Advertising Wearout of Shock-Value Anti-Speeding Ads

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Abstract
An advertising experiment was conducted to test the advertising wearout of four anti-speeding ads, each with varying underlying “patterns” of fear arousal. The patterns of fear were established beforehand by using a dial designed to track viewers’ reactions in terms of tenseness felt. The advertising experiment involved 284 participants from a first-year University marketing class. Four experimental groups were exposed to the same antispeeding ad each week, for three sequential weeks. Measures were obtained, via a questionnaire, of the participants’ attention paid to the ad, expected effect on speeding behaviour, emotions felt, perceptions of the relevance, believability, realism of the ad, and demographic and driving history. The groups comprised participants with homogenous demographic characteristics (with the exception of gender) and driving histories, thus allowing the different mean scores of various effectiveness measures to be attributed to the ads themselves rather than the differences between the participants’ characteristics. Repeated-measures analysis of covariance (ANCOVA) was used to test the results of the advertising experiment. Wearout, in terms of emotions felt (shock, fear and tension), attention paid, and expected speeding behaviour, did occur, with some fear patterns rapidly declining in effect in comparison with the other patterns of fear.

Keywords
anti, speeding, wearout, ads, shock, advertising, value

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Abstract

An advertising experiment was conducted to test the advertising wearout of four anti-speeding ads, each with varying underlying "patterns" of fear arousal. The patterns of fear were established beforehand by using a dial designed to track viewers’ reactions in terms of tenseness felt. The advertising experiment involved 284 participants from a first-year University marketing class. Four experimental groups were exposed to the same anti-speeding ad each week, for three sequential weeks. Measures were obtained, via a questionnaire, of the participants’ attention paid to the ad, expected effect on speeding behaviour, emotions felt, perceptions of the relevance, believability, realism of the ad, and demographic and driving history. The groups comprised participants with homogenous demographic characteristics (with the exception of gender) and driving histories, thus allowing the different mean scores of various effectiveness measures to be attributed to the ads themselves rather than the differences between the participants’ characteristics. Repeated-measures analysis of covariance (ANCOVA) was used to test the results of the advertising experiment. Wearout, in terms of emotions felt (shock, fear and tension), attention paid, and expected speeding behaviour, did occur, with some fear patterns rapidly declining in effect in comparison with the other patterns of fear.

Introduction

Advertising wearout, that is, “the point of diminishing returns in the desired effects for the ad or campaign” (Scott and Solomon 1998, p.19), is very important to commercial companies and there have been numerous studies (Henderson Blair and Rabuck 1998: Pechmann and Stewart 1988) that have investigated wearout of advertising for general products and services. The measures used for wearout in these previous studies included sales, purchase intent, awareness, recall, persuasion, reminder potential and competitive imagery (Scott and Solomon 1998). When studying advertising wearout in social marketing, different measures of wearout apply, such as expected changes in social behaviour rather than buying behaviour. This study examines the issue of advertising wearout in the context of anti-speeding advertising for two major reasons. First, speeding is a major behavioural problem causing major injuries and deaths on Australian roads particularly for young drivers (Scully 1999), and second, the wearout of shock-value anti-speeding advertisements has received minimal attention by previous researchers.

Literature Review

Hughes (1992, p61) defines wearout as “a reduction in subjects’ favourable responses after repeated exposures to a message”. A favourable response from the social marketer's perspective, in relation to shock value ads, is that the target audience does feel fear, and as a result of this feeling, does intend to adopt the promoted behaviour. There are several types of wearout. Wearout can occur because of diminished attention, learning (interference), or
acceptance (overexposure) (Rossiter and Percy 1997). Emotion wearout also occurs and is particularly important for social marketing advertisements as the issues or causes being promoted largely rely on emotions to motivate the target audience to act in a socially desirable way. Action measures of wearout can be used (Stewart 1999); for example, brand choice after ad exposure, or in the instance of anti-speeding ads, speed choice.

For many years research on fear appeals has used classifications according to a level (low, medium or high), or intensity (weak or strong), of fear. The fear patterning proposition suggests that is in not an amount of fear that drives attitude change or behaviour change, it is the sequence of fear felt by the audience which will determine the effectiveness of an ad (see below). Job (1988, p.196) mentions that “the ideal study would involve continuous monitoring of fear throughout the study”. It could be that a rising fear or late shock pattern, which leaves the audience feeling very strongly aroused, may cause the audience to minimise the importance of the threat, or ignore the threat entirely, as a coping mechanism (Janis, 1967: Roger 1983). A fear pattern such as fear then relief could still increase fear to a significant level but would also provide recommendations to the audience and avoid these resistance problems. Two hypotheses will be tested in this study.

H₁: A rising fear pattern will have a faster rate of emotion and attention wearout than ads using other fear patterns.
H₂: A fear-relief pattern will be more effective (in terms of expected changes in speeding behaviour and VST measure) than ads using other fear patterns.

