



Emotional agency appraisals influence responses to preference inconsistent information

Nidhi Agrawal^a, DaHee Han^b, Adam Duhachek^{b,*}

^a Foster School of Business, University of Washington-Seattle, Box 353226, Seattle, WA 98195, USA

^b Kelley School of Business, Indiana University, 1309 East 10th Street, Bloomington, IN 47405, USA

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ABSTRACT

Bringing together the literature on emotional appraisals and the literature on biased processing in judgment, two studies investigate how incidental emotions varying in valence and agency influence decision making after exposure to preference consistent vs. inconsistent information. We show that emotions differ in their response to preference inconsistent information due to their differences in self vs. other agency appraisals, whereas no emotional differences were found in response to preference consistent information. Negative emotions associated with other agency appraisals increase resistance to preference inconsistent information whereas negative emotions associated with self agency appraisals encourage acceptance of preference inconsistent information relative to neutral conditions. We show this pattern reverses for positive emotions. These effects were driven by changes in confidence after exposure to inconsistent information and reflected in evaluative judgments. We discuss the significance of these findings for the emotions, preference consistency, and decision-making literatures.

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Introduction

Emotions play an important role in influencing our decisions (Brooks & Schweitzer, 2011; Fessler, Pillsworth, & Flamson, 2004; Ottati & Isbell, 1996; Vohs, Baumeister, & Loewenstein, 2007). Incidental emotions have been shown to affect how individuals make economic decisions such as determining selling and purchase prices for products (Cryder, Lerner, Gross, & Dahl, 2008; Lerner, Small, & Loewenstein, 2004), influencing the degree of risk taking behaviors individuals enact (Fessler et al., 2004; Reed & Aspinwall, 1998), and affecting the processing and evaluation of new persuasive information (Maheswaran & Chen, 2006; Moon & Mackie, 2007; Raghunathan & Trope, 2002).

In a decision-making context, individuals usually have a wealth of information at their disposal to assist them in making judgments and decisions. Research has shown that information that supports existing judgments is used in formulating subsequent judgments but information can frequently run counter to existing preferences. In such cases, an individual confronted with new information that is in conflict with their existing view must decide whether to weigh or dismiss such information. Thus, both preference consistent information and preference inconsistent information should

play an important role in shaping individuals' decisions and the current research expands on this distinction.

Individuals show biases toward preference consistent information for a multitude of reasons, including self-validation or self-perceived objectivity (e.g., Babcock & Loewenstein, 1997; Buchan, Croson, & Johnson, 2004; Chen & Chaiken, 1999; Jain, 2003; Jain & Maheswaran, 2000; Kunda, 1990; Thompson & Loewenstein, 1992; Uhlmann & Cohen, 2007). Inconsistent information is discounted, ignored, or processed selectively in a way that reinforces their pre-existing beliefs (e.g., Jain, 2003) or supports their values or preferred outcomes (e.g., Wells & Iyengar, 2005). Extant literature has identified the influence of momentary states such as goals on processing of subsequent information. However, people are often persuaded by or over weigh preference inconsistent information. What are some of the reasons for why people may pay attention to preference inconsistent information? We posit that emotions may be one such reason because recent research in the domain of emotional appraisal suggests that discrete emotions produce appraisals that alter how subsequent information is processed along key dimensions, such as certainty (Tiedens & Linton, 2001). That is, the present research builds on these findings by identifying specific appraisal mechanisms implicated in the processing of preference inconsistent information. Since evaluations of preference inconsistent information represent a conflict between granting primacy to one's own perspective or someone else's perspective, we examine emotions that differ with respect

* Corresponding author. Fax: +1 812 855 6440.

E-mail addresses: nidhia@uw.edu (N. Agrawal), dahehan@indiana.edu (D. Han), aduhache@indiana.edu (A. Duhachek).

to appraisals of agency that vary the extent to which individuals believe the judgments of the self vs. others should be weighted more in judgment. Research in attribution has shown that individuals' agency beliefs influence subsequent judgments regarding causality (Fragale, Rosen, Xu, & Merideth, 2009), and blame (McGraw, Todorov, & Kunreuther, 2011). By identifying discrete emotions that directly influence this appraisal, we posit these effects will extend to the domain of preference consistency effects. This perspective conjoins emotions with preference inconsistency effects and provides a framework explicating the nature of their interaction.

We examine incidental emotions that diverge on whether negative agency is attributed to the self (as in the case of shame) or to others (as in the case of anger) or whether positive agency is attributed to the self (as in the case of pride) or to others (as in the case of gratitude). Anger is experienced when individuals feel that others are responsible for their unpleasant state, and thus angry individuals hold other people in a negative role (Allred, Mallozzi, Matsui, & Raia, 1997; Ellsworth & Smith, 1988; Han, Lerner, & Keltner, 2007; Russell & McAuley, 1986; Siemer, Mauss, & Gross, 2007; Smith & Ellsworth, 1985). In contrast, shame is experienced when individuals realize they are responsible for unpleasant outcomes that are incongruous with their ideal self (Tangney, Wagner, Fletcher, & Gramzow, 1992). Thus, shame casts the self in a negative light and others in a more positive light (Lewis, 2000; Russell & McAuley, 1986; Tangney, 1995).

Turning to positive emotions, pride is experienced when individuals feel that the self is attributed to having brought positive outcomes, thus perceiving the self in a positive light (Lerner & Keltner, 2000; Manstead & Tetlock, 1989; Smith & Ellsworth, 1985). Gratitude is experienced when individuals appraise others as responsible for positive events and grateful individuals tend to believe that others have brought positive outcomes (Ellsworth & Smith, 1988; Emmons & McCullough, 2003; McCullough, Tsang, & Emmons, 2004; Ruth, Brunel, & Otnes, 2002; Soscia, 2007). We posit that individuals experiencing negative emotions associated with other agency appraisals like anger are more inclined to believe they are right relative to others' judgments whereas individuals experiencing negative emotions associated with self agency appraisals like shame believe that others are right relative to their own judgments. In contrast, individuals experiencing positive emotions associated with other agency appraisals like gratitude are more inclined to believe others are right whereas individuals experiencing positive emotions associated with self agency appraisals like pride are more inclined to believe they are right relative to others' judgments. Thus, considering valence and agency together articulates a novel theoretical framework for understanding how incidental emotions influence the processing of preference inconsistent information.

