

The Anxious Audience: Examining the Role of Self-Esteem in Fear Appeal Advertising

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Abstract. Fear appeal advertising remains a complex and debated topic in marketing research, with past studies often reporting inconsistent findings regarding its persuasive impact. This study aims to clarify these contradictions by introducing self-esteem as a pivotal moderating variable, examining its role within the framework of the Extended Parallel Process Model (EPPM). An online survey was conducted, generating 155 valid responses for analysis. The results demonstrate that self-esteem significantly influences the effectiveness of fear appeal advertisements. Specifically, individuals with low self-esteem were found to be the most susceptible to persuasion. Furthermore, a key finding is that self-esteem moderates the relationship between perceived threat and ad effectiveness. For the low self-esteem group, a higher perceived threat increased the ad's effectiveness, whereas the opposite effect was observed for the high self-esteem group. These findings contribute to the literature by identifying a crucial psychological mechanism, thereby offering a more nuanced understanding of fear appeal effectiveness for both academic research and targeted marketing strategies.

Keywords: self-esteem, fear appeal, persuasion, marketing strategy

1. Introduction

The scene opens with a baby crawling on the living room floor, and a stove fire left unattended. Upstairs, the mother is quietly reading. Suddenly, smoke fills the house, blurring the surroundings as the baby cries. The sharp sound of a smoke detector echoes. The mother rushes down to turn off the stove, and the sound stops. She holds the baby tightly, visibly relieved.

This could be a scene from an advertisement for a smoke detector company, using fear appeals to promote safety. In today's advertising, marketers constantly seek ways to engage consumers [1], and fear appeals are becoming increasingly common for their perceived ability to enhance ad engagement [2]. However, much of the research on fear appeals has focused on health communication; their use in commercial contexts has been less explored [3].

Moreover, though fear appeals have been considered a key advertising strategy to influence behaviors and perceptions, their effectiveness is debated in the research context. Some studies support their use, while others report no or even negative effects [4]. Due to fear appeals' highly controversial nature, researchers attempt to further identify factors that influence its effectiveness. Some scholars suggested that individual differences, such as trait variables, may influence responses

to fear appeals [5], while others have noted audience targeting is crucial to enhancing marketing effectiveness [6]. These studies have all shown inconsistent results.

The Extended Parallel Process Model (EPPM) is an acknowledgeable model in explaining fear appeals. It offers insights into individual differences in fear appeal responses but lacks empirical evidence on specific variables like self-esteem [7]. While it mentions self-esteem as a variable, it does not provide empirical evidence. This research aims to examine how self-esteem influences responses to fear appeals in the context of advertising for home security products. An additional aim of this research is to delve into the underlying mechanism of the influence process, using the EPPM as a foundational model.

2. Literature review

Fear appeals are persuasive messages that attempt to arouse fear by stressing the potential danger and harm that will occur to individuals if they do not follow messages' recommendations [8]. As a mood arousal strategy, fear appeals are positively related to affective cognition [9].

Past research has implied individual differences is the key for studying fear appeals. Sternthal and Craig [10] reported only the impact of source and audience ascribes to persuasiveness has produced findings that features uniformity. Since self-esteem is a frequently studied variable in psychology and possesses the capability of being stable over time [11], which also shares the mutual characteristics of being affectively laden with fear appeal ads, this study introduces self-esteem as a variable that might influence the effectiveness of ads.

Self-esteem plays a pivotal role in how individuals evaluate and appraise their own worth [12]. Conceptionally, it is more closely linked to perceptions of others' evaluations of oneself than objective indicators of one's ability or goodness. It has been a key construct in understanding the factors underlying much of human social behavior [13].

Past research has found that low self-esteem subjects have a tendency to display greater amount of conformity than subjects of moderate or high esteem [14]. It has been suggested that people with low-esteem often perceive themselves as different and inferior to others. Hence they are more likely to be accepting of influence [15]. Adding to the previous research work, a study found persuasive messages could be particularly effective on individuals who feel inadequate [16]. Low self-esteem people are susceptible to accepting persuasive attempts, whereas high self-esteem individuals may possess ample confidence to confront them and reject the persuasive content. Studies by Janis and Field [14] and Janis and Rife [17] are in accordance in demonstrating an adverse relationship between self-esteem and persuasibility.

