

AperTO - Archivio Istituzionale Open Access dell'Università di Torino

**Fear appeals in social marketing: The case of anti-speeding video advertisement “Mistakes”**

**This is a pre print version of the following article:**

*Original Citation:*

*Availability:*

This version is available <http://hdl.handle.net/2318/1641091> since 2022-09-30T10:01:31Z

*Published version:*

DOI:10.1362/147539217X14909732699480

*Terms of use:*

Open Access

Anyone can freely access the full text of works made available as "Open Access". Works made available under a Creative Commons license can be used according to the terms and conditions of said license. Use of all other works requires consent of the right holder (author or publisher) if not exempted from copyright protection by the applicable law.

(Article begins on next page)

# FEAR APPEALS IN SOCIAL MARKETING: THE CASE OF ANTI-SPEEDING VIDEO ADVERTISEMENTS “MISTAKES”

Giachino, Chiara<sup>1</sup>; Stupino, Margherita<sup>2</sup>; Petrarulo, Gabriella<sup>3</sup>; Bertoldi, Bernardo<sup>4</sup>

<sup>1</sup>Department of Management, University of Turin, Turin, Italy, [chiara.giachino@unito.it](mailto:chiara.giachino@unito.it)

<sup>2</sup>Department of Management, University of Turin, Turin, Italy, [margherita.stupino@unito.it](mailto:margherita.stupino@unito.it)

<sup>3</sup>Escp-EUROPE, Turin Campus, Turin, Italy, [gabriella.petrarulo@gmail.com](mailto:gabriella.petrarulo@gmail.com)

<sup>4</sup>Department of Management, University of Turin, Turin, Italy, [bernardo.bertoldi@unito.it](mailto:bernardo.bertoldi@unito.it)

## Abstract

Nowadays various emotional stimuli are used as communication strategies and, more specifically, one kind of emotional advertising has become particularly popular: fear appeals.

Even if many writers have discussed on the topic, developing several reaction models, some contradictions still exist.

Starting from the existing literature, the goal of this research is to prove the effectiveness of such communication tool through the analysis of a road-safety advertisement.

The results show a general efficiency of fear-based approaches in the reduction of high speed in driving, several major constraints of the video advertisement considered and how health organizations might improve safety campaigns.

**Keywords:** *Emotional Marketing, fear, positive emotion, consumer behaviour, companies behaviour.*

## **Introduction**

The interaction of emotion and condition in reacting to advertising messages is a dynamic and intricate phenomenon. Always more, in the communication field, advertisements are created with a specific emotional content that is characterized by the co-presence of different strong emotionally stimuli used with the purpose of motivating individuals to make changes in attitude. Among these stimuli, particular attention has been lately paid on fear communication, extremely common in health campaigns.

Fear appeals are extremely complex messages with multiple emotional characteristics. Their main purpose is to get to the desired cognitive reaction on consumers by appealing to the natural feeling state of fear, an emotional response related to the persons' perception of a possible threat. Thanks to the intensity of the involvement which they create in the audience, fear appeals have been used always more as a communication tactic to convey certain messages to the public, in particular on topics related to public or personal welfare.

With this paper, the purpose of the authors is to analyze the possible effects which may arouse from the audience exposure to these various emotional stimuli, and in particular to understand the rational about cognitive responses to the emotion of fear on social marketing concerns.

The research, supported by a case study, will then try to give a proof of the effectiveness of this emotional communication tool by analyzing the responses of a specific target to fear media campaign.

## **Literature Review**

Fear is a primitive, natural emotional response composed of two dimensions, physiological and psychological, which may arouse when an individual perceives a threat as serious and personally relevant (Witte, 1994). This emotional state, to which no human being is immune, has been described as a maximal state of insecurity and derives from people's uncertainty on what will be the best decision to make and whether they will be able to avoid or escape from the elicited danger (Turner & Ortony, 1990). Since the reaction arising from fear is quite capable of provoking attitudinal and behavioral changes, several advertising campaigns have been using this feeling as leverage in order to move the audience toward desired actions in different contexts. Marketers have been exploited this persuasive form of communication by taking advantage of the relationship between the danger evoked and the personal response produced by its representation.



