying to Brazil now just to have another chance at filling that vacant spot in her living room. She knows that if she ever saw a painting like that again she would buy it immediately and without thought.

Previous research that has examined the consequences of inaction regret on future action in the consumption domain has focused on two key outcomes of the felt regret: inaction inertia and dissonance reduction. The former, inaction inertia, finds that consumers who have missed an opportunity to purchase a product at a significantly reduced price are less likely to purchase the product at a later time at the regular or a less

significantly reduced price to avoid future regret from missing out on a good price (Tykocinski, Pittman and Tuttle, 1995; Tykocinski and Pittman, 2001). The latter, dissonance reduction, is an effort to mitigate felt regret and thus involves attempts to cognitively devalue the original choice opportunity or otherwise distance oneself from the “lost opportunity” (Arkes, Kung and Hutzel, 2002; Brehm, 1956; Festinger, 1957). The result of both inaction inertia and dissonance reduction is a decrease in the likelihood of future purchase and the devaluation of the forgone opportunity.

Consider again the opening vignette. Clearly this extant research cannot explain the decision that one of us has made to buy the Brazilian artwork at the next opportunity, or her plotting to fly to Brazil the first chance she has with the hope of reversing her “loss.” Scholars have recently called for empirical research that aims to delineate how consumers regulate or manage feelings of regret (Inman, 2007; Roese, Summerville and Fessel, 2007; Zeelenberg and Pieters, 2007). Zeelenberg and Pieters (2007) assert that since “regret is an aversive, cognitive emotion that people are motivated to regulate” this issue is especially pertinent. The current research is a response to this call. Here we aim to understand the differential outcomes of regret for inaction as components of an overarching coping framework employed by consumers in response to choice opportunities (Yi and Baumgartner, 2004).

Specifically, this research proposes that inaction inertia and dissonance reduction represent two types of coping strategies utilized in response to the stress of inaction, rather than inevitable

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outcomes of regretted inaction. We propose that consumers cope with inaction via means other than inertia, such as increased behavioral intent to make a purchase at the next opportunity. The central thesis of this research is that consumers experience stress when they forgo a purchase opportunity and that they employ coping responses to manage the stress of inaction. We propose that to manage the stress of inaction consumers employ one of several higher-order coping responses, such as support-seeking (including dissonance reduction), avoidance (including inaction inertia), or active coping (including increased behavioral intent). We assert that these coping responses are due to 1) the primary appraisal of goal-relevance, and, 2) the secondary appraisal of reversibility regarding the “lost opportunity.” Thus, when a forgone opportunity is appraised as goal-relevant, yet hard to reverse, consumers cope via renewed effort towards achieving the goal by seeking out future opportunities to realize their goal. This continued striving reflects increased behavioral intent (active coping). See Fig. 1.

We investigate this framework with three studies. The first study examines the impact of primary appraisals on feelings of regret and behavioral intent when a similar opportunity is presented again by manipulating the goal-relevance of the foregone opportunity (while holding constant secondary

appraisals of reversibility). Study two investigates the influence of secondary appraisals by manipulating reversibility (while holding constant primary appraisals of goal-relevance). The third study varies both goal-relevance (primary appraisal) and reversibility (secondary appraisal) and investigates how they together influence the intensity of experienced regret as a reaction to the stress of inaction. It further investigates the link between the differential coping responses to that stress resultant from the varied appraisals, and the cognitive and behavioral outcomes flowing from those coping responses, such as inaction inertia, dissonance reduction, and increased purchase intent.

Theoretical development

Regret is a negative emotion that occurs when a forgone option is (or is thought to be) better than the selected alternative (Zeelenberg et al., 2002). Landman (1993, p. 36) describes regret as being “a more or less painful cognitive and emotional state of feeling sorry for misfortunes, limitations, losses, transgressions, shortcomings, or mistakes. It is an experience of felt-reason or reasoned emotion.” Regret for inaction in the consumption domain is a negative feeling that arises when a forgone opportunity is appraised to be stressful because the