Cohen [18] has suggested a different approach to self-esteem. He believed that people who rate themselves highly in terms of esteem use avoidance defenses, while those who rate themselves poorly make an inclination towards expressive or sensitizing defenses. Evidence for this relationship has been presented by himself [18] and by Coopersmith [19]. On the basis of this view of self-esteem, Cohen has hypothesized that "threatening appeals may be rejected more by those of high self-esteem than those of low self-esteem." An experiment by Goldstein [20] showed that avoiders change more in response to minimal than to high fear appeals also concurred partially with the hypothesis.

According to EPPM, low self-esteem individuals are prone to appraise a message recommendation to be unfeasible and ineffective compared to counterparts [7]. However, the result hadn't gone through any experimental testing.

The literature presents divergent perspectives on the relationship between self-esteem and the effectiveness of fear appeals. On one hand, based on the Extended Parallel Process Model (EPPM),

Witte [7] proposed that individuals with low self-esteem may exhibit lower acceptance of fear appeal messages due to perceived impracticality. On the other hand, foundational social psychology research [14,18] has consistently demonstrated a negative correlation between self-esteem and persuasibility, indicating that individuals with low self-esteem are more easily persuaded. Given the contextual similarity between commercial advertising and the settings of these classic persuasion studies, this research anticipates that the latter relationship will prevail. Therefore, this leads to the following hypothesis:

H1: Fear appeal advertising appears to be most effective to low esteem crowds.

Beyond establishing a direct relationship, this study seeks to understand the mechanism through which self-esteem operates. The EPPM identifies perceived threat as a primary driver of the message processing sequence. The study proposes that self-esteem does not necessarily alter the level of perceived threat but fundamentally changes its impact. For a low-self-esteem individual, a high perceived threat might amplify the need for an external solution, thereby increasing the ad's effectiveness. For a high-self-esteem individual, the same high perceived threat might trigger defensive processes or a sense of invulnerability, thereby diminishing the ad's effectiveness. This leads to the second, mechanism-focused hypothesis:

H2: Self-esteem moderates the relationship between perceived threat and the effectiveness of fear appeal ads.

3. Experiment

3.1. Designs and stimuli

To explore the role of self-esteem in fear appeal advertising, a 2x2 between-subjects design was employed. The conditions were: 1) normal ad vs. low fear ad, and 2) normal ad vs. high fear ad. Self-esteem was the within-subject variable, and the effectiveness of the ads was measured along with perceived threat, susceptibility, and severity. Video advertisements related to home security, sourced from YouTube, were pre-tested on 75 respondents to confirm differences in fear levels. The test confirmed significant differences in perceived fear ($p=0.0099<0.05$).

3.2. Respondents and procedures

Data were collected from 184 respondents at Beijing Normal University via an online survey. After eliminating those familiar with the brands in the ads, 155 valid samples were used. Participants viewed two ads and made a brand decision, followed by assessments on perceived threat, susceptibility, and severity. Respondents were randomly assigned to conditions based on their self-esteem levels.

3.3. Measures

Self-esteem was measured using Rosenberg's 10-item scale ($\alpha = .872$), with a split to categorize participants into low, medium, and high self-esteem. Ad effectiveness was measured in two stages: a multiple-choice question and a 6-point scale ($\alpha = .641$). Perceived threat is measured by a two-item scale of Rousseau [21] ($\alpha = .891$).

4. Result

This study uses SPSSAU (Statistical Product and Service Software Automatically)online data analysis platform to analyze data. Descriptive information about the included studies is shown in Table 1.

Table 1. Descriptive statistics for variables in the study

VARIABLES	Number	Minimum	Maximum	Mean	Standard Deviation	Median
Gender	155	1.000	2.000	1.310	0.464	1.000
Age Group	155	1.000	3.000	2.348	0.554	2.000
Perceived Threat	155	1.000	6.000	3.558	1.395	3.500
Effectiveness	155	-5.000	5.000	0.335	2.453	0.000
Depicted Fear Level	155	1.000	2.000	1.542	0.500	2.000
Self-esteem (Data)	155	3.000	30.000	22.006	5.120	22.000
Selfesteem(Categorized)	155	1.000	3.000	1.813	0.945	1.000

ANOVA (single-factor analysis of variance) is used to study the difference between self-esteem and effectiveness in one item. From table 2, it can be seen that different self-esteem samples all show significance for effectiveness ($p=.046<.05$).