## ***The Use Of Fear In Marketing: Fear Appeals***

Before considering the variety of contexts in which they can be applied, we can firstly define fear appeals by referring to their two main features: a) the content and the structure of their message and b) the audience response they hope for. Regarding the content of the message, many authors referred to a first distinction, elaborated in the previous literature by Schoenbachler and Whittler (1996), which used as determiner the “object” that it would have been affected by the threat represented in the advertisement. Thus, considering this classification, fear appeals can be divided into physical or social, depending on the nature of menace they represent, which might act on the body of the person (as for instance health consequences as cancer or death), or on the individual’s social acceptance. This division, which is proven to be useful in determining which variables should be used for different targets, is however not exhaustive, as some physical negative outcomes can also lead to issues in social acceptance (e.g. mouth cancer, destruction of tissues, etc.).

Consequently, it would be more accurate to refer to the analysis of Jones and Leary (1994), who outlined two other possible categories: appearance-based ads and health-based ads. This classification, which refers to which might be the most important concern for the person, allows to better analyze the effectiveness of a fear advertisement in terms of the content used to convey a message.

In addition to the elements considered above, there is another important element on which it is essential to carefully reflect while creating a message for a specific audience: the level of fear that has to be introduced in the ad. Referring to this subject, many authors in the past decades wrote academic reviews, proposing different models regarding the optimal “amount” of fear in the campaigns.

A first consideration on this theme can be found in early studies of 1960 in which the experiment outcomes showed that the greater the amount of fear, the lower the effect on behavior, which means that arousing too much tension in the audience would have not been effective (Myers & Reynolds, 1967). This conclusion on the negative relation between fear and effect doesn’t find any confirm in latter works which focus on two different alternatives: a positive relation of the two variables; a curvilinear explanation.

In support of the first alternative, i.e. the positive correlation, we can find many relevant works in which various authors stated that the rapport between emotional fear response and persuasion is generally positive and linear. The general finding is that increases in fear can be linked to major change in attitude or behavior in a consistently manner (Sutton, 1992).

On the other side, the curvilinear explanation better helps to explain the possible range of reactions that might be provoked in response to a determined fear representation. This theory, which is mainly based on the work of Ray and Wilkie (1970), states that there is an optimal level of fear which lies in between the two extremes.

Together with the considerations on the right amount of fear, a properly defined message structure is necessary in order to obtain the wished outcome. A first important one is a basis from which each fear ad should start in order to be consistent and effective. This lies on the presence of two essential elements: the representation of a threat, severe and relevant for the audience (e.g. contraction of HIV which can lead to death) so as to arouse fear; and the illustration of a possible safe solution, which can lead to the neutralization of the threat and which can be easily implemented (e.g. use of condoms reduce the risk of contracting HIV).

Both components should be clear enough in order to induce a greater impact on the consumer's mind.

Another essential requisite for the success of the appeal is realism in the representation of the possible damages and threats that can occur in case of compliance with the unsafe behavior. The more realistic this representation, the more the personalization of the audience in the described scene and thus the greater the fear aroused. This factor can be considered together with the credibility of the appeal that lies on the representation of the dangerous situation. It has been proved, in effect, that when the source is specified (e.g. British Heart Foundation, American Association of Cancer Research) the audience is more likely to pay its attention to the message and to get touched by the threat represented.

Perceived threat includes other two components, which are the susceptibility of the menace (i.e. how much the individual believes that the danger refers to him) and also its severity (i.e. how impacting would be on the person) while perceived efficacy refers to the ability of the individual to deal with the aroused problem. Fear appeals results more effective when the message is structured in order to have these two variables perceived as high by the customer (Lennon, Rentfro, & O'Leary, 2010).

Besides being subject to the content and the structure of the message, the effectiveness of a fear appeal can be determined by the target audience to which the advertisement is addressed. Although in this branch of communication individualism is even more accentuated than in other marketing domains, because of the complexity of the psychological response of fear which is influenced by personal beliefs and experiences, an accurate segmentation would allow marketers to reach higher levels of success in the development of the campaign.

The segmenting approach, which takes its basis from the previous assumptions on the message structure, should include four typical and common marketing variables in order to be effective - demography, personality, usage/relevance, socioeconomic factors – and some reactions - guilt, shame, disgust, resistance response, maladaptive coping responses, boomerang effect - (Haefner and Singer 1965; Ray & Wilkie, 1970; Kantrowitz, 1987; Lazarus, 1991; Witte, 1992; Brennan and Binney, 2010; Wu and Fitzsimons 2012).

Several authors have supposed that when people are pushed to change their behavior, they might perceive a constraint to their personal freedom. Feeling this menace to their autonomy, people would be then attracted to the negative attitude even more than before being exposed to the ad. An example can be given by the results of a campaign whose aim was to reduce the tobacco consumption among college students: the researcher not only found that the smokers' response was anger and avoidance, but the study also reported that the appeal increased their desire to smoke a cigarette just after having viewed the ad, while on the other side, the campaign strengthened the non-smokers decision (Wolburg, 2006).

