Emotions of Fear, Guilt Or Shame in Anti-Alcohol Messages: Measuring Direct Effects on Persuasion and the Moderating Role of Sensation Seeking

Imene BECHEUR, Wesford, FRANCE
Hayan DIB, Wesford, FRANCE
Dwight MERUNKA, University Paul Cezanne (I.A.E. Aix-en-Provence), FRANCE
Pierre VALETTE-FLORENCE, University Pierre Mendes France (I.A.E. Genoble), FRANCE

We study the effects of fear, shame and guilt on persuasiveness of anti-alcohol messages among young people. We experimentally test three distinct messages, each one focusing on one of the three negative emotions using a total sample of more than a thousand students. Results show that all three messages have a positive impact on persuasion and that the stimulation of shame is very effective in the case of anti-alcohol abuse advertising directed at young people. We demonstrate that sensation seeking moderates the impact of negative emotions on persuasion in the case of fear and shame appeals.

[to cite]:

[url]:
http://www.acrwebsite.org/volumes/13917/eacr/vol8/E-08

[copyright notice]:
This work is copyrighted by The Association for Consumer Research. For permission to copy or use this work in whole or in part, please contact the Copyright Clearance Center at http://www.copyright.com/.
Emotions of Fear, Guilt or Shame in Anti-Alcohol Messages: Measuring Direct Effects on Persuasion and the Moderating Role of Sensation Seeking

Imene Becheur, Wesford Business School Grenoble, France
Hayan Dib, Wesford Business School Grenoble, France
Dwight Merunka, University Paul Cezanne, IAE Aix and Euromed Marseille, France
Pierre Valette-Florence, University Pierre Mendes France, IAE and CERAG Grenoble

ABSTRACT
We study the effects of fear, shame and guilt on persuasiveness of anti-alcohol messages among young people. We experimentally test three distinct messages, each one focusing on one of the three negative emotions using a total sample of more than a thousand students. Results show that all three messages have a positive impact on persuasion and that the stimulation of shame is very effective in the case of anti-alcohol abuse advertising directed at young people. We demonstrate that sensation seeking moderates the impact of negative emotions on persuasion in the case of fear and shame appeals.

INTRODUCTION
Messages using fear appeals has been used in a variety of domains as road safety, prevention of drug, tobacco and alcohol abuse or prevention of AIDS. Since the pioneering study of Janis and Feshbach (1953) concerning dental hygiene, research on persuasion through fear appeals have lead to contrasting results, revealing either strong positive effects (Arthur and Quester 2004; Bennett 1996) or little or no effects (Krisher, Darley, and Darley 1973; Schoenbachler and Whittler 1996) on persuasion. However, fear is not the only emotion generating stress. Other negative emotions as guilt or shame are used in marketing communications in different domains as politics, consumption or public health. Interestingly, research concerning the effects of these emotions remains scarce and results are mixed. For example, Lazarus (1991) proposes that shame favors pro-social behavior and leads to conformity to social standards, as Bennett (1998) believes in an adaptive role of guilt and shows that guilt-oriented messages may lead to persuasion if shame is not activated. Also, recent research has focused on the social dimension of threat, whereby a social threat ties the dangerosity of the individual behavior to a rejection by the social group (Gallopel 2006, Laroche et al. 2001).

The objective of this research is to demonstrate that a variety of negative emotions (i.e. fear but also shame and guilt) may have a positive impact on persuasion and to compare the effects of each of these emotions. For that purpose, we propose a conceptual framework including three personal constructs, i.e. self-esteem, affect intensity and sensation-seeking. We expect not only fear, but also guilt and shame to have a positive impact on persuasion. We also expect sensation-seeking to moderate this relationship.

We focus on the use of negative emotions appeals (fear, guilt and shame) in the case of advertising targeting an audience of young adults and directed towards prevention of physical and psychosocial risks linked to alcohol abuse. In spite of limited beneficial effects when consumed very moderately, alcohol consumption is a major public health issue in many countries. Developing behaviors such as “binge drinking” or the mixing of alcohol to other psychotropic substances constitute aggravating risks especially for young populations.

CONCEPTUAL MODEL AND HYPOTHESIS
Several studies have shown that, in the context fear appeals, the stronger the perception of threat, the higher the activation of fear (Block and Keller 1995; LaTour and Pitts 1989). Therefore:

H1a: In the case of fear appeals, the perception of the severity of the threat has a positive impact on the level of activation of fear emotion.

H2a: In the case of fear appeals, the perception of the susceptibility to the threat has a positive impact on the level of activation of fear emotion.