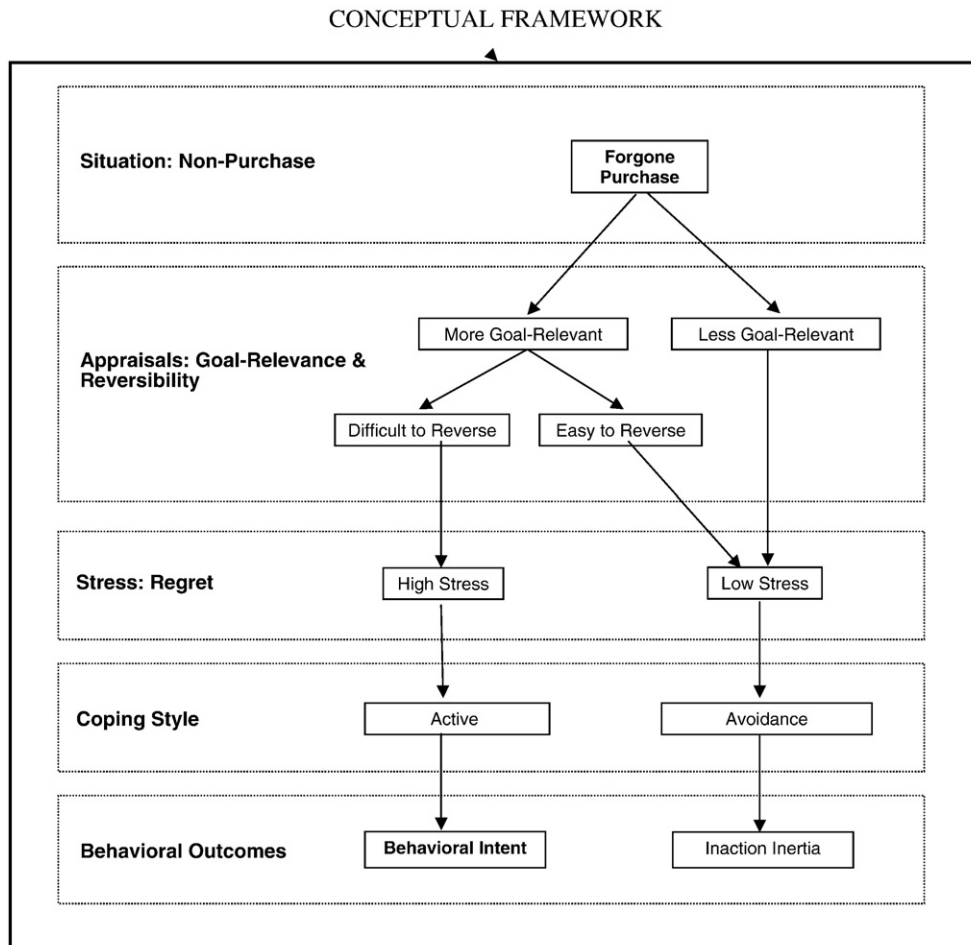


Fig. 1. Conceptual framework.

chosen alternative (non-purchase) appears to be a worse choice than the non-chosen alternative (purchase; Zeelenberg et al., 2000).

A key finding in the literature is that inaction regret results in further inaction due to either inaction inertia (Tykocinski et al., 1995; Tykocinski and Pittman, 2001) or the reduction of dissonance that results from the inaction (Arkes et al., 2002; Brehm, 1956). Research on inaction inertia suggests that, having missed a favorable sales opportunity, consumers are less likely to buy the product in the future compared to a person who did not know about the sale, or compared to a situation in which the price of the forgone product was substantially less than the current or future price (Tykocinski and Pittman, 2001). The authors argue that inaction inertia arises to avoid future regret that would result from “giving in” to a less favorable future sales opportunity relative to the original.

Other research has found that consumers cognitively devalue the original choice opportunity (Arkes et al., 2002). Brehm (1956), in a series of famous post-decisional dissonance studies, examined how housewives, after making a decision, favored their selected alternatives. To explain regret for inaction in dissonance terms, one can imagine two competing cognitions: “I failed to avail of the opportunity,” and “The opportunity was a good one,” that would arouse dissonance. The solution is to convince oneself that the forgone opportunity was not, in fact, a good one; or that the failure to act was actually for the best. Such rationalizations of a forgone opportunity reduce cognitive dissonance and enable the consumer to feel better about their decisions. Thus both inaction inertia and dissonance reduction result in decreased purchase intent.

Coping with inaction regret

Coping theory (Lazarus, 1991, 1999; Smith and Ellsworth, 1985) suggests that different stressful situations elicit distinct appraisals of the events that led to them, which in turn dynamically affect both the emotional reaction to the stress as well as the form of coping chosen to manage it. Coping is a process that begins with the appraisal of a situation as being stressful or non-stressful, where coping is employed to manage situations deemed stressful (Lazarus, 1991).

Recent work on coping has examined the relationships among coping response types. A hierarchical model of coping, in which a few higher-order coping categories encompass a wider range of lower-order categories has begun to emerge as perhaps the best representation of coping (Duhachek and Oakley, 2007). Three higher-order categories of coping that have emerged in several studies over time are active coping, avoidance coping, and support-seeking (Amir Khan, 1990). Luce, Bettman and Payne (2001) demonstrate that stressful situations may be coped with in different ways that result in different behavioral outcomes. Active coping with the stress of a difficult trade-off results in one set of behavioral outcomes (i.e. working harder) while coping via avoidance or positive reappraisal (a lower-order form of support-seeking) results in a different set of outcomes (i.e. avoiding the difficult trade-off, finding a silver lining in the trade-off).

Like other forms of stress, one must cope with stress from inaction. Thus, when outcomes of inaction regret are evaluated within a coping framework it can be seen that different coping responses to a stressful non-purchase decision may result in different future cognitive and behavioral outcomes, depending on the form of coping used. For instance, inaction inertia may be viewed as an outcome of avoidance coping, in which the consumer deals with the stress of the non-purchase by avoiding revisiting the purchase decision at future opportunities. Given the success of the avoidance strategy in reducing stress it is unlikely the consumer will switch to another form of coping unless the situation changes significantly—such as a much better deal. Thus the phenomenon of inaction inertia.

Dissonance reduction may be viewed as a compilation of several lower-order coping responses, such as denial, positive reappraisal, and emotional support, all of which can be classified as forms of higher-order support-seeking coping. These forms of coping help an individual feel better about the decision they made by reducing the importance of forgone alternatives, or increasing the value of the chosen alternative. Again, this will likely result in a decreased likelihood of making a purchase that was previously forgone and will result in a decreased valuation of the forgone product. Inaction inertia and dissonance reduction are thus the result of coping via avoidance, or support-seeking, respectively.⁴

An active coping response, on the other hand, involves tackling a stressor head-on and is associated with taking action to resolve/repair the situation. Situations where the forgone purchase was highly relevant to one’s goals, or the inaction is difficult to reverse, may be more likely to result in active coping than other forms of coping. Employment of active coping responses will result in increased desire to “correct” a previous mistake of forgoing the purchase, and will result in different outcomes than would the other forms of coping described above associated with inaction inertia and dissonance reduction.

