

The role of anticipated emotions in purchase intentions

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Abstract

Key personal inputs to decision making reside in expectations about whether a purchase or non-purchase will make one feel better. Integrating several theoretical approaches, this research proposes a holistic framework formed by four kinds of anticipated emotions (AEs) resulting from the crossing of positive- or negative-valenced emotions with action or inaction. Specifically, this research proposes that consumers under a purchase scenario tend to consider positive and negative AEs of both purchase and non-purchase in their decisions. Research in this area to date has been sparse and focused mostly on AEs with regard to purchase, but not non-purchase. The results of four studies confirm that AEs influence purchase decisions in a coordinated way depending on their instrumentality, motivating purchase or non-purchase. AEs also partially mediate the effect of outcome valence on purchase decisions. Taking the status quo bias as a theoretical basis, this work proposes that the amount of information of favorable and unfavorable outcome messages has a greater influence on AEs motivating purchase than AEs motivating non-purchase. Finally, future research lines are proposed to expand the use of this four-fold framework and more generally to understand the role of forward-looking emotions in decision processes.

Keywords: Anticipated emotions, Affective forecasting, Status quo bias, Outcome valence, Decision making

Often, consumers find a nice offer for an extraordinary product on sale (e.g., a new smart phone) and decide to take advantage of such a bargain, expecting that their decision will make them feel good or happy. Indeed, not purchasing the product on sale could make them feel bad or unhappy later, if they forgo the opportunity. Nevertheless, many times products fail to meet expectations or better offers are found afterwards, leading to negative outcome feelings, such as regret. In addition, with overexposure to these kinds of “extraordinary offers,” consumers sometimes decide that the product is not worth purchasing, and consider that the best choice for feeling good afterward is not to buy it.

The research reported herein proposes and tests a comprehensive model of decision making based on anticipated emotions (AEs) consumers take into account in their deliberations. An integrative, holistic framework is developed where two AEs motivating purchase (positive AEs of purchase and negative AEs of non-purchase) are combined with two AEs motivating non-purchase (negative AEs of purchase and positive AEs of non-purchase). A novel feature of this approach is that it incorporates AEs as mediators between commercial information and consumer decisions. Another contribution is the expansion of knowledge of AEs, and their aggregation into unique categories motivating purchase or non-purchase. Finally, the differential functioning of AEs is identified as a consequence of the amount of information provided to consumers (a moderation effect).

It is well accepted that people seek pleasure and avoid pain in their lives as basic human motivations (Higgins, 1997). Research suggests that expected emotional outcomes are simple but useful guides driving decision processes (Mellers & McGraw, 2001), which is why commercial messages often focus on the expected outcomes of decision making. To describe such processes, researchers propose that before making decisions, individuals consider the emotional consequences of their actions (Philips & Baumgartner, 2002) or inactions (Patrick, Chun, & MacInnis, 2009a). During the past two decades, many studies

have tested the effect of anticipated affective consequences on behavior (Patrick *et al.*, 2009a; Philips & Baumgartner, 2002), and several researchers highlight their importance and the need for additional research (Pieters & Zeelenberg, 2007; Yi & Baumgartner, 2008). Anticipated emotions have proved to influence action or inaction in a broad variety of contexts, such as violating automobile driving rules (Parker, West, Stradling, & Manstead, 1995), adopting sexual precautions to protect one from contracting AIDS (Richard, Van der Pligt, & de Vries, 1995), preventing environmental risks (Böhm & Pfister, 2008), and gambling (Mellers, Schwartz, & Ritov, 1999). The literature on consumer behavior also proposes that consumers anticipate the emotional consequences of their purchase decisions and that anticipated feelings affect current decisions such as purchasing an item on sale (Simonson, 1992), using coupons before expiration dates (Inman & McAllister, 1994), visiting desired shopping centers (Hunter, 2006), and eating snacks or drinking vitalized water (Andrade, 2005; Mogilner, Aaker, & Kawvar, 2012; Winterich & Haws, 2011).

In four studies, specific sets of emotions are investigated herein that consumers anticipate for each decision, whether consumers consider both positive and negative affective consequences, and how these emotions influence purchase intention under real product promotion scenarios. It is assumed that consumers may consider several kinds of positive and negative AEs related to purchase and non-purchase, and that AEs can be induced or influenced by external stimuli (Gershoff & Koehler, 2011); the claim is supported that AEs mediate the effects of outcome messages (e.g., positive or negative valence) on purchase decisions. In addition, building on the idea of the status quo bias (Luce, 1998), a test is done to determine how the amount of information provided in the message moderates this principal effect and contributes to reinforce the formation of subsets of different kinds of AEs. In summary, the research proposes that the relevant information provided to customers about a

purchase decision stimulates the anticipation of emotional consequences associated with the purchase, which in turn influences purchase decisions.

The rest of the paper proceeds as follows: First, previous theoretical and empirical research on affective forecasting are reviewed and a framework is proposed of four kinds of AEs functioning in decision making. Then, the theoretical basis underlying the formation and functioning of AEs is described. Next, an elaboration is done of the research focus and corresponding hypotheses. This is followed with a description of the methodology, which consists of four studies, and then the results are presented. Lastly, a discussion of the main conclusions and implications of the findings is provided and potential avenues for expanding knowledge and development of AEs in consumer behavior research are suggested.

Theoretical overview

Affective consequences of decisions: toward a theory of anticipated emotions

The concept of anticipated emotions

Research in psychology has long addressed the roles of seeking pleasure and avoiding pain in people's lives (Higgins, 1997). Many, if not all, of the decisions individuals take are influenced by the pursuit of happiness or the avoidance of unhappiness. Both theoretical and empirical research has found that expected emotional outcomes are simple but useful guides driving decision processes (Mellers & McGraw, 2001). Research in marketing has also shown that emotional expectations influence consumer behavior (Mogilner *et al.*, 2012; Philips & Baumgartner, 2002; Simonson, 1992).

Research on emotions, such as the feelings-as-information theory (Schwarz, 2012), has explored the role of affective experiences (mood, emotions, metacognitive experiences, and bodily sensations) as informative cues determining individuals' judgments. However, the feelings-as-information perspective assumes that decision making is influenced by individuals' perceptions of their own real, current feelings; but ignores the relevance of

individuals' anticipation of the affective consequence of current decisions. In contrast, the underlying assumption of AEs is that individuals anticipate how their choices will make them feel (Patrick *et al.*, 2009a). Thus, before making decisions, they predict the emotional consequences of their actions (Philips & Baumgartner, 2002) or inactions (Patrick *et al.*, 2009a). Along this line, research has defined AEs as predictions of an outcome's emotional consequences (Bagozzi, Baumgartner, & Pieters, 1998) or beliefs about one's own emotional responses to future outcomes (Lowenstein, Weber, Hsee, & Welch, 2001).

From a complementary marketing approach, disconfirmation theory contrasts expectations with actual post-purchase affective consequences (Oliver, 1993). Nevertheless, although certain levels of consumer expectations are necessary to engage in purchase decisions (Santos & Boote, 2006), research on expectations has not directly addressed the relevance of the affective and anticipatory nature of customer decisions. Literature describes the anticipation of future consequences of decisions before the decision as a kind of prefactual thinking (Perugini & Bagozzi, 2001). In a similar vein, counterfactual thinking describes the process by which individuals compare factual and counterfactual outcomes (e.g., purchasing or not purchasing) (Zeelenberg, Van Dijk, Manstead, & Van der Pligt, 2000). Prefactual thinking are fallible expectations of future consequences that do not need to be accurate to influence the final decisions (Van Dijk & Zeelenberg, 2005). To solve the problem of inaccuracy in affective forecasting, people try to learn from previous events (Brown & McConnell, 2011), as loyalty or re-purchase of products satisfy expectations or product abandonment when they fail. However, purchase decisions are often unconnected with previous decisions, as in the case with new products or unique promotions (Shapiro, 1982). In these cases, individuals must rely on their current available information to make predictions about the affective consequences of their behavioral choices (Van Dijk & Zeelenberg, 2005; Quian, Chandrashekar, & Yu, 2015).

In addition, previous literature generally assumes that messages influence purchase decision through attitude change (Eagly & Chaiken, 1993), paying little attention to the influence of consumers seeking of favorable outcomes and avoidance of unfavorable outcomes. From a conceptual perspective, Xie, Bagozzi, & Østli (2013) propose that attitudes and AEs are experienced differently and function differently in decision making. In this respect, AEs are dynamic, situation-specific, changeable, and focused on consequences of an action, whereas attitude tend to be stable, are passive predispositions, and reflect judgments and feelings learned from previous appraisal processes (Xie *et al.*, 2013). In addition, AEs should be volatile and intentional, that is, motivating action or inaction to affirm or cope with such AEs as proposed in the literature on emotions (Bagozzi, Gopinath & Nyer, 1999). By linking AEs to research on expectations and emotions, the current study proposes that forward-looking emotions play important roles in decision making. Accordingly, the present research proposes that outcome message valence and the amount of information provided play important roles in shaping AEs.

Literature on AEs

Previous research has examined AEs from different and complementary pathways. A broad body of work proposes that groups of both positive and negative AEs toward achieving a future goal or not influence behavioral intention (Bagozzi & Dholakia, 2006b; Perugini & Bagozzi, 2001, Xie *et al.*, 2013). Other broader approaches have focused on the aversion to specific negative emotions, such as regret related to actions and inactions (Hetts, Boninger, Armor, Gleicher, & Nathanson, 2000; Loomes & Sugden, 1982; Patrick *et al.*, 2009a; Zeelenberg, Beattie, Van der Pligt, & de Vries, 1996). Another stream of research, dealing with forward-looking emotions, is the innovative framework of decision affect theory (Mellers *et al.*, 1999), later adapted to more generalizable contexts as the theory of anticipated emotions (Fong & Wyer, 2003; Zeelenberg *et al.*, 2000). In brief, this theory

assumes that people tend to avoid negative post-decisional emotions and to strive for positive post-decisional emotions (Zeelenberg *et al.*, 2000), for example, based on preferences for gains or non-losses and avoidance of losses or non-gains (Zeelenberg *et al.*, 2000). This latter perspective elucidates a set of four AEs affecting decisions: positive AEs toward action, negative AEs toward action, positive AEs toward inaction, and negative AEs toward inaction. However, this theory is under-developed and has received little attention by scholars beyond the theoretical proposals to date. In addition, most researchers have focused on some, but not all, of these groups of AEs (e.g., Patrick *et al.*, 2009a; Philips & Baumgartner, 2002). Indeed, the few studies considering sub-sets of AEs provide little empirical support and are limited to the analysis of economical choices such as gambles or investments, without considering purchasing decisions in a broader, more general sense (e.g., Patrick *et al.*, 2009a; Zeelenberg *et al.*, 1996).