Preference inconsistent information and emotions: theory development

Research on biased processing has examined how individuals weigh pro-attitudinal and counter-attitudinal information (Agrawal & Maheswaran, 2005; Ditto & Lopez, 1992; Eagly & Chaiken, 1993; Kunda, 1990; Liberman & Chaiken, 1992). Existing research argues that individuals are driven to evaluate preference inconsistent (vs. preference consistent) information because it promotes outcomes that conflict with their goals or with their evaluative–cognitive structure (Chen & Chaiken, 1999; Eagly & Chaiken, 1993). Employing a subtle version of preference inconsistency, Jain and Maheswaran (2000, Jain, 2003) showed that individuals were defensive about preferences they had formed before exposure to preference inconsistent information. The authors provided participants with detailed information comparing two fictitious brands that featured either strong or weak arguments

for one brand (Brand A) being better than another (Brand B). Participants who read strong (vs. weak) arguments preferred Brand A to Brand B. After a filler task, when participants with a strong preference were exposed to information inconsistent with their preference (i.e., portraying Brand B as better than A), they were likely to evaluate this information and discount it. Additional research has also documented a defensive resistance to preference inconsistent information based on processing goals (Agrawal & Maheswaran, 2005; Chen, Shechter, & Chaiken, 1996). In sum, past research has documented how preference inconsistent information colors judgments with a specific emphasis on cognitive and motivational determinants of these effects. Whereas much of this research has emphasized factors that lead to discounting of preference inconsistent information, our perspective identifies conditions in which preference inconsistent information is granted primacy over pre-existing thoughts or beliefs based on the influence of agency appraisals.

Appraisal tendency framework and emotions

Appraisal theories of emotion provide a framework for analyzing the effect of emotions on judgments and decision-making (Lerner & Keltner, 2000). These theories argue that every emotion is associated with a distinct set of appraisals (Smith & Ellsworth, 1985). The appraisal tendency framework posits that appraisals associated with emotions activate specific cognitions and responses that may be carried over to subsequent tasks (Han et al., 2007). In the current research, we purposefully select two negative emotions, anger and shame, that mirror each other with respect to their valence but differ with respect to their agency appraisals. We find that valence moderates these agency appraisal effects such that two positive emotions, pride and gratitude, reverse these effects. These four emotions are particularly helpful in isolating the role of self/other agency because they do not differ on other key appraisal dimensions identified in key appraisal theories (cf. Lazarus, 1991; Smith & Ellsworth, 1985). This approach allows us to isolate the effect of agency – a dimension not yet examined in the context of appraisal-based influences on judgments and decision-making.

Agency appraisals and emotions

As outlined earlier, the preference inconsistency literature suggests that individuals frequently resist preference inconsistent information because of the manner in which it is considered. We posit that negative emotions such as anger are associated with an agency appraisal that is negative and accentuates the role of others. In contrast, some emotions such as shame are associated with an agency appraisal that is negative and accentuates the self. We posit that these agency appraisals lead to differences in the confidence in the accuracy of an individual's initial judgment that in turn influences whether individuals are persuaded by or resist preference inconsistent information (Tormala, Clarkson, & Petty, 2006).

We posit that agency appraisals will differentially impact individuals' willingness to consider inconsistent information. Negative emotions associated with other agency appraisals such as anger suggest that an individual's initial judgment is correct and others' viewpoints are incorrect (Ellsworth, 1994; Ellsworth & Smith, 1988; Kuppens, Mechelen, Smits, & De Boeck, 2003). Thus, we posit that anger will result in greater resistance to information inconsistent with their judgment due to the belief that such information is incorrect. In contrast, negative emotions associated with self agency appraisals such as shame suggest that an individual's viewpoint might be incorrect and others' viewpoints might be more valid (Ellsworth, 1994; Ellsworth & Smith, 1988; Kuppens et al., 2003; Russell & McAuley, 1986). Similarly, positive emotions asso-

ciated with other agency appraisals such as gratitude suggest that others' viewpoints might be more correct as compared to one's own and increase receptivity to inconsistent information. In contrast, positive emotions associated with self agency appraisals such as pride should produce greater resistance to inconsistent information. We next develop specific hypotheses to be tested in study 1.

Anger, shame and judgment

Previous research in the domain of group bias (Bodenhausen, Sheppard, & Kramer, 1994; DeSteno, Dasgupta, Bartlett, & Caidric, 2004) has found that anger encourages people to rely on stereotypes in judging others and makes them more hostile towards out-group members due to a defensive mindset that encourages a motivated, negative appraisal of out-group information. These effects of anger can be explained in terms of appraisal theory. Anger is an emotion associated with cognitive appraisals of negative valence and other responsibility (Keltner, Ellsworth, & Edwards, 1993; Kuppens et al., 2003; Russell & McAuley, 1986). Angry individuals may appraise a situation and respond in ways congruent with anger appraisals (Han et al., 2007). For example, anger may lead individuals to see events as negative and to perceive others as being incorrect or wrong and therefore responsible for negative outcomes (Ellsworth, 1994; Ellsworth & Smith, 1988; Siemer et al., 2007). For example, Dunn and Schweitzer (2005) found that angry individuals showed lower trust in co-workers, and this effect was mediated by perceptions of other responsibility. Similarly, DeSteno et al. (2004) found that angry individuals associated members of an out-group as having negative rather than positive or neutral attributes. In a negotiation context, anger was found to increase one's concern for and confidence in the self in subsequent negotiations (Butt, Choi, & Jaeger, 2005). These results suggest that anger induces an "others are wrong" agency appraisal and encourages angry individuals to hold negative evaluations of others' viewpoints that differ from their own. Thus, we hypothesize that anger would increase resistance to preference inconsistent information.

Shame, like anger, is a negative emotion, but in contrast to anger, is related to a self-responsibility agency appraisal that signals that individuals are wrong (Ellsworth, 1994; Ellsworth & Smith, 1988; Siemer et al., 2007). Shame-laden individuals tend to believe that they have had a negative influence and that their wrongdoing is responsible for producing negative outcomes (Russell & McAuley, 1986; Tangney, 1995). Shame-laden individuals disapprove of themselves and have lost faith in their actions and judgments. Thus, they tend to dissociate with and diminish the self (Schmader & Lickel, 2006; Tangney, Miller, Flicker, & Barlow, 1996). Shame has been shown to result in lowered perceptions of self efficacy (Tangney & Dearing, 2002), lower self esteem more generally (Lewis, 1971) and a desire to conform to an external standard at the expense of the self (Scheff, 1988). In a negotiation context, shame led to a lowered self-confidence regarding future negotiations (Butt & Choi, 2006). Together, these findings indicate that shame is associated with a lowered confidence in one's beliefs relative to others. Consequently, shame should be associated with a tendency to alter one's beliefs away from those endorsed by a tainted self. We posit that shame-laden individuals also believe that others' viewpoints are more valid in contrast to their own and that this effect may be accentuated in the face of conflicting (i.e., preference inconsistent) information. Given this negative self-agency appraisal, shame-laden individuals should be motivated to doubt or move away from their initial opinions and alter them. Thus, we suggest that shame would decrease resistance to preference inconsistent information.