It is established that the cognitive processes at work for the evaluation of the threat are at the origin of negative emotions (Lazarus 1991). Although guilt is a public emotion linked to individual conscience and shame is a public emotion linked to exposure to others (Tangney 1995), research shows that it is difficult to distinguish between shame and guilt. Both are considered being self-conscious emotions (Lewis 1993) and they both imply a self-evaluative process. As guilt, shame is a useful emotion which reminds of social norms. It implies adaptive behaviors since it motivates the individual to respect internal ideals (Lazarus 1991) and to conform to social ideals (Scheff 1988). Therefore, we propose that the relationships between constructs formulated in hypotheses H1a and H1b in the case of fear appeals, also apply to guilt and shame appeals. Hence:

H1b, c: In the case of guilt (shame) appeals, the perception of the severity of the threat has a positive impact on the level of activation of guilt (shame) emotion.

H2b, c: In the case of guilt (shame) appeals, the perceptions of the susceptibility to the threat have a positive impact on the level of activation of guilt (shame) emotion.

In order to avoid defensive reactions after exposition to threatening messages possibly leading to minimization or ignorance of the problem, a solution must be offered to the viewer. The presentation of this solution enables dealing with the threat presented in the message (Witte 1992). Also, self-efficacy or the belief that the individual is in a position to implement the recommended solution influences the adoption of the solution (Block and Keller 1997; Snipes, LaTour, and Bliss 1999). Therefore:

H3: For highly threatening messages, perceived efficacy of the recommended solution has a positive impact on persuasion.

H4: For highly threatening messages, perceived ability to adopt the recommended solution has a positive impact on persuasion.
Also, fear facilitates the persuasion process because it attracts attention and develops memorization of the message (Rogers 1983). Hence:

\( H5a \): In the case of fear appeals, the intensity of fear activated by the message has a positive impact on persuasion.

By contrast, research devoted to the study of effects of messages containing guilt or shame appeals are scarce. Bennett (1998) stipulates a positive effect of guilt and a negative effect of shame on persuasion. However, Tangney (1999) suggests that both emotions impact behaviors of reparation and cooperation and favor empathy. We therefore propose:

\( H5b, c \): In the case of guilt (shame) appeals, the intensity of guilt (shame) activated by the message has a positive impact on persuasion.

Individual variables have been included in models linking negative emotions to persuasion and explain some contrasting results. For example, high self-esteem individuals, when confronted to threatening information concerning alcohol abuse, will try to minimize their perceptions of the severity and the susceptibility to the threat (Gerrard et al. 2000). Following this finding, we propose:

\( H6 \): In the context of a threatening message, the intensity of self-esteem has a negative impact on the level of perceived threat.

\( H7 \): In the context of a threatening message, the intensity of self-esteem has a negative impact on the level of perceived susceptibility to the threat.

Schaninger and Sciglimpaglia (1981) suggest that an individual’s self-esteem has a significant impact on responses to emotional messages because self-esteem influences his or her confidence in decision making. Hence:

\( H8 \): In the context of a threatening message, the intensity of self-esteem has a positive impact on the level of perceived self-efficacy.

Aaker and Stayman (1989) show that some individuals exposed to emotionally intense messages have a tendency to react to their emotions with a high intensity level. This individual characteristic is named affect intensity (Larsen 1984). Moore, Harris, and Chen (1995) demonstrate that individuals with high affect intensity, compared to individuals with low scores of affect intensity, exhibit intense emotional responses to emotional ads. Since negative emotions develop with perceptions of threat intensity and susceptibility to the threat, we propose:

\( H9 \): In the context of a threatening message, the magnitude of affect intensity has a positive impact on perceived severity of the threat.

\( H10 \): In the context of a threatening message, the magnitude of affect intensity has a positive impact on perceived susceptibility to the threat.

Sensation seeking is a biological trait best described as the pursuit of novel, intense and complex sensations and experiences, and the willingness to take risks for the sake of such experience (Zuckerman 1994). When a difference exists between present and ideal levels of stimulation, the individual feels a need for or an excess of stimulation which leads to the search of activities enabling the stimulation level to approach the optimum. Palmgreen et al. (2003) recommend the use of preventive messages with high sensation value for targets in need of sensations because these individuals search for new, complex, ambiguous and emotionally intense stimuli. Also, Donohew et al. (1990) demonstrate that individuals looking for strong sensations (High Sensation Seekers) show higher levels of attitudinal and behavioral persuasion against drug abuse if exposed to messages communicating strong sensations (e.g. highly emotional messages). We therefore propose that sensation seeking moderates the impact of negative emotions on persuasion.

