

---

## BEHAVIOURAL APPROACHES IN PUBLIC POLICIES

Dana Petranova<sup>1\*</sup> and Andrea Rysová<sup>2</sup>

<sup>1</sup> *University of Silesia in Katowice, Faculty of Social Sciences, ul. Pawła 3, 40-008, Katowice, Poland*

<sup>2</sup> *University of Ss. Cyril and Methodius, Faculty of Mass Media Communication, Nám. J. Herdu 2, 91701, Trnava, Slovak Republic*

(Received 1 April 2020, revised 16 April 2020)

---

### Abstract

Over the last decade Behavioural sciences have increasingly penetrated into European public policies. Behavioural sciences combine knowledge from numerous scientific disciplines. It is a combination of the results of ideas from Economics, Psychology, Ethics, Evolutionary Biology, Neuroscience, Communication and Marketing. Behavioural public policy takes into account irrational behaviour of individuals and seeks ways to make public politics more efficient. In public politics, we can see more intensive orientation towards a person (citizen/entrepreneur) and the endeavour to look at their decision-making and behaviour in specific life situations, relations, contacts, and in communication with state institutions in a more emphatical way. Slovakia is not an exemption to this sphere. The paper also presents authentic examples of how behavioural innovations were used during coronavirus pandemic and pilot experiment with the Financial Administration. Conclusion reflects how Behavioural sciences act in the context of Theology.

*Keywords:* administration, nudging, norms, rules, social contract

---

### 1. Introduction

In the last decade of the 20<sup>th</sup> century, especially during its second half, behavioural economics became a respected sub-discipline of Economics. In the endeavour to understand the issue, it is crucial to make clear terms, such as, traditional economics, behavioural economics and Behavioural sciences. Behavioural economics stands at the boundary between neo-classical economics and Psychology. Its purpose is to integrate psychological phenomena into economic models in such a way as to make these models predict human behaviour more precisely and reliably. The difference between the perspectives of behavioural and traditional economists on the issue of rationality and irrationality is therefore fundamental. The traditional economy assumes that when purchasing, people take decisions in an absolutely rational way. The behavioural economy is aware that there exist many factors influencing our decision-making.

---

\* E-mail: dana.petranova@gmail.com

Behavioural sciences also include notions from other scientific disciplines. In addition to Micro-economics, Cognitive psychology and Ethics, they take into account other questions of human behaviour and define the systematic impact of internal and external factors on the outcome of individual decision-making and related processes. A behavioural approach to the production and implementation of policies and provision of public services recommends approaching solving problems with a design-like or architecture-like thinking. Behavioural models involve more empirically obtained parameters and reflect observed patterns of behaviour of real people [1].

In recent years, a human being - a citizen - stood out from the attention of the authors of public policies. The human aspect was often ignored, including forming policies in the European Union, or solutions only on the basis of assumptions, speculations, or even intuition. It was exactly the inefficiency of public policies and high costs which caused the authors of policies to become more interested in the notions of Behavioural sciences that are related to human attitudes, behaviour and especially decision-making. The aim of the paper is to point to new ways of implementing behavioural innovations in public administration in Slovakia. The study also provides a vision of experimental public politics, which should be based on a pro-active interest in the understanding of citizens' needs and agile answers to how to effectively address these needs and meet them successfully.

## **2. Methodology of the paper**

The intention of the study is to delimit and define existing knowledge in the field of Behavioural sciences and its implementation into public politics in Slovakia. When elaborating the paper, we applied several methods of research. One of the methods, which we used when obtaining information, was the method of analysis which enabled us to classify and in further detail examine individual theoretical notions obtained by means of domestic, as well as international electronic, bibliographic and journal sources. While working on the study, we applied the method of synthesis, which allowed us to summarize acquired data into a unified whole and a method of comparison, which permitted us to compare individual information items obtained on the given issue.

## **3. Decision-making processes from the viewpoint of Behavioural sciences**

Behavioural sciences examine the decision-making processes of people based on evidence and use empirical testing and implementation of new notions. Individual decision-making of every person is impacted by many variables. They can be divided into following three categories: a) cognitive biases, b) complex time preferences (e.g. they want to save long-term benefit, but expenses for short-term reward), c) limited ability to effectively process information and to make choices as a result of information overload.