In the sections that follow, we explain how appraisals of goal-relevance and reversibility, as components of the coping process, may lead consumers to experience varied levels of regret in the face of stress from inaction, leading them to alternatively respond via active, avoidant, or support-seeking coping styles, which would in turn lead to outcomes of increased purchase intent, inaction inertia, or dissonance reduction.

⁴ This assertion fits with Zeelenberg et al.’s (2006) discussion of their 5 experiments in which they were unable to determine a direct link between regret and inaction inertia. They argued that anticipatory regret may be a consequence of the devaluation of the latter opportunity that comes after missing the first, or that alternatively the frustration at missing the first opportunity may lead decision makers to attempt to comfort themselves by devaluing the initial offer. We would argue that both may be at play, and can be explained by the application of coping theory. First, the attempt to comfort oneself by devaluing the initial offer is a form of coping via dissonance reduction. Given this, devaluation may lead to anticipatory regret at the idea that one might accept a bad offer. To avoid this negative consequence the decision maker would experience inaction inertia, or in other words, avoidant coping.

The primary appraisal of goal-relevance on inaction regret and coping

Much of consumption behavior is goal-directed. Consumers set goals and strive to achieve them. Hence, the relevance of consumption to one's goals has a significant impact on consumers' decision making processes (Bagozzi and Dholakia, 1999). Appraising goal-congruence, or motive consistency (Roseman, 1996), involves the assessment of whether achievement of personally relevant goals are facilitated or hindered in the current situation (see Han, Lerner and Keltner, 2007; Cavanaugh, Bettman, Luce, and Payne, 2007).

Primary and secondary appraisals interact to determine stress, here felt as regret, and how to cope with it (Lazarus and Folkman, 1984). Primary appraisals consist of assessments of the goal-relevance of the situation and goal-consistency of the outcome. If the product was goal-relevant then the consumer's failure to purchase the product makes the outcome of the situation by definition goal-inconsistent. The appraisal of a situation as being highly goal-relevant is likely to lead to more intense emotions than situations that are less goal-relevant (Sonnemans and Frijda, 1995; see also Roster and Richins, 2009). We would therefore expect that the failure to achieve a highly goal-relevant outcome would lead to greater feelings of regret than if the inaction were less goal-relevant.

Thus, a consumer who experiences regret for a highly goal-relevant forsaken purchase may be more likely to engage in active coping than would be one whose forsaken purchase is less goal-relevant due to the heightened stress (and thus regret) felt in the situation. Their primary appraisal of goal-relevance results in the more active coping response than would the appraisal of lesser goal-relevance, which would result in a more avoidant or support-seeking coping response (such as inaction inertia or dissonance reduction). See Fig. 1.

Consequently, the more goal-relevant a forgone opportunity is the more likely consumers would experience strong desire and form an intention to purchase the product at the next opportunity, as mediated by the experience of stress emotions, in this case regret. We expect:

H1a. Consumers will experience greater regret for inaction when the forgone opportunity is perceived to be more goal-relevant than when it is less goal-relevant.

H1b. When the forgone opportunity is more goal-relevant, consumers are more likely to purchase at the next opportunity than when it is less goal-relevant.

H1c. The influence of goal-relevance on behavioral intent is mediated by the feelings of regret.

Study 1: The role of goal-relevance

The context chosen for this study was a career fair. A pretest with 17 participants revealed that getting a job was a relevant goal for business students ($M=6.76$ on a seven-point scale where 1=not at all important and 7=very important). Analysis revealed that attending a career fair would be most important for

students who did not have a job ($M=6.47$) and least important for those with a full-time job ($M=3.94$) and moderately important for those with a part-time job ($M=5.70$; $F(1, 16) = 37.64, p < .05$). Based on these results, employment status was used as a proxy for goal-relevance in the main study.

For the main study, one hundred and forty undergraduates (51% male, 49% female) at a large West Coast University participated as part of a course requirement. All respondents were either full-time juniors or seniors. A fictitious career fair was described as the forgone goal-relevant opportunity. All participants were told that the "Business School Career Fair" had taken place on campus two weeks ago. The event was described as being "a resounding success in which 85% of attendees secured multiple interviews with important companies, with many securing preliminary job offers." The questionnaire was purportedly distributed to help the planners of the event obtain feedback about the event. Participants completed the questionnaire and were debriefed about the real intentions of the study.

Measures

Participants were asked whether or not they attended the fair. Eleven participants responded that they had attended the career fair and were asked to jump forward to a later page in the questionnaire, and were deleted from the analysis. Of the remaining participants, 30 were fully employed, 75 had part-time employment and 24 were unemployed. These participants were asked to indicate how much they regret not attending the career fair (1=not at all, 7=very much), how much they wish they had gone to the career fair (1=not at all, 7=very much) and how they felt about not going to the career fair (1=very unhappy, 7=very happy). These three items were averaged and converted to a regret index (Cronbach alpha = .86).