We posit that the process through which these effects obtain relates to differences in the confidence individuals place in their own

initial evaluations vs. preference inconsistent evaluations (Tormala & Rucker, 2007; Wu & Shaffer, 1987). Previous research suggests that confidence is a primary mechanism for change and resistance to change, such that confidence in one's initial evaluation is associated with increased resistance to subsequent persuasion attempts and lack of confidence in one's initial evaluation is associated with increased persuasion (see, Morrison, Rothman, & Soll 2011; Tormala et al., 2006). Also, past emotions research suggests a direct link between anger and shame and changes in confidence (Butt & Choi, 2006). Thus, we predict individuals experiencing anger should place less confidence in the accuracy of the inconsistent information, whereas those experiencing shame should place greater confidence in the accuracy of the inconsistent information.

We posit that these agency appraisal effects occur in the context of processing preference inconsistent information only because it elicits decision-making against an existing judgment or view. Exposure to preference consistent information serves to reinforce the viewpoint of angry and shame-laden individuals by offering validation; thus, the processes driving response to preference consistent information differ from the preference inconsistent case. Thus, H1a–c:

H1a. Angry individuals will rely less on preference inconsistent information in judgment formation than will shame-laden or neutral individuals.

H1b. Shame-laden individuals will rely more on preference inconsistent information as compared to neutral individuals.

H1c. The influence of preference consistent information on judgments will not differ between angry and shame-laden individuals.

Study 1

Method

Design

Eighty-eight undergraduate students participated in the study for course credit. They were randomly assigned to one of six conditions in a 3 (emotions: anger vs. shame vs. neutral) × 2 (preference consistency: consistent vs. inconsistent) between-subjects design.

Procedure

The overall procedure of the study to manipulate preference consistency was adapted from that of Jain and Maheswaran (2000, Jain, 2003) and is similar to procedures established by Russo, Medvec, and Meloy (1996). Participants were first told that they were taking part in two unrelated studies: an emotional memory study sponsored by the psychology department followed by a decision making survey on digital cameras. The decision-making survey consisted of two parts: first, an initial preference formation part and second, a part that manipulated the presentation of consistent vs. inconsistent information.

In fact, all participants were first randomly assigned to an emotional recall test that induced either anger or shame by asking participants to recall an emotional episode that made them angry or shameful and to write in detail about their thoughts or feelings regarding this episode. This procedure has been used extensively to effectively prime specific emotions (cf., Robinson & Clore, 2001). After completing the emotional recall test and emotion manipulation checks, participants were then asked to participate in an unrelated decision making survey consisting of two parts. First, participants read a brief description of two different (fictitious) products of digital cameras. Product names were referred

to as Products A and B to focus participants on the information given, and participants were told that product names would be disclosed at the conclusion of the study. Participants were informed that Product A and Product B were both new portable digital cameras from different manufacturers, priced identically at \$149.99. Eight product attributes, four important (i.e., resolution, computer compatibility, battery type and life, and durability features) and four unimportant (i.e., digital zoom, display screen size, wide-angle lens capability, and built-in GPS), were shown to be relevant in this category and differed with respect to their importance based on a pretest with 109 undergraduate students. To form an initial, moderately strong preference toward Product A, participants were then exposed to information they were told was prepared by a technology researcher at the university based on scientific testing and a thorough understanding of digital cameras. The information showed that Product A was superior to Product B on five out of the eight product attributes tested (i.e., three of the four important attributes and two of the four unimportant attributes). Brief explanations regarding each of the eight product attributes were also included to help participants build an informed opinion of the study results. Participants were then asked to evaluate both products on four nine item scales anchored by “bad (1)/good (9),” “undesirable (1)/desirable (9),” “useless (1)/useful (9),” and “unfavorable (1)/favorable (9),” as used by Jain and Maheswaran (2000). The items were combined to form a reliable composite initial evaluation item ($\alpha = .94$).

Upon finishing the first product evaluation questionnaires, participants were told that they were taking part in a second decision making survey, entitled “Second Product Survey,” based on the evaluations of actual users of both products, per the instructions in Jain and Maheswaran (2000). They were randomly assigned to either a preference consistent or preference inconsistent condition. Following the manipulation used by Jain and Maheswaran (2000, study 2), the user survey results reflected differences in the percentage of users that believed Product A was superior to Product B along four of six attributes (a subset of the eight attributes used in the initial survey). In the preference consistent (inconsistent) condition, participants were told that the percentage of respondents who felt Product A (Product B) performed better than Product B (Product A) was much higher than the percentage of respondents who felt Product B (Product A) performed better. The percentages for the six attributes in the preference consistent condition were 86%, 91%, 21%, 88%, 19%, and 90%, indicating that users felt Product A performed better on a majority of the attributes. The percentages were subtracted from 100% in the preference inconsistent condition to reflect a majority opinion that Product B outperformed Product A. After viewing the second survey, participants rated each product again on four nine-point items as they had after seeing the first product survey. These items were again compiled into a single composite item ($\alpha = .98$).

Additional measures were taken to provide evidence of the nature of the process responsible for these effects immediately following the evaluation measures. The hypothesized confidence process measures (1 = “not at all,” 9 = “very much”) read: “how confident are you that your own beliefs (as compared to others’) toward Product A are accurate after you read the second survey?”

Next, a manipulation check measure assessed the effectiveness of the preference consistency manipulation. Participants were asked a single item measuring the degree to which they felt that the information contained in the second product survey disagreed with their initial preference, ranging from “disagreed with your earlier preference (1)” to “agreed with your earlier preference (9).” Finally, participants were asked basic demographic information and questions about their ownership of digital cameras and were debriefed. Suspicion measures from the debriefing revealed

that no participants believed the emotions study and the product surveys were related.

Manipulation checks

To test whether the emotion manipulation was effective in activating anger and shame as well as other agency (in the case of anger) vs. self agency (in the case of shame) appraisals, participants rated the degree to which they currently felt the specific emotion immediately following the emotional recall task (i.e., anger and shame). Three items composed of seven point scales measured anger (“I’m feeling upset/irritated/angry”; $\alpha = .90$) anchored at “not at all (1)/ very much (7)” and two items of seven point scales assessed shame (“I’m feeling ashamed/humiliated”; $r = .83$) anchored at “not at all (1)/ very much (7).” As predicted, the anger manipulation resulted in significantly more anger as compared to those in the shame or neutral emotion conditions ($F(2,85) = 25.31$, $p < .001$). Pair-wise comparison results indicated that participants in the anger condition ($M_{\text{Anger}} = 5.53$, $SD = 1.57$) reported significantly more anger than those in the shame condition ($M_{\text{Shame}} = 2.89$, $SD = 1.80$; $p < .001$) as well as those in the neutral condition ($M_{\text{Neutral}} = 2.72$, $SD = 1.86$; $p < .001$). Similarly, participants in the shame condition reported significantly more shame as compared to those in the anger or neutral conditions ($F(2,85) = 57.10$, $p < .001$). Pair-wise comparison results indicated that participants in the shame condition reported significantly more shame ($M_{\text{Shame}} = 5.72$, $SD = 1.57$) than those in the anger condition ($M_{\text{Anger}} = 2.55$, $SD = 1.42$, $p < .001$) as well as than those in the neutral conditions ($M_{\text{Neutral}} = 2.06$, $SD = 1.67$; $p < .001$). Thus, the emotion manipulation was successful.