Cognitive bias is an inherent thinking ‘blind spot’ that reduces thinking accuracy and results in inaccurate - and often irrational - conclusions. Cognitive biases are systematic patterns of deviation from the norm or rationality in judgment. The reality of most of these biases is confirmed by reproducible research; there are often controversies about how to classify these biases or how to explain them. Some are effects of information-processing rules (i.e. mental shortcuts), called heuristics, that the brain uses to produce decisions or judgments. Biases have a variety of forms and appear as cognitive bias (‘cold’ bias), such as mental noise, or motivational bias (‘hot’ bias), such as when beliefs are distorted by wishful thinking. Both effects can be present at the same time. There are also controversies over some of these biases as to whether they count as useless or irrational, or whether they result in useful attitudes or behaviour. John Manoogan III grouped 188 cognitive biases into 4 categories [B. Benson, *Cognitive bias cheat sheet. Better Humans*, September 1, 2016, <https://betterhumans.coach.me/cognitive-bias-cheat-sheet55a472476b18#.mq1u92qp>]:

- 1) *What should we remember?* We store memories differently based on how they were experienced. We reduce events and lists to their key elements. We discard specifics to form generalities. We edit and reinforce some memories after the fact.
- 2) *Need to Act Fast.* We favour simple-looking options and complete information over complex, ambiguous options. To avoid mistakes, we aim to preserve autonomy and group status, and avoid irreversible decisions. To get things done, we tend to complete things we’ve invested time and energy in. To stay focused, we favour the immediate, relatable thing in front of us. To act, we must be confident we can make an impact and feel what we do is important.
- 3) *Too Much Information.* We notice things already primed in memory or repeated often. Bizarre, funny, visually striking or anthropomorphic things stick out more than non-bizarre/unfunny things. We notice when something has changed. We are drawn to details that confirm our own existing beliefs. We notice flaws in others more easily than we notice flaws in ourselves.
- 4) *Not Enough Meaning.* We tend to find stories and patterns even looking at sparse data. We fill in characteristics from stereotypes, generalities, and prior histories. We imagine things and people we’re familiar with or fond of as better. We simplify probabilities and numbers to make them easier to think about. We think we know what other people are thinking.

People face decisions and information to a larger extent than they are able to process, since our brains can process information in two ways: either by means of purposeful, logical thinking, or in an automatic way, without purposeful thinking. This issue was investigated by many researchers with various terminological designations [2]: dual theory of mind [3], dual theory of decision-making [4], controlled processing and automatic processing [5], fast and slow thinking [6], online and off-line [7, 8], reflective and non-reflective thinking [9], system 1 and system 2 [10], or type 1 and type 2 [11, 12]. The

authors more or less agree on the following differences between automatic and controlled processes in the human brain: 1) Automatic thinking is: involuntary; without making an effort; parallel processing: more steps run at the same time; there cannot be observed individual mental steps we have taken in order to come to the conclusion named; relatively fast; relatively independent of cognitive capacity; associative steps; 2) Controlled thinking is: voluntary; the result of the endeavour; processed; series-like; gradual processing; one step at a time; we can trace mental steps that we have carried out in order to achieve conclusion; dependent on cognitive capacity [13]. Various authors believe that although these two systems are different, they can cooperate and the main difference lies in the level of control which an individual can have over them.

The aim of Behavioural sciences used in public and state administrations is not to change the ways of thinking, or attitudes. The main purpose is the change of the context in such a way as to cause a change of thinking. This can be achieved by a proposal of different ways, by which people are offered choices. These choices can be used to change peoples' behaviour in a predictable way without forcing them. This method is called 'nudging'. In the context of public politics, we understand it as a cost-effective tool of politics creation. Pushing helps maintain the freedom of people, because they do not come under punishment, fines, or other negative consequences in case of a choice of any choice of possible alternatives. To illustrate, in the case of written communication between the state and a citizen, this can mean emphasizing key points while using colours or bigger fonts; making forms and processes easier; or sending motivation and well-timed objections.

In the context of criticisms of nudging, it is vital to emphasize recommended libertarian paternalism. In order to make nudging ethically correct, it must meet three basic principles:

- 1) nudging must be transparent,
- 2) it must be easily removed,
- 3) it must lead to the growth of well-being, never the other way round.

While respecting these principles, nudging can serve as an efficient and elegant tool in directing decisions [14].

