THE EFFECTS OF EXPOSURE TO ADVERTISING CAMPAIGN "STOP ACCIDENTS" ON DRIVERS’ PERSONALITY TRAITS

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Abstract

The present research highlights the impact of the “Stop accidents” campaign on personality traits: sense of social responsibility, self-control, emotional stability, adventurousness and need for excitement. This represents the first part of the two researches performed by means of the “Stop accidents” campaign, and is focused on highlighting the possible differences between the perceptions over the four personality traits, by the participants of the two groups. Method: The participants were 64 students of the Faculty of Psychology and Education Sciences, University of Bucharest. Instrument: Inventory of Driving related Personality traits, IVPE (Vienna Test System, 2012). The results confirm the first hypothesis, according to which the experimental group, which was exposed to the “Stop accidents” campaign, obtained smaller scores (statistically significant) in comparison to the control group on emotional stability (39.59<59.72; p=.005<.01). Conclusions: advertising campaigns can influence certain behaviors specific to personality traits, but it is important to check, in future researches, the possible links with age, gender, educational level and provenience environment.

Keywords: sense of social responsibility, self-control, emotional stability, adventurousness and need for excitement.

1. INTRODUCTION

Over the time, a lot of researches in the area of Traffic and Transportation Psychology have been carried out. Some contained elements of psychological nature involved in traffic accidents, such as drivers’ personality, aggressive driving, the effects of alcohol and drugs, stress factors, the influence of fatigue, age and...
experience of drivers, etc. Others examined the technique elements of vehicles, such as malfunctions of usage parts, or traffic components such as the poor condition of roads, the lack of highways, the advertising elements near the roads that influence our visual receptors, etc. In a research conducted by Lev and Hershkovitz (2008), the authors proved that extraversion correlated significantly with a high win level at the Iowa scale. Bjorklund (2008) used a sample of 98 drivers which completed a Swedish version of the UK angry driving scale, which measures the following dimensions of angry driving: aggressive driving, violations of the traffic code and safe oriented driving. The structural equation model that investigated the relation between the three sources (driving anger, aggressive actions, speeding, gender, age and annual mileage) suggested a positive relation between driving anger and the frequency of aggressive actions for all three irritation sources. Thus, Bjorklund (2008) has proved that experimenting anger often leads to manifest aggressive actions.

Deffenbacher et al. (2003) highlighted the impact of anger (from state to trait) during driving. Thus, the research results have showed that drivers with a high anger level drive with high speed (in simulations), and are twice more prone to accident involvement. Deffenbacher et al. (2002) have applied the Beck therapeutic model, showing that the cognitive relaxation intervention lowered the level of risky driving occurrence.

Dula and Geller (2003) differentiated between three dimensions of dangerous driving: a) aggressive driving, b) negative cognitive/emotional driving, and c) risky driving. The same authors pointed out that the benefits of researches concerning aggressive driving can include the development of more valid and reliable selection methods for professional drivers, as well as conducting precise risk evaluation and the development of programs for predicting and remedying dangerous driving. Adrian et al. (2011) have pointed out that gender and age are predictors for driving performance, while personality traits and gender have to be taken into account when traffic safety is studied on elder drivers.

Machin and Sankey (2008) have showed that personality factors have an important influence both on risk perception and driving behavior. Adolescents have reported more frequent accident involvement than other age groups. Ulleberg and Rundmo (2002) pointed out that a strategy for promoting traffic safety is to change the attitudes that influence driving behavior. Thus, the authors verified the psychometric properties of a scale intending to measure adolescent drivers’ risk-taking attitude. The results showed that the attitude dimensions correlated with self-reported driving behavior, and also with accident frequency. Bohm and Harris (2010) have demonstrated that drivers’ perception on risk has been linked to perceived accident fear, rather than to the probability of actually happening.

Taking into consideration the perception of accidents, lately advertising campaigns related to accidents and public relationships campaigns highlight that those are not carried out randomly, without anticipating some difficulties and results
(Rus, 2008). The author specifies the fact that certain mobility is necessary in order to organize the respective campaign, forming a certain structure and having coordination marks, so that the initiators of the campaign can achieve the proposed objectives with minimum energy consumption, avoiding the waste of time and money.

Petre and Iliescu (2005) highlighted that through superior cognitive processing of shocking stimuli from presented commercials behavioral effects can be expected, hence following the fact that advertising with shocking content have greater chances of determining desirable behaviors, in comparison with other advertising types.

Because of the current tendency in traffic accidents, Whissell and Bigelow (2003) and Arnett (1996) have showed that sensation seeking correlated with the number of speeding tickets, fast driving, rule violations, and self-assertiveness. Arnett (1996) highlighted significant positive correlation between aggressiveness and risky driving behaviors (speeding and passing in a no-passing zone).