Participants were then asked to report the extent to which they would be willing to attend a career fair now if they had a chance and how eager they were to attend a similar career fair in the future (measured on a seven-point scale anchored by 1=not at all and 7=very much). These two items were averaged ($r = .92$) and used as a behavioral intent index.

Results

Inaction regret

Hypothesis 1a states that regret for inaction will be higher for forgone opportunities that are more goal-relevant than for those that have less goal-relevance. An ANOVA of employment status on inaction regret revealed a significant main effect of employment status ($F(1, 126) = 3.72, p < .05$). Simple effects tests revealed that participants who were fully employed ($M = 3.87$) experienced less regret than participants who were either employed part-time ($M = 4.62$) or unemployed ($M = 4.90$) lending support to Hypothesis 1a.

Behavioral intent

An ANOVA with employment status as the independent variable and the behavioral intent index as the dependent variable revealed a similar main effect ($F(2, 124) = 4.49$,

$p < .05$). Simple effects tests revealed that the intent to attend the sale was significantly greater for participants who were unemployed ($M = 6.23$) and partly employed ($M = 6.03$) compared to those who had a full-time job ($M = 5.42$). These findings support Hypothesis 1b.

Mediation

Mediation analysis revealed that regret for inaction fully mediated the relationship between employment status and behavioral intent. Four sets of regressions were conducted. First, employment status had a significant influence on intent ($\beta = .25$, $F(1, 104) = 6.99$, $p < .01$). Second, employment status had a significant influence on regret ($\beta = .21$, $F(1, 104) = 5.01$, $p < .01$). Third, regret had a significant influence on behavioral intent ($\beta = .71$, $F(1, 104) = 109.79$, $p < .001$). Finally, with both employment status and regret as independent variables and behavioral intent as the dependent variable, the effect of the employment status on intent was not significant ($\beta = .10$, ns), but regret remained significant ($\beta = .69$, $F(2, 103) = 53.94$, $p < .001$). This provides support for the mediating role of inaction regret proposed in Hypothesis 1c.

Discussion

This study illustrates a key premise of the coping process in the non-purchase context, namely, that the appraisal of the goal-relevance of a missed opportunity plays a key role in determining the extent of felt regret for inaction, and this influences the intent to avail of an opportunity when it is presented again. Notably, the secondary appraisal of reversibility was kept constant since all participants were led to believe that another career fair was likely in the future.

While these results suggest that the efforts on the part of marketers to induce regret by encouraging consumers not to miss their “great deal” or “blowout sale,” are likely to be successful for products that are relevant to their consumers’ goals, we posit that they will be more impactful if they credibly communicate that the opportunity will be difficult to find again. In other words, we expect that the perception that the forgone goal-relevant opportunity is difficult to reverse will further increase the likelihood of behavioral intent, and decrease inaction. We discuss the role of the secondary appraisal of reversibility in the section that follows.

The secondary appraisal of reversibility on inaction regret and coping

One characteristic of the study of inaction regret in the consumption domain is that the events that elicit feelings of regret are often reversible. Festinger and Walster (1964) suggest that if a decision maker who experiences regret is given an opportunity to reverse the decision, he would likely do so. In fact, Zeelenberg and Pieters (2007) review a number of studies that demonstrate that regret results in individuals undoing or reversing a decision.

When a forgone purchase is seen as difficult to reverse, consumers’ appraisal will likely be one of heightened stress, as

their options for managing the inaction are limited. Recall that in the coping process primary appraisals assess personal relevance (via goal-relevance and goal-consistency) while secondary appraisals assess what can be done to manage the situation (i.e. available resources, skills, etc.). The reversibility of the non-purchase relates to what can be done to address the situation. When a situation is reversible the consumer will likely feel less regret over the past inaction, but may instead experience anxiety over future opportunities (e.g. might the next opportunity to purchase be a worse deal than the one that was forgone). Such forward-looking appraisals of stress are associated with avoidance coping (Bagozzi, 1992). We posit that this avoidance coping leads to inaction inertia in the consumer context. When the forgone purchase is appraised as difficult to reverse, however, the consumer’s focus remains on their past mistake and current loss. Such appraisals are associated with active coping responses, such as attempts to undo the harm (Bagozzi, 1992). We argue the result will be increased behavioral intent to purchase at the next opportunity.

Thus it should be the case that when a failure to avail oneself of an opportunity is seen as reversible the stress of inaction, and thus regret, is lower, and the desire and intent to avail oneself of the opportunity when it arises again is attenuated. In other words, when a non-purchase is reversible, consumers should be less eager to take advantage of a future opportunity to purchase than if the non-purchase were difficult to reverse.

In Study 1 we found that when consumers forego a more goal-relevant outcome they experience more stress (regret) than when the forgone opportunity is less goal-relevant. However, if the more goal-relevant non-purchase were difficult to reverse, (e.g. if the missed opportunity was a going out of business sale), the regret experienced should be greater than if the failure were easily reversed. Consequently, one’s need to engage in active coping with this regret is increased, as mediated by the extent of regret. Also see Fig. 1.

H2a. Consumers will experience greater regret for inaction when the forgone goal-relevant opportunity is perceived to be difficult to reverse than when it is easily reversed.

H2b. When the forgone goal-relevant opportunity is difficult to reverse, consumers will be more likely to avail themselves of the next opportunity than when the forgone goal-relevant opportunity is easily reversed.