#### **4. Behavioural approaches as a natural part of public policies**

Behavioural attitude to problem solving attracts the attention not only of academics and researchers, but currently also authors of public policies. They perceive it as a valuable and promising tool to improve programmes of governments and processes of service provision. As we have already mentioned above, people are usually more likely to make decisions according to prejudices, they are influenced by emotions, instincts and people in their nearest environment. These tendencies of behaviour can have an impact on how active people are, how they see the state and its services.

In the final report on a behavioural experiment in a local self-administration, Emília Sičáková-Beblavá, Matúš Sloboda and Patrik Pavlovský state the following: “*Behavioural approach to the production and implementation of policies and providing public services, in other words to gladly accede to the execution of this task as if with designer-like or architecture-like thinking. If the author or executor of public politics reflects the tendencies of citizens to make easier and adjust reality and to work on the basis of this simplified mental model of decision-making, they are offered the possibility to step in the form of a pro-active communication, objections, navigation, clear informing or other form of sophisticated design. Behavioural public policies appreciate and promote pro-active public politics, which clearly and timely informs and in time navigates and thus invests attention even into smallest details in the process of implementations, namely if its honest target is to help citizens.*” [15]

Whether we wish to admit it or not, the majority of government policies depend on the decisions of people. In order to make people respond positively and act in a ‘desirable’ way, it is possible to apply many interventions. On the other side, it needs to be mentioned that these interventions are often time-consuming, costly, based on out-dated understanding of human behaviour without experimenting and verifying. Around the world, there originate small multidisciplinary teams that try to encourage people to take better decisions. The goal is to find low-cost interventions with huge impact. The first global central units of behavioural include, for example, the Behavioural Insights Team in the UK, the Social and Behavioural Sciences Team in the USA, the Organization for Economic Co-operation and Development at OECD, the Behavioural Insights Team in Singapore, in Australia, among others.

When solving problems, these organizations apply different work procedures. For example, the British Behavioural Insights Team uses an acronym T.E.S.T.S.2, the Danish consulting firm iNudgeYou in cooperation with OECD use an acronym BASIC to denote their procedures. In both instances, however, in principle this means implementing similar methods in approximately same logical sequence, without which it would be extremely complicated to choose the most suitable behavioural intervention. The Slovak research team was formed at the Institute of Public Policy at Comenius University, calling its methodology of research a *behavioural audit*. Within the behavioural audit, we go through the following five phases: 1) identification of relevant, behavioural problems and naming the target; 2) understanding factors of problematic behaviour; 3) selection of suitable intervention; 4) experimental design and testing; 5) scaling in a form of recommendations for public politics [15, p. 7].

A common denominator of the above-mentioned work procedures in the described teams is the fact that several variables enter the analysis of opportunities for behavioural interventions - existence of a behavioural problem, costliness of intervention, extent of replicability in another environment, and measurability. An important variable is also the extent of

feasibility, especially in the context of transactional costs related to the preparation and execution of interventions.

## **5. Behavioural approaches and public politics in Slovakia**

In the Slovak environment, there are several believers in the idea of making Behavioural sciences more public. The most important unit in the government can be considered the team called BRISK (Behavioural Research and Innovations Slovakia), which is part of the Office of the Deputy Prime Minister of the Slovak Republic for Investments and Informatization [<https://lepsiesluzby.digital/>]. The unit was established at the beginning of 2019. It involves a multidisciplinary team consisting of 6 experts from the field of behavioural sciences, project management, communication, marketing, data analysis, and design (UX). It brings behavioural interventions into the environment of the digital services of public administration, takes care of the administration of tools to reach a united UX services of the state so that the visualisation of services is cohesive and user friendly, it implements a culture of testing and taking decisions on the basis of experiments, and it cooperates with renowned national and international experts on the given issues. BRISK also has a non-formal name Empathic centre of state. The main targets of this unit can be considered as: 1) making public administration and public policies more efficient by means of behavioural innovations, 2) increasing the level of satisfaction of citizens with electronic services of the state. This unit is unique because it is the first and only department to consider above-province the electronic services of the state through the eyes of a citizen, putting themselves in their place and trying to understand their feelings. At their work, they lean on the notions of behavioural sciences and CX/UX (Citizen Experience/ User Experience). Like other behavioural teams around the world, they propose small uncostly improvements, which have a potential to bring huge savings or changes (e.g. increasing the happiness of a citizen). In addition, according to the example of successful and economically prosperous countries, they implement into the Slovak environment a unique culture of experimenting (testing alternatives of proposals of measures before their deployment) and making decisions on the basis of data, which can save a lot of money unlike unverified and intuitive measures. Within a year, this unit realized the following: an experiment with the Financial Administration on paying taxes and a set of proposals to make collecting taxes more efficient; experiment (adjustment of electronic letter) for villages and towns to increase the level of recording farmers into the register of legal persons; Benchmark of life situations - evaluation of electronic services of the state from the perspective of a citizen; specialized UX/CX trainings; they elaborated a proposal of 'citizen-friendly' info-guideline for the Department of transport, how to proceed at car registration; carried out a certified course *Masterclass - a Course on behaviour and decision-making of a citizen in the contact with the state* and a Workshop Policy School *How to bring efficient behavioural innovations into*