The existence of these four sets of AEs implies that consumers might anticipate both positive and negative affective outcomes of their actions and inactions before making decisions. Patrick *et al.* (2009a) find that consumers anticipate various combinations of emotions. This perspective could be complemented by prospect theory (Kahneman & Tversky, 1979), which analyzes investment decisions based on risk and probability calculations. From this latter approach, Fong and Wyer (2003) find evidence in favor of a significant influence of the four kinds of AEs in decision making, though they rely on one-item general measures of AEs. In a first experiment, participants were hypothetically given \$40,000 and asked to decide whether (1) to invest the money in a risky firm (and either double or lose the investment) or (2) to put the money into a time deposit. The results revealed that positive affective expectations of a successful company investment had a positive impact on accepting the investment option. Similarly, negative affective expectations of a failure investment had a negative impact on accepting the investment option. In a second

experiment, participants were instructed to consider their preparation for an important exam and to decide whether to take (1) a risky choice of studying only one topic that was rumored to be covered or (2) a non-risky choice of studying all the topics and obtaining a “C.” The results revealed that the risky choice decision generated positive and negative affective expectations of this choice, which in turn exerted positive and negative influences on decisions to choose the risky option. In addition, the safer option entailed positive and negative affective expectations that produced negative and positive significant influences on taking the risky choice. Using the work of Fong and Wyer (2003) as a starting point, the current investigation advances the study of AEs by applying the framework to real purchase scenarios, with more developed scales of measurement than used in past studies, and analyzing the inter-relationship of AEs with other relevant issues in consumer behavior, such as persuasion or information processing, which have been under examined. The lack of research analyzing the four-fold framework of AEs inspired the authors of this paper to explore how AEs function by specifying their formation, measurement, and operation in consumer behavior decisions in a fuller manner than done before.

Research proposal

Building on the above theoretical review, it is proposed that the four groups of AEs function distinctively in purchase decisions. Drawing upon the theory of anticipated emotions (Fong & Wyer, 2003; Zeelenberg *et al.*, 2000) and applying it to the marketing context, it is proposed that consumers’ purchase decisions are based on (1) positive feelings in anticipation of an expected pleasing purchase, (2) negative feelings in anticipation of a disappointing purchase, (3) positive feelings in anticipation of goodness resulting from a non-purchase decision, and (4) negative feelings in anticipation of missed opportunities of a non-purchase decision. Then, the framework is extended and elaborated on the basic assumptions that underlie consumers’ tendency to strive for positive feelings and avoid negative feelings (Mellers *et al.*,

1999; Zeelenberg *et al.*, 2000) by suggesting that both purchase and non-purchase decisions entail positive and negative affective consequences that consumers take into account. Study 1 focuses on describing how consumers anticipate these emotions which differ in valence and action orientation, in agreement with previous research suggesting that people anticipate both positive and negative affective consequences of their actions (Patrick *et al.*, 2009a). This four-fold framework is more complex than that proposed by other authors because it presents a holistic and more complete conceptualization of the functioning of AEs. Figure 1 summarizes the four-fold framework of AEs related to purchase decisions and the specific hypotheses proposed herein.

#INSERT FIGURE 1 HERE#

AEs' influence on purchase depending on their instrumentality

It is hypothesized that organization of the four groups of AEs depends on their instrumentality for or against purchase. This basic assumption is based on the consumer's avoidance of cognitive dissonance in order to focus on cues oriented for or against action (Festinger, 1957). This means that positive AEs of purchase (posAE_p) and negative AEs of non-purchase (negAE_{non-p}) should co-occur positively to form a first category of AEs serving as overall motives for purchase. For the second category, which is expected to correlate negatively with the first one, negative AEs of purchase (negAE_p) and positive AEs of non-purchase (posAE_{non-p}) should co-occur positively together, forming a second kind of AEs motivating non-purchase. Following this organization of AEs, the hypothesis is proposed and tested that the two groups of emotions in the first category increase purchase intention, while the two groups in the second category decrease purchase intention. These proposed relationships are elemental in the development of the research reported herein and thus constitute different means to ends across Studies 2–4. Formally:

H1. AEs influence purchase intention, depending on their instrumentality: AEs motivating purchase (posAE_p and negAE_{non-p}) increase purchase intention, while AEs motivating non-purchase (negAE_p and posAE_{non-p}) reduce purchase intention.

Outcome message valence

Research on advertising and word of mouth concludes that favorable messages toward purchase increase purchase intention, while unfavorable messages decrease purchase intention (Herr, Kardes, & Kim, 1991). This view agrees with an important stream in consumer research suggesting that stimuli affect attitudes in a direction consistent with their valence (e.g., positively evoked emotions toward products lead to positive attitudes and behavioral intentions) (Bagozzi, Gopinath, & Nyer, 1999; Burke & Edell, 1989).

Accordingly, it is proposed that favorable and unfavorable outcome messages toward a product should lead to purchase or non-purchase decisions, respectively. Nevertheless, previous research usually contends that messages influence purchase intention by means of basic elements such as current attitudes and current affective states (Eagly & Chaiken, 1993) but disregard the possible functioning of the anticipated affective consequences of a purchase decision on this process. As a basic theoretical foundation, classical conditioning (e.g., Staats & Staats, 1958) states that behavior is strengthened or weakened, depending on antecedents but also on consequences or expected rewards and punishment. Complementing previous perspectives, it is posited that favorable or unfavorable outcome messages influence purchase decisions through their effects on AEs. Thus, it is hypothesized that AEs mediate and explain the effects of outcome messages on purchase intention. This second hypothesis covers these expected relationships that are contrasted in Studies 3–4:

H2a. Outcome messages influence AEs, depending on their instrumentality: favorable outcome messages increase AEs motivating purchase and reduce AEs motivating non-

purchase, whereas unfavorable messages decrease AEs motivating purchase and increase AEs motivating non-purchase.

H2b. AEs mediate the effects of outcome messages on purchase intention.

Amount of information

Literature on AEs finds that people tend to overvalue future feelings of a present decision (more strongly anticipated than later experienced) and names this effect “emotional amplification” (Mellers *et al.*, 1999). This effect is based on consumers’ tendency to focus on extreme or distorted predictions of future events when precise information is unavailable (Böhm & Pfister, 2008). This could explain why people prefer to dispel uncertainty about the outcomes before thinking through the affective consequences of the possible outcomes (Van Dijk & Zeelenberg, 2005). With this framework, previous research (e.g., Simonson, 1992) assumes that consumers start from a default option (usually inaction or non-purchase) and that more information is necessary for them to take action involving uncertainty (i.e., more information reinforcing a possible purchase decision). According to this view, actions deviating from the default options are more mutable and receive more cognitive attention (Zhang & Fishbach, 2005). Research has called this phenomenon by different names, such as action versus inaction counterfactual thinking (e.g., Van Dijk & Zeelenberg, 2005), which entails commission or omission errors, respectively (e.g., Zhang & Fishbach, 2005). Thus, people may choose safer choices, that is, when considering AEs they may choose not to act and leave things as they are (Baumeister, Vohs, DeWall, & Zhang, 2007). This view also agrees with the basic assumption of the status quo bias (Luce, 1998), which supports people’s preference for doing nothing and maintaining their current state and course of action (Samuelson & Zeckhauser, 1988). In particular, the status quo bias is due to the avoidance of self-blame for acting differently from the default option without proper justification (e.g., switching a brand despite being satisfied with it) (Inman & Zeelenberg, 2002). This rational

is also supported by the omission bias (Baumeister *et al.*, 2007; Ritov & Baron, 1995) and the endowment effect (Kahneman, Knetsch, & Thaler, 1990; Zhang & Fishbach, 2005), as kinds of biases which often occur simultaneously when consumers face complex decisions (Huber, Köcher, Johannes, & Meyer, 2012). Consequently, theoretical bases suggest that affect based decisions moving from the status quo (i.e., a purchase of a new product) require higher informational efforts than decisions maintaining the status quo (i.e., the non-purchase of a product involving uncertainty). From a different perspective, research also suggests that negative recommendations (e.g., inaction recommendations) are more effective than positive ones (Chevalier & Mayzlin, 2006) and maintains that unfavorable messages (inaction oriented) are more easily accepted than messages with favorable outcomes (action oriented).

In agreement with these views, it is assumed that the amount of information operates differently for AEs motivating purchase than for AEs motivating non-purchase. In summary, the suggestion is made that purchase-oriented messages (favorable messages) must provide a high amount of information to influence AEs and purchase intention. In contrast, the influence of messages oriented toward a non-purchase (unfavorable messages) on AEs motivating non-purchase and intention not to purchase should work for both high and low levels of information messages, and thus are not moderated by the amount of information. In short, Study 4 proposes that the amount of information shapes AEs motivating purchase but does not influence AEs motivating non-purchase. In addition, it is proposed that AEs motivating purchase are determined by an interaction between outcome messages and amount of information. In other words, it is hypothesized that a higher amount of information reinforces the effect of favorable messages on AEs motivating purchase. Formally:

H3a. The amount of information influences AEs motivating purchase (the higher the amount of information, the higher is the level of AEs) but does not influence AEs motivating non-purchase.

H3b. The amount of information moderates the effect of outcome messages on AEs motivating purchase.

Study 1

As a first approach to understand AEs, an exploratory study was carried out to identify the emotions consumers anticipate during a purchase decision. Open-ended questions were used to allow participants to express themselves freely in their own vocabulary and to provide the emotions they spontaneously anticipate about the purchase decision.

Participants and procedure

Forty students at a large university in northern Spain participated in the study in exchange for course credit. The study was presented as research on consumer perceptions and emotions toward desired products. Participants were randomly assigned to either the purchase (N=20) or the non-purchase (N=20) conditions.

