

REVIEW

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Professional field 3.7. Administration and Management
For a competition procedure for the position of full Professor
In the field 3.2. Psychology, announced in Bulgarian State Gazette issue 51/18.06.2021
With candidate: Assoc. Prof. Dr. Maurice Avram Grinberg

I. Fulfillment of the minimal national requirements and the criteria of New Bulgarian University for the rank of full Professor

The only candidate in the competition procedure, Assoc. Prof. Dr. Maurice Grinberg, has completed a Form showing that he fully meets the minimal national requirements published in the Bylaws (*Pravilnik*) for implementation of the Law for Development of the Academics in the Republic of Bulgaria for the scientific field 3.2 Psychology. In particular: He has accumulated the necessary 150 points for Indicator1, Indicator2, and Indicator3 from group A-B-V by possessing the title Doctor (50 points) and having presented a ‘habilitation’ monograph (100 points).

The Bylaws (State Gazette issue 56/06.07.2018, Table 1, Scientific Field 3: Social, Economic, and Legal Sciences: 3.2 Psychology) demand that each candidate should have gathered from publications only (group G, Indicators I4 – I10) at least 200 points for the rank of full Professor. According to the submitted report, the candidate has accumulated a total of 518 points for 68 of his publications, related to the competition procedure. I believe the request to be fair, i.e., each publication is adequately assessed, and the sum is correctly computed.

Next, the Bylaws – group D (I11, I12, and I13) – demand that each candidate should have at least 100 points collected from citations in other people’s scientific publications. The relevant Table Form submitted by Dr. Grinberg shows that he has got 915 points, collected due to 61 of his publications from indicator P11 only, which exceeds the requirement more than ninefold.

Group E (I14 to I21) requires from the future full Professor at least 100 points for activities, showing his commitment to the life of the academic community. The candidate Assoc. Prof. Dr. Grinberg has achieved a total of 320 points: 120 points from three defended dissertations under his supervision, as well as 200 points from participation in or management of national and international scientific and educational projects.

New Bulgarian University has adopted three groups of additional criteria for academic positions. Indicators I22–I34 (Group G) refer to various aspects of university life. While the requirement is for 70 points, Assoc. Prof. Dr. Grinberg has achieved 130 points. Group H, related to working with students, consists of seven indicators (I35 to I41) and requires a minimum of 70 points. The candidate has provided evidence for having achieved 110 points. The last Group I (I42–I49) requires active participation in the administrative work of the University (community service). While the requirement here is for 70 points, Assoc. Prof. Dr. Grinberg has a score of 100 points.

In sum, the candidate fulfills comfortably all the minimum quantitative requirements for the position of full Professor at NBU, and exceeds some of them impressively.

II. Research activity and results

1. Evaluation of a monograph

Dr. Maurice Grinberg’s magnum opus in this competition procedure is the book *Social Dilemmas: A Cognitive Perspective*, ISBN 978-619-233-127-6, NBU Publishing House, 2020. This is a 250 pages volume, organized in a preface, four parts, an afterword, two appendices, list of references, and index. The book is intended for a professional scientific audience, including doctoral students. The author's choice is to consider social dilemmas in a game-theoretic perspective. To this end, he devotes the first 75 pages to a formal presentation of game theory

alongside all the more important types of games known in the modern scientific literature. The exposition amounts to a kind of a short encyclopedia of game theory; its style is provoking and makes a pleasant reading. To my knowledge, there exists no better text by an author in the Bulgarian language in this particular area. The reader has the opportunity to get acquainted with the basic ideas of the theory and to form their own personal preferences and research interests.

Having presented the research field, the author outlines his personal preferences, and they turn out to be experimental game theory and its connections with the cognitive mechanisms in decision-making. These themes occupy the entire second half of the book.