### ***Fear Appeals In Social Marketing***

With the term “Social Marketing” economists refer to that branch of marketing which seeks to develop communication concepts with the goal of encouraging behaviors that, since socially relevant, will translate in a greater social good.

Nowadays the trend in the use of social marketing for public associations and governments is continually increasing even if certain worries about its effectiveness still exist (Rothschild, 2005).

Several studies on compliant attitudes have been recently done and the general findings state that essential requisites to encourage these attitudes were clear regulations, a strong sense of duty and a concern for the social environment (May, 2005). Compliancy refers to a behavior in line with institutional rules, and, since we act in a regulated framework, people are well aware of the legal consequences that may arise from not complying with these rules (e.g. penalties, fines or legal actions) (Harvey & McCrohan, 1988). Because of this observation it is still unclear if it is right to use the expression “voluntary” when referring to compliant behavior or if the attitude is just the result of a list of specific norms.

In order to solve the above described “voluntary” issue, marketers have developed structured appeals in which the focus is on representing the desired behavior as something which is also individually valuable for the person. Thus, clarity is a major requirement for these

advertisements, as individuals should clearly see the possible benefit they might have as a consequence of the aimed behavior. This benefit can be represented by the avoidance of negative situation or the achievement of a personal success, depending on the nature of the message. In facts, as for product purposes, appeals may be positive or negative depending on the feelings they try to provoke in the audience. Even if various authors wrote and debate on the topic of the relationship among emotions and behavior compliance, the link between the intention and the effective change in attitude is still a problematic issue as results have been ambiguous and contradictory (Chandon, 2004). Notwithstanding these complications, emotional appeals achieved resounding success in social marketing, as they have been used always more in the last decade. In particular, many attention has been given to negative appeals, on which social marketing have been focused in order to convey messages for behavior compliance (Brennan & Binney, 2010).

The goal of these appeals is to create a sense of discomfort in the audience which will be therefore more motivated to react, in order to reduce the aroused negative feeling. The possible solution to this threat is then “revealed” by the ad and represents the desired compliant behavior which people should adopt. As already mentioned in the first part of this essay, the most popular negative emotion used in these appeals is fear, on which several campaigns are still based. Anyway, since the audience is getting used to this particular kind of messages, the trend is moving towards more complex ads, created with the interaction of many negative and positive emotions and which aim to a deeper cognitive response.

### ***The Case Of Anti-Speeding Video Advertisements “Mistakes”***

Recently, many advertisements and social marketing campaigns have been created with the goal to increase the awareness on a topic not so considered in the previous years: speeding. Speeding, which can be defined as exceeding legal limits, driving too fast, or racing, is a dangerous driving behavior that causes an impressive number of car accidents every year (GHSA, 2013). One out of three traffic deaths is, in facts, related to this issue and this is the reason why many road safety associations are focusing always more on this topic, trying to reduce its relevant impact.

There are several countermeasures used to combat speeding, and the most common one is represented by the employment of strong communication, through advertising campaigns on every channel and media (e.g. YouTube, TV). Furthermore, an effort has been made also by motor vehicle manufacturers, which have been encouraged to reshape their television spots in



order to focus more on safety rather than on speed. The goal is to increase the awareness of the possible negative consequences of this risky behavior and to persuade people to “slow down”. Generally, these road safety video ads have mostly relied upon the use of negative emotions and in particular on fear-based approaches (Lewis, Watson, & White, 2009). The structure implemented to achieve the effectiveness of the ad, is typically characterized by the introduction of the possible negative outcome (e.g. car crash) deriving from the risky driving behavior and by the latter presentation of the driving attitude that would have had permit to avoid the undesired situation (i.e. respecting speed limits).

This fear-based approach is still the most used for this topic and many studies have been focused on the possible success of using just fear, without the typical interaction with positive emotions, such as relief. Anyway the trend is to go on the opposite direction and this is the reason why we assist to an increase of complex emotional ads, whose aim is to create a complete cognitive response.

In order to analyze the real effectiveness of these safety campaigns, the research focused on a single case, which has been considered as the starting point of the analysis. The example chosen is the New Zealander ad “Mistakes” which became viral with more than 9 billion views on YouTube. This campaign, launched on January 2014, let drivers think about other road users in order to make them choose a moderate speed which could avoid the consequences of other drivers’ mistakes.