Scenario

All participants were asked to read the following scenario:

Mr. A. is a 22-year old student in our school. This week he has only 35€ left for necessities in his bank account. In addition, he has a credit card that he sometimes uses. Today, Mr. A.'s eyes fall upon a promotional stand about an attractive tablet computer on the campus. The tablet has been designed by engineers of the University and is one of the best for students in terms of attributes: Wi-Fi and free mobile technology, full HD video, front and back camera, high memory and speed, etc. The new product is very light and thin and it is compatible with different operating systems, browsers and service providers. The tablet is produced in collaboration with a non-leader brand and has not been launched to the market yet. It is available in different colors and has a 7" screen.

Only today, because of the initial promotion, the tablet will be sold at a reduced price of 89€ (expected price in shops will be 179€). Those people interested in purchasing the

tablet should write their names on the reservation list today, and tomorrow they will receive the tablet after payment. It is a non-refundable product with a two-year guarantee.

After this scenario description, participants were instructed to put themselves in Mr. A.'s place and respond to questions regarding their beliefs about the realism of the scenario. Depending on the purchase or non-purchase condition, participants were instructed as follows:

Imagine that you decide to purchase (not purchase) the tablet and you write (don't write) your name on the reservation list. However, before going far from the promotional stand you start to imagine how you will feel about your current decision in the future. You anticipate the emotions you think you will feel because of the tablet purchase (non-purchase).

Participants were then asked about the emotions they anticipate they would feel.

Measures

Scenario realism

The realism and believability of the scenario were measured with two items using seven-point scales, "The scenario is realistic", "The scenario is believable". An additional question was asked of participants to measure the suitability of the scenario, "How likely would you be to encounter a situation similar to the one described in the scenario? (from 1= very unlikely, to 7= very likely).

Anticipated Emotion listings

Participants were instructed, "Please, write each of the different emotions (or similar terms in your own words) that you think you will feel in the future if you were Mr. A., as a consequence of your decision". Eight empty blanks were presented to be filled in by respondents.

Results

Scenario realism

The results of the experiment confirmed the suitability of the scenario since the three measures related to the scenario realism (Cronbach's $\alpha = .86$) provided a mean of 4.97 and a standard deviation of 1.22. According to the measures, participants perceived the tablet promotion as realistic and believable, and indicated that the scenario represents a familiar situation in their daily life.

Anticipated emotions

Each of the different anticipated emotions provided by participants as responses was identified and coded as positive or negative in valence. Two external coders blind to the hypotheses had to evaluate each term or expression to identify it with a specific emotion and related valence (e.g., down \rightarrow depressed, negative valence). Disagreements between the two coders were resolved through discussion. Each respondent provided one to four different anticipated emotions. This limited number of emotions could be interpreted as an individual tendency to focus on a small number of emotions (Böhm & Pfister, 2008), and a sign of participants' difficulty to express emotions in words spontaneously (Richins, 1997). Only one respondent did not mention any emotion, and was eliminated because of lack of response to other measures in the study.

Figure 2 describes the results of the study. In the purchase scenario, 20% of participants provided only one anticipated emotion named either in terms linked to positive feelings (e.g., happy, privileged), or negative ones (e.g., guilty, worry). The rest of participants (80%) anticipated two or more emotions related to the purchase decision and combined both positive and negative terms (e.g., worried, anxious, pleased; happiness, pride,

regret; hopeful, uneasy, disappointed), with the exception of one participant providing two AEs of the same valence (excitement, fashionable).

In the non-purchase condition, 26.3% of participants provide only one term referring to either positive (e.g., satisfaction) or negative (e.g., frustration) emotions. Again, most participants (63.2%) anticipated more than one feeling combining different valence terms (e.g., remorse, satisfaction; happiness, doubt, insecurity; uncertainty, stupid, relieved).

Finally, 10.5% of the respondents mentioned two of the same valence feelings (e.g., doubt, bad).

To summarize, considering both conditions together, 76.9% of respondents anticipated more than one emotion (30 out of 39), and 90.0% of these people (27 participants, 69.2% of the total sample) reported that they believed that the decision (either the purchase or the non-purchase) will entail both positive and negative emotions in the future.

#INSERT FIGURE 2 HERE#

Discussion

The results of the first study provide evidence about the role that AEs might play during the purchase decision process. First, the tablet promotional scenario was evaluated as realistic, believable and representative in the environment of students in college. Second, most of the people dealing with the purchase decision anticipated that they would feel both positive and negative emotions in the future as a consequence of the purchase or non-purchase decision. Thus, the purchase of a promotional product could be described as a decision in which a simultaneous combination of different valence feelings might function. In addition, this mix of positive and negative emotions was anticipated by consumers independently of the purchase or non-purchase condition. In other words, consumers anticipated that their decision

would make them feel good but also bad when dealing with either buying or not buying a product in a promotional scenario.

However it is unknown how the four possible categories of AEs relate to each other (positive and negative AEs related to purchase and non-purchase). In particular, there is a need to know whether AEs are aligned to motivate purchase and non-purchase and to what extent the influence of each group of AEs significantly influences purchase decisions. For instance, the positive AEs related to non-purchase decisions are largely unexplored in previous research; this kind of emotion might be different from those related to purchase decision and they could play a relevant role reducing the likelihood of purchase of a given product.

Study 2 was conducted to identify the four sets of emotions (combinations of positive/negative valence and purchase/non-purchase decision), and to test the effects of these emotions on purchase intention. That is, to better clarify the relationships between these variables and their possible coordinated effects, depending on their instrumentality (motivating purchase or non-purchase), the authors formally analyzed in Study 2 the correlations between the four sets of AEs and their effects on purchase intention by using a larger sample size.

Study 2

Study 2 was designed to test H1, which predicts that AEs should influence purchase intention, depending on the instrumentality they afford. Specifically, it was hypothesized that AEs motivating purchase (posAE_p and negAE_{non-p}) increase purchase intention, whereas AEs motivating non-purchase (negAE_p and posAE_{non-p}) reduce purchase intention.

Participants and procedure

One hundred students at a large university in northern Spain participated in the study in exchange for course credit. The second study was presented as research on consumer perceptions of and emotions toward products under promotion. All participants read the same scenario presented in Study 1.

After the scenario description, participants were instructed to put themselves in the place of Mr. A. In this study, participants were allowed to think about the decision and to make their own decisions. After that, participants answered items measuring their purchase intentions and the AEs considered, before making a decision. Demographic and non-relevant questions were included between each of the four AEs measures to facilitate responding to each set of emotions, without creating confusion among them.

Measures

AEs

AEs were measured using scales of posAEp and negAEon-p existing in previous studies (Bagozzi & Dholakia, 2006a; Perugini & Bagozzi, 2001), which include 7 to 12 emotions per group of AEs. To adapt the scales to the present research context and develop scales on negAEp and posAEon-p, a pretest was conducted with a separate sample of 64 participants who evaluated the AEs for each scenario. AEs proposed in the AEs literature (e.g., Bagozzi & Dholakia, 2006a) were complemented with basic emotions traditionally described in the emotion literature (e.g., Izard, 1977; Roseman, Antoniou, & Jose, 1996). AEs were retained that achieved the highest average score on 7-point Likert scales. Because previous scales of AEs employed 7–9 positive AEs and 10–12 negative AEs (e.g., Perugini & Bagozzi, 2001), longer lists of negative AEs than positive AEs were also employed herein. Specifically, the 8 positive AEs toward purchase were peaceful, satisfied, hopeful, happy, pleased, joyful,

delighted, and excited. The 12 negative AEs related to purchase were upset, anxious, nervous, discontented, disappointed, uneasy, tense, worried, threatened, ashamed, guilty, and regretful. The 8 positive AEs associated with non-purchase were peaceful, relieved, satisfied, proud, self-assured, happy, pleased, and worthy. The 12 negative AEs related to non-purchase were frustrated, upset, anxious, discontented, disappointed, worried, uneasy, sad, envious, threatened, guilty, and regretful. The four scales obtained high levels of reliability based on Cronbach's alpha (posAEp $\alpha = .89$, negAEp $\alpha = .85$, posAEnon-p $\alpha = .83$, negAEnon-p $\alpha = .94$). A factor analysis was also conducted for each set of AEs and found that just one factor emerged in each case. Likewise, factor loadings were greater than .5 for all specific emotions except for peaceful in the posAEp scale; this item was retained for two reasons: (a) the results of the reliability analyses showed that the exclusion of this emotion from the posAEp scale did not have a significant improvement in the alpha value (from .89 to .91) (Parasuraman, 2000), and (b) to obtain symmetric scales of positive AE in terms of emotional content and number of items, since peaceful was already included in the posAEnon-p scale. Therefore, participants in Study 2 responded to these four scales of AEs measured on 7-point Likert scales, obtaining again high levels of reliability (Cronbach's alpha $> .70$). Spanish was the language used in all studies reported herein. Items were based on English versions, and a double back translation procedure was used to refine the items chosen.

Purchase intention

Purchase intention was measured with four items ($\alpha = .82$). The first three items used 7-point scales (1 = strongly disagree, 7 = strongly agree) and included "I would feel a strong urge to buy the tablet if I were Mr. A."; "If I were Mr. A., I would want to purchase the tablet"; and "I would feel the impulse to buy the tablet if I were Mr. A." The fourth item was "Please

indicate the probability that you would buy the tablet if you were Mr. A.” using a seven-point scale from 1 “very unlikely” to 7 “very likely.”

Results

Correlations among AEs

The correlations among AEs are consistent with expectations. As a prominent result, the correlation between posAEp and negAEnon-p is positive ($r = .46, p < .01$). This means that both emotions motivating purchase correlate positively, as expected. Similarly, a positive and significant correlation between negAEp and posAEnon-p was found ($r = .45, p < .01$). This result also provides support for a positive relationship between both kinds of emotions leading to non-purchase, as anticipated. The correlation between positive and negative AEs toward purchase is also negative and significant ($r = -.23, p < .05$), which agrees with the hypothesis and suggests that AEs motivating purchase increase when AEs motivating non-purchase decrease, and vice versa. Finally, the rest of the correlations between kinds of emotions are not significant and suggest relative independence between these AEs (posAEp and posAEnon-p: $r = -.02$; negAEp and negAEnon-p: $r = .14$; posAEnon-p and negAEnon-p: $r = -.14$; $p > .10$ in all cases).

