UNDERSTANDING AND RESPONDING TO NEGATIVE EMOTIONS IN CONSUMER RESISTANCE TO INNOVATIONS

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INTRODUCTION

Despite increasing research and managerial best practices in innovation management, firms still face new product failure rates of approximately 40 % (Castellion & Markham, 2013). Since the success of an innovation ultimately depends on the consumers accepting it (Hauser, Tellis, & Griffin, 2006), understanding and managing consumer resistance is detrimental to firms. The case of genetically modified food (GMF) shows that consumers often differ in their perceptions of benefits and risks and therefore experience a plethora of emotions. Perceived health risks, for example, can result in negative emotions such as irritation, fear, frustration and anger (Laros & Steenkamp, 2004). Consumers' negative affective reactions can even escalate into hostile resistance behaviors, such as protest marches. Consumer resistance and negative emotions are common interrelated responses to innovations and firms need to untangle their emergence to develop appropriate strategies that ensure innovation success (Heidenreich & Kraemer, 2015).

To overcome consumer resistance, researchers suggest communication strategies as appropriate means (e.g., Ram, 1989). However, despite few exceptions (e.g., Heidenreich & Kraemer, 2015) literature hardly provides evidence about the effectiveness of these strategies, especially for different forms of consumer resistance. Concerned consumers differ in the types of negative emotions experienced and will react to company communications differently (Jin, 2009). It is those differences that can render specific types of communications ineffective. Although the relevance of emotional responses in innovation adoption has been acknowledged (e.g., Wood & Moreau, 2006), research fails to provide insight into (1) how specific negative emotions emerge when consumers are confronted with an innovation, (2) what consumer cognitions and behaviors result from specific negative emotions, and (3) how consumers react to various communication strategies of companies. Our research addresses these gaps. In a set of scenario-based experimental studies with a fictive functional food innovation, we focus on the negative emotions of fear and anger, which are common in the context of food innovation (Laros & Steenkamp, 2004).

THEORY

Consumer Resistance to Innovation

In this study, we regard consumer resistance as having three components, which only in conjunction form a full conceptualization: (1) a cognitive dimension, (2) a behavioral dimension,

and (3) an emotional dimension. According to the cognitive dimension, active resistance is a deliberately formed negative attitude driven by functional and psychological barriers. Passive resistance forms unconsciously due to a predisposition to resist change or status quo satisfaction (Heidenreich & Kraemer, 2015). According to the behavioral dimension, consumer resistance varies with the degree of proactiveness of consumers, ranging from avoidance of the innovation to active opposition behavior (Kleijnen, Lee, & Wetzels, 2009). In addition to the cognitive and behavioral dimension, researchers acknowledge an important role of specific negative emotions in innovation adoption (e.g., Wood & Moreau, 2006). However, no previous study provides a conceptualization of consumer resistance forms according to all three dimensions.

Appraisal Theory of Emotions

According to appraisal theory, emotions are a result of different perceptions of the current situation. Different emotions such as anger, fear, hope or joy differ along a set of cognitive appraisal dimensions (e.g., Smith & Ellsworth, 1985). Cognitive appraisals are interpretations of the situation with reference to the impact for the individuals' well-being (Bagozzi, Gopinath, & Nyer, 1999) and include dimensions like pleasantness, certainty, agency, controllability or legitimacy. Appraisal theory indicates that fear results from appraisals of uncertainty, threat and situational control (i.e., uncontrollable circumstances). In contrast, anger is elicited by appraisals of certainty, norm violation and other blame (e.g., Lerner & Keltner, 2000; Menon & Dube, 2004).

Hypothesis 1. Appraisals of (a) uncertainty, (b) threat and (c) situational control are higher for fear than anger.

Hypothesis 2. Appraisals of (a) certainty, (b) norm violation and (c) blame are higher for anger than fear.

Different emotions also lead to different behavioral action tendencies, self-regulation and coping mechanisms (Gross, 2002). For example, anger is more likely to result in hostile and confrontational actions such as attacks or negative word of mouth (e.g., Maute & Dubés, 1999; Yi & Baumgartner, 2004), whereas fear more likely leads to support-seeking behavior, avoidance or problem-solving coping (Frijda, 1987; Gelbrich, 2010; Yi & Baumgartner, 2004).

Hypothesis 3. Fear results in higher avoidance behavior (i.e., higher levels of no action) than anger.