The 60 seconds impressing video shows a conversation of two drivers which are about to crash because of a mistake. The video starts with one man seeing another vehicle coming from the right. Believing to have enough time to move, he decides not to respect the stop signal and proceeds. The other driver, aware of his speed, gets scared and tries to slow down. In this moment time stops and the two men exit their cars and start talking. The one who didn’t respect the signal apologizes but the other driver is already excusing himself because unable to stop. The first man is confused and pleads for the safety of his son in the backseat but it’s too late: the second one just says he’s sorry and that he is going too fast to stop in time. Unable to alter the outcome, both drivers return to their cars and a shot is taken on the speedometer which reads more than 100/km per hour. Real-time suddenly returns and as the father looks worried at his son in the backseat the two cars crash impacting him directly.

The particularity of “Mistakes” lies in the different approach used for the crash representation, which is not shocking and unexpected like in the typical road safety advertisements. In facts here the accident is not sudden and unpredicted, but it is already anticipated as the audience already knows that there is going to be a collision. Anyway, the sense of tension is aroused

through the use of time, since when the two men are talking and the time stops, people are encouraged to feel that there might be a solution to the feared result and aims for it. And it's in this moment that people get involved, as they struggle to get to the safety option.

Thanks to this peculiarity, the video reached an impressive visual impact, becoming one of the most viewed videos of 2014 and passing every other type of broadcasted speeding ad.

Starting from this impacting video, the following analysis focuses on its immediate effects in changing speeding attitude of a selected group of Italian students.

In order to prove the effectiveness of fear appeal ads on unsafe driving, the authors have conducted a small research on a sample of 20 Italian students (10 males and 10 females) of an age comprised between 20 and 30 years old. This experiment has been performed in a two months period time with the use of a mobile application, "Road Rider", in order to calculate the maximal speed of the students in driving. All students are frequent drivers and used their vehicles in the city of Turin (highest speed limit: 70Km/h) each day from Monday to Friday.

## **Methodology and Hypotheses**

The analysis has been performed with the use of a shared excel file on Dropbox for all the length of the research. The period time can be divided in two parts, referring to each month. In month 1, all 20 students have been asked to download the app on their smartphone and to report the maximal speed reached each day on the shared excel file. Students were asked to state if the car was used outside the city in order to compare each value with the proper speed limits. An average of the maximal weekly speed was then calculated for each person. This first part of the process was essential in order to have a range of non-influenced values as benchmark.

<b>MONTH 1</b>	<b>Week1</b>	<b>Week 2</b>	<b>Week 3</b>	<b>Week 4</b>	<b>Month Average</b>
<b>FEMALES</b>					
Elena S.	84	82	85	86	<b>84,25</b>
Cecilia Al.	68	70	67	65	<b>67,5</b>
Cecilia Av.	71	70	73	70	<b>71</b>
Isabella C.	77	76	74	73	<b>75</b>
Francesca V.	82	82	83	82	<b>82,25</b>
Eleonora P.	76	75	74	72	<b>74,25</b>
Elisa R.	65	67	65	60	<b>64,25</b>
Antonella R.	80	81	83	82	<b>81,5</b>
Eleonora C.	78	77	76	74	<b>76,25</b>
Sabrina B.	75	76	76	74	<b>75,25</b>
<b>MALES</b>					
Andrea P.	94	89	91	95	<b>92,25</b>
Claudio P.	88	86	85	87	<b>86,5</b>
Federico F.	95	92	90	98	<b>93,75</b>
Fabio C.	86	84	85	82	<b>84,25</b>
Edoardo R.	81	84	82	78	<b>81,25</b>
Lorenzo P.	78	80	76	75	<b>77,25</b>
Francesco C.	76	75	75	73	<b>74,75</b>
Francesco A.	95	92	90	100	<b>94,25</b>
Giovanni P.	86	84	85	82	<b>84,25</b>
Michele R.	89	90	87	90	<b>89</b>

*Table 1: Records of Month 1 – “Mistakes”*

This table reports the results of the first month of the analysis during which the participants have not been exposed to the advertisement (data are in Km/h). All the numbers in the columns represent the average maximum speed of each week and at the end of the month an average is calculated for all four weeks. These values can be considered as the starting point of the evaluation, as they represent data without the ads influence.