**Methodology**

An advertising experiment was undertaken at an Australian university using first-year marketing students as participants. Four anti-speeding advertisements were chosen from ads made by the Victorian and Western Australian road safety authorities, and were all of similar production quality. Each had the common theme of speeding in local streets and hitting pedestrians as a result of speeding. The first ad (fear-relief double), showed a pedestrian being hit by a speeding car, a surgeon then provides commentary, while the visuals are the slow motion effect of the pedestrian’s body being hit by the car. The second ad (late shock) showed children riding tricycles on a driveway, a child then rides his tricycle onto the road and is hit by a speeding motorist. The third ad (fear-relief double escalating) showed three different speeding scenarios: avoiding; frightening; then hitting the pedestrian. The fourth ad (rising fear) showed a driver speeding along local streets and running over a child.

Machleit and Wilson (1988, p.27) note that researchers should also “consider the emotional feelings experienced during ad exposure”. A fear patterning dial and program was designed to develop a more valid measure of fear which would capture viewers’ reactions, when viewing the entire ad, in terms of tenseness felt (rather than asking participants at the very end of the ad for an overall rating of tenseness). Thirty participants, of a similar age group and education level to those in the advertising experiment, watched the advertisements. Three different rotations of the ads were used. A few outlier recordings were deleted from the sample and then average scores for each ad were used to form graphs of the patterns of fear. Figure 1 demonstrates that there are different patterns of reported fear (tension) taking place when viewers are watching these anti-speeding ads that use fear and shock tactics: Ad 1 (fear-relief double), Ad 2 (late shock), Ad 3 (fear-relief double escalating), Ad 4 (rising fear).
A post-only monadic experimental design was used for the study as the researchers did not want to sensitisce the audience. A total of 284 participants took part in the experiment, in 4 classroom groups. For three consecutive weeks each group viewed one ad (the same ad) per week and then completed a questionnaire pertaining to the ad after each viewing session. Wearout experiments for commercial products and services often involve a behavioural measure of brand choice before and after ad exposure. Stewart (1999) proposed that behavioural measures have greater sensitivity than verbal measures. In the final week of the experiment a behavioural dependent variable of a driving simulation video was included in the study. The Video Speed Test (VST) (Horswill and McKenna 1999) involved participants indicating their “speed choice” by watching a video of 7 driving scenarios and responding by stating how much faster or slower (if at all) they would drive in the same situation. Data had been previously collected from a control group which had not been exposed to an anti-speeding ad just prior to undertaking the test.

Findings

Table 1 provides a summary of the various demographic and driving characteristics of the participants of the study. Chi-square and analysis of variance (ANOVA) were undertaken, which determined that each of the experimental groups were not statistically significantly different in terms of their average age, years of driving experience, regularity of driving, and speeding history and behaviour. The ads did not differ in terms of the ad execution variables of realism, believability, ability to convince, and relatedness to the target audience. However, the groups did differ by gender, with groups 3 and 4 containing a significantly greater proportion of females. A split sample by gender was therefore conducted in the ANOVAs.
Table 1 – Profile of Participants and Control Variables

<table>
<thead>
<tr>
<th></th>
<th>Ad 1 (fear-relief double)</th>
<th>Ad 2 (late)</th>
<th>Ad 3 (fear-relief escalating)</th>
<th>Ad 4 (rising)</th>
<th>F value</th>
<th>Chi-square</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>96</td>
<td>55</td>
<td>54</td>
<td>79</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Average age</td>
<td>20</td>
<td>20</td>
<td>19</td>
<td>20</td>
<td>2.102</td>
<td>---</td>
<td>0.101</td>
</tr>
<tr>
<td>Age range</td>
<td>17-30</td>
<td>17-26</td>
<td>17-27</td>
<td>17-27</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Avg yrs of driving</td>
<td>3.5</td>
<td>3.3</td>
<td>3.0</td>
<td>3.1</td>
<td>0.865</td>
<td>---</td>
<td>0.460</td>
</tr>
<tr>
<td>Gender (Male %)</td>
<td>52%</td>
<td>57%</td>
<td>37%</td>
<td>38%</td>
<td>---</td>
<td>7.914</td>
<td>0.050</td>
</tr>
<tr>
<td>Speeding fine</td>
<td>27%</td>
<td>36%</td>
<td>21%</td>
<td>22%</td>
<td>---</td>
<td>3.371</td>
<td>0.338</td>
</tr>
<tr>
<td>Regularity of driving</td>
<td>56%</td>
<td>69%</td>
<td>54%</td>
<td>69%</td>
<td>---</td>
<td>9.475</td>
<td>0.149</td>
</tr>
<tr>
<td>Likelihood of speeding</td>
<td>2.30</td>
<td>2.33</td>
<td>2.45</td>
<td>2.50</td>
<td>2.020</td>
<td>---</td>
<td>0.112</td>
</tr>
<tr>
<td>Realistic</td>
<td>2.54</td>
<td>2.45</td>
<td>2.55</td>
<td>2.57</td>
<td>0.539</td>
<td>---</td>
<td>0.656</td>
</tr>
<tr>
<td>Believable</td>
<td>2.60</td>
<td>2.57</td>
<td>2.51</td>
<td>2.57</td>
<td>0.345</td>
<td>---</td>
<td>0.793</td>
</tr>
<tr>
<td>Convincing</td>
<td>2.65</td>
<td>2.74</td>
<td>2.60</td>
<td>2.68</td>
<td>0.723</td>
<td>---</td>
<td>0.539</td>
</tr>
<tr>
<td>Relate to driver</td>
<td>.51</td>
<td>.48</td>
<td>.36</td>
<td>.49</td>
<td>0.108</td>
<td>---</td>
<td>0.995</td>
</tr>
<tr>
<td>Relate to situation</td>
<td>.68</td>
<td>.52</td>
<td>.49</td>
<td>.28</td>
<td>0.885</td>
<td>---</td>
<td>0.465</td>
</tr>
<tr>
<td>Seen the ad before</td>
<td>5.0%</td>
<td>3.8%</td>
<td>4.0%</td>
<td>3.2%</td>
<td>n/a</td>
<td>---</td>
<td>-----</td>
</tr>
</tbody>
</table>

