Вх. № ЧР-03-168/11.09.2023 г.

REVIEW

By Prof. Margarita Angelova Stefanova-Bakracheva, PhD, Sofia University St. Kliment Ohridski, Faculty of Educational Studies and the Arts
on the scientific works of Senior Assistant Professor Zornitsa Petrova Totkova, PhD
for participation in the competition for the academic position of Associate Professor in professional field 3.2. Psychology (Traffic Psychology), announced in State gazette, issue 46 as of 26 May 2023 by the Institute for Population and Human Studies at the Bulgarian Academy of Sciences

I. Candidate Details

Zornitsa Totkova graduated from Varna Free University "Chernorizets Hrabar" with a Bachelor's degree in Psychology in 2009 and a Master's degree in Applied Psychology in 2010. Since October 2011 she has been a full-time PhD student at the Department of Psychology, Institute of Population and Human Studies, BAS. In 2014 she defended her dissertation on "Perceived parenting style and attachment to significant others in early adulthood". She worked as a psychologist preparing psychological assessments of professional drivers for driving licences from 2012 to 2014. Since 2015 she has been conducting scientific and applied research in the field of traffic psychology and personality psychology as a Senior Assistant Professor at the Department of Psychology, Institute of Population and Human Studies, BAS. In addition to the research activity during the whole period, it is worth mentioning the high activity of the candidate and her participation in the organising committees of 11 scientific forums with host the the IHPS. Since 2015, Zornitsa Totkova has been member of the teams of 8 research projects with an applied orientation. 4 of them are in the field of traffic psychology, 1 is dedicated to the problems of Bulgarian immigrants, 2 are related to the prevention of aggression and 1 deals with the perspective of increasing students' motivation to learn. Zornitsa Totkova has taken part in 9 international forums and in national conferences. She is member of the Bulgarian Psychological Society, the State Public Advisory Committee on Road Safety and the Academic Council of the Bulgarian State Agency for Road Safety. In 2018, she was awarded the Achievement

Award for Young Scientists in Psychology by the Institute for Population and Human Studies. She has also been nominated three times, in 2015 for the Dissertation Competition for Scientific Achievement organised by the Union of Scientists of Bulgaria, and in 2017 and 2019 for the Marin Drinov Competition for Young Scientists organised by the Bulgarian Academy of Sciences.

I. Fulfilment of the requirements for the academic position

The reference for the quantitative indicators with which the Senior Assistant Professor Zornitsa Totkova, PhD, participates in the competition, gives grounds to claim that the requirements for the academic position of Associate Professor, are fully met. There is a monograph, the quantitative criteria in terms of publications exceed the required number of points, and this also applies to the quantitative indicators for citations.

24 publications have been submitted on the subject of the announced competition, of which

- 1 scientific monograph in Bulgarian
- 1 book based on the defence of a thesis for the degree of Doctor of Psychology in Bulgarian;
- 4 scientific articles in English, refereed in world databases;
- 3 studies, 2 in English, published in non-refereed journals and edited scientific volumes; and
- 15 scientific articles, 1 in English, published in non-peer-reviewed journals and edited scientific volumes.

The candidate in the competition has defended dissertation and submitted habilitation monograph in the volume of 207 pages, has further published a monograph based on the defended thesis for the award of the educational and scientific degree of "Doctor", two independent articles and two co-authored articles in refereed journals and indexed in world-renowned databases, three studies and fifteen studies, articles and reports - independent and co-authored, published in non-refereed journals or in edited collections, bringing the total number of points to 244. 68 of the required 220 points for Indicator D. 31 citations have been produced, giving a total of 90 of the required 60 points for Indicator E, three in publications in peer-reviewed and indexed journals in world-renowned scientific

information databases or in monographs and edited volumes, and nine in non-peer-reviewed journals.

The candidate's project activity is fully in line with her research focus and direction, and demonstrates Dr. Totkova's continuing interest in the field of personality dispositions, particularly as they relate to self-regulation and behaviour of drivers on the road. The projects have a clear practical orientation and reveal future research and applied perspectives.

II. Research activity and results

The presented scientific works of senior assistant professor Zornitsa Totkova, PhD, are from the period after 2012 and refer to the field of Traffic psychology and Developmental psychology. The works of Zornitza Tptkova, PhD, contribute to the enrichment of topical issues in the field of traffic psychology and developmental psychology, being distinguished by research and interpretation of the results precision and correct description of the process of adapting methods, whose factor structure and reliability have been confirmed.