H2c. The influence of reversibility on behavioral intent is mediated by the experience of regret.

Study 2: The role of reversibility

Sixty-two undergraduates (56% male, 44% female) at a large West Coast University participated in this experiment as part of a course requirement. The study was conducted ten days after Thanksgiving. All participants were informed that the University Bookstore had held a huge post-Thanksgiving sale and were conducting a feedback survey about the sale. They were told that all merchandise they would need for the upcoming spring semester was at least 50% off including computers,

software, books and University clothing. Saving money on school supplies was pretested to be goal-relevant for the respondent population. They were told that the sale was heavily advertised via flyers, email and university notice boards. About half the participants were informed that a similar sale would be held the following week (easy to reverse) while the other half were told that the bookstore was unlikely to have another similar sale again (difficult to reverse). In reality, such a sale had not taken place and the details of the sale were presented in order to create authentic feelings of regret for inaction. Participants completed the survey and were later debriefed about the real intentions of the study.

Measures

Participants were asked whether they had attended the sale (two participants responded affirmatively and were removed from the analysis). For authenticity, the questionnaire then directed participants who reported that they did not attend the sale to a list of questions and informed those who reported that they did to answer another set of questions. The participants who reported not attending the sale were asked to indicate how much they regret not going to the sale (1=not at all, 7=very much), how much they wish they had gone to the sale (1=not at all, 7=very much) and how they felt about missing the sale (1=very unhappy, 7=very happy). These three items were averaged and converted to a regret index (Cronbach alpha=.92). To assess behavioral intent, participants were then asked to report how eager they were to attend a similar sale at the University bookstore the next time they had a chance. At the end of the survey, participants were provided space to provide an open-ended response designed to capture the extent to which they believed the sale actually took place.

Results

Manipulation check

Reversibility of the situation was measured using an item assessing perceived difficulty of attending a similar sale in the future on a seven-point scale (where 1=easy to attend, 7=difficult to attend). The findings revealed directional support for the reversibility manipulation. Participants in the easy to reverse condition reported that it was easier to attend the sale the next time than participants in the difficult to reverse condition ($M=5.12$ vs. $M=5.63$, $F(1, 58)=1.57$, one-tailed $p=.10$). This marginal result could be due to the generally common nature of sales at the campus bookstore. An analysis of the open-ended responses revealed no suspicion of the real motives of the study; to the contrary they revealed broad belief that the sale had in fact taken place, and that they had missed it.

Inaction regret

Hypothesis 2a suggested that consumers will experience more regret for inaction when the inaction is perceived to be difficult to reverse than when it is perceived to be easily reversed. An ANOVA was conducted with felt regret as the dependent variable and reversibility (easy vs. difficult) as the

independent measure. The results revealed that the degree of reversibility impacted the extent of inaction regret experienced. Participants who were told that a similar sale would take place the next week experienced less regret ($M=4.81$) than participants who were told that a similar sale was unlikely to happen again ($M=5.83$, $F(1, 59)=14.02$, $p<.05$). These results support Hypothesis 2a.

Behavioral intent

Hypothesis 2b suggests that consumers will be more likely to pre-decide to avail of the future opportunity when their failure to purchase the product originally is seen as more difficult to reverse than when it is seen as easily reversed. A one-way ANOVA was conducted, with reversibility as the independent variable and eagerness to attend a similar sale in the future as the dependent variable. As predicted, participants were more eager to attend the sale when they were told that another sale was unlikely to happen again than when they were told that another sale was scheduled to take place the following week ($M=5.96$ vs. $M=5.39$, $F(1, 59)=4.74$, $p<.05$). These results support Hypothesis 2b.

Mediation

Mediation analysis revealed that regret for inaction fully mediated the relationship between reversibility and behavioral intent. Four sets of regressions were conducted. First, reversibility had a significant influence on intent ($\beta=.28$, $F(1, 58)=4.74$, $p<.01$). Second, reversibility had a significant influence on regret ($\beta=.44$, $F(1, 58)=14.02$, $p<.01$). Third, regret had a significant influence on behavioral intent ($\beta=.77$, $F(1, 58)=82.19$, $p<.001$). Finally, with both reversibility and regret as independent variables and behavioral intent as the dependent variable, the effect of reversibility on intent was not significant ($\beta=.07$, ns) but regret remained significant ($\beta=.80$, $F(2, 57)=41.22$, $p<.001$). This provides support for Hypothesis 2c.

Discussion

This study contributed to our understanding of the role of an externally imposed situational constraint, namely appraised reversibility, on the effects of stress for inaction on felt regret, coping responses, and subsequent outcomes to forgone goal-relevant opportunities. The study revealed that regret for inaction is more strongly felt when the lost opportunity is difficult to reverse than when it is easy to reverse, and the difficulty of reversibility also affects consumers' active coping via increased behavioral intent when they failed to do so before. Next we discuss how goal-relevance (primary appraisal) and reversibility (secondary appraisal) work together to result in the different coping response tendencies that explain the differential outcomes of regret for inaction.

Mapping coping response types to behavioral outcomes

The central premise of this paper is that the way in which the situation is appraised, and coped with, determines whether the response to the stress of inaction is further inaction (avoidance

coping: inaction inertia) or increased behavioral intent (active coping). We theorize that coping with a situation in an active coping style involves trying to actively manage the source of a stressful emotional experience, and is thus likely to result in increased behavioral intent. Conversely, coping with a situation in an avoidance coping style is likely to result in inaction inertia. We therefore expect that the coping response employed determines the behavioral outcome resulting from inaction regret. Stated more formally:

H3a. A high level of active coping will lead to greater behavioral intent than low active coping.