\( H11a, b, c \): In the case of fear (guilt, shame) appeals, intensity of sensation-seeking positively impacts the relationship between the level of fear (guilt, shame) activated by the message and the level of persuasion.

The conceptual model we propose is given in figure 1 and shows all relationships among constructs developed in the set of hypotheses.

**RESEARCH METHODOLOGY**

In a large number of countries, important problems linked to alcohol abuse are linked to social consumption of non-dependent drinkers, mainly young adults. Since we study the effects of fear, guilt and shame appeals within the context of alcohol abuse, our sample is composed of young adults aged between 18 and 25.

**Stimuli:** Four advertising messages were created (see figure 2), one for the fear and one for the guilt scenarios and two for the shame scenario (one for each gender). The ads created aimed at generating perceptions of severe threat, high susceptibility to threat, efficacy of the solution and high self efficacy (Witte 1992).

**Measurements:** We measured responses for all items on a seven-point Likert type scale. Measurements of threat perceived severity, threat perceived susceptibility, perceived response efficacy, and perceived self-efficacy are adapted from Witte (1992). The emotion of fear is measured through five items adapted from Block and Keller (1995) and Laroche et al. (2001). Guilt is measured through three items adapted from Cotte, Coulter, and Moore (2005) and Izard (1977) and shame is measured through four items adapted from Rolland and De Fruyt (2003). Other measurements were drawn from existing scales: persuasion (Block and Keller 1997), self-esteem (Rosenberg 1965) from which we eliminated reverse items¹, affect intensity (second dimension of the Geuens and De Pelsmacker’s (2002) scale² which corresponds to negative emotions), and sensation seeking (Zuckerman et al. 1964).

**Sample and preliminary tests:** An on-line questionnaire was answered by students belonging to different French universities. We collected 1082 usable questionnaires (391, 401 and 290 respectively for the fear, the guilt and the shame scenarios). We verified scale unidimensionality through exploratory and confirmatory factor analysis. We verified convergent and discriminant validities of the scales as well as reliability (see Table 1)³. Concerning sensation-seeking, results of the analysis indicate a two-dimensional

---

¹Following Wong and al’s (2003) recommendation.
²Reduced scale from the « Affect Intensity Scale » (AIM) by Larsen (1984).
³Results of the CFA shown in appendix B have been obtained after a bootstrap (1000 iterations) to deal with problems of normality.
FIGURE 1
Conceptual model and hypotheses

TABLE 1
Reliability and validity of measurement scales

<table>
<thead>
<tr>
<th>αGutsh</th>
<th>0.883</th>
<th>0.776</th>
<th>0.908</th>
<th>0.898</th>
<th>0.870</th>
<th>0.711</th>
<th>0.924</th>
<th>0.810</th>
<th>0.681</th>
<th>0.795</th>
<th>0.726</th>
</tr>
</thead>
<tbody>
<tr>
<td>ρPlskg</td>
<td>0.885</td>
<td>0.778</td>
<td>0.908</td>
<td>0.900</td>
<td>0.871</td>
<td>0.728</td>
<td>0.924</td>
<td>0.815</td>
<td>0.683</td>
<td>0.757</td>
<td>0.728</td>
</tr>
<tr>
<td>RHO vc</td>
<td>0.61</td>
<td>0.47</td>
<td>0.77</td>
<td>0.75</td>
<td>0.77</td>
<td>0.48 **</td>
<td>0.67</td>
<td>0.47</td>
<td>0.42</td>
<td>0.51</td>
<td>0.41</td>
</tr>
<tr>
<td>Fear</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shame</td>
<td>0.207</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guilt</td>
<td>0.076</td>
<td>0.321</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severity</td>
<td>0.216</td>
<td>0.002*</td>
<td>0.053</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Susceptibility</td>
<td>0.157</td>
<td>0.000*</td>
<td>0.060</td>
<td>0.229</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response efficacy</td>
<td>0.050</td>
<td>0.001*</td>
<td>0.019</td>
<td>0.112</td>
<td>0.111</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self efficacy</td>
<td>0.003*</td>
<td>0.012</td>
<td>0.007</td>
<td>0.019</td>
<td>0.004*</td>
<td>0.017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persuasion</td>
<td>0.280</td>
<td>0.043</td>
<td>0.108</td>
<td>0.326</td>
<td>0.224</td>
<td>0.141</td>
<td>0.030</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self esteem</td>
<td>0.006</td>
<td>0.002*</td>
<td>0.001*</td>
<td>0.001*</td>
<td>0.000*</td>
<td>0.004*</td>
<td>0.001</td>
<td>0.000*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affect intensity</td>
<td>0.064</td>
<td>0.037</td>
<td>0.068</td>
<td>0.092</td>
<td>0.056</td>
<td>0.043</td>
<td>0.010</td>
<td>0.103</td>
<td>0.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thrill</td>
<td>0.006</td>
<td>0.004*</td>
<td>0.000*</td>
<td>0.000*</td>
<td>0.001*</td>
<td>0.000*</td>
<td>0.008</td>
<td>0.002*</td>
<td>0.022</td>
<td>0.000*</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>0.000*</td>
<td>0.001*</td>
<td>0.003*</td>
<td>0.000*</td>
<td>0.003*</td>
<td>0.000*</td>
<td>0.002*</td>
<td>0.002*</td>
<td>0.013</td>
<td>0.004*</td>
<td>0.263</td>
</tr>
</tbody>
</table>