Evaluation of the monographic work

The habilitation monograph is the central part of the candidate's scientific production. It summarises and systematises important scientific results. The monograph "Traffic Psychology. Personality and Driving Behaviour" is a major study in the field of traffic psychology. The presented text shows a high scientific commitment and thoroughness in the consideration of the totality of previous studies, which are integrated according to the author's concept and research. The three chapters consistently introduce the field of research in traffic psychology and present in detail two robust studies in the Bulgarian context, deriving their own position and model for the classification of drivers according to their personality dispositions for the diagnosis and prediction of their risky behaviour on the road.

Zornitsa Totkova describes traffic psychology as a well-established and highly topical field of research and practical significance that does not have a sufficiently long tradition in Bulgaria. Thus, the monograph is a very timely response to the need to bring traffic psychology and its subject matter to the forefront of both research and practice. In Bulgaria, research on the subject is scarce, and everyday incidents related to road aggression clearly demonstrate the need for targeted intervention and prevention. The author's ability to analytically extract the main points of publications in the field of traffic psychology and to present them in a clear and consistent manner, providing a solid basis that can be used in practical, research and educational contexts, is evident, proving the author to be an expert in the field.

Zornitsa Totkova's monograph focuses on approaches to the study of driving behaviour, driver personality and driving style. In addition to providing an important overview, Zornitsa Totkova also draws attention to the specifics of research and practice in the field of traffic psychology in the Bulgarian context. She identifies directions for application and opportunities for implementation of the results. An important highlight is the derived profile of the dangerous driver, which can be used for preventive purposes. The issue of driving style and its relation to dangerous behaviour on the road, the place of subjective perception and evaluation of compliance with traffic rules in relation to the fact, which the author points out, that 90% of traffic accidents can be attributed to human error, indisputably proves the importance and relevance of research and necessary interventions, and stresses the role of activities in this direction to describe and effectively manage the self-regulation of driving.

It is important to note the author's two studies, conducted with an impressive number of subjects (N = 1896), related to the study of driving behaviour among Bulgarian drivers and the conclusions and trends outlined. Driving style is a key factor in safe driving and road safety. With this in mind, Zornitsa Totkova outlines recommendations for the next steps in traffic psychology research in Bulgaria. In practical terms, she opens up possibilities for the development of prevention, intervention and rehabilitation programmes in relation to the behaviour of unsafe drivers. Research can also be used to initiate various legislative and regulatory changes to help combating the road aggression in the country.

The state of the art of the issues addressed is outlined, including reference to a number of studies. This sets the stage for viewing the contributions and identifying how this monograph contributes to moving beyond the familiar and into future perspectives. The theoretical review is based on a large number of sources, mainly from the English-language literature, and this reflects not only a good knowledge of current trends in the research areas mentioned, but also the author's ability to extract and analyse the essential from them. The monograph also has a place in traffic psychology training programmes, both academic and professional, with its rich empirical material, research tools and theoretical overview. Many concrete relationships of contributory nature and important practical relevance emerge from the results of the empirical studies.

These are the undisputed contributions of the monograph. They can be grouped into three main directions:

1. In terms of research, Zornitsa Totkova brings traffic psychology into the focus of research and outlines both systematic approaches to the study of traffic behaviour and the specificity of Bulgarian conditions, which provides a basis for future development.
2. From an applied point of view, the results of the research can be of direct use in responding to the current need for development and implementation of interventions and prevention programmes for road safety.
3. The monograph is also valuable as an opportunity for use in academic and training courses for a wide range of users, researchers, practitioners and students.

Evaluation of the contributions in the other publications

The Statement of Contributions presented is fully consistent with the content of the published works. It highlights research and applied contributions that are closely related and that emphasise both the relevance and the perspectives in the psychological fields chosen by the candidate. The publications are structured according to all scientific requirements and include original research on the problems mentioned.

Most of the candidate's publications are in the field of traffic psychology (I.1, III.1, III.2, III.3, IV.1, IV.2, V.1, V.2, V.4, V.5, V.6, V.8). They highlight the role of personality

dispositions and driving style in drivers' risky behaviour and its negative consequences. The contributions are of research and high applied relevance and can contribute to screening and prevention as well as to programmes and interventions for the prevention of unsafe driving behaviour. This positions Dr Zornitsa Totkova as an undisputed expert with extensive research and practical experience in the field, which is highlighted by her project and expert activities. At the same time, the overall framework for typology and prevention of risky driving behaviour proposed on the basis of her research is an important contribution in this direction.