Immediately after the emotion manipulation checks, participants were asked to answer a single item adapted from Smith and Ellsworth (1985) measuring the degree to which they thought they were responsible for having brought about the events and a single item measuring the degree to which they thought someone other than themselves was responsible for having brought about the events, with a range from “not at all (1)” to “very much (11).” As predicted, participants in the shame condition reported significantly more self-agency appraisals as compared to those in the anger or neutral conditions ($F(2,85) = 12.54$, $p < .001$). Pairwise comparison results showed that participants in the shame condition reported more self agency appraisals ($M_{\text{Shame}} = 8.40$, $SD = 3.34$) than those in the anger condition ($M_{\text{Anger}} = 4.36$, $SD = 2.47$, $p < .001$) as well as than those in the neutral condition ($M_{\text{Neutral}} = 6.48$, $SD = 3.83$; $p < .03$). Similarly, participants in the anger condition reported significantly more other agency appraisals as compared to those in the shame or neutral conditions ($F(2,85) = 29.38$, $p < .001$). Pairwise comparison results showed that participants in the anger condition reported more other agency appraisals ($M_{\text{Anger}} = 8.85$, $SD = 1.97$) than those in the shame condition ($M_{\text{Shame}} = 3.90$, $SD = 2.70$; $p < .001$) as well as than those in the neutral condition ($M_{\text{Neutral}} = 6.00$, $SD = 3.08$; $p < .001$). Thus, the emotion manipulations activated significantly more self agency appraisals in the case of shame and other agency appraisals in the case of anger as predicted.

The preference consistency manipulation was successful ($M_{\text{PI}} = 4.11$, $SD = 2.76$, $M_{\text{PC}} = 7.05$, $SD = 1.94$; $F(1,86) = 33.17$, $p < .001$). In addition, the main effect of emotion on initial beliefs (after exposure to the first decision making survey) was not significant ($M_{\text{Anger}} = 7.52$, $SD = 1.28$, $M_{\text{Shame}} = 7.36$, $SD = 1.30$, $M_{\text{Neutral}} = 7.55$, $SD = 1.10$; $F(2,82) = .25$, $p > .78$).

Changes in judgments

In order to test the interactive hypotheses related to evaluation, a new dependent variable, judgment change, was created by subtracting the follow-up camera evaluation measure from the initial

evaluation measure regarding Product A. The resulting variable reflected the degree of initial judgment change resulting from exposure to either the consistent or inconsistent information (Jain & Maheswaran, 2000). Per H1a, we expected that judgment change would be smaller among anger rather than shame-laden participants.

A 3 × 2 between-subjects ANOVA on judgment change with emotion and type of information as independent variables revealed several significant effects. First, the main effect of emotions was significant ($F(2, 82) = 15.69, p < .01$) such that those in the anger condition showed less judgment change than those in the shame condition ($M_{Anger} = .02, SD = 1.04, M_{Shame} = 1.80, SD = 2.01; p < .001$) or than those in the neutral condition ($M_{Neutral} = .94, SD = 1.56; p < .01$). In addition, participants in the shame condition showed greater judgment change than those in the neutral condition ($p < .01$). Additionally, the main effect of preference was significant ($M_{PC} = .00, SD = 1.09, M_{PI} = 1.77, SD = 1.81; F(2, 141) = 49.46, p < .001$), such that participants showed greater judgment change when they were exposed to preference inconsistent information as opposed to preference consistent information.

Most relevant to H1a–c, these effects were qualified by a significant emotion by preference consistency interaction ($F(2, 82) = 4.62, p < .01$; see Table 1). A follow-up contrast indicated that within the preference inconsistent condition ($F(2, 82) = 18.25, p < .001$), participants experiencing anger were significantly less likely to change their initial judgment toward Product A as compared to shame-laden participants ($M_{Anger_{PI}} = .50, SD = .76, M_{Shame_{PI}} = 3.22, SD = 1.67; p < .001$), and those in the neutral emotion condition ($M_{Neutral_{PI}} = 1.67, SD = 1.73; p < .02$). Thus, H1a is supported. Furthermore, participants experiencing shame were significantly more likely to change their initial judgment toward Product A than were those in the neutral emotion condition ($p < .002$). Thus, H1b is supported. Emotions did not affect responses to preference consistent information ($M_{Anger_{PC}} = -.44, SD = 1.08, M_{Shame_{PC}} = -.38, SD = 1.15, M_{Neutral_{PC}} = .15, SD = .87; F(2, 82) = 1.84, p > .17$). Thus, H1c is supported.

Evidence of process: examining confidence perceptions

Furthermore, to provide additional evidence of the process through which angry (vs. shame-laden) individuals are more likely to believe that their initial judgment toward Product A is correct as compared to others' judgment after exposure to preference inconsistent information (i.e., the second survey), we asked participants to rate the extent to which they were confident that their own (as compared to others) beliefs toward Product A were accurate after they read the second survey. The ANOVA results revealed a significant emotions by preference consistency interaction ($F(2, 82) = 5.32, p < .007$). The following pairwise comparison within preference inconsistent conditions ($F(2, 82) = 21.15, p < .001$) revealed that participants experiencing anger were more confident that their own beliefs (vs. others' beliefs) regarding Product A were correct as compared to shame-laden participants

($M_{Anger_{PI}} = 7.88, SD = .72, M_{Shame_{PI}} = 4.00, SD = 1.41; p < .001$), and those in the neutral emotion condition ($M_{Neutral_{PI}} = 4.62, SD = 1.73; p < .001$). Emotions did not affect confidence in responses to preference consistent information ($M_{Anger_{PC}} = 7.47, SD = 1.18, M_{Shame_{PC}} = 6.40, SD = 2.10, M_{Neutral_{PC}} = 6.33, SD = 2.64; F(2, 82) = 2.00, p > .14$).