* Non significant correlations
** One-item Measure
*** Values below diagonal represent the shared variance between variables
Manipulation of emotions was satisfactory since levels of fear, guilt and shame are higher for each corresponding scenario. Also, within each scenario, we found that (1) the fear scenario leads to more fear than guilt or shame, (2) the guilt scenario leads to more guilt than either fear or shame and (3) the shame scenario implies more shame than fear or guilt.
RESEARCH RESULTS

Estimation of Direct effects

To uncover differences between the three emotional situations (fear, guilt, and shame), we used a structural multi-group approach. We compared a model with free structural parameters to a model in which structural parameters were constrained to 1. We found a significant difference ($\Delta \chi^2(32)=119.59, p<.001$) and must therefore identify the structural parameters that differ across conditions. We compared the $\chi^2$ of the free models, constrained models, and pair-wise constrained models. These comparisons were done for each structural relation in the model. The rule followed is that the best model is the most constrained one in case of non-significant difference and the least constrained model otherwise. The models retained furnish estimates for each structural parameter and for each scenario (see figure 3).

Results show, for all scenarios, that affect intensity has a positive impact on perceived severity of the threat (in support of $H9$) and perceived susceptibility to the threat (in support of $H10$). The higher the perceived efficacy of the solution, the higher the persuasion level (H3 is supported). Similarly, perceived self-efficacy has a positive impact on persuasion (in support of $H4$).

Concerning self-esteem, we did not find any significant effect of the construct on perceived susceptibility to the threat (H7 is rejected), nor on perceived self-efficacy (H8 rejected). Self-esteem does not impact perceived severity of the threat within the shame scenario. For the fear and the guilt scenarios, self-esteem has a positive influence on perceived severity which contradicts hypothesis 6 (H6 is rejected).

In the case of the fear scenario, perceived severity of and susceptibility to the threat has an impact on the level of fear activated. ($H1a$ and $H2a$ supported) and fear has a positive impact on persuasion (in support of $H5a$). Consequently, fear is a mediator between perceptions of the threat and persuasion. By contrast, for this scenario, relationships concerning guilt and shame are non-significant. It may be that the perceptions of threat (severity and susceptibility) do not translate into sufficient shame or guilt to influence persuasion.

In the case of the guilt scenario, perceived threat susceptibility has a positive impact on fear and guilt only ($H1b$ supported). However, perceived susceptibility to the threat does not influence fear, shame or guilt (H2b is rejected), but guilt does have a positive impact on persuasion (in support of $H5b$). This might be explained by the significant impact of perceived severity on guilt (H1b). Moreover, the significant impact of fear on persuasion can be linked to a significant effect of perceived severity on fear which may compensate the lack of impact of susceptibility on fear. This indicates that the guilt scenario might imply fear as well as guilt. Individuals might have been frightened to feel guilty (Ghingold 1981) and emotions of fear and guilt might overlap. As hypothesized, guilt has a significant impact on persuasion ($H5b$ supported). Since perceptions of threat do not imply shame in this scenario, shame does not impact persuasion.

In the case of the shame scenario, perceptions of severity and susceptibility to the threat have an impact on shame ($H1c$ and $H2c$ supported) which, in turn, has an impact on persuasion (in support of $H5c$). Perceptions of the severity of the threat imply fear and perceived susceptibility imply guilt. Both of these effects explain the impacts of fear and guilt on persuasion (all results are summarized in Figure 3).