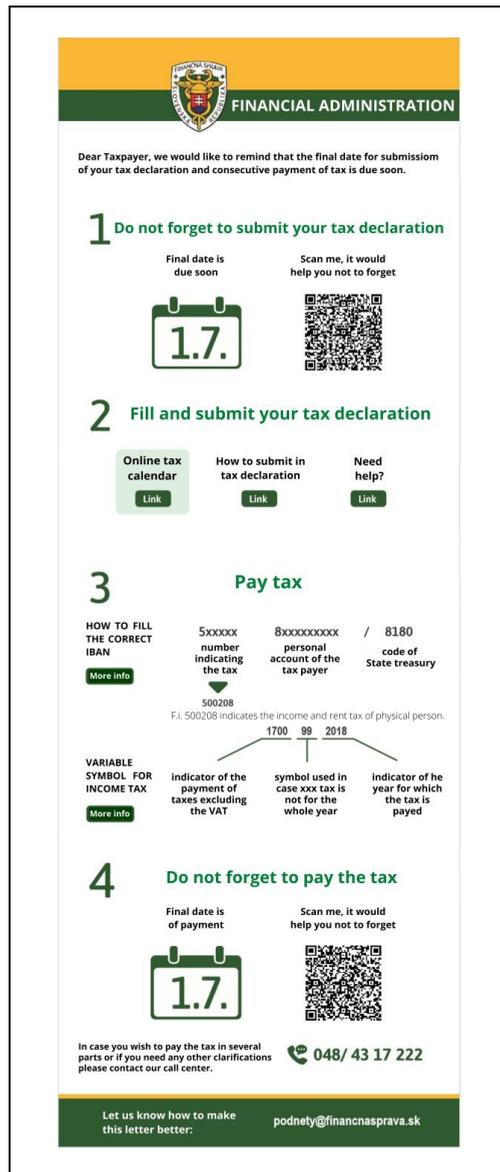
*Slovak public administration?*; they held a professional conference called Behavioural Innovations in Public Administration in Slovakia. The added value of BRISK is also the production of methodologies and manuals, for example, the Methodology of production of high-quality electronic services, or JASNE (clearly) - guide for application of behavioural interventions in public administration. This manual has been inspired by the material EAST, which was created by BIT. According to British experts, if public servants want to support behaviour or improve the decision-making of citizens, they need their services to be easy (E), attractive (A), social (S) and timely (T) [BIT, *EAST Four simple ways to apply behavioural insights*, 2015, 9-37, [https://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT-Publication-EAST\\_FA\\_WEB.pdf](https://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf)].

At the time of elaborating this paper, all around the world there is raging the coronavirus pandemic. In connection with the information on coronavirus, we may observe mainly three phenomena, as follows: 1) 'disinfodemic' - spreading health consequences or disease due to viral dissemination of disinformation [16] or misinformation [17] on the Internet; 2) overload of information - media constantly inform on the pandemic, pay attention to negative news, for example, numbers of victims and the infected; 3) reckless approach - during the epidemic people behave in a flippant way and do not change their behaviour in order to help minimize the spread of the virus. The tasks of BRISK also include a recommendation for the government as to what communication principles they should adhere to from the behavioural perspective: 1) to keep the trust of the public; 2) information must be simple, clear and precise; 3) transparency. BRISK in its recommendations was based on its foreign partner BIT [<https://www.bi.team/blogs/covid-19-how-do-we-encourage-the-right-behaviours-during-an-epidemic/>].