We then performed mediation analyses using individuals' confidence in the accuracy of their own (vs. others') beliefs as the mediator within the anger and shame conditions, following the method described in Muller, Judd, and Yzerbyt (2005). First, we regressed judgment change on emotion (1 = shame, -1 = anger), preference consistency (1 = preference inconsistent, -1 = preference consistent), and the interaction of these two variables. Consistent with the earlier ANOVA results, this regression indicated a significant main effect of emotion ($\beta = .51, SE = .09, t(59) = 5.86, p < .001$), a significant main effect of preference consistency ($\beta = .55, SE = .09, t(59) = 6.24, p < .001$) and a significant interaction ($\beta = .27, SE = .09, t(59) = 3.13, p < .003$). Next, we regressed individuals' confidence in the accuracy of their own (vs. others') beliefs on emotion, preference consistency, and their interaction. The main effects of emotion ($\beta = -1.24, SE = .18, t(59) = -6.88, p < .001$) and of preference consistency ($\beta = -.50, SE = .18, t(59) = -2.78, p < .007$) as well as their interaction ($\beta = -.70, SE = .18, t(59) = -3.90, p < .001$). Finally, we regressed judgment change on emotion, preference consistency, the emotion × preference consistency interaction, individuals' confidence in the accuracy of their own (vs. others') beliefs, and the individuals' confidence in the accuracy of their own (vs. others') beliefs × preference consistency interaction. This regression resulted in a significant effect of individuals' confidence in the accuracy of their own (vs. others') beliefs ($\beta = -.20, SE = .06, t(57) = -3.12, p < .003$). Notably, the coefficient of the interaction between emotion and preference consistency became nonsignificant ($\beta = .13, SE = .13, t(57) = .94, p > .35$; Sobel test: $z = 2.44, SE = .06, p < .014$), suggesting that the individuals' confidence in the accuracy of their own (vs. others') beliefs mediated the effects found.

Discussion

Study 1 provided evidence that agency appraisal differences in emotion led to a relative resistance (receptivity) to preference inconsistent information. Anger, a negative emotion associated with an others agency appraisal imbues individuals with a sense that others are incorrect and they are correct. Thus, angry individuals are likely to resist information that is inconsistent with their view. In contrast, shame, a negative emotion associated with a self agency appraisal imbues individuals with a sense that they are incorrect in relation to others. Thus, shame-laden individuals are likely to be more persuaded by inconsistent information. The results showed these effects were due to differences in confidence arising from the agency appraisal associated with each emotion.

In addition, we tested for an alternative process based on a motivational account rather than confidence. This explanation

Table 1
Means of key dependent measures: study 1.

	Preference consistent information			Preference inconsistent information		
	Anger	Shame	Neutral	Anger	Shame	Neutral
<i>Judgment change and confidence in accuracy</i>						
Judgment change ^a	-.44 (1.08)	.38 (1.15)	.15 (.87)	.50 (.76)	3.22 (1.67)	1.67 (1.73)
Initial evaluation ^a ($\alpha = .94$)	7.66 (1.26)	7.05 (.92)	8.02 (.88)	7.35 (1.34)	7.67 (1.57)	7.19 (1.70)
Subsequent evaluation ^a ($\alpha = .98$)	8.10 (1.19)	6.67 (1.48)	7.88 (1.29)	6.85 (1.13)	4.45 (1.09)	5.52 (1.41)
Confidence in one's own (vs. others') beliefs	7.47 (1.18)	6.40 (2.10)	6.33 (2.64)	7.88 (.72)	4.00 (1.41)	4.62 (1.73)

Note: Cell sizes range from 12 to 17.

^a Initial evaluation was measured after exposure to the first survey. Subsequent evaluation was measured after exposure to the second survey (that presented either preference consistent or preference inconsistent information). The judgment change variable was created by subtracting the second evaluation from the initial evaluation.

holds that angry (shame-laden) individuals may place less (more) credence in the inconsistent information because their negative emotional state induces a motivation to be resistant (receptive) to the inconsistent information out of obligation to do so. In other words, individuals experiencing anger (shame) may be more likely to dismiss (rely) on other's views due to motivational pressure rather than due to differences in confidence. Research has shown that shame has produced a desire to conform (Scheff, 1988), whereas anger has produced a reduced concern for others. Thus, in study 1 we measured perceived obligation immediately following the confidence process measures. The rival motivational process measures used the same scale as the confidence items and read: "To what extent did you feel obligated to give credence to others' view toward Product A in this second survey?" "To what extent did you feel obligated to give credence to your own view toward Product A in this second survey?" "To what extent did you feel a pressure to be dismissive of others' view toward Product A?" The results do not support an explanation based on differences in the motivation to process inconsistent information out of obligation induced by the emotion as none of these variables were significant in terms of main effects or two-way interactions predicting judgment change ($ps > .17$).

In study 2, we seek to expand the theorizing to consider positive emotions that vary with respect to agency. By varying the valence of emotions that differ with respect to agency appraisals, we posit a reversal of the key effects established in study 1. The positive valence of the emotion attaches to the agency appraisal leading individuals to consider the agency's stance in a favorable light. For positive emotions, other agency appraisals result in greater persuasion after exposure to preference inconsistent information. In contrast, positive emotions associated with self agency appraisals should result in greater resistance to preference inconsistent information. Thus, the findings of study 1 linking other agency with resistance and self agency with greater persuasion after exposure to preference inconsistent information are reversed. We now discuss the two positive emotions to be considered in study 2, pride and gratitude to hypothesize their impact on the processing of preference inconsistent information.

How do agency appraisals from positive emotions affect judgment and decision making?

Pride is a positive emotion associated with a self agency appraisal (Lerner & Keltner, 2000; Smith & Ellsworth, 1985). Proud individuals tend to believe that they have brought a positive outcome such as receiving rewards (Manstead & Tetlock, 1989; Smith & Ellsworth, 1985) and have faith in their action and judgment (Brown & Marshall, 2001). The tendency to hold the self in a positive role may lead proud individuals to appraise and judge a subsequent event in line with a positive self agency appraisal (Han et al., 2007). Thus, proud individuals may perceive themselves as being right or correct when they respond to or judge a subsequent event, even in the face of an event which conflicts with their existing beliefs. For instance, Ashton-James and Tracy (2012) found that proud individuals showed negative judgmental biases against individuals who held judgments counter to their own belief. Similarly, Griskevicius, Shiota, and Nowlis (2010) found that pride was associated with discounting of product information that was inconsistent with an activated goal. In a negotiation context, pride was shown to increase confidence in one's negotiation strategy and lead to increased resistance against a negotiating partner's position (Butt et al., 2005). We build on these findings and posit that the positive self agency appraisal elicited by feelings of pride may direct individuals to believe that their own viewpoints are correct and to hold negative evaluations of others' perspectives which differ from their own (i.e., when individuals are exposed to preference inconsistent information). Taken together, we posit that proud

individuals would increase resistance to preference inconsistent information, thereby reversing the prediction for self agency appraisals found in study 1.

In contrast, gratitude is a positive emotion associated with another agency appraisal and grateful individuals tend to believe that others are responsible for positive outcomes (Ellsworth & Smith, 1988; Emmons & McCullough, 2003; McCullough et al., 2004; Ruth et al., 2002; Soscia, 2007). Such appraisal tendencies to hold others in a positive role may direct individuals to respond to subsequent tasks in ways consistent with other agency appraisals (Han et al., 2007). Therefore, grateful individuals may perceive others as being correct and thus respond to subsequent events accordingly. Gratitude has been shown to increase concerns in others and lower concern for the self (Butt & Choi, 2006) and gratitude has been shown to be inversely related to excessive self-confidence and narcissism (McCullough, Kilpatrick, Emmons, & Larson, 2001). Gino and Schweitzer (2008) showed that individuals who felt gratitude were more trusting and receptive to advice from others. These findings suggest that the positive other agency appraisals associated with gratitude may lead grateful individuals to endorse others' viewpoints (i.e., others are right) to a greater extent as compared to their own when they are exposed to information that is inconsistent with their own preference. Based on this reasoning, we propose that grateful individuals would decrease resistance to preference inconsistent information. Thus:

H2a. Proud individuals will rely less on preference inconsistent information in judgment formation than will grateful or neutral individuals.