H3b. A high level of avoidance coping will lead to greater inaction inertia than low avoidance coping.

However, these different coping responses are dependent upon appraisals of the goal-relevance and reversibility of the situation. As found in Study 1, holding reversibility constant, when a forgone purchase is more goal-relevant, stress (felt regret in this context) is greater than when the forgone purchase is less goal-relevant. In the latter instance, since no goals are at stake, personal well-being is little affected by the non-purchase, and stress (regret) is low. Coping in such a case is minimal, involving strategies such as dissonance reduction. In situations in which a more goal-relevant purchase was forgone regret is higher, and resources available to manage that regret (assessed in the secondary appraisal), such as the reversibility of the non-purchase, become relevant. Study 2 held goal-relevance constant, and found that consumers feel greater regret, and are more likely to experience increased behavioral intent, when the non-purchase situation was difficult to reverse rather than easily reversed. These outcomes are hypothesized to be driven by the form of coping response used. When a forgone purchase is less goal-relevant consumers will experience low stress and will thus most likely employ an avoidant coping response. When a non-purchase situation is more goal-relevant and difficult to reverse the emotional focus is on the present loss and consumers experience greater stress (regret), and thus engage in active coping (Bagozzi, 1992), leading to increased behavioral intent. When the non-purchase is easily reversed the focus shifts to achieving one's goal in the future, and thus consumers engage in avoidance coping, leading to the outcome of inaction inertia.

H4. When the missed opportunity is less goal-relevant consumers will cope using an avoidant coping style, but when the missed opportunity is more goal-relevant and difficult to reverse, consumers cope with the situation with an active coping style.

Thus, the purpose of this third study is to empirically investigate the role of the actual coping response in explaining the differential effects of regret for inaction across different circumstances, and to test this in a situation in which both goal-relevance and reversibility vary.

Study 3: The role of coping responses

One hundred and twenty-five undergraduates not in their senior year (60% male, 40% female) at a large West Coast

University participated in this 2 (goal-relevance) × 2 (reversibility) experiment as part of a course requirement. All participants were told that the bookstore had a software sale that had taken place on campus a week ago. To manipulate high goal-relevance, participants were informed that one of the popular items on sale at a 60% discount was “a revolutionary business strategy software called “Soft-Sell” targeted specifically at business students.” They were further informed that as they probably had heard all of them would be required to purchase this software as it was to be used in the majority of the business classes they would take before they graduate. For the low goal-relevance condition, participants were informed that on sale at the same discount was “a global information encyclopedia software called “One-World” targeted specifically at business students.” They were informed that the software was designed to make international travel, whether for pleasure or for business, more fun and more informational. These scenarios were pretested to be high versus low in goal-relevance, respectively. Reversibility was manipulated in a manner similar to Study 2. Participants were debriefed about the real intentions of the study after its completion.

Measures

Participants were asked to indicate how much they regret not attending the sale (1 = not at all, 7 = very much), how much they wish they had gone to the sale (1 = not at all, 7 = very much) and how unhappy they felt about not going to the sale (1 = very unhappy, 7 = very happy). These three items were averaged and converted to a regret index (Cronbach alpha = .93). Participants then completed manipulation checks for reversibility and goal-relevance. Two items assessed reversibility ($r = .62$): how likely the bookstore would be to have a similar sale in the future (1 = not at all, 7 = very likely) and whether the bookstore plans another sale in the future (1 = no, 7 = yes). Two items assessed goal-relevance ($r = .76$): how critical (name of software) was to their future success (1 = not at all, 7 = extremely) and how important (name of software) was to achieving their goals in life (1 = not at all, 7 = extremely).

Participants were then asked to report their behavioral intent. Participants were asked to indicate how likely they would be to attend the sale, how likely they would be to purchase the software and how likely they would be to pay more for the software. All items measured on a seven-point scale anchored by 1 = not at all and 7 = very much. To directly measure inaction inertia participants were asked “Do you think you should just forget about the software?” on a seven-point scale anchored by 1 = not at all and 7 = very much.

Participants then completed items modified from the Coping Strategy Indicator (Amirkhan, 1990) to assess active and avoidant coping. Three items (I will come up with a couple different solutions to the problem, I will know what had to be done, so I will double my efforts to make things work, I will make a plan of action and follow it; Cronbach alpha = .92) were averaged to form an active coping response index. Five items, two for emotional evasion (I will go to the movies or watch TV, to think about it less, I will turn to work or other substitute

activities to take my mind off things, Cronbach alpha = .78), and three for behavioral evasion (I will give up the attempt to get what I want, I will reduce the amount of effort I'm putting into solving the problem, I will admit to myself that I can't deal with it, and will quit trying, Cronbach alpha = .77), were combined as an avoidant coping index (Cronbach alpha = .72).

Results

Manipulation checks

Reversibility was successfully manipulated, ($M_{\text{reversible}} = 5.67$ vs. $M_{\text{irreversible}} = 4.07$, $F(1, 124) = 29.36$, $p < .05$). The manipulation of goal-relevance was also successful ($M_{\text{more G-R}} = 3.94$ vs. $M_{\text{less G-R}} = 3.37$, $F(1, 123) = 3.49$, $p = .06$).