In the experimental psychology lab of the Faculty of Psychology and Education Sciences, University of Bucharest, researches focusing on several topics have been performed: self-perceived driving behavior, the relation between aggressiveness and risk taking, validations of psychological tests and batteries for drivers’ schools, etc. Thus, Aniței, Chraif, Niculae and Vancea (2009) have used the Dula Dangerous Driving Index for investigating the relations between its dimensions and risk-taking behavior in traffic, depending on gender. Aniței, Chraif, Schuhfried and Sommer (2011), Schuhfried, Aniței and Chraif (2010), and Schuhfried, Sommer, Aniței, and Chraif (2010) have made several combinations of psychological tests in evaluation batteries for amateur drivers in Romania, and tried to validate them, in order to find the ideal testing battery for amateur Romanian drivers. Even more, they highlighted the particularities of visual perception of the human operator (Chraif şi Aniței, 2011a), the influence of alcohol consumption on estimating distance and speed (Schuhfried, Sommer, Aniței, Chraif, 2011), the influence of energy drinks and caffeine on peripheral perception and estimation of speed and distance for the young (Chraif şi Aniței, 2011b), and the relation between stereoscopic vision and the processing of peripheral visual stimuli (Chraif, 2008).

This study aims at highlighting the influence of such advertising campaigns for stopping accidents on personality traits (sense of social responsibility, self-control, emotional stability, adventurousness and need for excitement) (Vienna tests System, 2012). Even more, the current paper represents the second part, as well as the completion of pointing out the effects of the “Stop accidents” advertising campaign on risk-taking traffic behaviors (Aniței, Chraif & Stefan, in press). Therefore, from a personality perspective, those structures are represented by: a) motivation, which provides orientation, selectivity, and conduit significance; b) cognitive structures, which are the instruments of personality accomplishment, and which together with motivation and affectivity compose the complex structures of attitudes; control,
which is comprised of command and control mechanisms of personality over motives, purpose and means of behavior.

2. OBJECTIVE AND HYPOTHESES

2.1. Objectives

The main objective of this paper is to study the impact of the “Stop accidents” campaign on personality traits: sense of social responsibility, self-control, emotional stability, adventurousness and need for excitement, on persons that have previously viewed and have not viewed such a campaign.

2.2. Hypotheses

There are significant differences between the emotional stability level of participants exposed to the “Stop accidents” campaign and those that were not exposed to any type of campaign.

There are significant differences between the sense of social responsibility level of participants exposed to the “Stop accidents” campaign and those that were not exposed to any type of campaign.

There are significant differences between the self-control level of participants exposed to the “Stop accidents” campaign and those that were not exposed to any type of campaign.

There are significant differences between the adventurousness and need for excitement level of participants exposed to the “Stop accidents” campaign and those that were not exposed to any type of campaign.

3. METHOD

3.1. Participants

Participants were 32 students of the Faculty of Psychology and Education Sciences, University of Bucharest, amateur drivers for both the control and the experimental group, age ranging between 19 and 25 \( (M = , SD = ) \). Participants who showed a lack of interest for the tests have been excluded. Also, those holding a professional drivers’ license were also excluded from the research sample.

3.2. Instruments

1) Inventory of Driving related Personality traits, IVPE (Vienna Test System, 2012)

IVPE is a multidimensional personality inventory highlighting drivers’ characteristics of high importance in traffic: sense of social responsibility, self-control, emotional stability, and adventurousness and need for excitement. The test

3.3. Procedure

The testing was performed in laboratory conditions, where the possibility for more participants to work in the same time was available. The control group (32 participants) was tested first, which completed the IVPE test and the WRBTV test (Aniței, Chraif și Stefan, in press). Participants received instructions as well as any form of support (if it was necessary) from the researcher.

After the testing of the control group, the experimental group (32 participants) was also tested with the same instruments. Additionally, before completing the tests, the experimental group watched the “Stop accidents” advertising campaign for approximately five minutes. The advertising contained images and actions with powerful emotional load (traffic accidents and their consequences). Before watching the campaign, the participants from the experimental group received information and statistics about traffic accidents in Romania. They were also previously warned about the powerful emotional load of the following images.

4. RESULTS

Before choosing the statistic technique for testing the hypothesis mentioned earlier, the Kolmogorov-Smirnov test for normality has been applied. According to its results, the data have normal distributions ($p > .05$), and therefore the parametric $t$-test can be applied.
Table 1 presents the descriptive statistics for the dimensions of the IVPE: Emotional stability, Sense of responsibility, Self-Control, Adventurous and need for excitement. Only the following hypothesis has been confirmed: “There are significant differences between the emotional stability level of participants exposed to the “Stop accidents” campaign and those that were not exposed to any type of campaign.” Therefore, as table 1 shows, for Emotional stability the experimental group reported significantly lower values in comparison with the control group (39.59 < 59.72; p = .005 < .01). This points out the fact that the exposure to the “Stop accidents” campaign has reduced the behavioral manifestation of anger and negative emotions.

The hypotheses concerning the other three dimensions have not been confirmed.

5. CONCLUSIONS

Considering the scientific literature and the results mentioned in the introduction, the present study adds to the effect of the “Stop accidents” advertising campaign on personality traits: sense of social responsibility, self-control, emotional stability, adventurousness and need for excitement. While personality traits are stable (Allport, ), the driving behaviors can change by respecting the traffic code (Machin and Sankey, 2008; Ulleberg and Rundmo, 2002). The results confirm the hypothesis that states that there are significant differences between the emotional stability level of participants exposed to the “Stop accidents” campaign and those that were not exposed to any type of campaign. The limits of this study open up future research perspectives concerning the effects of advertising campaigns on certain driving behaviors, but also according to age, gender, educational level and provenience environment.
6. REFERENCES


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