The scientific and applied contributions are a clear identification of the place of traffic psychology and an integrated approach to the study of human behaviour within the human-vehicle-environment system. The focus is on the application of effective and appropriate measures to solve road safety problems. A prerequisite for this is to obtain systematic results on the role of personality factors such as anxiety, sensation seeking, anger while driving, aggressive and risky driving behaviour, impulsivity and locus of control. In addition, results on the influence of attention, memory, executive functions and visual-spatial orientation on the driving process are described.

The author's contribution is the derived definition of the psychological construct of driving style and the outlined eight driving styles in the Bulgarian context that can be used in research and practice. Subjective evaluation of compliance with traffic rules is addressed as an indicator of dangerous driving behaviour, as it has been shown to be associated with rule-breaking and involvement in traffic accidents.

In the field of developmental psychology, the monograph “Parenting Style and Attachment” summarises the development of research on parenting style and attachment style and looks for individual differences in the perception of constructs and their projections. The main contributions in this line, also with a scientific and applied aspect, can be outlined as the in-depth study of perceived parenting style in early adulthood and the derivation of the concept of parenting dynamics. The emphasis that the leading factor in the retrospective assessment of parenting behaviour is the experienced degree of responsiveness and warmth. Publications in this line view attachment as a relatively stable construct associated with all significant figures and constructed in relation to parenting

behaviours and messages in personal development from a developmental psychosocial perspective (II.1, III.4, IV.15, IV.16, IV.17, IV.19, IV.20, IV.21).

Six publications (IV.9, IV.10, IV.11, IV.12, IV.13, IV.14) deal with motivation to learn. Based on a representative survey of teachers, the style of teacher-student interaction is analysed, the main motives for learning from the teachers' point of view are identified, their attitudes towards the implementation of approaches to enhance motivation are explored, and practical guidelines for effective approaches to directly stimulate learning are outlined.

The publications undoubtedly reveal that Zornitsa Totkova is a competent researcher with a keen interest not only in theoretical analysis and empirical research, but also in the effective implementation of the results in practice. As the most generalised original scientific and scientifically applied contributions, which are contained in the presented scientific production, can be derived

- The in-depth critical analysis of the influence of individual demographic and personality dispositions on road behaviour and risk prevention options, based on a systematic review and own empirical verification.
- The strategies for prevention and intervention of road aggression as an important social problem
- The peculiarities of individual development and the role of the secure base and family environment
- The adaptation and validation of a significant number of psychological measurement instruments. In addition to the constructed instrument of the personality dispositions of drivers, five methods have been adapted: 1) a method for measuring attachment in the context of interaction with significant others in early adulthood; 2) a method for measuring perceived parenting style, deriving pure and mixed styles; 3) a questionnaire for assessing driving behaviour; 4) a multidimensional questionnaire for assessing driving style; 5) a questionnaire for evaluation of the locus of control while driving. The construction of a comprehensive personality questionnaire with five separate scales provides the ability to profile and assess the personality of prospective and current drivers, measuring specific levels of anxiety, sensation seeking, anger while driving, aggressive driving and risky driving.

III. Personal impressions of the candidate

I have direct long-lasting impressions of Zornitsa Totkova from the period of her enrolment as a PhD student at the IPHS in 2011. Throughout this period she has had a consistent, serious and original creative approach to her work. Her development has been purposeful and clearly focused, and her research and scholarly writings have been distinguished by their thoroughness, precision and robustness. Along with her professional competencies and qualities, which are undeniably demonstrable through her publications, Zornitsa Totkova has a collaborative attitude, innovative spirit and interest in new trends and finding research gaps and practical niches. At the same time it should also be noted that a thorough scientific approach is constantly linked to the search for optimal practice-oriented solutions. Both the scientific production and the professional experience of Dr. Totkova correspond to the direction of the announced competition.

IV. Conclusion

In connection with the evaluation of the publications of senior assistant professor Zornitsa Totkova, PhD, I believe that in quantitative and substantive terms they meet and in a number of indicators exceed the requirements in the Act on Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its implementation, the minimum requirements of the BAS and IPHS-BAS. The above arguments about the contributions in scientific production, research and practical activity and professional training of the candidate give me grounds for a definitely positive evaluation and I can confidently propose to the respected scientific jury to support the election of senior assistant professor Zornitsa Totkova, PhD for the academic position of "associate professor" in the Department of Psychology of IPHS - BAS.

31st August 2023 Margarita Bakracheva