### **5.1. Experiment with Financial Administration**

The Financial Administration of the Slovak Republic (further FS SR) in cooperation with BRISK, carried out an experiment in June 2019, the subject of which was testing intervention with the aim to support the early submitting of tax returns by self-employed persons. The intervention was a notification along with highlighting the proper form on the portal of FS SR. The intervention eliminated 'friction' along the way to the desired behaviour. The purpose of the cooperation between BRISK and FS SR was to utilize methods, principles, and tools of behavioural innovations with the aim to support the voluntary performance of tax duties by tax subjects operating in Slovakia and thus to contribute to more efficient tax collection. The execution could be found in Figure 1.

The target of the experiment was to test in a pioneering way the impact of the new version, the so-called Soft Warning communication on the extent of timely tax payment from the income of self-employed persons.



**Figure 1.** Visual of behavioural intervention in the environment of Financial Administration.

The tested intervention combined highlighting the proper form on the portal of FS SR and sending a notification to the personal email box on the portal of FS SR. In the notification, the necessary data was clearly and comprehensibly summarized for the taxpayer with the aim to make submission of their tax return easier, to the largest extent possible. The production of the notification was preceded by an analysis of its components - ordinary text, factual content, QR code, headlines and buttons. The assumed behavioural factors were distorted speculations, bad allocation of attention, creation of

implementation intention, framing architecture of selection, and attention. The content and visual depiction of the intervention had the purpose to partially decrease friction related to obtaining and understanding useful information for the successful and voluntary accomplishment of tax duties. The route of the taxpayer to guidelines, important instructions or examples, to deadlines and to the form has been reduced to just one click. For the same purpose, we used a specific structure of communication, framing of the used texts, as well as visual guiding to the most important segments of communication. The main message of the communication is framed in the form of the so-called action steps. Each of the steps clearly denotes an act that the taxpayer should carry out in order to accomplish their duties. Visual differentiation and highlighting of action steps reflect the behavioural principle of guiding attention. It was intended to reduce the tendency to overlook important decisions through the bad allocation of attention by the use of enclosed QR codes, which after loading offered the option to make comments in a mobile calendar (and at the same time implementation intention). Last, but not least, communication uses the colours and the logo of the sender - FS SR - by which they tried to maintain the authority of the communication.

The notification was in PDF format and was sent by FS SR into the electronic mailboxes of taxpayers to their portals as text attachment. The notification was sent 13 days before the deadline for paying income tax, thus on June 18, 2019. Its task was preventive - it should prevent forgetfulness or being late due to recklessness, or paying not enough attention to the duty to pay income tax by a specific date. The final number of analysed subjects was 40,964. They were randomly divided into two groups - control and intervention. Randomization was carried out at the level of an individual without previous stratification and each subject had the same opportunity to get into a control or intervention group, which is how to reduce the notional bias of the group of tax subjects (control and intervention). The intervention group was sent a soft warning into their e-mailboxes on the portal of Financial Administration with reminding them of the date to submit a tax return and tax payment. The second group (control) was sent no warning. After random division, the control group involved 20,486 tax subjects and the intervention group 20,478 tax subjects. Both groups retained their basic characteristics.

The evaluation of the data showed that the effect of the applied intervention was not statistically important. We managed to identify the following reasons: unsuitable timing (intervention came too late) and improper channel (intervention did not necessarily reach the overall target group). In spite of that, we may assess the experiment in a positive way. This means including experimenting in the environment of the so far rather rigid public administration, which is in Central European public policies a very uncommon phenomenon. The very execution of the experiment meant moving the borders and common methods of work in both public and state administrations. The experiment was a foundation stone and represents the beginning of a very

interesting and promising cooperation. The complete research report is to be found here [<https://lepsiesluzby.digital/experiment-fs-sr>].

## ***5.2. Other organisations and institutions in Slovakia dealing with topics of Behavioural sciences***

The already mentioned Institute of Public Policy at Comenius University deals not only with the education and publication of specialized bibliography in the field of behavioural sciences, but it also carries out pioneering experiments from the area of the implementation of behavioural interventions in the environment of public administration. For instance, during 2018-2019, the research team from this institute continued the topical trend of implementing behavioural innovations into the processes of decision-taking in cities. Not only the governments of many countries, but also municipal offices in numerous countries created their own behavioural teams. As an example, we may mention more than 100 cities in the USA, supported by the initiative Bloomberg cities [18].