Effects of AEs on purchase intention

A regression model tested the effects of AEs on purchase intention together. In every case, the variables introduced were calculated as the average of their respective measures. Table 1 presents the findings of Study 2 (as well as for subsequent studies) regarding these effects. According to H1, each of the four sets of AEs has a significant effect on purchase intention, which is in line with expected AEs instrumentality. Thus, the two kinds of AEs motivating action have a positive and highly significant effect on purchase intention

(posAEp: $\beta = .37, p < .01$; negAEnon-p: $\beta = .49, p < .01$). Conversely, the two kinds of AEs motivating non-purchase have a lower negative effect on purchase intention (negAEp: $\beta = -.18, p < .10$; posAEnon-p: $\beta = -.24, p < .05$).

#INSERT TABLE 1 HERE#

Discussion

The findings suggest a relatively clear pattern of organization for AEs. First, the correlations between AEs demonstrate that the four sets of AEs are grouped into two categories: (1) AEs motivating purchase (posAEp and negAEnon-p) and (2) AEs motivating non-purchase (negAEp and posAEnon-p). Indeed, the results clearly support a positive correlation between the two sets of AEs within each typology (positive intra-correlations) and a negative correlation between at least one pair of emotional sets across both categories (negative inter-correlations). Following the rationale developed above, this categorization suggests that, depending on their intentionality, consumers tend to activate anticipated emotions in favor of or against purchase.

Second, the regression model used to explain purchase intention shows that all four sets of AEs appear in the purchase decision process. This means that both positive- and negative-valenced AEs have significant effects on purchase intention. Specifically, the effects on purchase intention do not depend on their valence or purchase/non-purchase affective consequences, but rather on their instrumentality, leading to purchase or non-purchase.

Next, Study 3 aims to confirm results obtained in Study 2 and determine the extent to which outcome messages (information of a possible favorable or unfavorable outcome) influence purchase intention through AEs.

Study 3

Study 3 was designed to test the effects of outcome message valence on AEs. Specifically, it was hypothesized that outcome messages will influence AEs depending on their instrumentality (H2a): favorable outcome messages increase AEs motivating purchase and reduce AEs motivating non-purchase, whereas unfavorable messages decrease AEs motivating purchase and increase AEs motivating non-purchase. Then, it is shown that AEs mediate the effects of outcome messages on purchase intention (H2b).

Participants and procedure

Participants in Study 3 were 125 university students randomly assigned to each of the two design conditions (favorable outcome message vs. unfavorable outcome message). The same tablet scenario as in previous studies was presented to participants as well. However, in this study participants were assigned to two different conditions: 63 students were assigned to the tablet promotional scenario, followed by a message favorable to purchase; and the remaining 62 participants were assigned to a message condition unfavorable to purchase.

To improve the validity of the research, some variations on the tablet promotion scenario were performed. This consisted in presenting the tablet promotion as a real purchase opportunity available to participants in order to avoid participants' projections in hypothetical situations. Thus, participants had to respond with their own AEs and purchase decisions, which increases the external validity of the research. The rest of the basic information (e.g., tablet technical characteristics) and measures in the experiment remain the same as in the previous two studies.

Specifically, the different kinds of message conditions were manipulated by using a printed copy of an article, with the format of the faculty magazine deliberately written for this

experiment. In all conditions, the first lines of the article re-describe the basic information of the promotional tablet scenario, followed by an interview with a group of students that had allegedly participated in the same promotion two weeks earlier. A pretest with 20 students identified the messages as either favorable or unfavorable. All participants identified each kind of message correctly, confirming the favorable/unfavorable outcome message manipulation and confirmed the adequacy of the scenarios.

In the favorable outcome message condition, the article presented the following information:

“The Tablet works as good as they could imagine, better than any other device. Those that bought the tablet think that they did right; it is helpful for class and homework. In addition, it can be also employed in many other situations beyond university tasks. Everybody is interested in the Tablet and wants to interact with it for some time. The people who decided not to buy it think they did wrong for missing the opportunity to access the promotion.”

In the unfavorable outcome message condition, the text read as follows:

“The Tablet works worse than they could imagine, other devices work better. Those that bought the tablet think that they did wrong; it helps only a little for class or homework. In addition, there are many other devices that can be employed in many other situations after class. Nobody is interested in the Tablet, and it is not worth purchasing at all. The people who decided not to buy think that they took the right decision because the promotion was not a good opportunity.”

This time, participants’ responses were collected in three steps. First, they were asked about their purchase intention using the same scale presented in Study 2. Second, they were

asked about AEs they experienced before the purchase decision was made by means of a retrospective open-ended question about the AEs considered (Zeelenberg & Pieters, 1999). Specifically, all participants were asked:

“You already have taken a decision. However, before taking that decision you may have considered how you would feel in the future if you decided to buy or not to buy the product. Please write in your own words what emotions you expected to feel if you decided to buy the Tablet [blank provided]. Now, please write in your own words what emotions or feelings you expected to feel if you decided not to buy the Tablet [blank provided].”

In the third step, participants received an additional questionnaire, in which they responded to the four scales of AEs as employed in the previous studies. Then, they were thanked and debriefed. All scales obtained again high levels of reliability (Cronbach’s alpha > .70).

Manipulation check

Using a seven-point rating scale (1 = very unfavorable, 7 = very favorable) along with an independent samples t-test, the findings show that manipulation was successful ($t = 6.90, p < .01$). Participants agreed that the favorable outcome message was perceived as more favorable ($M = 5.21; SD = 1.48$) than the unfavorable condition ($M = 2.92; SD = 2.17$).

Results

The retrospective open-ended measure of AEs indicated that each participant anticipated an average of 4.58 different AEs ($SD=2.50$), coded *a posteriori* by two external judges as corresponding to the four different categories of AEs. Table 2 shows the high and significant levels of correlation between the open-ended thought listing and the measurement scales of AEs for each category. The four scales obtained high levels of reliability based on

Cronbach's alpha (posAEp $\alpha = .92$, negAEp $\alpha = .89$, posAEnon-p $\alpha = .91$, negAEnon-p $\alpha = .92$) and, in line with the findings of study 2, there is a positive intra-correlation and negative inter-correlation between AEs motivating purchase and AEs motivating non-purchase, regardless of the method used to record responses.

#INSERT TABLE 2 HERE#

Similar to Study 2, the regression for purchase intention in Study 3 (Table 1) also confirms that each set of AEs influences purchase intention ($R^2 = .55$, depending on its instrumentality; posAEp: $\beta = .47$, $p < .01$; negAEp: $\beta = -.21$, $p < .03$; posAEnon-p: $\beta = -.16$, $p < .07$; negAEnon-p: $\beta = .39$, $p < .01$).

Table 3 presents the descriptive statistics of the variables employed in Study 3. Independent samples t-tests (using the statistic software SPSS v22.0) were performed to evaluate differences in AEs due to the favorable/unfavorable outcome messages. Results show that favorable/unfavorable outcome messages had a significant effect on all four scales of AEs, and outcome message effects depend on AEs instrumentality. AEs motivating purchase are higher when favorable outcomes rather than unfavorable outcomes are expected (posAEp: $t(123) = 3.97$, $p < .01$; $M_{fav} = 4.60$, $M_{unfav} = 3.72$; negAEnon-p: $t(123) = 1.98$, $p < .05$; $M_{fav} = 3.03$, $M_{unfav} = 2.63$). In a complementary vein, AEs motivating non-purchase show higher scores for unfavorable outcome messages than for favorable outcome messages (negAEp: $t(123) = -5.19$, $p < .01$; $M_{fav} = 2.80$, $M_{unfav} = 3.77$; posAEnon-p: $t(123) = -3.54$, $p < .01$; $M_{fav} = 3.85$, $M_{unfav} = 4.62$).

#INSERT TABLE 3 HERE#

Next, an evaluation was done testing whether AEs mediate the effects of outcome messages on purchase intention. Mediation analysis followed the method described by

Preacher and Hayes (2008). Some of the advantages of this technique are that it does not rely on the assumption of normality and the number of inferential tests is reduced, decreasing the probability of Type 1 errors (e.g., Sivanathan & Pettit, 2010). In addition, unlike classic mediation models, the Preacher and Hayes method allows for the estimation of total indirect effects with one or several potential mediators. Preacher and Hayes's (2008) mediation analysis indicates a high and significant total effect of outcome message on purchase intention (total effect = 1.31, $p < .01$). Considering individual tests of mediation for each kind of AEs, the results reveal a significant partial mediation for each group of AEs (both direct and indirect effects are significant in each case). Specifically, the indirect effect of outcome message on purchase intention was significant for the four mediating groups of AEs (indirect effects: posAEp = .57, $p < .05$; negAEp = .16, $p < .10$; posAEnon-p = .23, $p < .05$; negAEnon-p = .25, $p < .05$). Significance was reduced for some of these mediation effects, when analyzing the mediation of the four groups of AEs at once (posAEp = .38, $p < .05$; negAEp = .12, $p > .10$; posAEnon-p = .11, $p < .10$; negAEnon-p = .15, $p < .05$). Thus, mediation analysis provides support for H2b, which proposes that AEs mediate between outcome messages and purchase intention. Nonetheless, it is not a full mediation of AEs, but rather partial mediation.

Discussion

Study 3 strengthens the tests of the framework proposed herein and adds to the findings of the previous studies in several ways. First, the measurement of AEs was re-validated as scales through comparison with an alternative measurement method employed in the AEs literature (Zeelenberg & Pieters, 1999). Participants' retrospective answers to open-ended questions were highly correlated with scales for each kind of AE, indicating a clear link between the constructs by means of the two methods. In addition, all the correlations between AEs of

different kinds (in both the open-ended responses and the questionnaire scales) demonstrate that AEs operate in a coordinated and counterbalanced way depending on consumers' motivation to purchase or not purchase instrumentalities. Second, as found in Study 2, the results reveal that the four kinds of AEs have a significant influence on purchase intention, and this influence depends also on their instrumentality. Third, manipulation of favorable and unfavorable outcomes through the messages shows that the levels of AEs vary depending on outcome expectations. The comparison between consumers who receive messages expressing a favorable outcome and those who receive messages warning of an unfavorable outcome suggests that affective forecasts depend on outcome expectancies. Compared with unfavorable messages, a prospect of favorable outcomes makes consumers anticipate higher levels of purchase motivating emotions and lower levels of non-purchase motivating emotions. In contrast, under the expectancy of an unfavorable outcome, consumers tend to anticipate higher levels of emotions motivating non-purchase and lower levels of emotions motivating purchase. Thus, outcome expectancies should reinforce AEs consistent with the message and should dissipate AEs inconsistent with the message that consumers might infer in the absence of other information.

