

STUDY ON ANALYSIS OF DETERMINANTS THAT INFLUENCE CANDIDATES BEHAVIOR IN THE EXAMINATION PROCESS FOR OBTAINING A DRIVING LICENSE

Doru MAIER¹, Alexandra VERINCEANU², Laura BACALI^{3,*},
Paul-Sorin LAZĂR⁴

1 Head of the Community Public Service Driving Permits and Vehicle Registration Regime
Cluj, Romania

2 Clinical Psychologist under supervision, Romania

3 Technical University of Cluj-Napoca, Department of Management and Economic
Engineering, Romania, laura.bacali@gmail.com

4 Babeş-Bolyai University Cluj-Napoca, Faculty of Business

* Correspondence: laura.bacali@gmail.com

Abstract: This article presents a brief analysis of the determinants that influence the behavior of candidates in the examination process for obtaining a driver's license, wanting to bring a psychological approach in the context of examinations conducted by Ministry of Interior staff. The Status-Trait Anxiety Inventory (STAI) was used to measure the subjective level of anxiety. Conclusions were drawn regarding test anxiety, which is one of the situations where negative emotions affect the candidates' performance in the examination process. We were also interested to know if there are differences between the scores obtained by the group of people who were declared admitted after the first test and the rest of the people who failed to take the exam at the first, at the scales that measures the two types of anxiety (anxiety as a condition and as a trait).

Keywords: Examination, Driving Licence, Anxiety, Emotions, Cognition.

1 INTRODUCTION

Subjective feelings, resulting from the agreement or discrepancy between a person's expectations and reality, are what we call "emotions." The phenomenological component of a person's personality is constituted by these emotions, this component being associated with behavioral manifestations, cognitions, physiological reactions.

1.1 Test anxiety

Triggering and maintaining emotions are generated by cognitive processes such as memory, thinking, perception. Negative affectivity is one of the important aspects of the emotional component of the personality, with implications in the educational field.

In the process of theoretical, but especially practical testing in which candidates are involved

in obtaining a driver's license, one of the frequently reported phenomena is the conditioning of negative emotional responses to candidates, when the actual situation during the examination is contrary to the established goals. prior to the exam. The emotions and feelings felt by the student in the relationship with the examiner, with the learning and with the educational environment, are not a problem to be neglected at all.

Test anxiety is one of the situations in which negative emotions affect the candidates' performance in the examination process. Testing anxiety refers to a set of subjective, physiological, and behavioral reactions that accompany the student's fears about the possible negative consequences of failure in the test situation (Sieber, O'Neill, & Tobias, 1997). In the situation when the student is subjected to an evaluation process, there is a generalized feeling of fear, related to a certain standard of performance. Usually, test anxiety occurs when the student perceives the test situation as threatening, considers that he or she does not have sufficient resources to deal with the situation, or negatively anticipates the consequences of failure.

The examiner's behavior and attitude can often create and induce a tense situation, generating such a reaction of the candidate before or during an exam.

Such a situation can function as an unconditional stimulus, which triggers the fear reaction (unconditional reaction). The generalization mechanism causes such a reaction to manifest itself in other examination situations (functioning, as a conditioned stimulus), in which the atmosphere induced by the examiner can be a normal, natural one. Moreover, such a negative feeling can be self-sustaining, by the fact that the behavioral manifestations of a high state of anxiety of the candidates (motor agitation, restlessness, excessive sweating, etc.) can in turn accentuate the aggressive reactions of the examiner. As

such, candidates' attention is no longer focused on solving test tasks, but on certain self-depreciating thoughts, which leads to difficulties or even blockages related to solving the task, and performance decreases.

Thus, the chances of success of the candidates can be drastically reduced with the appearance of such manifestations, and the awareness by the examiner of the possibility to control, at least partially, the classic conditioning processes can prevent or attenuate the triggering of such negative conditioned reactions.

Previous research has identified a number of factors that predict the failure rate for the driving test (Forsyth, 1992), including: gender (women tend to fail the exam more often than men), age (people over twenty-seven years tend to be less successful) and practice hours (those over forty hours of practice tend to be more difficult). These factors tend to correlate; for example, older students tend to do more hours of practice compared to younger students, for example teenagers have an average of 33 hours of practice while those over thirty-five have around 51.2 hours of practice. practice hours on average (Groeger & Brady, 2004). The positive direction of the relationship between cumulative practice hours and the likelihood of failure may seem counterintuitive, but there is evidence that skill acquisition tends to be rapid in the initial learning period and negligible in the next phase if the practice is prolonged (Groeger & Clegg, 2000). In addition to demographic factors and practice, another study (Groeger & Brady, 2004) shows that the pace of learning and initial skills associated with the student can be predicted by intelligence and certain personality traits such as conscientiousness and extraversion (Goldberg, 1993).