Hypothesis 4. Anger results in higher hostile behavior (i.e., higher proactiveness) than fear.

Emotion Regulation

While emotion regulation happens often automatically and intrapersonal, counseling and collaborative contexts transfer the principles of intrapersonal emotion regulation to an interpersonal context (Webb, Miles, & Sheeran, 2012; Williams, 2007). Emotion can either be regulated through reappraisal or response modulation (i.e., suppression of negative emotions, avoidance or rumination) (Gross, 2002). A large body of research seems to agree that reappraisal is overall the most successful strategy (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Reappraisal as the change

of the cognitive meaning and situational re-interpretation can decrease the emotional experience and consequently, also the emotional expression (Gross, 1998, 2002).

Information Provision. Uncertainty is a major driver of fear and uncertainty motivates individuals to resolve their conflicting perceptions (Clark, Wegener, & Fabrigar, 2008). Hence, fearful individuals who held attitudes with uncertainty are more receptive to systematic processing of novel information (Karmarkar & Tormala, 2010). However, when anger is predominant, the effect might be reverse, because information provision could signal denial of the firm agency, which the angry consumers are certain about. This might enhance negative appraisal.

Perspective Taking. Responding to anger is a greater challenge than responding to fear (Menon & Dube, 2004). When angry consumers take the perspective of the company, they might see the innovation in a different light and reduce their blame attribution. However, the appraisal dimensions of fear are not affected by taking the company perspective.

Inducing Happiness. Finally, emotion contagion literature shows that emotions expressed by an individual can lead to a corresponding change of the observer's emotions (Pugh, 2001; Williams, 2007). Even if this strategy does not resolve the cause of the underlying negative appraisals, positive emotion induction can signal a reduced need to regulate the negative emotions of fear and anger (e.g., through resistance behavior) (Labroo & Rucker, 2010).

Hypothesis 5. Information provision (a) reduces fear, but (b) enhances anger.

Hypothesis 6. Perspective taking (a) reduces anger, but (b) does not affect fear.

Hypothesis 7. Positive emotion induction (a) reduces fear and (b) reduces anger.

EXPERIMENTS

We use a set of experiments in the context of a fictional functional food innovation. Functional foods contain added, technologically developed ingredients that are marketed to have a health benefit (Niva, 2007). We chose the functional food context because innovations in this area can be the source of different negative emotions (Laros & Steenkamp, 2005).

Pre-Test: Manipulating Fear and Anger

Procedure. We use scenarios, where the fictional character John sees a news show on TV about a functional food innovation called DAT. Then, different people appear in the news show either supporting DAT or opposing DAT, depending on the intended manipulation of the appraisal dimensions. Participants are randomly assigned to either the anger, fear or control scenario.

Participants and Measures. We rely on a sample from Amazon Mechanical Turk (mTurk), a crowdsourcing platform. The cleaned sample includes 187 participants ($n_{FearSc.}$=59, $n_{AngerSc.}$=55, $n_{ControlSc.}$=73). We measured self-reported emotion with two instruments. First, participants were asked to decide whether John predominately feels fearful, angry, none or both of the two emotions (i.e., emotion-picking task). Subsequently, in an emotion-rating task, participants were asked to rate

a battery of emotions on a Likert-scale. We controlled among others for healthy eating attitude, domain-specific innovativeness, rational and intuitive cognitive style and scenario realism.

Results. Although two thirds of the participants indicated that they feel both fearful and angry at the same time, participants picked the emotion fearful as the dominant emotion clearly more often in the fear scenario than the anger scenario ($n_{FearSc.}$=12, $n_{AngerSc.}$=2) and the emotion angry clearly more often in the anger scenario than the fear scenario ($n_{AngerSc.}$=20, $n_{FearSc.}$=6). However, the results of the emotion-rating task showed that emotions did not significantly differ between the scenarios. However, when only taking into account the subsample of participants who indicated that they feel one single emotion (fearful or angry), the results are in line with the expected manipulation. Angry was more dominant in the anger scenario than the fear scenario ($M_{AngerSc.}$=6.23, $M_{FearSc.}$=3.67, p <.000) and fearful was higher in the fear scenario than the anger scenario ($M_{FearSc.}$=4.17, $M_{AngerSc.}$=3.18, p =.137). In addition, fearful is higher than angry in the fear scenario and angry higher than fearful in the anger scenario.