Then, during the last week of month 1 and during all month 2, the participants have been exposed to the anti-speeding commercial. The frequency was supposed to decrease after the first exposure and therefore the video has been showed to them three times during the first week, and then two times the following weeks, approximately at evening. At the first exposure, students were asked to watch it at home on their computer on YouTube and then to answer to three questions related to the emotions that aroused after watching it. Then, as for the previous month, participants were asked to keep recording their speeding values for the following days. Referring to the previous discussed literature on fear appeals and on similar case studies, there were few expectations on the results of this analysis.

A first one related to the general effectiveness of the ad and on the reaction of the students. Considering the previous expectations on the relation among the level of emotion aroused and the relevance for the audience, the assumption was a slight reaction of the 20 participants, derived from their status of frequent drivers. This reaction was expected to be more evident after the first exposure to the video, due to its novelty and to the surprise effect, and to decrease

during the weeks. This supposition is consistent with precedent experiments since, as already proven in many studies, the more the exposure the less the effect.

The second hypothesis referred to how the reactions would have been influenced by the sex of the participants. In fact, as already outlined in the first part of this essay, the audience greatly influences the effectiveness of an appeal and, in this particular case, the determiner is represented by demographic circumstances. Starting from the driving attitudes of young drivers, the expectation was that females would have reacted more than males, and therefore that the commercial would be more effective for girls rather than for men. This assumption finds its roots in the riskier male driving behavior, which is confirmed also by the pricing policy of insurance companies, as young males are classified as the riskiest category.

## **Results and Findings**

The results of the analysis are reported in the table below (all data are in Km/h).

MONTH 2	Week 1	Week 2	Week 3	Week 4	Month Average
<b>FEMALES</b>					
Elena S.	83	82	83	86	<b>83,5</b>
	-3%	-1%	1%	4%	-1%
Cecilia Al.	64	63	65	66	<b>64,5</b>
	-2%	-2%	3%	2%	-4%
Cecilia Av.	68	67	69	71	<b>68,75</b>
	-3%	-1%	3%	3%	-3%
Isabella C.	72	72	74	75	<b>73,25</b>
	-1%	0%	3%	1%	-2%
Francesca V.	81	80	83	83	<b>81,75</b>
	-1%	-1%	4%	0%	-1%
Eleonora P.	71	70	73	74	<b>72</b>
	-1%	-1%	4%	1%	-3%
Elisa R.	57	56	57	60	<b>57,5</b>
	-5%	-2%	2%	5%	-11%
Antonella R.	81	80	81	82	<b>81</b>
	-1%	-1%	1%	1%	-1%
Eleonora C.	73	72	75	78	<b>74,5</b>
	-1%	-1%	4%	4%	-2%
Sabrina B.	73	72	74	76	<b>73,75</b>
	-1%	-1%	3%	3%	-2%
<b>MALES</b>					
Andrea P.	93	90	92	92	<b>91,75</b>
	-2%	-3%	2%	0%	-1%
Claudio P.	86	85	85	87	<b>85,75</b>
	-1%	-1%	0%	2%	-1%
Federico F.	101	102	100	98	<b>100,25</b>
	3%	1%	-2%	-2%	7%
Fabio C.	81	80	83	85	<b>82,25</b>
	-1%	-1%	4%	2%	-2%
Edoardo R.	77	76	78	80	<b>77,75</b>
	-1%	-1%	3%	3%	-4%
Lorenzo P.	74	73	74	75	<b>74</b>
	-1%	-1%	1%	1%	-4%
Francesco C.	72	71	72	74	<b>72,25</b>
	-1%	-1%	1%	3%	-3%
Francesco A.	102	101	99	99	<b>100,25</b>
	2%	-1%	-2%	0%	6%
Giovanni P.	81	80	83	85	<b>82,25</b>
	-1%	-1%	4%	2%	-2%
Michele R.	89	88	87	88	<b>88</b>
	-1%	-1%	-1%	1%	-1%

Table 2: Records of Months 2 – “Mistakes”

This table represents the results of Month 2 for the advertisement. A line has been added after each participant and shows the change in percentage of the maximal average speed with the previous week. The percentage in the last column refers to the change between the average of Month 2 compared to Month 1.

As it can be clearly seen in the lines, the exposure to the ad resulted in an overall positive effect, with the reduction of the monthly maximal speed average. In fact, considering the 20 participants, 18 of them reacted in the aimed way and reduced their speed as expected (percentages highlighted in green). Starting from this positive finding, which validates the effects of the videos, it is possible to analyze the other hypothesis assumed before.