Inaction regret

A 2×2 ANOVA was conducted with reversibility and goal-relevance as the independent variables and inaction regret as the dependent variable. Results reveal main effects for reversibility ($F(1, 124) = 5.63$, $p < .05$) and goal-relevance ($F(1, 124) = 6.92$, $p < .05$) and a significant reversibility \times goal-relevance interaction ($F(1, 124) = 5.63$, $p < .05$). Contrast analysis revealed highest regret for the goal-relevant irreversible condition compared to the other three conditions. These results support Hypotheses 1a and 2a. See Table 1.

Behavioral intent

A 2×2 ANOVA with reversibility and goal-relevance as the independent variables on behavioral intent revealed a main effect of reversibility ($F(1, 124) = 6.60$, $p < .05$), a main effect of goal-relevance ($F(1, 124) = 19.23$, $p < .05$), qualified by a marginally significant interaction ($F(1, 124) = 3.18$, $p = .07$). Contrast analysis revealed that behavioral intent was highest in the irreversible goal-relevant condition compared to the other three conditions. These results lend support to the central thesis of this research, specifically, that when forgone opportunities are goal-relevant (H1b) and perceived to be difficult to reverse (H2b), consumers are likely to demonstrate renewed efforts towards availing of the consumption opportunity at the next available opportunity.

Coping responses on intent and inaction inertia

To test Hypothesis 3a, ANOVAs were conducted using a median split of the active coping index on behavioral intent. In

this case, high active coping lead to significantly higher intent than low active coping ($M = 3.81$ vs. $M = 2.95$, $F(1, 122) = 12.12$, $p < .05$). Regression analyses were also conducted using the continuous active coping measure, yielding similar results ($\beta = .372$, $F(1, 123) = 19.694$, $p < .01$). This lends support to H3a that suggests that consumers who reveal higher active coping are more likely to purchase than consumers who reveal lower active coping.

To test Hypothesis 3b a similar median split of the avoidant coping index was conducted on the inaction inertia measure. No significant effect was found. Regression analyses were also conducted using the continuous avoidance coping measure, which also revealed no significant effect. Indeed, correlation analysis revealed that avoidant coping had virtually no correlation with the inaction inertia measure (Pearson's $r = -.009$, $p = .92$). Contrary to expectations, Hypothesis 3b is thus not supported. This could be the result of the scenario used in Study 3. Prior work on inaction regret presented scenarios in which the subsequent offer was worse than the original, forgone, offer. In our reversible condition the subsequent offer was equal to the forgone one. In such a situation the use of avoidance coping may not affect inaction inertia, as it is perhaps driven more by one's coping preference, as noted above, rather than by the situation.

Goal-relevance and reversibility on coping responses

To examine Hypothesis 4, a repeated measures ANOVA was conducted on only the irreversible condition with goal-relevance as the between-subjects variable and the two forms of coping (avoidant coping and active coping) as the within-subjects factor. The results revealed the predicted goal-relevance \times coping style interaction ($F(1, 56) = 5.26$, $p < .05$). Specifically, the results show that when a situation is more goal-relevant, consumers cope in a predominantly active coping style, but when a situation is less goal-relevant consumers cope in a predominantly avoidant coping style (see Table 1 for means). This result supports Hypothesis 4.

Discussion

The results of Study 3 provide support for the mapping of coping response types to differential outcomes to the stress of inaction. When consumers forgo a purchase they may fall into a state of inertia, waiting to act again until an equal or better deal comes along, or they may instead actively decide to purchase at the very next opportunity, and choose to pay more if necessary. This study shows that the goal-relevance of the purchase plays a key role in determining how a consumer responds to stress from inaction. For forgone purchases that are less goal-relevant, or which are more goal-relevant yet easily obtained another time, consumers are most likely to cope with their regret via avoidant coping and perhaps wait for a better deal. Yet when the forgone purchase is more goal-relevant and not easily obtained again consumers cope with their regret via active coping and increase their behavioral intent to purchase at the next available opportunity. Notably, the impact of the goal-relevance and reversibility of forgone purchases on consumers' attitudes and

Table 1
Means for Study 3.

	Study 3			
	More goal-relevant (Soft-Sell)		Less goal-relevant (One-World)	
	Reversible	Irreversible	Reversible	Irreversible
Inaction regret	2.87	3.79 *	2.26	2.79
Behavioral intent	3.47	4.56 *	2.81	3.01
Active coping	3.15	3.44	2.66	2.69
Avoidant coping	2.70	2.93	2.74	3.35

* Significantly different from all other means, $p < .05$.

behaviors towards the forgone purchase found in Studies 1 and 2 were replicated in this study. These findings are consistent with the coping theory framework in which active coping (intent) would be expected in more goal-relevant situations which are more challenging to handle (due to the difficulty of reversing the forgone purchase).

General discussion

The primary objective of this research was to develop a framework based on coping theory to explain the differential responses to the stress of regret for inaction in the consumption domain. While work in psychology has demonstrated the importance of regret for inaction (Landman, 1993), especially over the long term (Gilovich and Medvec, 1995), less attention has been paid to regret for inaction in consumer behavior research. The results of three studies show that stress from inaction does have differential outcomes depending on the conditions of the situation and how consumers cope with them.