Mediation analyses found support for the role of AEs in the purchase decision process. All four sets of AEs mediate the effects of outcome message on purchase intention; specifically, the results reveal a partial mediation role of AEs in this process. Thus, Study 3 reveals that the impact of favorable or unfavorable messages on purchase intention not only is based on classic behavioral patterns (e.g., attitudes) but also depends on the anticipation of specific affective consequences of such decisions.

In line with the relevance of AEs on purchase decisions, Study 4 helps shed light on additional message characteristics that may interact with outcome messages in the formation

and strength of AEs. Study 4 thus analyzes the extent to which the amount of information received by individuals influences the anticipation of affective consequences of the purchase decision.

Study 4

In Study 4, it is proposed that the amount of information influences AEs motivating purchase (H3a) but not AEs motivating non-purchase. It is also hypothesized that the amount of information moderates the effects of outcome messages on AEs motivating purchase (H3b).

Participants and procedures

One hundred twenty-six university students were recruited for this experiment. They were randomly assigned to each of the four conditions in a 2 (high amount of information vs. low amount of information) \times 2 (favorable outcome message vs. unfavorable outcome message) experiment, with 31–32 participants per condition.

In Study 4, the same tablet promotion scenario and measures were used as in Study 3, but a variation to avoid potential order effects in the measurement of AEs was introduced. Specifically, the order of the four sets of AEs measures was inverted. In addition, low and high amounts of information messages were differentiated in the following way. In the low amount of information and favorable message condition, the text of the interview read:

“In sum, the students think that the tablet is a good product, and recommend not passing up such opportunity.”

Similarly, in the condition of low amount of information and unfavorable message, the text read:

“In sum, the students think that the tablet is a bad product, and recommend passing up such opportunity”

For the high amount of information condition, the same favorable and unfavorable messages were used as described in Study 3 and the messages were extended by adding further details on the positive/negative attributes of the product and their related outcomes (e.g., “The tablet apps run [do not run] very well”; “People note that their experience with the tablet is great [awful], this is definitively [not] the product they needed”). In terms of number of words used, the high amount of information messages were 10 times longer than the low amount of information messages. Finally, participants were thanked and debriefed.

Manipulation check

The appropriateness of the manipulation regarding the amount of information was checked in two ways. First of all, a pretest with 20 students identified the messages as having either a high or a low amount of information done the same way as in the Study 3 pretest. Again, all participants evaluated each of the messages in accordance with their corresponding condition, which reinforces the suitability of the manipulations. Secondly, participants answered a semantic differential item (ranging from 1 “low amount of information” to 7 “high amount of information”) to measure the amount of information provided in the message. Results from independent samples t-tests ($t = 4.74, p < .01$) confirmed that the high amount of information condition ($M = 4.71; SD = 1.49$) is perceived to have more information than the low amount of information one ($M = 3.38; SD = 1.67$).

Results

Table 4 presents the descriptive statistics of the variables employed in the study. In addition, the four AEs scales obtained high levels of reliability based on Cronbach’s alpha (posAEp α

= .92, negAEp α = .89, posAEnon-p α = .89, negAEnon-p α = .93). Table 5 shows the 2×2 analysis of variance (ANOVA) results. Specifically, outcome message had a significant effect on all four sets of AEs. The differences between outcome messages indicate that AEs motivating purchase are higher when favorable rather than unfavorable outcomes are expected. This effect is significant for posAEp ($F(1, 126) = 7.11, p < .01; M_{fav} = 4.63, M_{unfav} = 4.08$) and negAEnon-p ($F(1, 126) = 4.39, p < .05; M_{fav} = 3.39, M_{unfav} = 2.91$). Analogously, AEs motivating non-purchase show higher scores for the influence of unfavorable outcome messages than that of favorable outcomes. This effect is significant for both negAEp ($F(1, 126) = 14.62, p < .01; M_{fav} = 2.99, M_{unfav} = 3.68$) and posAEnon-p ($F(1, 126) = 2.95, p < .10; M_{fav} = 4.54, M_{unfav} = 4.90$).

#INSERT TABLE 4 HERE#

#INSERT TABLE 5 HERE#

The amount of information is only significant for AEs motivating purchase, such that AEs are greater when higher levels of information are provided. This effect is significant for posAEp ($F(1, 126) = 3.22, p < .05; M_{HighInf} = 4.54, M_{LowInf} = 4.17$) and marginally significant for negAEnon-p ($F(1, 126) = 2.78, p < .10; M_{HighInf} = 3.34, M_{LowInf} = 2.97$). The amount of information is not significant for the formation of AEs motivating non-purchase ($F < 1$). Thus, H3a is supported; AEs motivating purchase vary positively and significantly, depending on the amount of information.

In support of H3b, the interaction effect of outcome message and the amount of information on AEs motivating purchase is also significant (posAEp: $F(1, 126) = 11.96, p < .01$) and approaches significance for negAEnon-p ($F(1, 126) = 2.89, p < .10$). As Table 5 shows, the effectiveness of the outcome messages on AEs motivating purchase depends on

the amount of information. This means that a higher amount of information reinforces the positive influence of favorable messages (especially for posAEp). Conversely, this interaction effect is not significant for AEs motivating non-purchase ($F < 1.7$), which means that the influence of outcome messages on these emotions does not depend on the amount of information provided but only on favorable or unfavorable outcome expectancy.

In addition, since the interaction effect was significant for outcome message and the amount of information, the simple main effects of both outcome message and amount of information on the AEs motivating purchase (posAEp and negAEnon-p) were evaluated. First, analyses presented in Figure 3 evaluate the effect of outcome message on posAEp and negAEnon-p at the single levels of the amount of information. Specifically, when a high level of information is presented, posAEp ($F(1, 63) = 18.751, p < .01$) and negAEnon-p ($F(1, 63) = 7.213, p < .01$) are significantly higher when favorable rather than unfavorable outcomes are expected. However, when the level of information is low, there is no influence of the outcome message on either posAEp ($F(1, 63) = .314, p > .1$) or negAEnon-p ($F(1, 63) = .078, p > .1$). Second, Figure 4 shows the effect of level of information on both posAEp and negAEnon-p at the single levels of outcome message. Specifically, when favorable outcomes are expected, posAEp ($F(1, 63) = 13.751, p < .01$) and negAEnon-p ($F(1, 63) = 5.672, p < .05$) are significantly greater for higher levels of information. In turn, when unfavorable outcomes are expected, there is no influence of the amount of information on either posAEp ($F(1, 63) = 1.373, p > .1$) or negAEnon-p ($F(1, 63) = .001, p > .1$). In sum, these results suggest that AEs motivating purchase are influenced by outcome message when the level of information is high, and by information level when a favorable outcome is expected.

Similar to the results in Study 3, application of Preacher and Hayes's (2008) mediation analysis in Study 4 reveals a high total effect of outcome message on purchase

intention (total effect = .95, $p < .05$). Again, each set of AEs partially mediates this effect, showing the indirect effects of outcome message on purchase intention for each set of AEs separately (indirect effects: posAEp = .36, $p < .05$; negAEp = .17, $p < .05$; posAEnon-p = .17, $p < .10$; negAEnon-p = .33, $p < .05$). These mediation effects were also significant at the 95% confidence interval (90% for posAEnon-p), when we analyzed the effect of the four groups of AEs at the same time (posAEp = .22, negAEp = .16, posAEnon-p = .08, negAEnon-p = .27).

For the sake of completeness, we also tested whether AEs mediate the link between amount of information and purchase intention. The total effect of the amount of information on purchase intention is not significant (total effect = .52, $p > .10$), nor is the direct effect. The full mediation effect of AEs motivating purchase between the amount of information and the purchase intention agrees with the findings revealing the differential functioning of AEs motivating purchase and AEs motivating non-purchase.

Discussion

Study 4 reinforces findings from Studies 2 and 3 to advance understanding of AEs formation and functioning on the purchase decision process. In contrast with Study 2, the change in order of AEs presentation in the questionnaire did not have a significant influence on the levels of AEs (posAEp: Study 2 = 4.40, Study 4 = 4.36; negAEp: Study 2 = 3.02, Study 4 = 3.34; posAEnon-p: Study 2 = 4.63, Study 4 = 4.72), except for the level of negAEnon-p, which increased when these emotions appeared at the beginning (negAEnon-p: Study 2 = 2.65, Study 4 = 3.16; $p < .01$). Furthermore, the AEs influence pattern, dependent on instrumentality, is also corroborated in this study. Favorable outcome messages (unfavorable messages) drive higher levels of AEs motivating purchase (lower levels of AEs motivating non-purchase) and positively influence purchase intention. As in the previous studies, all four kinds of AEs partially mediate the effects of outcome messages on purchase intention.

In addition, the amount of information, as well as its interaction effect on outcome messages, contributes to the formation of AEs motivating purchase, but not AEs motivating non-purchase. Thus, $posAE_p$ and $negAE_{non-p}$ are reinforced when more complete information about product characteristics and expected outcomes are available, in support of a moderating role of the amount of information on AEs formation. However, individuals do not need a high amount of information to anticipate the negative affective consequence of a purchase ($negAE_p$) or to feel good without purchasing the product ($posAE_{non-p}$). Thus, favorable or unfavorable outcome messages are important in shaping all kinds of AEs, but a high amount of information reinforces AEs motivating purchase, while AEs motivating non-purchase occurs with both high and low amount of information.

General discussion

Research on emotions shows that decision-related outcomes entail affective consequences. Thus, individuals' anticipation of these emotional consequences influences the decision itself. Termed the theory of anticipated emotions, it was found through an integration of studies that four AEs can function in decision making; the findings herein largely confirm this. The present research contributes to deepening how AEs function by re-interpreting the different theoretical approaches underlying AEs and by investigating their formation and participation in the purchase decision process in a commercial setting.