At the Institute of Health Policies the BEET (behavioural and experimental economics team) was recently established. Its targets are complex solutions in health-care policy based on knowledge from behavioural sciences and tested by means of laboratory and field experiments. Their approach of implementing verified policies and measures in practice decreases the risk of their negative social impact and makes using public financial sources more effective. At present, the team is working on a project of enhancing the quality of donorship for the National Blood Transfusion Association.

Alongside these institutions, a platform called SBEN also operates, whose mission is to disseminate notions about the possibilities of behavioural economics and to bring this global trend to Slovakia. SBEN provide the hottest know-how and spreads awareness about behavioural economics in the public sector, business and every-day life. It also interconnects universities with public institutions in the area of the application of behavioural notions. Their portfolio includes nudging people towards better decisions and helping public institutions and companies ethically use behavioural economics.

Furthermore, in the Slovak environment there exist numerous organizations and institutions, the most important involving the consulting company Mindworx. They provide expert counselling in the areas of HR, marketing, business consulting or data mining.

## **6. Behavioural sciences in the context of Theology**

Behavioural sciences are to a larger or smaller extent applied in different areas and scientific disciplines. A reflection on this issue in the field of Theology has so far occurred at an elementary level and naturally it offers an open space for fundamental and applied research. Up to the present time we have not sufficiently managed to authoritatively stabilize the definition of the

term 'behavioural theology', although we have noticed numerous attempts to install such a term into the theological discourse - especially in the works of non-academic theological authorities [19]. There are several spheres in which Theology implements and to an even larger extent can be applied to behavioural sciences.

The most important of them is education. Not only students of Theology, but also leading personalities of the Church are increasingly aware - by means of study and the application of cognitive theory, Psychology, basic economic norms and historical 'behavioural' experience from the history of the Church - that congregations are not only compact groups automatically respecting dogma, but they are communities filled with individual human beings. And therefore Church leaders need to be trained not only in Theology, Exegesis and Liturgics, but also in communication with the public that seeks to 'renew the mind without forgetting the needs of the flesh'. Calvin in his work *Institutes of the Christian Religion* states: "Nearly all the wisdom we possess, that is to say, true and sound wisdom, consists of two parts: the knowledge of God and of ourselves" [20].

Behavioural sciences provide Theology with broader space to use, explain and reason miracles, creativity, openness, paradoxes, surprises, but also a sense of humour. There are many such features in the history of the Church and until now some of them were viewed without realizing their deeper 'human' meaning. For theologians, Church authorities and also for believers this new approach based on an awareness of the behavioural connections of theological phenomena can give a refreshing and invigorating impression, they will be freed to see the whole world as a source of inspiration and delight.

In the same way that business school education changed from classical to behavioural economics and added the insights of cognitive theory to the rigour of econometrics, under the influence of Behavioural sciences seminary training important human insights must begin to be linked with rigorous theological reflection.

Non-investigated but even more important objects of examination should be ethical and non-manipulative uses of four basic behavioural principles when working with the public in congregations. Anchoring, Framing, Loss aversion, Optimism bias, Context effect, Herding effect and other tools in the hands of responsible Church authorities can make the relationship between the Church and individual believers easier and more efficient and can create new channels of mutual understanding.

## **7. Conclusions**

Naturally, Behavioural sciences also have their critics. A part of them concentrate on the field of methodology. The most common objectives are directed to the un-replicability of the research. The critics also include evolutionary psychologists, who reproach behavioural psychologists that the questions they ask do not take into account our evolutionary past. Another

group of critics point to the fact that Behavioural sciences should, in the mix of scientific disciplines on which they lean, significantly emphasize the position of Neuroscience. Similarly, widely discussed is also the issue of Ethics, the manipulateness of nudging as a form of paternalism in public politics. Despite the justified criticism, the mistakes made by behavioural scientists are naturally accompanying phenomena, which cannot be avoided by any research.