Table 2. ANOVA result

P	Self-esteem(mean±standard deviation)			F
	Medium(n=86)	low(n=12)	high(n=57)	
effectiveness	0.14±2.40	2.00±2.04	0.28±2.51	3.136

* $p<0.05$ ** $p<0.01$

Figure 1 shows the specific comparison of differences. The effectiveness reached a mean of 2 for the low esteem crowd, while the mean nearly approached zero for medium and high esteem crowds. Hypothesis 1 is supported.

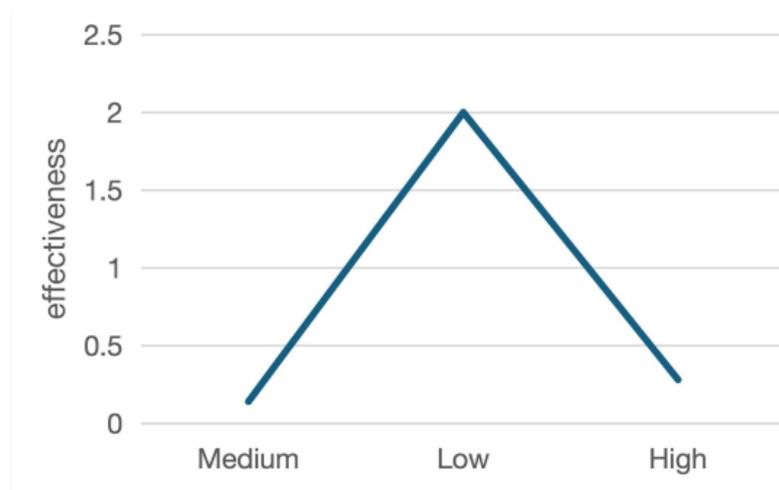


Figure 1. The relationship between self-esteem and effectiveness

The study conducted data-analysis on self-esteem and various variables proposed in the EPPM model and delved into reasons why self-esteem affects the effectiveness of fear appeal ads. It is found that self-esteem serves as a moderator for the relationship between one of the variables in the model named perceived threat and effectiveness of the ad. The interaction term for self-esteem and perceived threat showed statistical significance. $F(5,149)=2.658, p=0.025<0.05$. Hypothesis 2 is supported.

The study conducted two linear regressions to investigate how the moderation was performed. Using the statistics that are from the low-esteem crowd only, the equation: $\text{effectiveness} = -1.758 + 1.203 * \text{perceived threat}$ was formed. A positive influence from perceived threat to the effectiveness of the ad was found. Using the statistics that are from the high esteem crowd only, the equation: $\text{effectiveness} = 0.936 - 0.178 * \text{perceived threat}$ was formed. A negative influence from perceived threat to the effectiveness of the ad was found.

5. Discussions

This study investigates how the differentiation of self-esteem affects the outcome of fear appeal marketing and the relationship between key variables in the EPPM model in a commercial marketing environment.

The results show that fear appeal ads are most effective for low self-esteem groups, but not for medium or high self-esteem groups. This aligns with Janis and Field [14] and Cohen's [18] findings that high self-esteem individuals reject threatening appeals more than low self-esteem individuals. The study contradicts Witte [7], which suggested that low self-esteem individuals may perceive a message as ineffective, while high self-esteem individuals would find it feasible and effective. The empirical finding firmly aligns with a substantial body of historical social psychology research. It corroborates the early work of Janis and Field, who consistently demonstrated a negative relationship between self-esteem and persuasibility. More specifically, it provides strong support for Cohen's hypothesis that threatening appeals are rejected more by those of high self-esteem than those of low self-esteem. The findings situate themselves within the theoretical framework that emphasizes the conformity and defense mechanisms associated with self-esteem, rather than the efficacy appraisal pathway suggested by Witte's EPPM. In the context of a commercial advertisement for a home security product, it appears that the lower confidence and greater suggestibility of low-self-esteem individuals override any potential doubts about their ability to purchase a product, leading to higher persuasibility.