Given the lack of studies on the conceptualization of AEs in their fullest sense and their measurement and analysis in consumer behavior, the first goal in this study was to develop AEs as essential and under-developed processes in consumer research. The first contribution was to describe AEs conceptually and propose the existence of a four-fold framework of AEs that operates according to their instrumentality in motivating purchase and non-purchase. Study 1 establishes that consumers consider both positive and negative

affective consequences of purchase and non-purchase. Deepening further the study of AEs, Studies 2–4 confirmed the direct influence of AEs on purchase decisions and found empirical support for the relevance of the complete framework. The findings showed that the framework proposed herein was applicable independent of the scenario description or message conditioning across experimental designs. The results also revealed that certain AEs often ignored in consumer research (e.g., posAEnon-p) are also relevant in decision making. In this sense, the present research serves to call attention to the holistic framework developed herein when studying stimuli that apply to future-oriented emotions in persuasion. For example, the literature on AEs and advertising usually focuses on one group of AEs (e.g., posAEp or negAEnon-p), but all four groups can function together or in subsets in decision making. Along this line, the results herein clearly demonstrate that AEs do not necessarily work independent of each other, but rather correlate positively with AEs that lead to the same decision (e.g., purchase) and negatively with AEs that lead to the contrary decision (e.g., non-purchase). The analyses carried out in Studies 2 and 3 reveal a clear correlation pattern that depends on the instrumentality of AEs and also emerged through different measurement procedures: open-ended questions and traditional questionnaire scales. The current studies develop and compare different AE measurement methods employed in previous literature, as an additional contribution to research on AE.

An important additional contribution of this research was the finding that AEs mediate the effects of outcome message valence on purchase intention. Specifically, partial mediation effects were found for all four groups of AEs. As the experiments show, valenced outcome messages altered AEs according to the message's purpose. For example, a favorable outcome message reinforced AEs motivating purchase and weakened AEs motivating non-purchase, which in sum favors a positive purchase decision. This finding means that the emotional

consequences of the present decision are considered relevant cues to take into account in current consumers' decision making. This insight is consistent with previous work suggesting affective cues as alternative means to shape behavior beyond attitude change (Baumeister *et al.*, 2007). Specifically, the present research shows that consumer behavioral decisions are determined by forward-looking emotions, which agrees with previous research that treats consumption experiences as essentially aesthetic in nature (e.g., Holbrook & Hirschman, 1982; Jüttner, Schaffner, Windler, & Maklan, 2013), complementing the common stream of marketing research focused on attitude change (e.g., Van der Pligt, Zeelenberg, van Dijk, de Vries, & Richard, 1997).

The present research also showed that the different groups of AEs might vary, depending on external variables (e.g., amount of information included in the message). On the basis of status quo theories, it was proposed and demonstrated that greater versus lesser amount of information stimulate AEs motivating purchase, while AEs motivating non-purchase are not a function of the amount of information. Study 4 in particular showed the action-motivating role of AEs in response to amount of information. It was also found that amount information and outcome valence interacted to influence AEs motivating purchase. Further research on the role of AEs in advertising and word-of-mouth communication for consumer decision making is warranted. Indeed, as a general finding of the present research, this study shows that it is more difficult to encourage purchase than not purchase of a product. From a practical perspective, this effect might be due not only to status quo maintenance but also to consumers' self-protection against over-exposure to messages endorsing purchase (e.g., communication tactics that promote "unique" products that "nobody should miss").

The current research advances the study of AEs in several ways. In contrast with the majority of research on AEs, which has examined sub-components of AEs, the complete framework of four AEs was tested in a consumer setting with different products and alternative scenario presentations. Building on previous work and the pretest done herein, the present study also developed and validated a measure of AEs that corresponded to AEs directly reported by consumers in a retrospective open-ended response exercise. The different functioning of AEs motivating purchase and non-purchase was also analyzed, depending on message characteristics (i.e., valence, amount of information). Finally, AEs were found to be relatively complex but easy-to-comprehend and to exist in a holistic framework that plays an important role in consumer decision making.

Limitations and further research on AEs

The purchase of products under certain situations (e.g., frequently purchased products) might be instinctive and not imply AEs. In this sense, research could investigate the influence of AEs toward low involvement products and the role of AEs in frequent or unprompted purchases. According to the findings herein, it could be argued that AEs oriented toward non-purchase are considered in more situations since greater amounts of information are needed to induce purchase versus non-purchase AEs. It can be argued that consumers potentially question their purchase decisions for a great majority of products and that this decision might be influenced by AEs. Nevertheless, further research could clarify the circumstances under what AEs become irrelevant to purchase decisions.

Further research could also investigate whether the anticipation of emotions is connected with other affective cues in decision making (for a review, see Baumeister *et al.*, 2007). In this sense, it is important to note that AEs are different from, but might be connected with, current emotions (e.g., present mood, anger) and other kinds of future-

oriented emotions, such as anticipatory emotions (e.g., present anxiety experienced because of an anticipated exam tomorrow) (Baumgartner, Pieters, & Bagozzi, 2008). As another limitation, the current research focused on affective consequences of the general outcome of a decision (to purchase or not), without analyzing the multi-faceted meaning that an outcome may represent for a consumer. Previous research implies that AEs may be related to the decision itself (Patrick, Lancellotti, & Demello, 2009b), the outcome (Mellers *et al.*, 1999), product performance (Philips & Baumgartner, 2002; Quian, Chandrashekar, & Yu, 2015), the consumption experience (Hunter, 2006), or the attained goal (Perugini & Bagozzi, 2001). However, in some contexts it is difficult to clearly differentiate these targets conceptually, because goals are ends or outcomes produced by the implementation of instrumental behaviors (Bagozzi *et al.*, 1998; Brown, Cron, & Slocum, 1997). Previous studies have found that consumers consider the sequence of consequences derived from their behavior as a whole, likely focusing on those that are more relevant for their future affective states (Zeelenberg *et al.*, 1996). Thus, further research should address the relationship between AEs and consumer goals (e.g., social, cultural, environmental) (Hetts *et al.*, 2000; Yi & Baumgartner, 2008; Xie *et al.*, 2013).

AEs and their function in behavioral decision processes emerge as a broad field of study with many avenues for additional research (e.g., advertising, experiential marketing, luxury purchases). Higher attention should be paid marketing strategies stimulating AEs motivating purchase and reducing AEs motivating non-purchase, beyond actions exclusively oriented to reduce anticipated regret (e.g. price guarantees, McConnell, Niedermeier, Leibold, El-Alayli, Chin, & Kuiper, 2000). Further research on this topic would help to shape the theoretical and empirical relevance of AEs. For instance, AEs may also play a relevant role in relationship marketing as far as the literature proposes that the level of affective expectations

influence the feelings experienced after consumption (Klaaren, Hodges, & Wilson, 1994), and the level of brand attachment (Proksch, Orth, & Cornwell, 2015).

Other determinants of intentions should be considered along with AEs. For example, attitudes and such social variables as subjective norms, group norms, and social identity have been shown to provide independent influence on intentions along with AEs (Tsai & Bagozzi, 2015). In addition, a theory is needed to show how multiple sources of influence combine and become integrated and transformed into decisions. Consumer desires has been shown to perform this function (e.g., Bagozzi & Dholakia, 2006a,b; Tsai & Bagozzi, 2015), but there are likely to be other self-regulatory mechanism as well in human agency (Bagozzi, 2010). Finally the role of AEs in such areas as brand love (Batra, ahuvia, & Bagozzi, 2012) and brand hate (Zarantonello et al., 2016) remain to be investigated.

The present research aimed to introduce AEs as a pertinent and under-developed holistic framework in the study of consumer behavior, to consider a more comprehensive structure of AEs than examined to date, and to provide additional findings to expand knowledge of this topic. Scholars are encouraged to explore this stimulating area of research, which contributes to a more complete understanding of consumer behavior.

References

- Andrade, E.B. (2005). Behavioral consequences of affect: Combining evaluative and regulatory mechanisms. *Journal of Consumer Research*, 32(3), 355-362.
- Bagozzi, R.P. (2010). Consumery agency and action. In P. Macharan, M. Saren, B. Stern, and M. Tadajewski (eds.), *The Sage Hndbook of Marketing Theory*, Los Angeles, CA: Sage, pp. 316-331.

- Bagozzi, R.P., & Dholakia, U.M. (2006a). Antecedents and purchase consequences of customer participation in small group brand communities. *International Journal of Research on Marketing*, 23, 45-61.
- Bagozzi, R.P., & Dholakia, U.M. (2006b). Open source software user communities: A study of participation in Linux user groups. *Management Science*, 52(7), 1099-1115.
- Bagozzi, R.P., Baumgartner, H., & Pieters, R. (1998). Goal-directed emotions. *Cognition & Emotion* 12(1), 1-26.
- Bagozzi, R.P., Gopinath, M., & Nyer, P.N. (1999). The Role of Emotions in Marketing. *Journal of the Academy of Marketing Science*, 27(2), 184-206.
- Batra, R., Auvia, A., & Bagozzi, R.P. (2012). Brand Love. *Journal of Marketing*, 76, 1-16.
- Baumeister, R.F., Vohs, K.D., DeWall, C.N., & Zhang, L. (2007). How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review*, 11(2), 167-203.
- Baumgartner, H., Pieters, R., & Bagozzi, R.P. (2008). Future-oriented emotions: Conceptualization and behavioral effect. *European Journal of Social Psychology*, 38, 685-696.
- Böhm, G., & Pfister, H.R. (2008). Anticipated and experienced emotions in environmental risk perception. *Judgment and Decision Making*, 3(1), 73-86.
- Brown, C.M., & McConnell, A.R. (2011). Discrepancy-based and anticipated emotions in behavioral self-regulation. *Emotion*, 11(5), 1091-1095.