Behavioural sciences in public policies try to understand the 'controller' of human behaviour. The aim of behavioural teams is to offer society-wide beneficial solutions, especially in the form of the production of an environment for higher-quality and more effective decisions. Decisions that make it easier for people to adhere to legal norms and policies, or access to services. If we successfully manage to implement at least a small portion of the planned interventions, there is no doubt that the positives of their approach would fundamentally prevail over the notional negatives.

## Acknowledgement

This paper is an output from the project Efficient public administration *Improvement of digital services in public administration by means of behavioural innovations (ITMS2014+ 314011S782)*.

I wish to thank to the members of the team BRISK (Behavioural research and innovations Slovakia) for fantastic enthusiasm and high professionalism at work they carry out. I also wish to thank to the management of the Institute of Political Science (Faculty of Social Sciences), University of Silesia in Katowice, for the support at work.

## References

- [1] V. Baláž, *Prospektová teória a jej miesto v ekonomickom myslení*, in *Rozhodovanie a usudzovanie I: Pohľady psychológie a ekonómie*, V. Bačová (ed.), Ústav experimentálnej psychológie SAV, Bratislava, 2010, 88-132.
- [2] E. Sičáková-Beblavá, *Behaviorálne základy verejnej politiky*, Univerzita Komenského, Bratislava, 2015, 21, 22.
- [3] J. Evans and D. Over, *Rationality and Reasoning*, Psychology Press, East Sussex, 1996, 179.
- [4] A. Tversky and D. Kahneman, *Psychol. Rev.*, **90(4)** (1983) 293-315.
- [5] W. Schneider and R.M. Shiffrin, *Psychol. Rev.*, **84(1)** (1977) 1-66.
- [6] D. Kahneman, *Thinking, fast and slow*, Farrar, Straus and Giroux, New York, 2011, 512.
- [7] D. Bickerton, *Language and human behavior*, University of Washington Press, Seattle, 1995, 180.
- [8] J. Coates, *The Hour Between Dog and Wolf*, Penguin Books, New York, 2012, 339.
- [9] M.D. Lieberman, R. Gaunt, D.T. Gilbert and Y. Trope, *Adv. Exp. Soc. Psychol.*, **34** (2002) 199-249.
- [10] K.E. Stanovich and R.F. West, *Behav. Brain Sci.*, **22(5)** (2000) 645-665.
- [11] J.S.B.T. Evans, *Annu. Rev. Psychol.*, **59** (2008) 255-278.

- [12] J.S.B.T. Evans and K. Franich, *In two minds: Dual Processes and beyond*, University of Oxford, Oxford, 2009, 255-278.
- [13] E. Drobná, *Teórie duálnych procesov uvažovania*, in *Rozhodovanie a usudzovanie I: Pohľady psychológie a ekonómie*, V. Bačová (ed.), Ústav experimentálnej psychológie SAV, Bratislava, 2010, 48-87.
- [14] V. Ivanković and B. Engelen, *Social Theory and Practice*, **45(1)** (2019) 43-74.
- [15] E. Sičáková-Beblavá, M. Sloboda and P. Pavlovský, *Záverečná správa z realizovanej behaviorálnej intervencie: Pripomienky dlužníkom na poplatku za komunálny odpad*, Univerzita Komenského, Bratislava, 2019, 6.
- [16] A. Koltaiová, *Eur. J. Sci. Theol.*, **12(5)** (2016) 49-59.
- [17] D. Petranová, *Kompetencje komunikacyjne w teorii i praktyce*, in *Komunikowanie się w społeczeństwie wiedzy XXI wieku*, E. Frołowicz (ed.), Wydawnictwo Wyższej Szkoły Bezpieczeństwa, Poznań, 2012, 149-157.
- [18] E. Sičáková-Beblavá, M. Sloboda, P. Pavlovský and R. Burič, *Behaviorálna politika pre miestnu samosprávu. Manuál na aplikáciu behaviorálnych poznatkov v slovenských mestách*, Civita Center. Ústav verejnej politiky. Fakulta sociálnych a ekonomických vied Univerzity Komenského v Bratislave, Bratislava, 2019, 12.
- [19] H.B. Stokes and N.P. Lewis, *Integration of Behavioral Sciences and Theology: A Systematic-Integration Approach*, iUniverse USA, Lincoln, 2000.
- [20] J. Calvin, *Institutes of the Christian Religion*, Vol. 1, The Library of Christian Classics 20, The Westminster Press, Philadelphia, 1960, 1-3.