For what it concerns the second assumption, regarding the differences among the reactions of men and women, the prediction was a diverse reaction to the advertisement and this has been confirmed by this case study. In facts, it can be noticed that the percentage reductions of women are significantly higher than the ones of men and this lies on their diverse attitude to fast driving. This finding is also consistent with the study of Lewis, Watson and Tay (2006) that focused their research on the different impact of gender to a reaction to road safety advertisements. The results, in facts, suggested that female were more influenced than men by threats on possible physical harms and therefore that these kinds of ads would have had a greater impact on them.

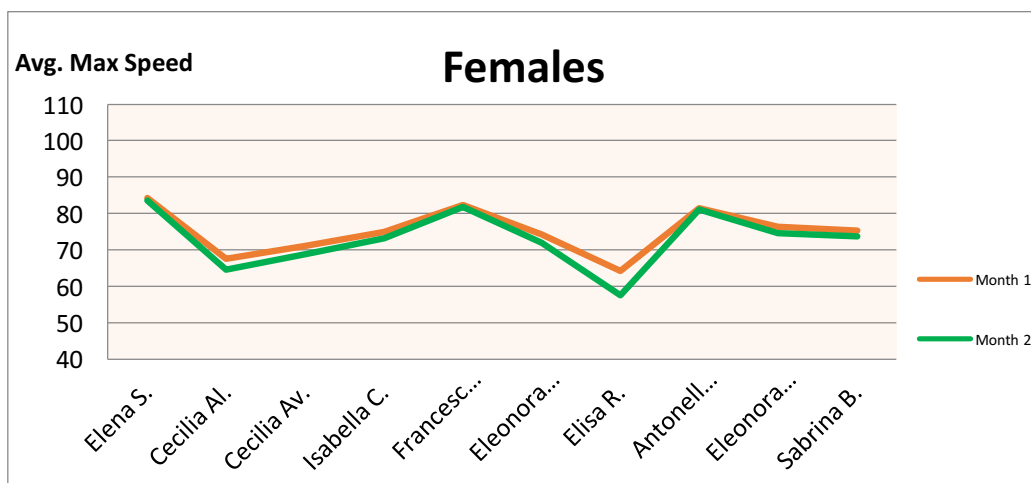
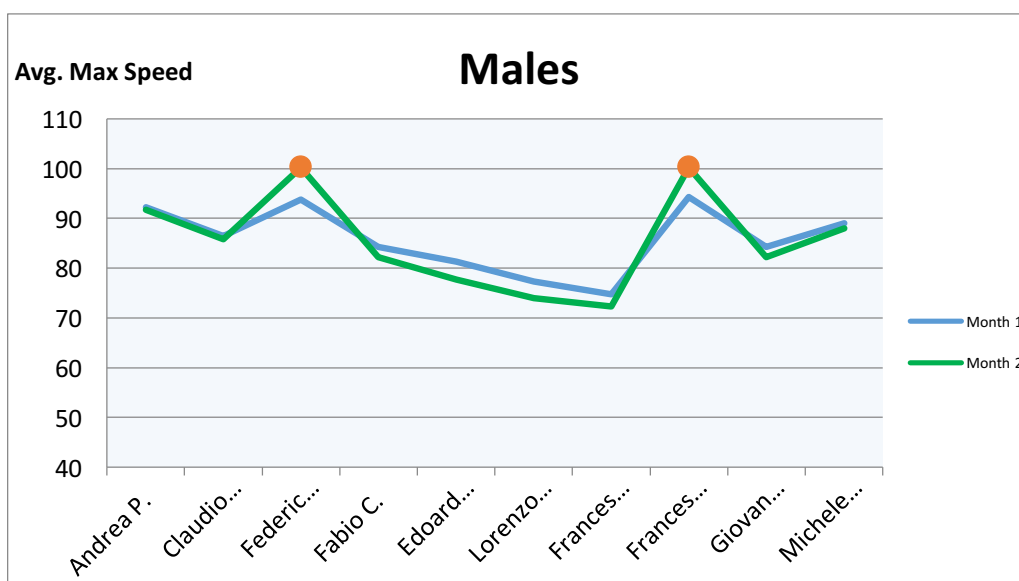


Table 3: Records Females Months 1 vs 2



*Table 4: Records Males Months 1 vs 2*

Another interesting finding of this experiment has been noticed looking at two atypical reactions: the positive changes in percentage among men (highlighted in red on the table). In fact, instead of reducing their speed, two male participants acted differently and drove even faster. This is a clear example of the so-called “boomerang effect”, a behavior that occurs when people deny the represented menace and act not in line with the communicated message.