Theoretical contributions

This research demonstrates that the experience of regret for inaction not only informs consumers about the quality of their past decisions, as suggested by previous research, but also motivates them towards future consumption. Taken together, the three studies provide important theoretical contributions. First, they expand our knowledge of the inaction regret phenomenon through the development and testing of a coping framework that explains the differential outcomes of inaction regret found in the current and prior work. Further, this research uncovers key situational factors that drive the appraisals of stress from inaction, influence the experience of inaction regret, and explain how consumers may differentially cope with the experience. Prior research has established regret to be an adaptive emotion that helps consumers to learn from their mistakes (Zeelenberg et al., 2002). However, most prior research has demonstrated that people learn from regret by staying clear of the forsaken product in the future (e.g. inaction inertia). This research demonstrates the adaptive nature of regret in a different way, by showing it to be a dynamically experienced emotion that varies in its intensity and outcomes according to the coping process, enabling consumers to persist on their path to goal-achievement when the situation deems it appropriate.

Notably, the studies conducted in the current paper reveal increased behavioral intent when the consumption occasion is goal-relevant and difficult to reverse. However, typical inaction inertia studies (e.g. Arkes et al., 2002; Tykocinski et al., 1995) have observed inaction inertia when the next available opportunity was slightly less favorable than the previous opportunity. This research has suggested that anticipated regret for purchasing at a less favorable price compared to the previous opportunity underlies the inaction inertia phenomenon (Tykocinski et al., 1995). Furthermore, Arkes et al. (2002) have demonstrated that consumers who have missed a large bargain assign a lower value to a subsequent opportunity than do those who have missed a more modest bargain. Thus, the prior

research has assumed that the future opportunity is not as good as the forsaken one, a circumstance which leads to inaction inertia. In fact, in Van Putten, Zeelenberg, and Van Dijk's (2007) examination of decoupling as a boundary condition of inaction inertia, they note that differences in the attractiveness of the two opportunities is a crucial element included in almost all demonstrations of inaction inertia. We thus conducted another study to determine whether goal-relevance and reversibility will have the same influence on intent, and whether avoidance coping does indeed lead to inaction inertia, in situations in which the future opportunity is worse than the forgone one. The results of Study 3 are replicated even when the future opportunity is less favorable but still goal-relevant.

The findings of this research are related to, yet distinct from, the research on option attachment. Carmon, Wertenbroch and Zeelenberg (2003) describe a situation in which after contemplating two options, and eventually choosing one, consumers feel a sense of attachment to the unchosen option and thus discomfort at its "loss;" termed as a virtual endowment effect. The current work may serve to provide a boundary condition for option attachment: it seems likely option attachment would occur to a greater degree the more a forgone option is goal-relevant and hard to reverse. Other research similarly demonstrates that a forgone opportunity results in greater attachment and thus enhanced behavioral intent due to the positive mental imagery associated with the anticipated opportunity (Patrick, Lancellotti and Hagtvedt, 2009).

Practical implications of this work warrant discussion as well. Marketers would benefit from highlighting the irreversibility of forgone opportunities potential customers failed to take. This may run counter to current approaches in which marketers appeal to customers by extending sales, promising a quick return of sold-out styles and models, and previewing new products far in advance. While we would not yet advocate abandoning such tactics, it may be useful for marketers to highlight to consumers what they have missed and the fact that it is no longer available (irreversibility) so as to increase desire and behavioral intent. Also, this research demonstrates that marketers should highlight the goal-relevance of products consumers have forgone, and emphasize not the benefits that such products would convey, but rather highlight the losses consumers will suffer as a result of forgoing the purchase. This final implication is consistent with established research on loss aversion (Kahneman and Tversky, 1979). Finally, as this research shows that how consumers cope with the regret they experience affects their course of action regarding the product in the future, it may be in marketers' interest to facilitate active forms of coping (which lead to increased likelihood of future purchase).

Limitations and future research directions

These studies suffer some limitations that are noteworthy. First, they all involve relatively commonplace consumption situations and thus elicit feelings of inaction regret that are relatively less intense (even for more goal-relevant opportunities) than that which might be elicited by missing out on a significant life opportunity (a lost love or a missed career

option). Second, these studies might involve some demand effects. It seems obvious, although not previously demonstrated, that feelings of regret for inaction (like missing out on a sale) would lead to increased intent to avail of the opportunity the next time around. The focus of this research, however, is on the use of coping theory to explain when consumers are likely to demonstrate increased behavioral intent and when they are likely to exhibit inaction inertia.

These results also provide several avenues for future research. The current research demonstrates that when the consumption is goal-relevant, consumers may actively cope with inaction regret. The issue of whether they do so by sticking to the same product or service provider or whether they switch to a substitute is an important issue that may be investigated. Also, understanding situational factors (e.g. degree of personal control) and individual differences (e.g. entity orientation, Dweck, Chiu, and Hong, 1995) that leads consumers to cope differentially with a lost opportunity may be examined in future research.

Studies on regret have not disentangled the phenomenology of regret for action from that of regret for inaction, and debate continues on whether these represent fundamentally different experiences (Roese, Summerville and Fessel, 2007). Future research is needed to determine whether action and inaction regrets are different emotional experiences. Studies comparing these two types of regret indicate that they are different (Gilovich and Medvec, 1995), but whether they differ phenomenologically, remains an issue unanswered by the extant literature.

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