H2b. Grateful individuals will rely more on preference inconsistent information in judgment formation than will neutral individuals.

H2c. The influence of preference consistent information on judgments will not differ between proud, grateful, and neutral individuals.

Study 2

The objective of study 2 is to investigate how incidental positive emotions affect consumption decision making in the context of preference inconsistent information. Our key prediction is that the effect of preference inconsistent information on individuals' initial judgments will vary depending on the type of emotions such that proud individuals will be less willing to change their initial judgments as compared to grateful individuals, thus reversing the agency appraisal effects associated with negative emotions observed in study 1.

Method

Design

One hundred and seventy-one undergraduate students participated in the study for course credit. They were randomly assigned to one of six conditions in a 3 (emotions: pride vs. gratitude vs. neutral) \times 2 (preference consistency: consistent vs. inconsistent) between-subjects design.

Procedure

The overall procedure of the study to manipulate preference consistency was identical to that of study 1 except that we manipulated the positive emotions of pride and gratitude initially. All participants were first randomly assigned to an emotional recall

test that induced either pride or gratitude by asking participants to recall an emotional episode that made them proud or grateful and to write in detail about their thoughts or feelings regarding this episode. Participants in the neutral condition were asked to recall an event that occurred yesterday.

Results

Manipulation checks

We examined whether the emotion manipulation worked effectively and activated self (in the case of pride) vs. other (in the case of gratitude) agency appraisals. After participants recalled the event, the manipulation check measures were administered to assess the degree to which individuals currently felt the focal emotions. Four items composed of nine-point scales (1 = “not at all,” 9 = “very much”) measured pride (“I’m feeling proud of myself/worthwhile/confident/good about myself”; $\alpha = .91$), and three items assessed gratitude (“I’m grateful/thankful/appreciative”; $\alpha = .95$). As predicted, the pride manipulation resulted in significantly more pride as compared to those in the gratitude or neutral emotion conditions ($F(2, 168) = 9.04, p < .001$). Pair-wise comparison results indicated that participants in the pride condition ($M_{\text{Pride}} = 6.89, SD = 1.69$) reported significantly more pride than those in the gratitude condition ($M_{\text{Gratitude}} = 5.90, SD = 1.17; p < .001$) as well as those in the neutral condition ($M_{\text{Neutral}} = 5.74, SD = 1.75; p < .001$). Similarly, participants in the gratitude condition reported significantly more gratitude as compared to those in the pride or neutral emotion conditions ($F(2, 168) = 16.53, p < .001$). Pair-wise comparison results indicated that participants in the gratitude condition ($M_{\text{Gratitude}} = 7.32, SD = 1.64$) reported significantly more gratitude than those in the pride condition ($M_{\text{Pride}} = 5.94, SD = 1.67; p < .001$) as well as those in the neutral condition ($M_{\text{Neutral}} = 5.62, SD = 1.68; p < .001$). Thus, the emotion manipulations were effective.

Furthermore, participants were asked to answer the same agency appraisal items used in study 1 measuring the degree to which they thought they were responsible for having brought about the events and a single item measuring the degree to which they thought someone other than themselves was responsible for having brought about the events, with a range from “not at all (1)” to “very much (11).” As predicted, participants in the pride condition ($M_{\text{Pride}} = 8.66, SD = 2.67$) reported significantly more self agency appraisals as compared to those in the gratitude ($M_{\text{Gratitude}} = 6.98, SD = 2.93; p < .001$) or neutral emotion conditions ($M_{\text{Neutral}} = 7.09, SD = 2.85; p < .001; F(2, 168) = 6.89, p < .001$). Furthermore, participants in the gratitude condition ($M_{\text{Gratitude}} = 9.02, SD = 2.58$) reported significantly more other agency appraisals as compared to those in the pride condition ($M_{\text{Pride}} = 6.10, SD = 3.06; p < .001$) as well as those in the neutral emotion condition ($M_{\text{Neutral}} = 6.42, SD = 2.87; p < .001; F(2, 202) = 55.77, p < .001$). Thus, the emotion manipulations activated self agency (in the case of pride) and other agency appraisal (in the case of gratitude) as predicted. Consistent with this expectation, the main effect of emotion on initial beliefs (after exposure to the first decision making survey) was not significant ($M_{\text{Pride}} = 7.27, SD = 1.33, M_{\text{Gratitude}} = 7.50, SD = 1.14, M_{\text{Neutral}} = 7.21, SD = 1.35; F(2, 165) = .93; p > .40$). In addition, the preference consistency manipulation was also successful ($M_{\text{PI}} = 3.92, SD = 2.73, M_{\text{PC}} = 7.25, SD = 1.83; F(1, 169) = 88.84, p < .001$).

Changes in judgments

A 3×2 between-subjects ANOVA on judgment change with emotion and type of information as independent variables revealed several significant effects. First, the main effect of emotions was significant ($F(2, 165) = 10.03, p < .001$) such that those in the pride condition showed less judgment change than those in the gratitude

condition ($M_{\text{Pride}} = .41, SD = 1.48, M_{\text{Gratitude}} = 1.42, SD = 2.17; p < .07$) as well as those in the neutral emotion condition ($M_{\text{Neutral}} = .77, SD = 1.70; p < .009$). Additionally, the main effect of preference was significant ($M_{\text{PC}} = -.01, SD = 1.18, M_{\text{PI}} = 1.77, SD = 1.97; F(1, 165) = 70.64, p < .001$), such that participants showed greater judgment change when they were exposed to preference inconsistent information as opposed to preference consistent information.

Most relevant to H2a–c these main effects were qualified by a significant emotion by preference consistency interaction ($F(2, 165) = 9.97, p < .01$; see Table 2). A follow-up contrast indicated that within the preference inconsistent condition ($F(2, 165) = 20.09, p < .001$), participants experiencing pride were significantly less likely to change their initial judgment toward Product A as compared to grateful participants ($M_{\text{Pride_PI}} = .73, SD = 1.47, M_{\text{Gratitude_PI}} = 3.19, SD = 1.86; p < .001$) and participants in the neutral emotion condition ($M_{\text{Neutral_PI}} = 1.73, SD = 1.82; p < .01$). Therefore, H2a is supported. In addition, participants experiencing gratitude were significantly more likely to change their initial judgment toward Product A than were those in the neutral emotion condition ($p < .001$). Thus, H2b is supported. Emotions did not affect responses to preference consistent information ($M_{\text{Pride_PC}} = -.01, SD = 1.43, M_{\text{Gratitude_PC}} = -.01, SD = 1.07, M_{\text{Neutral_PC}} = -.02, SD = 1.09; F(2, 165) = .001, p > .99$). Thus, H2c is supported.