Figures 2 to 4 show the wearout of attention, fear and shock. In the first week Ad 4 (rising fear) had the highest level of fear, while Ad 2 (late shock) had the highest recording of shock. Each of the ads decreased in fear and shock by the 3rd weekly exposure. Repeated measures ANOVA found that attention wearout occurred (F=13.874, Sig=.000), with Ads 2 and 4 (no relief) having a faster rate of attention wearout than Ads 1 and 3 (relief).

The VST measure of speed choice (after the 3rd exposure) showed significant differences between ads (F=2.991, Sig=0.033). The VST mean scores by gender are reported due to the larger proportion of females in groups 3 and 4. The control group’s average score was +6.1km/hr (male=7.4, female =4.9). Ad 2 (mean=+6.5km/hr; m=8.0 , f=4.9) resulted in the highest VST speed, despite receiving the highest scores for evoking fear and shock. Ad 2 was significantly different to Ads 1 (+4.4km/hr; m=5.4, f=3.2) and 3 (+3.3km/hr; m=5.1, f=2.6), but not to Ad 4 (+5.0km/hr; m=7.1, f=3.9) (rising fear). Ad 3 (fear-relief double escalating) and Ad 1 (fear-relief double) were more persuasive ads in terms of reduced speed.
Discussion and Implications

Emotion and attention wearout occurred immediately for all fear patterns, while persuasiveness of each of the ads, in terms of reduction in speeding behaviour, was highest for the fear-relief ads. La Tour and Zahra (1989) believe that when a solution is provided to the audience to overcome, or cope with, the threat posed in the ad, it is a form of fear reduction. Ad 1 (fear-relief double) did provide a solution, reflected in the downward slope of the line at the end of the ad (see Figure 1), whereas all other ads left the viewer feeling quite tense. In the early stages of Ad 3 (fear-relief double escalating) there were solutions provided to the viewer. The findings of this study suggest that road safety authorities should pretest their ads over multiple exposures for wearout, and consider a pattern of fear, as opposed to a level of fear when designing their ads.

Limitations and Suggestions for Future Research

A controlled experiment allows for the effects of an individual ad to be measured rather than trying to measure wearout in the context of advertising campaigns and other real-life influences. However, the use of an experiment can be criticised for its superficial setting; for example, in this study, subjects paid absolute attention to the ad whereas in the real-life situation of watching TV at home, they may not have attended to the ad to the same extent. We believe that 3 experimental advertising exposures would be equivalent to approximately 9 exposures in home viewing situations (Rossiter and Percy 1997), with the results of this study showing that even with forced exposure to the ads there was a decline in the attention paid to the ads over the 3 weeks. Internal validity was of greater importance to the researchers as this experiment was mainly a test of the fear patterning theory. The age of the students does directly correspond with the high risk category of road users; however, their higher levels of education prevent the group from being representative of Australia's young driving population.

Further development of the fear patterning theory is required. More anti-speeding ads need to be patterned and tested, which should overcome the issue of whether it may be variations in ad executions, rather than the fear patterns, influencing the outcome measures. Additionally, a more representative sample of drivers is required to improve the external validity of the findings.

Conclusion

This study has shown that underlying patterns of fear do exist for different anti-speeding advertisements. It was found, in contrary to hypothesis 1, that the fear pattern of late shock (Ad 2) had the highest wearout of shock and fear, while the fear-relief double (ad 1) had the highest wearout of tension. The behavioural measure of speed choice found the fear-relief pattern to be most effective, hence supporting hypothesis 2 of the study.
References