- Brown, S.P., Cron, W.L., & Slocum, J.W., Jr. (1997). Effects of goal-directed emotions on salesperson volitions, behavior, and performance: A longitudinal study. *Journal of Marketing*, 61(1), 39-50.
- Burke, M.C., & Edell, J.A. (1989). The Impact Of Feelings On Ad-Based Affect And Cognition. *Journal of Marketing Research*, 26(1), 69-83.
- Chevalier, J.A., & Mayzlin, D. (2006). The effect of word of mouth on sales: Online book reviews. *Journal of Marketing Research*, 43(3), 45-354.
- Cronbach, L. (1970). *Essentials of Psychological Testing*. New York, NY: Harper and Row.
- Eagly, A.H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL: Harcourt Brace Jovanovich.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fong, C.P.S., & Wyer, R.S., Jr. (2003). Cultural, social, and emotional determinants of decision under uncertainty. *Organizational Behavior and Human Decision Processes*, 90, 304-322.
- Gershoff, A.D., & Koehler, J.J. (2011). Safety first? The role of emotion in safety product betrayal aversion. *Journal of Consumer Research*, 38, 140-150.
- Herr, P.M., Kardes, F.R., & Kim, J. (1991). Effects of word-of-mouth and product-attribute information in persuasion: An accessibility-diagnostics perspective. *Journal of Consumer Research*, 17(4), 454-462.

- Hetts, J.J., Boninger, D.S., Armor, D.A., Gleicher, F., & Nathanson, A. (2000). The influence of anticipated counterfactual regret on behavior. *Psychology & Marketing*, 17(4), 345–368.
- Higgins, E.T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280-1300.
- Holbrook, M.B., & Hirschman, E.C. (1982). The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 9(2), 132-140.
- Huber, F., Köcher, S., Johannes, V., & Meyer, F. (2012). Dazing Diversity: Investigating the Determinants and Consequences of Decision Paralysis. *Psychology & Marketing*, 29(6), 467-478.
- Hunter, G.L. (2006). The role of anticipated emotion, desire, and intention in the relationship between image and shopping center visits. *International Journal of Retail & Distribution Management*, 34(10), 709-721.
- Inman, J.J., & McAlister, L. (1994). Do coupon expiration dates affect consumer behavior? *Journal of Marketing Research*, 31, 423-428.
- Inman, J.J., & Zeelenberg, M. (2002). Regret in repeat purchase versus switching decisions: The attenuating role of decision justifiability. *Journal of Consumer Research*, 29(1), 116-128.
- Izard, C.E. (1977). *Human emotion*. New York, NY: Plenum Press.
- Jüttner, U., Schaffner, D., Windler, K., & Maklan, S. (2013). Customer service experiences: Developing and applying a sequential incident laddering technique. *European Journal of Marketing*, 47(5), 738-768.

- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2) 263-291.
- Kahneman, D., Knetsch, J.L., & Thaler, R.H. (1990). Experimental test of the endowment effect and the Coase theorem. *Journal of Political Economy*, 98(6), 1325-1348.
- Klaaren, K.J., Hodges, S.D., & Wilson, T.D. (1994). The role of affective expectations in subjective experience and decision-making. *Social Cognition*, 12, 77–101.
- Loomes, G., & Sugden, R. (1982). Regret theory, an alternative theory of rational choice under uncertainty. *The Economic Journal*, 92(368), 805-824.
- Lowenstein, G., Weber, E.U., Hsee, C.K., & Welch, N. (2001). Risk as feelings. *Psychological Bulletin*, 127, 267-286.
- Luce, M.F. (1998). Choosing to avoid: Coping with negatively emotion-laden consumer decisions. *Journal of Consumer Research*, 24(4), 409-433.
- McConnell, A.R., Niedermeier, K.E., Leibold, J.M., El-Alayli, A.G., Chin, P.P., & Kuiper, N.M. (2000). What if I find it cheaper someplace else? Role of prefactual thinking and anticipated regret in consumer choice. *Psychology & Marketing*, 17(4), 281–298.
- Mellers, B., & McGraw, A.P. (2001). Anticipated emotions as guides to choice. *Current Decisions in Psychological Science*, 10(6), 210-214.
- Mellers, B., Schwartz, A., & Ritov, I. (1999). Emotion-based choice. *Journal of Experimental Psychology: General*, 128(3), 332-345.
- Mogilner, C., Aaker, J., & Kawvar, S.D. (2012). How happiness affects choice. *Journal of Consumer Research*, 39, 429-443.

- Oliver, R.L. (1993). Cognitive, affective, and attribute bases of the satisfaction response. *Journal of Consumer Research*, 20(3), 418-430.
- Parasuraman, A. (2000). Technology Readiness Index (TRI). A multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research*, 2(4), 307-320.
- Parker, D., West, R., Stradling, S., & Manstead, A.S.R. (1995). Behavioral characteristics and involvement in different types of traffic accident. *Accident Analysis and Prevention*, 27(4), 571-581.
- Patrick, V.M., Chun, H.H., & MacInnis, D. (2009a). Affective forecasting and self-control: Why anticipating pride wins over anticipating shame in a self-regulation context. *Journal of Consumer Psychology*, 19, 537-545.
- Patrick, V.M., Lancellotti, M.P., & Demello, G. (2009b). Coping with non-purchase: Managing the stress of inaction regret. *Journal of Consumer Psychology*, 19, 463-472.
- Perugini, M., & Bagozzi, R.P. (2001). The role of desires and anticipated emotions in goal-directed behaviors: Broadening and deepening the theory of planned behavior. *British Journal of Social Psychology*, 40, 79-98.
- Philips, D.M., & Baumgartner, H. (2002). The role of consumption emotions in the satisfaction response. *Journal of Consumer Psychology*, 12(3), 243-252.
- Pieters, R., & Zeelenberg, M. (2007). A theory of regret regulation 1.1. *Journal of Consumer Psychology*, 17(1), 29-35.

- Preacher, K.J., & Hayes, A.F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in simple and multiple mediator models. *Behavior Research Methods*, 40, 879–891.
- Proksch, M., Orth, U.R., & Cornwell, B. (2015). Competence enhancement and anticipated emotion as motivational drivers of brand attachment, *Psychology & Marketing*, 32(9), 934-949.
- Quian, C., Chandrashekar, M., & Yu, K. (2015). Understanding the Role of Consumer Heterogeneity in the Formation of Satisfaction Uncertainty. *Psychology & Marketing*, 32(1), 78-93.
- Richard, R., Van der Pligt, J., & de Vries, N. (1995). Anticipated affective reactions and prevention of AIDS. *British Journal of Social Psychology*, 34, 9-21.
- Richins, M.L. (1997). Measuring emotions in the consumption experience. *Journal of Consumer Research*, 24, 127-146.
- Ritov, I., & Baron, J. (1995). Outcome Knowledge, Regret, and Omission Bias. *Organizational Behavior and Human Decision Processes*, 64(2), 119-127.
- Roseman, I.J., Antoniou, A.A., & Jose, P.E. (1996). Appraisal determinants of emotions: Constructing a more accurate comprehensive theory. *Cognition & Emotion*, 10(3), 241-277.
- Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty*, 1(1), 7-59.

- Santos, J., & Boote, J. (2006). A theoretical exploration and model of consumer expectations, post-purchase affective states and affective behavior. *Journal of Consumer Behavior*, 3(2), 142-156.
- Schwarz, N. (2012). The elaboration likelihood model. In P.A.M. Van Lange, A. Kruglanski, & E.T. Higgins (Eds.), *Handbook of theories of social psychology* (Vol.1, pp. 289-308). London, UK: Sage.
- Shapiro, C. (1982). Consumer information, product quality, and seller reputation. *Bell Journal of Economics*, 13(1), 20-35.
- Simonson, I. (1992). The influence of anticipating regret and responsibility on purchase decision. *Journal of Consumer Research*, 19, 105-118
- Sivanathan, N., & Pettit, N.C. (2010). Protecting the self through consumption: Status goods as affirmational commodities. *Journal of Experimental Social Psychology*, 46, 654-570.
- Staats, A.W., & Staats, C.K. (1958). Attitudes established by classical conditioning. *Journal of Abnormal and Social Psychology*, 57(1), 37-40.
- Tsai, H-T, & Bagozzi, R.P. (2015). Contribution behavior in virtual communities: Cognitive, Emotional, and social influences. *MIS Quarterly*, 38, 143-163.
- Van der Pligt, J., Zeelenberg, M., van Dijk, W.W., de Vries, N.K., & Richard, R. (1997). Affect, attitudes and decisions: let's be more specific. *European Review of Social Psychology*, 8(1), 34-66.

- Van Dijk, E., & Zeelenberg, M. (2005). Regret and the comparison between factual and counterfactual outcomes. *Organizational Behavior and Human Decision Processes*, 97, 152-160.
- Winterich, K.P., & Haws, K.L. (2011). Helpful hopefulness: The effect of future positive emotions on consumption. *Journal of Consumer Research*, 38, 505-524
- Xie, C., Bagozzi, R.P., & Ostli, J. (2013). Cognitive, Emotional, and Sociocultural Processes in Consumption. *Psychology & Marketing*, 30, 12–25.
- Yi, S., & Baumgartner, H. (2008). Motivational compatibility and the role of anticipated feelings in positively valenced persuasive message framing. *Psychology & Marketing*, 25(11), 1007-1026.
- Zarantonello, L., Romani, S., Grappi, S., & Bagozzi, R.P. (2016). Brand hate. *Journal of Product and Brand Management*, 25, 11-25.
- Zeelenberg, M., & Pieters, R. (1999). On serviced delivery that might have been: Behavioral responses to disappointment and regret. *Journal of Service Research*, 2(1), 86-97.
- Zeelenberg, M., Beattie, J., Van der Pligt, J., & de Vries, N.K. (1996). Consequences of regret aversion: Effects of expected feedback on risky decision making. *Organizational Behavior and Human Decision Processes*, 65(2), 148-158.
- Zeelenberg, M., Van Dijk, W.W., Manstead, A.S.R., & Van der Pligt, J. (2000). On bad decisions and disconfirmed expectancies: The psychology of regret and disappointment. *Cognition & Emotion*, 14(4), 521-541.
- Zhang, Y., & Fishbach, A. (2005). The role of anticipated emotions and the endowment effect. *Journal of Consumer Psychology*, 15(4), 316-324.

Fig. 1. Framework and proposed hypotheses: role of AEs in purchase decisions.