It has also been shown over time that multiple emotions associated with negative affect can lead to dangerous behaviors while driving (Dula & Geller, 2003); an example of such an emotion is anxiety. Anxiety has been

described as a feeling of tension or anxiety about a threatening event that cannot be guaranteed (Rachmann, 2013). Research to date has shown that anxiety is one of the most invoked emotions, compared to anger and happiness (Mesken, Hagenzieker, Rothengatter, & de Waard, 2007). More recent statistics in the UK show that in 2015, more than 1,800 accidents, 16 of which were fatal, were caused by drivers feeling emotional, insecure or panicked (Department of Transport, UK, 2016).

The extensive literature on driving uses the term anxiety as a general emotional concept related to driving. It does not specifically mention fear in a context other than that of the early stages of learning in which fear decreases as specific skills are acquired (Evans, 1991). The distinction between anxiety and fear is necessary due to the fact that the relevant literature on human factors in driving, investigates the relationship between anxiety and performance.

The influence of anxiety on test performance has been the subject of considerable research (Eysenk, 1997; Zeinder, 1998). Experiencing test anxiety is influenced by both mood and trait and situational factors. Under certain circumstances, test anxiety can lead to a total collapse in performance efficiency (Baumeister, 1984).

According to the cognitive perspective, experiencing anxiety may depend on four categories of information: external stimuli such as pregnancy requirements, internal psychological stimuli, self-monitoring of behavior, and cognitions about pregnancy and performance itself (eg, worries) (Eysenk, 2000). The likelihood of a collapse is governed by variables related to test anxiety such as: audience presence, competition, rewards or punishments, and the relevance of the test itself to the individual (Baumeister & Showers, 1986). It is obvious that anxiety can cause sympathetic activation of the nervous system and can lead to an increase in self-monitoring during the

examination. In addition, the proximity of the examiner and the potential threat of failure (especially when the failure was repeated) increase the likelihood of collapse in susceptible individuals during the practical examination.

The demand for attentional capacity during the practical exam for obtaining a driving license is all the more overwhelming as relatively inexperienced students are forced to react depending on probable events on the road. There is experimental evidence that the use of procedural knowledge degrades the quality of acquired skills (Beilock & Carr, 2001). Students can also be distracted by metacognitive ruminations (eg, how do I do it?). Other studies show that anxiety degrades cognitive performance through anxiety (Borkovec, Ray, & Stober, 1998; Wells, 1994). Concern involves a proliferation of intrusive and negative thoughts that distract attention from performance itself by increasing the level of self-focus (Şewis & Linder, 1997).

A distinction was made between the cognitive components of test anxiety such as anxiety and those somatic symptoms associated with psychological activation (Wang, Marchant, & Morris, 2004). Increased anxiety is often accompanied by sympathetic activation of the nervous system and associated changes in the subjective state. At the physiological level, anxiety generates a characteristic pattern of increased heart rate, high blood pressure, muscle tension, etc. Subjectively, the individual may feel alert and tense; if the anxiety reaches an acute level, unpleasant somatic symptoms may occur, such as trembling of the hands and feet, rapid breathing rhythm, palpitations and suffocation. These physiological changes can directly affect performance. Therefore, anxious individuals are characterized as having a rigid posture and movements may appear jerky and uncoordinated. These conditions have been demonstrated experimentally; Calvo, Alamo and Ranos (1990) conclude that anxious subjects are especially affected in tasks that require fine

motor skills and this can influence pedal control and change gears during maneuvers. The cognitive and somatic components of test anxiety were seen as parallel pathways of influence, but it is possible that both components interact.

This study aims to investigate the influence of anxiety on failure to pass practical driving license exams. We believe that anxiety can result from several sources during the driving test for candidates who are afraid of failure in front of family and friends, the perceived control of the examiner and the perceived level of stress during the task itself due to their level of beginners.

2 RESEARCH METHODOLOGY

2.1 Design

The participants followed the normal courses imposed by the driving school, totaling 30 hours of practice, after which they took the theoretical exam and then the practical one for obtaining a driving license.

2.2 Participants

Eighty candidates volunteered to participate in this study in response to a request from a driving school. An important criterion for selecting participants was that they had no previous driving experience (in another school, with family members or friends). All subjects then took practical driving lessons with the same instructor. Prior to the practice examination, subjects were asked if they had taken beta-inhibitors. There were no participants whose response was positive to be excluded from the study. The average age of the 80 subjects (women = 40, men = 40) is $m = 27.75$ (ages between 17 and 60 years). All participants completed 30 hours of practice over a period of 2 months.

2.3 The working tool

The STAI State-Trait Anxiety Inventory (Spielberger, 1983) was used to measure the subjective level of anxiety. The inventory has 40 items in total, with 20 items in each scale. The first scale includes items that measure anxiety as a state (eg, "I feel tense," "I am worried") and the second scale measures anxiety as a trait (eg, "I lack confidence"). Participants responded using a Likert scale from 1 (not at all) to 4 (very much). The alpha coefficient for the status anxiety and trait anxiety scales was reported to be 0.92 and 0.90, respectively (Spilberger, 1983).