Here we find an abundance of experiments, for which theoretical models explain the observed phenomena in actual participant behavior. Perhaps the most compelling feature of the monograph is that it thoroughly discusses important issues such as: To what extent one or another model is able to explain the empirical facts; Why some models are more accurate than others; Why a model describes well part of the data and not so well another part, etc. Here, Dr. Grinberg's background as an established researcher in theoretical physics adds considerable value. These facets of the book will be especially useful for doctoral students and young scientists, mastering the various research methods and honing their modeling skills. The narrative unfolds from simple to complex; ultimately, experiments and simulations of sophisticated agent-based models with reinforcement learning come into focus. Often the author seeks a connection with real life situations. At the end of the book, we find some reflections on the possibility that this scientific discourse could contribute to the improvement of people's lives through more trust and cooperation.

2. Evaluation of all other publications

Of all the publications which Dr. Grinberg has submitted for the competition procedure, 32 are scientific articles and 'long-format articles' (as defined in the Bylaws) in English, visible in Scopus and Web of Science. 14 of them have been published in different Springer volumes. In terms of metrics, the most successful is an article in the Journal of Experimental Psychology, co-authored by the well-known British scientist Prof. Nick Chater and his student Prof. Ivo Vlaev. Another 32 items are articles and reports published in peer-reviewed journals or edited collective

volumes, 'not indexed in world-known databases like Scopus and Web of Science' (by the definition of the Bylaws). Four co-authored works are chapters in a book, apparently related to a research project, for which is difficult to identify if it has been subjected to peer-review.

In the presented report, Dr. Grinberg has summarized his scientific contributions in three groups. I accept this way of organization and discuss each group separately. The first one, "Development of Cognitive Architectures..." contains earlier results of the author and is a kind of continuation and upgrade on the AMBR/DUAL model. The latter was introduced by Assoc. Prof. Dr. Boycho Kokinov and was developed in the last years of XX century by him and his students, mostly Alexander Petrov. Some of these publications of Assoc. Prof. Dr. Grinberg are co-authored with Assoc. Prof. Dr. Kokinov and other colleagues. As far as I can tell, here the contributions of Assoc. Prof. Dr. Grinberg and his students are in the creation of new models that are cognitively more realistic than the original ones, as well as in development of algorithms for their implementation.

The second group is "Decision Models with Reinforcement in Experimental Economics". Here we find an approach that uses game theory as a guide for developing laboratory studies of some cognitive aspects of human behaviour. Various mathematical models of cognitive phenomena are proposed, and they find good support in the empirical data about the participants' behavior.

The third group of contributions, "Empirical Research in Experimental Economics," deepens our understanding of human behavior in The Prisoner's Dilemma, which is widely known to be a useful tool for analyzing real-life situations. I believe, here the author has an equal contribution with his colleague Dr. Evgenia Hristova. Some of the research was conducted with eye-tracking equipment to analyze the players' attention shifts, which is an innovative approach. To this group of contributions belongs the very interesting attempt to connect relational models theory of anthropologist Alan Fiske with game theory, in particular with the game "The Prisoner's Dilemma".

3. Citations

I have already pointed out that the candidate has exceeded more than nine times the minimum requirements for citing of his scientific papers, and he has provided evidence for citations in publications visible in Scopus and Web of Science only. Among the publications with which Assoc. Prof. Dr. Grinberg participates in the competition procedure, his paper with Chater and Vlaev stands out with 20 citations identified by him. His Google Scholar account shows, however, that it has in fact been cited a total of 42 times. Two of them are found in papers by Jerome Busemayer, one of the stars of modern American decision-making psychology. The candidate's other six articles have been cited more than 30 times each. It is true that they are sometimes co-authored by a large number of colleagues, yet this does not diminish the achievement. In fact, his Google Scholar profile shows a total of 1,279 citations, and the irony is that the better part are for his publications in theoretical physics.

4. Work on research projects and practical applications of scientific results

We must keep in mind that the main result of a scientific project is the creation of new knowledge. The best way to make it popular is by publishing it in reputable – preferably international – outlets. In this sense, the participation of Assoc. Prof. Dr. Grinberg in research projects is well documented through his publications and their citations. As we already discussed, his achievements in that respect are impressive.

He has participated in 10 international research projects, most of them within the 5th, 6th, and 7th EU Framework Programs, as well as in a project with Rutgers University funded by the Templeton Foundation, USA. In addition, Assoc. Prof. Dr. Grinberg has taken part in an international project that explored the problems of technology dissemination to people with disabilities.