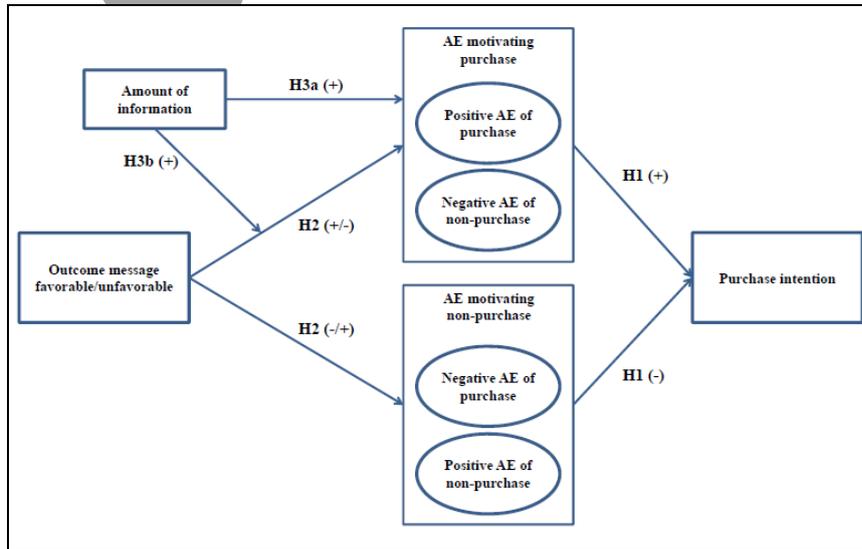


Fig. 2. Study 1: Type of emotions anticipated by consumers for purchase and non-purchase condition.

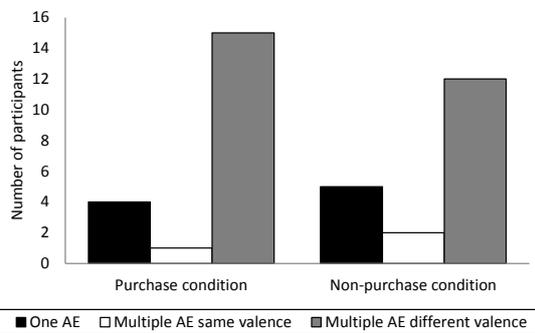


Fig. 3. Study 4: Simple main effects of outcome message on posAEp at the single levels of amount of information

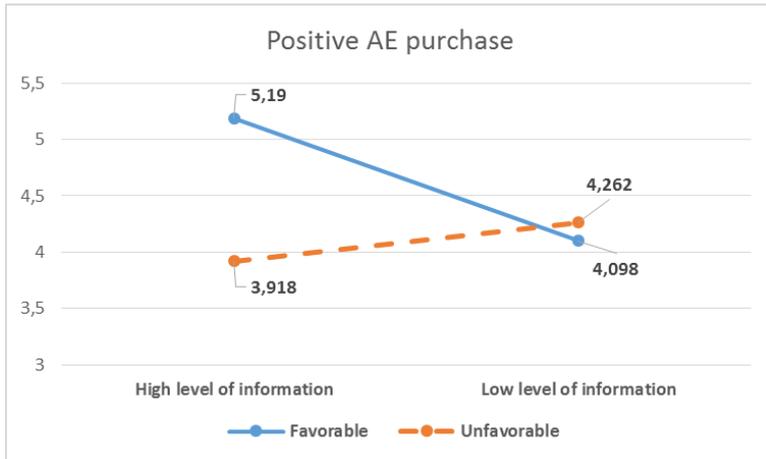


Fig. 4. Study 4: Simple main effects of outcome message on negAEnon-p at the single levels of amount of information

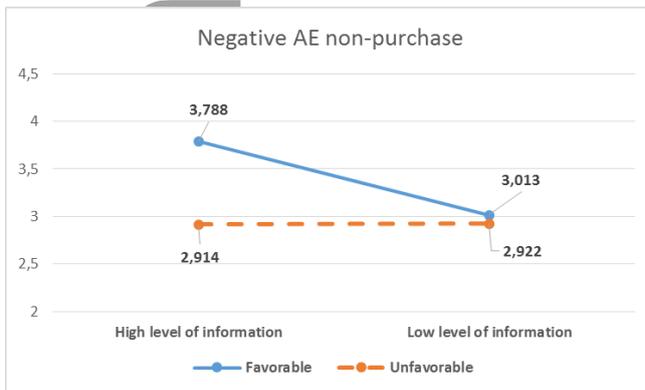


Fig. 5. Study 4: simple main effects of amount of information on posAEp at the single levels of outcome message.

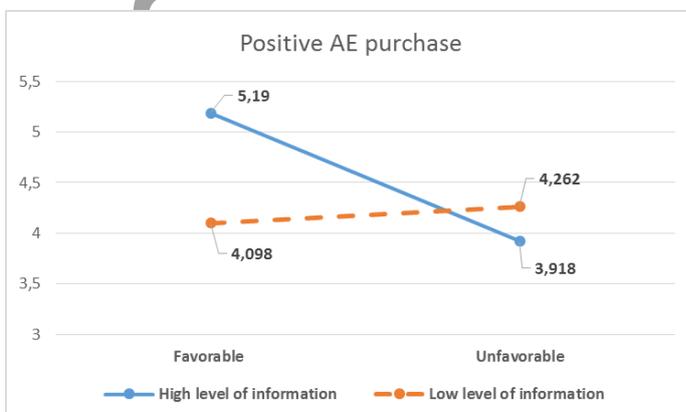


Fig. 6. Study 4: simple main effects of amount of information on negAEnon-p at the single levels of outcome message

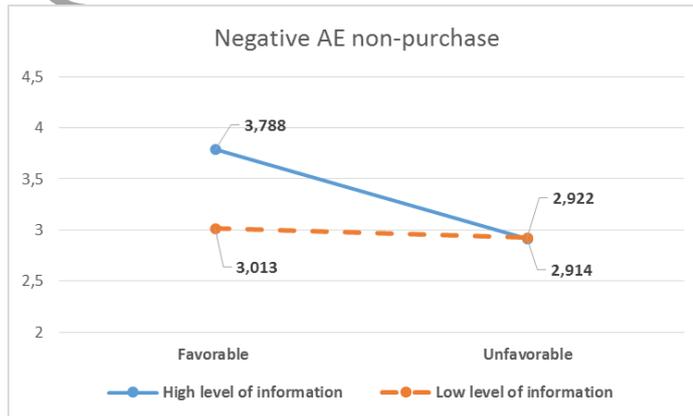


Table 1.

Summary of results of H1 test in the four studies. Unstandardized regression coefficients, t- and p-values for AEs effects on purchase intention.

Predictor	Study 2 N=100			Study 3 N=125			Study 4 N=126		
	<i>b</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>t</i>	<i>p</i>
PosAEp	.37	2.80	.00**	.42	4.39	.00**	.48	5.43	.00**
NegAEp	-.18	-1.68	.10	-.26	-2.48	.02*	-.21	-2.25	.03*
PosAEnon-p	-.24	-1.98	.05*	-.21	-1.90	.06	-.16	-1.86	.07
NegAEnon-p	.49	3.96	.00**	.58	6.11	.00**	.39	3.9	.00**
Purchase intention R ²		.42			.52			.55	

Note: * significant at $p < .05$, ** significant at $p < .01$

Table 2.

Study 3: Correlation matrix between AEs measurement by thought listings (TL) and scales.

	posAEp	negAEp	posAEnon-	negAEnon-	posAEp	negAEp	posAEnon-

	TL	TL	p TL	p TL	Scale	Scale	p Scale
posAEp TL							
negAEp TL	-.49**						
posAEnon-p TL	-.31**	.42**					
negAEnon-p TL	.60**	-.28**	-.45**				
posAEp scale	.50**	-.34**	-.50**	.39**			
negAEp scale	-.16	.35**	.39**	-.03	-.20*		
posAEnon-p scale	-.08	.18*	.26**	-.08	-.26*	.51**	
negAEnon-p scale	.44**	-.19*	-.29**	.57**	.57**	.09	-.15

Note: * significant at $p < .05$, ** significant at $p < .01$. Gray color indicates direct correlation between thought listing and scale response for each specific category of AEs.

Table 3.

Study 3: Descriptive statistics of the AEs scores as a function of outcome message, and results from independent samples t -tests.

Dependent variables	Outcome Message				t	p
	<i>Favorable</i>		<i>Unfavorable</i>			
	M	SD	M	SD		
Positive AE purchase	4.60	1.26	3.72	1.20	3.97	.00**
Negative AE purchase	2.80	1.10	3.77	1.00	-5.19	.00**
Positive AE non-purchase	3.85	1.11	4.62	1.32	-3.54	.00**
Negative AE non-purchase	3.03	1.22	2.63	1.01	1.98	.05*

Note: * significant at $p < .05$, ** significant at $p < .01$

Table 4.

Study 4: Descriptive statistics of the AEs scores as a function of amount of information and outcome message.

	Outcome message
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		<i>Favorable</i>	<i>Unfavorable</i>
Dependent variables	<i>Amount of information</i>	M (SD)	M (SD)
PosAEp	<i>High</i>	5.19 (.98)	3.92 (1.17)
	<i>Low</i>	4.09 (1.37)	4.26 (1.12)
NegAEp	<i>High</i>	3.07 (1.36)	3.78 (1.17)
	<i>Low</i>	2.93 (1.26)	3.58 (1.10)
PosAEnon-p	<i>High</i>	4.50 (1.19)	5.13 (1.09)
	<i>Low</i>	4.59 (1.00)	4.67 (1.35)
NegAEnon-p	<i>High</i>	3.79 (1.49)	2.91 (1.39)
	<i>Low</i>	3.01 (1.16)	2.92 (1.11)

Table 5.

Study 4: Results of the ANOVAs for explanation of AEs.

	PosAEp	NegAEp	PosAEnon-p	NegAEnon-p
Independent variables	F(1, 126)	F(1, 126)	F(1, 126)	F(1, 126)
Outcome message (favorable vs. unfavorable)	7.11**	14.62**	2.95	4.39*
Level of information (high vs. low)	3.22*	.57	.77	2.78
Outcome message × level of information	11.96**	.02	1.68	2.89

Note: * significant at $p < .05$, ** significant at $p < .01$