Estimation of the moderating effect of sensation-seeking

In order to test this moderating effect, we partition each group (exposed to either fear, shame or guilt ads) into three sub-groups of approximately equal sizes (with high, medium and low levels of “thrill-seeking” or “experience-seeking”). We then contrast results for the high vs. low sensation-seeking groups and test the moderating impact of both thrill-seeking and experience-seeking through multi-group analysis. Considering the exploratory nature of the moderation hypotheses and the limited size of the samples (for each sub-group), we focus on the analysis of the potential differences across sub-groups. Results (see Figure 4) demonstrate that that sensation-seeking moderates the impact of negative emotions on persuasion when fear appeals are used. Therefore, hypothesis H1a is supported. In the case of the use of shame appeal, there is a partial moderating effect of sensation-seeking, since moderation is not found for one of the six tested relationships (no effect of experience-seeking on the impact of shame on persuasion) and hypothesis H1c is therefore partially supported. In the case of guilt appeals, H11b is rejected since a moderating effect of sensation-seeking is found for only one out of six relationships.

DISCUSSION AND CONCLUSION

Overall, our findings confirm the role of fear in messages for prevention against alcohol abuse and also demonstrate the impact of other emotions (fear and guilt) on persuasion, which might help advertisers in their search of persuasive strategies.

We demonstrate, for all scenarios, the influence of affect intensity on both perceived severity of and perceived susceptibility to the threat. This confirms results from Moore, Harris, and Chen (1994) showing that cognitive responses (perceptions of threat) mediate the relationships between affect intensity and emotional responses. Even if the impact of perceived susceptibility on guilt is non-significant (for the guilt scenario), the negative emotions that we studied seem to play a mediating role between perceptions of the threat and persuasion. This confirms the importance of negative emotions and the fact that a threat leads to negative emotions (fear, guilt, shame) which themselves determine behavior (Arthur and Quester 2004).

Results also confirm the importance of perceptions of efficacy which lead to the acceptance of the message and to persuasion. Many authors having dealt with fear have already demonstrated that importance of perceived efficacy (Block and Keller 1997; Hale and Dillard 1995; Witte 1992).

In the case of the shame scenario, persuasion occurs because the three emotions studied here are activated. This confirms the proposition of Lazarus (1991) concerning the role of shame. Shame motives a social behavior and leads to conformity to social norm. Contrarily to Bennett (1998) who proposes that guilt messages may be persuasive if shame is not activated, our results

---

1. A test of the invariance of the measures has been conducted. It reveals the existence of variance in the measurement scales across scenarios. To avoid error due to measurement variance, we constrained all measurement parameter to be equal across groups. The goal is to guarantee an equal structure for measurement instruments across groups.

2. Structural parameters are different (free) across the 3 groups.

3. Structural parameters are constrained to be equal for the three groups.

4. Fear free: structural parameters are constrained to be equal for the two scenarios shame and guilt and free for the fear scenario. Guilt free: structural parameters are constrained to be equal for the two scenarios fear and shame and free for the guilt scenario. Shame free: structural parameters are constrained to be equal for the two scenarios fear and guilt and free for the shame scenario.
FIGURE 3
Results of hypotheses testing
show that a threatening message implying fear, guilt and shame together might well be the most persuasive.

Overall, sensation-seeking moderates the impact of negative emotions on persuasion. This is an empirical validation of research hypotheses stipulating that individuals looking for strong sensations are more influenced by messages with a high emotional content (Palmgreen et al. 2003). However, our results contradict those obtained by Schoenbachler and Whittler (1996). It is therefore important that further research refines methodologies and furnishes additional support for our hypotheses.

This research contributes to the persuasion literature with the proposition and test of a model including constructs often tested separately. It enables better understanding the mechanisms through which the stimulation of negative emotions may convince individuals to abandon risky behaviors. Also, this work leads to the validation of the cognitive evaluation model for emotions (Lazarus 1991) which stipulates that a cognitive evaluation of the threat is at the origin of negative emotions. From a practical standpoint, it seems that the shame scenario was the most persuasive and that it enabled generation of all studied emotions. It is probably in that direction that advertising and creative strategies need to be developed to fight against substance abuse for young people.

Of course, this research suffers from limitations, one of which being that emotions have been measured through questionnaires which may lead to an overestimation of the emotional states and to a difficulty for respondents to express their affective state (Derbaix and Poncin 2005). The expansion of this research to other populations and the use of other measurement instruments are highly recommended. Beyond sensation-seeking, other individual variables might have an impact on the relationship between negative emotions and persuasion such as risk aversion, authoritarianism or introversion. Finally, we recommend further developments concerning the use and impact of guilt and shame appeals in public sector communications and particularly in ads directed at prevention of substance abuse or promotion of health-related behaviors.

REFERENCES


106 / Emotions of Fear, Guilt or Shame in Anti-Alcohol Messages