An essential ingredient in the process of practical implementation of research results is the effort to make scientific achievements known to the general public. In this regard, Assoc. Prof. Dr. Grinberg has done good work, giving a number of public lectures, including two in the famous TED series. As director of the Laboratory for Usability of Products and Services "HiLab", he has led and/or worked on a number of practical projects with various organizations.

Finally, some of his work in upgrading the AMBR/DUAL architecture was implemented in a lab robot.

III. Teaching activity

1. Classroom and extracurricular work, use of MOODLE-NBU environment, student internships, support for students and PhD candidates

From the presented report it can be seen that Assoc. Prof. Dr. Grinberg has invested a lot of effort in teaching at NBU. He has participated in the upgrade of a number of bachelor's programs: Psychology in Bulgarian; Psychology in English, Speech Therapy and Social Work; he was instrumental in initiating a new Bachelor's Program for Outstanding Students. He was the director and a longtime lecturer in the Cognitive Science master's program.

The list of academic courses Assoc. Prof. Dr. Grinberg has delivered over the years is impressive: Here we see not only courses in psychology and cognitive science, but also courses in physics, physical and physicochemical methods in biology, computer programming, neural networks, game theory, decision making, analytical and reasoning skills. For a lecturer such a thing is possible only through outstanding educational and professional background, combined with deep motivation and dedication to the profession.

He has supervised dozens of students developing their master's and bachelor's theses, as well as student projects. His research with some of them has resulted in joint publications. Assoc. Prof. Dr. Grinberg has taught seven courses using the training platform MOODLE-NBU.

2. Student evaluations

The submitted report states: " Average over the student satisfaction course grades is above 4.00". I have no information about the NBU procedures for student feedback and therefore cannot assess the real meaning of the statement. I will only say that universities all over the world closely monitor the student evaluations of their professors, yet this is never a decisive factor for academic promotion.

IV. Administrative and public activities

1. Participation in NBU governing bodies

Assoc. Prof. Dr. Grinberg has served in many different roles in the governing bodies of NBU. He has been a longtime member of the Faculty Council of the Master's Faculty; has served as a member of the Academic Council of NBU; was a Vice-Rector for a stint; was the Director of a Master's Program, Director of a Bachelor's Program, Director of the NBU Evaluation Center; has served on numerous academic committees.

2. Service to the profession

Dr. Grinberg is a member of several national and international professional organizations. I have already mentioned his TED lectures. It is worth noting his participation in the Assist Foundation, which has set itself the noble task of helping with advanced technology children and adults, suffering from communication problems.

Finally, nowadays it is increasingly important to share one's good deeds on social networks. I can say that Dr. Grinberg's postings in Facebook contribute to the positive image of NBU at large.

3. Attracting students

As a person not affiliated with NBU, I do not have a realistic view of the activities of Assoc. Prof. Grinberg in this regard, but I assume that the initiation of a bachelor's program for outstanding students is just such an example.

V. Personal impressions of the candidate

I first met Assoc. Prof. Dr. Maurice Grinberg more than 20 years ago when I was doctoral student, and he was already a Senior Research Associate at the Bulgarian Academy of Sciences. I was in contact with him mostly during the NBU annual summer schools in cognitive science, which I used to attend at the time. I followed his journey from physics to psychology with

interest. In my opinion, he is a very serious scientist with excellent fundamental training; a person who entered a new field and achieved truly remarkable results in it.

VI. Opinions, recommendations and notes on the activity and achievements of the candidate

I have no recommendations or additional notes on the work of Assoc. Prof. Grinberg. I express my satisfaction that he is participating in this competition procedure.

Conclusion

The only candidate in the competition procedure for full Professor of Psychology, Assoc. Prof. Dr. Maurice Avram Grinberg, meets all the requirements for this position. His academic achievements significantly exceed the minimum national requirements, as well as the additional criteria of NBU. His candidature is very strong and convincing. My overall assessment of his work is positive entirely. I propose to the esteemed Academic Council of NBU to promote Assoc. Prof. Grinberg to the rank of full Professor.

22 September 2021.

Signature: _____