As already mentioned above, many authors have discussed this topic and different theories have been applied in order to explain it. A famous example is represented by the work of Miller and Rollnick (1991), which assumed that this reaction could have been a response to a perceived menace on individual freedom: feeling to be “compelled” to act in a certain way the person perceives the negative response to the ad as a means to defend his freedom and therefore considers the bad behavior as even more attractive than before.

Another possible option for this result can be assumed by referring to the previous assumptions on usage and relevance for the audience. As already explained and demonstrated (even in the case of visual warning), in fact, the higher the relevance the lower the effect, as this case proves. Taking a look at the monthly averages it can be noticed, in effect, that the two students who had these boomerang effects were the ones with the highest recorded values. This consideration, together with the relation of threat and freedom, fully explains these opposite reactions.

## **Conclusions And Limitations**

Given the weight of this topic and the rate of speeding on car accidents, it is easy to understand why creating an optimal road-safety campaign has become an important public health concern. As demonstrated by previous studies and in this tiny experiment, video fear advertisements can be considered successful communication tools as they increase the awareness of an issue which has been underestimated during the years. Anyway, even on this topic, many other researches must be done so as to understand the real impact in continuous behavior and not only on immediate one. School programs and other educational tactics should be then used as well, in order to create a 360° campaign. Furthermore, as in many cases there are proofs of boomerang effect, additional analysis should be conducted on how to avoid these opposite reactions and how to better reach the young male segment. Just with the interactions of all these potential instruments it can be possible to effectively act on speeding. The purpose of this paper

was to measure the potential effectiveness of fear appeals, with a particular focus on social marketing topics. Considering two different aimed outcomes such as the cessation of an unsafe behavior and the adoption of a coping one (i.e. drive at a moderate speed), the attempt was to prove how different fear-based tools could have acted on consumers' cognitive reactions. As a result, it has been showed how diverse variables may have an impact in the success of these campaigns and how each no-profit organization can manipulate them in order to better reach its goals. These outcomes could then help these associations to implement more efficient campaigns aimed at solving various public health issues which undermine social welfare. Furthermore, additional efficiency considerations have been highlighted by the two practical cases, which underlined which factors should be considered referring to a particular topic. Finally, thanks to the case study, an overall proof of effectiveness has been made on fear-based approaches, which have had positive consequences on the desired purposes.

Before validating the results of the study it is essential to first consider its major limitations. This little experiment, in facts, represents just an attempt to test the response of a very viral fear appeal on a restricted target of twenty young students. Therefore, in order to collect relevant results, a similar test might be proposed but the number of participants should be largely increased. People should then belong to different social classes and the test should be applied at least at a national level. The students here selected, in effects, were representing a very small range of young adults and no real conclusions can be assumed by such a reduced sample. In addition, all of them knew the purpose of the study, and thus the results might be biased.

Another important constraint has been represented by the duration of the test. Much more emphasis should be made on the period of time, as two months cannot be considered enough to state an actual change in behavior.

## References

Andrews, J.C. (2011), "Warnings and Disclosures", *Communicating Risks and Benefits: An Evidence-Based User's Guide* (pp. 149-161). Andrews, J.C. and Netemeyer, R.G. and Kees, J. and Burton, S. (2014), "How Graphic Visual Health Warnings Affect Young Smokers' Thoughts of Quitting", *Journal of Marketing Research*, pp. 165-183.

Brennan, L. and Binney, W. (2010), "Fear, Guilt and Shame Appeals in Social Marketing", *Journal of Business Research*, Vol 63 No 2, pp.140-146.

Chandon, P. And Morwitz, V.G. and Reinartz, (2004). "The short- and long-term effects of measuring intent to repurchase", *Journal of Consumer Research*, pp.566-572.



Harvey, J.W. and McCrohan, K.F. (1988). "Is there a better way of improving compliance with tax laws? Insights from the philanthropic literature", *Journal of Public Policy and Marketing*, pp.138-151.

Jones, J.L. and Leary, M.R. (1994). "Effects of appearance-based admonitions against sun exposure on tanning intentions in young adults", *Health Psychology*, Vol. 13, pp. 86-90.

Kantrowitz, B. (1987), "The Year of Loving Dangerously", *Newsweek on Campus*, pp. 12-20.

Kessler D.A. and Natanblut, S.L. and Wilkenfeld, J.P. and Lorraine, C.C. and Mayl, S.S. and Bernstien, I.B.G and et al. (1997), "Nicotine Addiction: A Pediatric Disease", *The Journal of Pediatrics*, pp. 518-524.

Lazarus, R.S. (1991), *Emotion and Adaptation*, Oxford University Press, New York.