2.4 Procedure

At the time of enrollment in the driving school, participants were administered the scale that measures anxiety as a trait, and will be administered the scale that measures anxiety as a condition before taking the practical exam to obtain a driving license. We considered that the time of the exam is relevant for measuring anxiety as a condition, the activating event being present.

Based on the results obtained in the practical exam for obtaining a driving license, we divided the group into two secondary groups. Group 1 consists of people who were declared admitted after taking the first practical exam and Group 2 consists of the rest of the people who failed to take the first exam. There were two participants who had not yet taken the exam until the time of data analysis and who were excluded from the study.

In the first phase we want to find out if there are differences between the scores obtained by the two groups on the scales that measure the two types of anxiety. We performed the test for independent samples and extracted the following data.

2.5 Analysis

Table 1. Group statistics

	Result	Nr.	Mean	Standard deviation	Standard error (confidence interval)
Anxiety as a condition	Accepted	26	27,30	4702	922
	Rejected	52	29,88	6781	940
Anxiety as a trait	Accepted	26	27,38	3545	695
	Rejected	52	32,88	5900	818

As shown in Table 1, Group 1 is composed of 26 subjects. Group 2 is composed of 52 subjects.

There is obviously a difference between the means of the two groups in the two tests that measure anxiety, but we want to know if the means differ significantly from a statistical point of view.

Table 2. Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ANXIETATE CA STARE	Equal variances assumed	1.609	.209	-1.789	76	.078	-2.654	1.483	-5.608	.300
	Equal variances not assumed			-2.015	67.996	.048	-2.654	1.317	-5.282	-.026
ANXIETATE CA TRASATURA	Equal variances assumed	8.237	.005	-4.367	76	.000	-5.500	1.259	-8.008	-2.992
	Equal variances not assumed			-5.123	73.291	.000	-5.500	1.074	-7.640	-3.360

As we can see in Table 2, the difference between the averages of the two groups obtained on the scale measuring anxiety as a state is not statistically significant ($t = -1.789$, $df = 76$, $Sig. = 0.078 > p = 0.05$). The differences observed between the means of the two groups in Table 1. are due to the random differences between the groups.

Regarding anxiety as a trait, the average of the scores obtained by group 1 differs statistically significantly from the average of the scores obtained by group 2 ($t = -5.123$, $df = 73.291$, $Sig. = .000 < p = 0.05$). The differences observed between the averages of the two groups in Table 1 are not due to chance but to the fact that the level of anxiety as a trait is significantly different between the two groups.

3 DISCUSSIONS AND PRACTICAL IMPLICATIONS

The fact that the results on the scale that measures anxiety as a state, do not differ significantly between the two groups, does not take us by surprise. It is generally true that at the time of testing whether or not we are anxious by nature, we will experience at a subjective level a high state of anxiety. For people who are not anxious by nature, this state of alertness comes to their aid, managing to mobilize and focus their attention on the task that will be successfully completed. In contrast, for anxious people, this state of arousal is no longer beneficial leading, as we presented in the above lines of this paper, to a total collapse in performance efficiency (Baumeister, 1984). This explains the fact that

significant differences are found between the averages obtained on the scale that measures anxiety as a trait.

By conducting this study we want to bring a psychological approach in the context of examinations conducted by MIA staff. I wanted to highlight the subjective emotional factors of civilian candidates who often intervene by "sabotaging" the examination.

This research can be the basis for building a new examination framework that can benefit both the examinees and the examiners. Although the advantages of the students are obvious, the same cannot be said about the advantages of the staff within the Ministry of Interior. The low passing rate of the practical examination for obtaining a driving license has the following consequences:

1. Increases the number of frustrated candidates due to failing to pass the practical exam at first

2. Increase the number of candidates on the waiting list to take the exam

3. Increases the pressure on examiners who have a higher total number of candidates to be examined

4. The increase of the waiting period in order to take the practical exam also has secondary implications:

- a. Candidates lose self-confidence and become increasingly pessimistic about passing the exam
- b. A longer waiting period causes them to lose their skills acquired during schooling
- c. Candidates' personal expenses increase due to the fact that they have to take extra driving hours, these expenses being not negligible.

3.1 Limits and future lines of research

The main limitation that we failed to remove was that we could not record in real time and objectively the manifestation of anxiety in the

study participants. Unfortunately, the legislation does not allow the presence of an observer during the examinations. As a result, our study was based on the response given by participants to the two scales. We propose for future research, as well as the way of recording the physiological manifestation of anxiety, the use of devices for recording galvanic reactions, pulse and diaphragm vibrations in real time at the time of the practical exam to obtain a driver's license.

We also propose to modify the examiner variable. Participants with a high level of anxiety should be divided into two groups: a group that is examined by the instructor and a group that is examined by the police officer. There is a possibility that the authoritarian figure represented by the uniform is the main factor that determines the participants not to have the expected performances. The latter proposal, however, has minimal chances of being applied, as at this time the legislation does not allow the examination of candidates to be done by instructors (or in their presence), as is possible in other European countries (eg Germany).

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