Discussion. The scenario manipulation was successful according to the emotion-picking task, but only partly according to the emotion-rating task. The reason is that many participants experience two emotions simultaneously. To understand the mechanisms of the negative emotions better, it is important to separate participants who experience single emotions or mixed emotions in subsequent experiments. Both types of participants might rely equally strong on their emotions (or on facts) when making decisions, but the way they experience the emotions is different. The results indicate two different types of participants: "deliberate feelers", who experience one dominant emotion at a time and "overwhelmed feelers", who experience several dominant emotions concurrently. We hypothesize that the difference between deliberate feelers and overwhelmed feelers is based on a different judgment style of emotion eliciting situations. Individuals low in emotion differentiation focus on the overall valence of the situation and do not attend or incorporate information that would differentiate discrete emotions (Barrett, 1998). We hypothesize:

> *Hypothesis 8. Deliberate feelers have (a) a more analytic and (b) less holistic judgment style than overwhelmed feelers.*

> *Hypothesis 9. Deliberate feelers process information deeper than overwhelmed feelers.*

> *Hypothesis 10. Deliberate feelers prefer affective thinking less than overwhelmed feelers.*

Experiment 1: Appraisal Dimensions and Behavioral Coping

Procedure. Similar to the pre-test, participants were randomly assigned to either the scenario aimed to elicit fear or the scenario aimed to elicit anger. After reading the scenario, participants answered questions on different constructs.

Participants and Measures. A total of 285 mTurk workers participated in the survey ($n_{FearSc.}$=139, $n_{AngerSc.}$=146), with ages between 18 and 71 years (M=38.86. SD=11.937). 122 participants were male and 163 were female. Emotion measures were similar to the pre-test. Participants were asked to indicate John's attitude towards functional food, purchase intention and behavioral coping with the constructs of no action, negative word of mouth, complaining to the company, complaining to third parties and attack. We included relevant appraisal dimensions

derived from the literature such as certainty and norm violation. Respondents then reported from their view on the following individual difference measures and controls such as analytic and holistic style, depth of processing, the Big 5 personality traits, affective thinking and empathy.

Results. We largely replicated the findings from the pre-test regarding the emotion-picking and emotion-rating tasks in the fear and anger scenarios for the full sample and the sample split into participants with single and mixed emotions. To test hypotheses 1 and 2, we compared the means of the appraisal dimension in the fear and anger scenario with one-way ANOVA. We can accept hypotheses 1a, 2a, 2b and 2c, but reject hypotheses 1b and 1c. Hence, certainty ($M_{AngerSc.}$=5.17, $M_{FearSc.}$=4.40, p <.000), norm violation ($M_{AngerSc.}$=8.07, $M_{FearSc.}$=7.16, p <.000) and other-responsibility ($M_{AngerSc.}$=7.59, $M_{FearSc.}$=7.09, p =.045) are higher in the anger than the fear scenario.
We could accept both hypotheses 3 and 4. Negative word of mouth ($M_{AngerSc.}$=6.02, $M_{FearSc.}$=5.34, p <.000), complaining to the company ($M_{AngerSc.}$=5.87, $M_{FearSc.}$=5.31, p =.002), complaining to third parties ($M_{AngerSc.}$=5.52, $M_{FearSc.}$=4.81, p <.000) and attack ($M_{AngerSc.}$=4.84, $M_{FearSc.}$=3.89, p <.000) were higher in the anger scenario. No action ($M_{FearSc.}$=2.91, $M_{AngerSc.}$=2.51, p =.023) was significantly higher in the fear scenario.
Finally, we rejected hypothesis 8 and accepted hypotheses 9 and 10. Depth of processing is higher for participants experiencing single emotions (M_{Single}=4.35, M_{Mixed}=3.79, p =.003). Affective thinking is higher for participants with mixed emotions (M_{Mixed}=4.58, M_{Single}=4.22, p =.016).

Discussion. Although differences between the emotions clearly exist, both anger and fear have similar appraisal patterns. As expected, fear results more in avoidance behavior and anger more in hostile behavior. Finally, we can confirm that single emotion participants differentiated their rating of emotions more clearly than mixed emotions participants and that both differ in important traits. Conclusively, experiment one provides a stable basis for the subsequent test of communication strategies that aim to regulate the negative emotions.