The study found that perceived threat positively influences ad effectiveness when self-esteem is low and negatively when self-esteem is high. This moderating role of self-esteem offers a powerful explanation for the long-standing inconsistencies in fear appeal research. It suggests that collapsing data across all individuals, without regard for self-esteem, can mask these opposing effects, leading to an average finding of "no effect" or "weak effect" that obscures the reality of what is happening within distinct psychological segments. This phenomenon can be interpreted through several interconnected psychological lenses. First, from a motivational perspective, individuals with low self-esteem may interpret the depicted threat as a challenge or an opportunity for self-validation. Engaging with the ad and its proposed solution provides a pathway to alleviate the induced fear and potentially feel more secure, thereby increasing their motivation to process the ad in a positive light. For high-self-esteem individuals, the same threat may be perceived as an unwarranted stressor or an attempt at manipulation, which conflicts with their confident self-view. This can lead to reactance, a motivational state to restore threatened freedoms, resulting in the rejection of the message and a decrease in perceived effectiveness.

Second, the concept of efficacy, though not directly measured here, can be inferred through the lens of conformity. Low-self-esteem individuals have a well-documented tendency toward greater conformity. In the context of an ad, they may be more likely to accept the recommendation provided as a socially endorsed solution to the problem. The ad, in effect, tells them what to do to be safe, satisfying a need for external guidance. The process of accepting this recommendation likely provides a sense of resolution, making the ad feel effective. High-self-esteem individuals, being less conforming, are more likely to critically evaluate and reject external persuasion. When the ad fails to persuade them, they are left with the negative emotional state induced by the threat but without a sense of resolution, leading them to judge the ad as less effective.

Finally, Cohen's proposed defense mechanisms offer a compelling explanation. High-self-esteem individuals, using avoidance defenses, may cognitively refuse to acknowledge the severity or relevance of the threat, thereby dismissing the ad's effectiveness altogether. In contrast, low-self-esteem individuals tend to use sensitizing defenses; they are more willing to openly acknowledge the threat and engage with it affectively. This open engagement with the threat makes them more receptive to the coping strategy proposed in the ad, consequently perceiving the ad as more effective. This moderating effect highlights the complex interplay between cognitive and affective pathways in fear appeal processing, with self-esteem determining the dominant pathway.

The study has limitations. The small sample size of 155 people and lack of sample heterogeneity limit the generalizability of the findings. Future studies should use larger, more diverse samples. Self-esteem categorization could be examined using other methods, and more established measures of fear level and ad effectiveness could improve validity. Advanced analytical techniques could further analyze the data. Future studies can further explore the topic in other fear appeal settings apart from online advertising.

This study implies that self-esteem could be assessed using technology, helping marketers target the right audience and optimize advertising effectiveness. For practitioners, particularly in an era of data-driven marketing, the findings provide a guided direction. The ability to segment audiences based on psychologically relevant traits like self-esteem—potentially inferred through digital behavior and advanced algorithms—could dramatically increase the efficiency of advertising spend. Marketers can optimize their campaigns by strategically targeting fear appeals toward low-self-esteem segments who are most receptive, while developing alternative, less threatening messaging for high-self-esteem segments.

6. Conclusion

The study seeks to establish self-esteem as a robust variable in explaining the effectiveness of video-formed fear appeals commercially with EPPM model. The study found that self-esteem positively affects fear appeal effectiveness for low-esteem crowds. Moreover, self-esteem moderates the relationship between perceived threat and fear appeal effectiveness. These findings make a significant contribution to clarifying the existing research landscape on fear appeals. For academics, the study identified and empirically validated a pivotal individual difference variable that helps reconcile decades of inconsistent results. The study has shown that the question is not simply "Do fear appeals work?" but rather "For whom do fear appeals work, and under what psychological conditions?"

However, the work only used a limited size of sample to conduct data analysis, and the demographic groups are unevenly distributed. Due to restricted ability, the data analysis robustness also needs further examining. Future studies of fear appeals can direct themselves to self-esteem, and expand its scope to include more people in the research process. They can also apply self-

esteem to other commercial contexts. Regardless, this paper proves individual difference like self-esteem should be noted as an important psychological variable in commercial settings. Humans shouldn't be viewed as homogenous subject in research but individuals with vibrant characters that determine research outcomes. By acknowledging and investigating these differences, researchers move closer to a more nuanced, effective, and ethically considered application of persuasive tactics in marketing.

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