Lennon, R. and Rentfro, R. and O'Leary, B. (2010), "Social Marketing and distracted driving behaviours among young adults: the effectiveness of fear appeals", *Academy of Marketing Studies Journal*, Vol. 14 No 2, pp. 95-113.

Lewis, I.M. and Watson, B.C. and Tay, R.S. (2007), "Examining the effectiveness of physical threats in road safety advertising: The role of the third-person effect, gender, and age", *Elsevier*, Vol.10 No 1, pp. 48-60.

Lewis, I.M. and Watson, B.C. and White, K.M. (2010), "Response efficacy: The key to minimizing rejection and maximizing acceptance of emotion-based anti-speeding messages", *Elsevier*, Vol. 42 No 2, pp. 459-467.

Marinelli,F. (2014, Febbraio 27), "La nuova direttiva del Parlamento europeo sul tabacco", *Il Post*.

May, P.J. (2005), "Regulation and compliance motivations: examining different approaches", *Public Administration Review*, Vol.65 No 1, pp. 31-44.

Miller, W.R. and Rollnick,S. (1991), "Motivational Interviewing: Preparing People to Change Addictive Behavior", *New York: Guilford Press*, Vol.2 No 4, pp.299-300.

Morales, A.C. and Wu, E.C. and Fitzsimons, G.J. (2012), "How Disgust Enhances the Effectiveness of Fear Appeals", *Journal of Marketing Research*, Vol.49 No 3, pp.383-393.

Myers, J.H. and Reynolds, W.H. (1967), *Consumer Behavior and Marketing Management*, Houghton Mifflin Co., Boston.

Ray, M. And Wilkie, W. (1970), "Fear: the potential of an appeal neglected by marketing", *Journal of Marketing*, Vol.34, pp.54-62.

Rippertoe, P.A. and Rogers, R.W. (1987), "Effects of Components of Protection-Motivation Theory on Adaptive and Maladaptive Coping with a Health Threat", *Journal of Personality and Social Psychology*, Vol.52, pp.596-604.

Rossiter, J.R. and Thornton. (2005). "Fear-Pattern Analysis Supports the Fear-Drive Model for Antispeeding Road-Safety Ads", *Psychology and Marketing*, pp. 945-960.

Rothschild (2005). The potential role of social marketing in the future of public health behavior management.

Schoenbachler, D.D. and Whittler, T.E. (1996), "Adolescent processing of social and physical threat communications", *Journal of Advertising*, Vol. 25 No 4, pp. 37-55.

Singer, R.P. and Jones, S. (1965), "The Effects of Fear-Arousing Communications on Attitude Change and Behavior".

Sutton, S. (1992), "Shock Tactics and the Myth of the Inverted U", *British Journal of Addiction*, Vol.87 No 4, pp. 517-519.

Turner, T.J. and Ortony, A. (1990), "What's Basic About Basic Emotions?", *Psychological Review*, Vol.97 No3, pp.315-331.

Wakefield, M. A. and Loken, B. And Hornik, R.C. (2010), "Use of Mass Media Campaigns to Change Health Behaviour", *The Lancet*, Vol. 376 No 9748, pp.1261-1271.

Witte, K. (1992), "Putting the fear back into fear appeals: The extended parallel process model", *Communication Monographs*, Vol.59, pp.329-349.

Witte, K. (1995), "Generating Effective Risk Messages: How Scary Should your Risk Communication Be?", *Communication Yearbook*, Vol.3, pp.229-254.

Witte, K. and Allen, M. (2000), "A Meta-Analysis of Fear Appeals: Implications for Effective Public Health Campaigns", *Health Education & Behavior*, Vol. 27 No 5, pp.591-615.

Witte, K. and Morrison, K. (1995), "The Use of Scare Tactics in AIDS Prevention: The Case of Juvenile Detention and High School Youth", *Journal of Applied Communications Research*, Vol.23, 128-142.

### **Other sources**

FCTC, W. (2012). *Global Progress Report on implementation of the WHO Framework Convention on Tobacco Control*.

GHSA.(2013). [www.ghsa.org](http://www.ghsa.org/html/issues/speeding.html). Tratto da Governors Highway Safety Association: <http://www.ghsa.org/html/issues/speeding.html>.

Myers. (2012, August). *Campaign for Tobacco-Free Kid*. Tratto il giorno December 2013 da [http://www.tobaccofreekids.org/press\\_releases/post/2012\\_08\\_24\\_decision](http://www.tobaccofreekids.org/press_releases/post/2012_08_24_decision)].