Evidence of process: examining confidence perceptions

In addition, to provide additional evidence of the process through which prideful (vs. grateful) individuals are more likely to believe that their initial judgment toward Product A is correct as compared to others’ judgment after exposure to preference inconsistent information (i.e., the second survey), we asked participants to rate the extent to which they were confident that their own (as compared to others) beliefs toward Product A were accurate after they read the second survey. The ANOVA results indicated a significant emotions by preference consistency interaction ($F(2, 165) = 12.83, p < .001$). The pairwise comparison within preference inconsistent conditions ($F(2, 165) = 26.33, p < .001$) revealed that participants experiencing pride were more confident that their own beliefs (vs. others’ beliefs) regarding Product A were correct as compared to grateful participants ($M_{\text{Pride_PI}} = 7.06, SD = 1.32, M_{\text{Gratitude_PI}} = 4.12, SD = 1.98; p < .001$), and those in the neutral emotion condition ($M_{\text{Neutral_PI}} = 5.27, SD = 1.61; p < .001$). Participants in the gratitude condition were less confident about their own beliefs toward Product A as compared to those in the neutral emotion condition ($p < .009$). Emotions did not affect confidence in responses to preference consistent information ($M_{\text{Pride_PI}} = 7.08, SD = 1.44, M_{\text{Gratitude_PI}} = 7.06, SD = .63, M_{\text{Neutral_PC}} = 7.23, SD = 2.03; F(2, 165) = .10, p > .91$).

We then performed mediation analyses using individuals’ confidence in the accuracy of their own (vs. others’) beliefs as the mediator within the pride and gratitude conditions, following the method described in Muller et al. (2005). First, we regressed judgment change on emotion (1 = pride, -1 = gratitude), preference consistency (1 = preference inconsistent, -1 = preference consistent), and the interaction of these two variables. Consistent with the earlier ANOVA results, this regression indicated a significant main effect of emotion ($\beta = -.33, SE = .08, t(110) = -4.46, p < .001$), a significant main effect of preference consistency ($\beta = .53, SE = .08, t(110) = 7.12, p < .001$) and a significant interaction ($\beta = -.33, SE = .08, t(110) = -4.45, p < .001$). Next, we regressed individuals’ confidence in the accuracy of their own (vs. others’) beliefs on emotion, preference consistency, and their interaction. The main effects of emotion ($\beta = .39, SE = .07, t(110) = 5.64, p < .001$) and of preference consistency ($\beta = .39, SE = .07, t(110) = 5.65, p < .001$) as well as their interaction ($\beta = .38, SE = .07, t(110) = 5.58, p < .001$). Finally, we regressed judgment

Table 2
Means of key dependent measures: study 2.

	Preference consistent information			Preference inconsistent information		
	Pride	Gratitude	Neutral	Pride	Gratitude	Neutral
<i>Judgment change</i>						
Judgment change ^a	-.01 (1.43)	-.01 (1.07)	-.02 (1.09)	.73 (1.47)	3.19 (1.86)	1.73 (1.81)
Initial evaluation ^a ($\alpha = .87$)	7.26 (1.53)	7.41 (1.35)	7.38 (1.22)	7.27 (1.18)	7.61 (.81)	7.01 (1.50)
Subsequent evaluation ^a ($\alpha = .96$)	7.27 (1.08)	7.42 (1.46)	7.40 (1.00)	6.55 (1.53)	4.42 (1.36)	5.28 (1.68)
Confidence in one's own (vs. others') beliefs	7.08 (1.44)	7.06 (.63)	7.23 (2.03)	7.06 (1.32)	4.12 (1.99)	5.27 (1.61)

Note: Cell sizes range from 25 to 33.

^a Initial evaluation was measured after exposure to the first survey. Subsequent evaluation was measured after exposure to the second survey (that presented either preference consistent or preference inconsistent information). The judgment change variable was created by subtracting the second evaluation from the initial evaluation.

change on emotion, preference consistency, the emotion \times preference consistency interaction, individuals' confidence in the accuracy of their own (vs. others') beliefs, and the individuals' confidence in the accuracy of their own (vs. others') beliefs \times preference consistency interaction. This regression resulted in a significant effect of individuals' confidence in the accuracy of their own (vs. others') beliefs ($\beta = -.45$, $SE = .09$, $t(108) = -5.25$, $p < .001$). Notably, the coefficient of the interaction between emotion and preference consistency became nonsignificant ($\beta = .001$, $SE = .07$, $t(110) = .01$, $p > .99$; Sobel test: $z = 3.82$, $p < .001$), suggesting that the individuals' confidence in the accuracy of their own (vs. others') beliefs mediated the effects found.

To rule out the alternative explanation based on a motivation to accept or resist inconsistent information out of emotion-induced obligation, we asked participants to rate three items measuring the extent to which they felt a pressure to give credence to their own or others views toward Product A. None of these variables were significant in terms of two-way interactions predicting judgment change ($ps > .27$).

Discussion

Study 2 demonstrated that pride and gratitude differentially influence judgments such that prideful individuals are more resistant to preference inconsistent information as compared to grateful individuals. Our theory indicates this result occurs due to a positive self agency appraisal associated with pride that leads to a relatively greater tendency to perceive that their initial beliefs are correct and others' viewpoints are not correct. In contrast, the positive other agency appraisal associated with gratitude leads to a greater acceptance of preference inconsistent information due to the belief that others' viewpoints are correct and their initial beliefs are not correct. Therefore, study 2 provides evidence in favor of our predictive framework by showing a reversal of the agency appraisal effects demonstrated in study 1 by examining positive emotions.

General discussion

Summary

Two studies provided support for the role of appraisal-based differences in emotions influencing judgment and decision making with respect to preference inconsistent information. In study 1, participants were first primed with either anger or shame; these two emotions are negative in valence and share similarities on other key appraisal dimensions allowing us to isolate the effect of agency appraisal differences. While appraisal differences had no effect on the evaluative judgment of preference consistent information, they systematically affected the response to preference inconsistent information such that individuals showed more or less resistance as indicated by their agency appraisal. Anger, associated with an appraisal of negative other agency, increased

resistance to preference inconsistent information whereas shame, associated with an appraisal of negative self agency led to an eagerness to accept preference inconsistent information. These persuasion effects were driven by differences in the confidence of one's judgments relative to others stemming from emotional agency appraisals. We extend the theorizing in study 2 by manipulating valence. We examine pride, a positive emotion associated with self agency, and gratitude, a positive emotion associated with other agency and show that pride increases resistance to preference inconsistent information whereas gratitude leads to increased acceptance of preference inconsistent information. Confidence was again shown to drive the emotion effects on judgment. These unique findings contribute to the literature documenting the role of emotions in shaping individuals' judgments and decisions in response to preference inconsistent information.