Experiment 2: Emotion Regulation

Manipulation Check Test. We designed three ads (i.e., information, company perspective, happiness) as firm communication strategies and tested in a separate pre-test whether the manipulation of the ads was successful. 45 mTurk workers were presented with the three ads in a randomized order. Participants indicated for each ad on three items how they perceive the ad. The results showed that the intended manipulation was successful.

Procedure. We applied a 2 x 4 (scenario x ad) between-subject design. Participants were randomly assigned to either the fear or the anger scenario. After reading the scenario, participants were immediately presented with one of the three randomized ad conditions or with a blank ad. Afterwards, participants responded to the same constructs as in experiment one regarding emotion measurement, coping, appraisals, individual differences and controls.

Participants and Measures. 168 mTurk workers, 63 men and 105 women, participated in the survey. Ages ranged between 19 and 64 (M=37.49, SD=10.523). Measures were identically to experiment one. We compared for both scenarios the effectiveness of each ad to experiment one.

Results. We found that the ads information and company perspective reduce the emotions fearful and angry in both scenarios, with information being the most effective in the fear scenario

($M_{Ex2,Fearful,FearSc.,AdInfo}$=4.44, $M_{Ex2,Fearful,FearSc.,AdComPer}$=4.59, $M_{Ex1,Fearful,FearSc.}$=4.78) and company perspective being the most effective in the anger scenario ($M_{Ex2, Angry,AngerSc.,AdComPer}$=5.61, $M_{Ex2, Angry,AngerSc.,AdInfo}$=5.82, $M_{Ex1,Angry,AngerSc.}$=6.11). Therefore we accept hypotheses 5a and 6a, while we reject 5b and 6b. The ad happiness reduces the emotion fearful in both scenarios ($M_{Ex2,Fearful,FearSc.,AdHappy}$=4.50, $M_{Ex1,Fearful,FearSc.}$=4.78; $M_{Ex2, Fearful,AngerSc,AdHappy.}$=4.11, $M_{Ex1,Fearful,AngerSc.}$=4.66), but does not reduce angry in neither scenario ($M_{Ex2, Angry,AngerSc.,AdHappy}$=6.04, $M_{Ex1,Angry,AngerSc.}$=6.11; $M_{Ex2, Angry,FearSc.,AdHappy}$=5.22, $M_{Ex1,Angry,FearSc.}$=5.17), leading us to accept hypothesis 7a and reject hypothesis 7b.

Discussion. Except for the ad happiness, which is not effective for angry consumers, all ads had a positive effect in reducing the negative emotions. The results also indicate that the application of the strategy that addresses the primary emotion (e.g., information for fearful in the fear scenario) reduces the secondary emotion as well (e.g., angry in fear scenario).

GENERAL DISCUSSION

Theoretical Contributions

Our research makes three major contributions. First, while previous research conceptualizes consumer resistance only according to a behavioral and cognitive dimension, we include a third dimension: negative emotions. We demonstrate that the specific negative emotions of fear and anger emerge from different perceptions of the innovation and result in different levels of behavioral proactiveness. Therefore, we are able to provide a full conceptualization of two archetypical forms of consumer resistance and explain the mechanisms between causes (i.e., appraisals) and consequences (i.e., behavioral coping) with the help of emotion theory.

Second, we contribute to emotion differentiation theory by showing how deliberate feelers, who have a high emotion differentiation ability, differ from overwhelmed feelers, who have a low emotion differentiation ability, according to several individual differences. We identify preference for affect and depth of processing as determining for the ability to differentiate discrete emotions.

Third, we present evidence about the effectiveness of firm communication strategies that are targeted to decrease consumer resistance and we show how this effectiveness differs for discrete emotions according to emotion regulation theory. We transferred principles of intrapersonal emotion regulation to an interpersonal context. In line with previous literature (e.g., Webb et al., 2012), reappraisal is most effective when applied correctly.

Managerial Implications

Our results help companies to better understand consumer resistance and find strategies to effectively manage situations, where emotions drive consumer resistance. For those consumers that experience fear as the primary emotion, a communication strategy that provides additional information about the product or technology will be most effective. For those consumers that primarily experience anger, firms should use communication strategies that ask the consumers to take the perspective of the company and express why the firm has launched the innovation, what the beneficial and overarching vision is, and what the company does for the consumers.

REFERENCES AVAILABLE FROM THE AUTHORS