Emotions, appraisals, and evaluative judgments

These findings contribute to research on emotional appraisal by showing that appraisals of self vs. other agency can heighten or counteract defense goals. Negative self agency and positive other agency appraisals were both shown to increase acceptance of preference inconsistent information, whereas positive self agency and negative other agency appraisals increased resistance to preference inconsistent information.

In addition, our findings also contribute to the existing literature by identifying specific conditions under which emotional appraisals influence judgment and decision-making. Specifically, in our studies, incidental emotions influenced the judgment of preference inconsistent information but not that of preference consistent information. Our research is the first to document the effects of shame, pride and gratitude on the evaluation of messages that are completely unrelated to these emotions. Anger's effects on unrelated decisions have been primarily examined in the context of out-group bias and stereotyping. However, it should be noted that past research has looked at the effects of anger on judgments that have existed for a long time (e.g., favorability towards an in group, attitudes towards co-workers, stereotypes, etc.). Recent research has examined the impact of anger in a negotiation context by comparing anger's influence as compared to positive emotions and showing that emotions impact future decision-making (Andrade & Ariely, 2009). Our research contributes to this literature by showing that the influence of emotions on subsequent judgment is contingent on the type of information presented. In our studies, angry (proud) individuals gave greater weight to initial judgments when presented with inconsistent information, whereas shame-laden (grateful) individuals gave less weight. No differences were found when faced with consistent information. In documenting these effects, our research suggests that additional studies using an appraisal tendency framework are needed to identify other relevant appraisal dimensions (Han et al., 2007; Lerner, Han, & Keltner, 2007; Wiltermuth & Tiedens, 2011).

Furthermore, the current research contributes to the biased processing literature by showing how emotional antecedents may influence biased processing. Specifically, while most past research has suggested that individuals tend to engage in biased processing that helps them to maintain their preferred beliefs or helps them to improve or maintain their existing emotion, we show that under some circumstances emotions might work through appraisals to counteract or bolster judgments that are unrelated to the emotion.

Emotions and preference inconsistent information

As discussed earlier, previous research has not examined the role of emotions in the evaluative judgment of preference consistent vs. inconsistent messages. To our knowledge, our research is the first to establish the role of emotions as a determinant of both resistance and acceptance of preference inconsistent information. We show that while some emotions (e.g., anger, pride) might increase resistance to preference consistent information, other emotions (e.g., shame, gratitude) might promote greater acceptance. These effects occur because the underlying emotional agency appraisals related to viewing the self or others impact the confidence individuals experience regarding their initial opinion. The current research articulates how the role of self and other agency appraisals is moderated by valence, thereby demonstrating new appraisal effects of emotion in evaluative judgments.

Our results suggest that angry (prideful) individuals are more likely to defend their own view whereas shame-laden (grateful) individuals are more open to accepting other people's views. The literature has posited that individuals might be driven by defense motives or impression management motives in evaluating information. Chen et al. (1996) found that individuals primed with defense motives were more likely to defend their existing views whereas those primed with impression motives were more likely to adopt competing viewpoints. This research raises the possibility that anger and shame, due to their divergent other vs. self agency appraisals, might activate a new motivational appraisal tendency toward defense or impression. Future research could examine this possibility and provide support for defense and impression goals as appraisal tendencies stemming from emotion.

Future research is also needed to examine the role of integral emotions. When emotions are endogenous to a decision task, as opposed to incidental, one may expect effects of a different nature operative through distinct psychological processes. The mechanism associated with integral emotions may be distinct and potentially more context-dependent than the processes associated with incidental emotions. Our incidental emotion approach does not associate the source of the emotion. We found that incidental emotions impacted persuasion via a confidence mechanism as opposed to a motivation or norm-based mechanism. However, integral emotions may induce stronger motivations to accept or resist inconsistent information based on an agency appraisal, thereby overwhelming the confidence effects we observed. For instance, Meloy (2000) examined integral affect in decision-making and observed that product information was distorted according to a process of motivated resistance to preference inconsistent information but did not produce differences in confidence. Additional research has established key differences between discrete emotions stemming from integral or incidental sources (Garg, Inman, & Mittal, 2005). de Hooge, Breugelmans, and Zeelenberg (2008) demonstrated that integral shame led individuals to be more pro-social, whereas incidental shame did not. Thus, whether an emotion is attributed to a focal decision context as opposed to occur exogenously will likely lead to distinct attributions and effects. Finally, the processes responsible for these effects are very likely to differ as a function of whether the emotions that produced them are

incidental or integral. Additionally, future research could blend these two perspectives and consider both integral and incidental emotions jointly.

Future research is also needed to identify other appraisal mechanisms to build off the current research and recent findings in the emotions literature (cf. Brooks & Schweitzer, 2011; Wilertmuth & Tiedens, 2011). The emotions we examine may also produce additional appraisal differences that impact subsequent judgments beyond agency. For instance, perhaps shame and gratitude increases one's sense of obligation toward others, while anger and pride may lower it. In fact, previous research has established that shame produces a sense to conform out of a desire to reduce conflict and shift attention away from the self (Scheff, 1988). Thus, it seems possible that a sense of obligation could contribute to one's willingness to accept or resist preference inconsistent information. Although we did not find an obligation mechanism resulting from preference inconsistent information, perhaps obligation appraisals would affect subsequent judgment in other contexts.

Finally, future research is needed to shed light on additional psychological mechanisms responsible for the effects we observe. Our findings provide support for the role of confidence as a key determinant of judgments in response to preference inconsistent information. We examined how confidence in one's own judgments relative to others shifted as a function of emotion. Theoretically, the emotion by preference consistency interaction we identify could impact confidence in one's own judgments, one's confidence in others' judgments or both. We emphasized the net difference between self and others, yet a promising path for future research may examine conditions when one's own judgment confidence is more affected as well as conditions when one's confidence in others' judgments is more affected. It is possible to identify situational factors that may impact each of these judgments independently, potentially moderating the effects we observe.

As an example, perhaps confidence relates to one's own judgments vs. the judgments of others as a function of integral vs. incidental emotions. Integral emotions are deemed to be relevant to the decision task at hand and have been shown to exert direct influences by motivating behavior to resolve unpleasant emotions (Morris & Reilly, 1987; Zillmann, 1988) or prolong pleasant ones (Clark & Isen, 1982; Meloy, 2000). Thus, integral emotions may differentially affect one's own judgment confidence as compared to others' judgment confidence. In contrast, incidental emotions are not deemed relevant and in the case of processing inconsistent information, we believe these effects exert influence without the explicit knowledge of the decision-maker via appraisal-related differences in their own judgment confidence. Thus, they may differentially affect one's own judgment confidence more. Future research should attempt to identify factors contributing to individuals' assessing greater weight to their own judgment confidence vs. others.

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