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I. Achievements of research and science organisation affecting the Research Centre as a whole in 2017

Support of international publishing activity Publishing the results of research in international journals of high reputation (SSCI/Sci, Scopus Q1/Q2) is a strategic aim of the Centre. The list of mechanisms supporting international visibility (awards for outstanding international publications, TK Mobility and Language-editing Fund, supporting joint authorship, assigning high scores for IF publications by the performance evaluation system, academic writing course for early stage researchers) have been further extended. Roundtable discussions on publishing techniques have been held by researchers with outstanding international publishing records. A new TK Fund has been established to support joint article-writing process with foreign researchers as co-authors. Pre-award research management team has been set up within the Office of the Director-General and considerable efforts have been made to build international networks within the COST and the TWINNING framework.

Active management of international and domestic proposal-writing MTA TK made further steps towards developing the research management infrastructure, providing professional support on both the scientific and the administrative aspects. The employees of the Office of the Director-General and the Financial Unit take active part in the work of organizations that are responsible for monitoring and shaping the European Research scene (EARMA - European Association of Research Managers and Administrators, BESTPRAC COST Action - The Voice of Research Managers). A highly qualified native speaker professional who works as Research impact and Communication Assistant contributes to the convincing positioning of the proposals for the evaluators. The proposals are actively managed from the very first stage of the pre-award procedure from the aspects of content, form and budget.

Launch of new TK competitive research support funds The already operating competitive TK research support funds (Mobility Fund, Language-editing Fund, Consortium-building Fund) have been joined by two new ones in 2017. NKFI/OTKA Communication Fund aims at the promotion and dissemination of the results of the NKFI funded research projects for the scientific, but also for a wider, public audience as well. The International Publishing and Methodology Fund helps in the article-writing process by supporting short visits of foreign co-authors and acquiring the latest social science methodological background for early-stage researchers.

Launching innovative research projects (Incubator Grant) MTA TK issues a call biannually Incubator–Collaborative Research Projects Fund that seeks to promote outstanding social science research led by MTA TK researchers. It supports research projects in their early stage assisting them to apply for international – preferably H2020 – grants, thus enabling MTA TK to be a successful proactive actor in the international scientific and research funding scene. Awards were granted for innovative research projects aiming at scientific output of

international significance, resulting in outstanding international publications and having the potential to attract support from international granting agencies. Project proposals needed to involve international partners, young researchers and were preferred to take an interdisciplinary approach to their topics. The proposals were evaluated by an external reviewer board.

In the 2017 round of calls the following projects have been launched and started in September 2017: Text Mining and the Quantitative Analysis of Political and Legal Texts, Surveying the Protesters: Standardizing Methodology and Building an Online Panel of Protesters, Algorithmed Public Spheres, Cultural Heritage and Social Cohesion, Societal Challenges of Energy Use

Computational Social Science Thematic Group In 2017 MTA TK initiated the establishment of the Computational Social Science Thematic Group. The group - with a membership including research institutions and university departments representing different fields from economics to physics (MTA TK, MTA KRTK, MTA NYTI, MTA SZTAKI, MTA Wigner and CEU Center for Network Science) - has the ambition to ignite discussion, facilitate multidisciplinary cooperation and foster the incorporation of high performance computing in social science research. The Group holds regular meetings, hosts meetups, the first joint publication, a special issue of Hungarian Science on cutting edge computational social science issues is going to be published in Spring 2018.

TK took the leading role in two proposals that belong closely to Computational Social Science. The LANS (Latent Algorithms in Network Societies) aims at establishing the scientific network that explores the algorithmic procedures in societies from a multidisciplinary approach. In cooperation with Utrecht University and University College Dublin, TK submitted a Twinning-proposal, COSINE (Computational Studies of Institution Evolution).

New ways of institutional cooperation In 2017 TK continued the cooperation with KSH (Central Bureau of Statistics), that started in 2016 and established a new agreement of cooperation with the Curia of Hungary under which TK provides scientific input and methodological assistance for the Curia, the Curia, on the other hand involves TK researchers in exploring the societal context and impacts of judicial decision-making.

Conferences for wider public audience In 2017 TK launched a series of events specially designed for a wider, non-scientific public audience. The aim of this initiative was to create a scientifically grounded basis for formulating opinions and conducting discussions on relevant issues of Hungarian society. In May "The profit of poverty" explored how and why becomes poverty an integral part of the societal structures, who can "own" poverty, who can benefit from it and how the recognition of this phenomenon becomes a constituent of a conservative social policy-making. In November "Adult's systems, children's interests" was examining how systems in the Hungarian society contribute to the reduction or the growth of inequalities since early childhood.

II. Research results of research groups directly under the Director-General of the Research Centre

MTA TK "Lendület" Research Center for Educational and Network Studies (RECENS)
<http://recens.tk.mta.hu>

The MTA TK “Lendület” Research Center for Educational and Network Studies (RECENS) operates from external funding as part of the Centre for Social Science of the Hungarian Academy of Sciences. It hosts a research supported by the *ERC Consolidator Grant* (EVILTONGUE, Principal Investigator: Károly Takács) and a tenured *Lendület research project* supported by the Hungarian Academy of Sciences (Principal Investigator: Károly Takács). In addition, members of the research group lead two research projects supported by the *National Research, Development and Innovation Office* (Szabolcs Számadó, Tamás Keller) and participate in other national (e.g., Computational Social Science topic group; Budapest City Archives) and international research collaborations (e.g., COST PEERE, hosting guest researcher Tanja Slisković).

The EVILTONGUE research supported the ERC Consolidator Grant investigates the role of gossip and reputation in the maintenance of cooperation and collective norms in different contexts. During 2017, the detailed ethics and data protection documentation of the research has been prepared and on our request audited by the Hungarian National Authority for Data Protection and Freedom of Information (NAIH).

We have performed theoretical and empirical work for the investigation of our main research questions following the working plan in seven subprojects.

1. *Sociological Theory of Signaling*: We have started to develop new theoretical foundations for the scientific study of gossip and reputation based on signaling theory, on the theory of indirect reciprocity, on the social embeddedness of interactions, and their relations to social order and cooperation.
2. *Agent Based Modeling (ABM) of Talking Heads*: Besides theory development, we have designed, built, and analyzed agent-based models. Számadó (2017, *BMC Evolutionary Biology*) have developed and analyzed simulation models for the investigation of the relationship between honest (dishonest) communication, reputation, and cooperation. He found that deception undermines the stability of cooperation established by indirect reciprocity and reputation mechanisms. Righi and Takács (2017, *ECMS Proceedings*) have analyzed different indirect reciprocity strategies that use local or global reputation information. They found that indirect reciprocity strategies built on local reputation information are more successful and able to maintain cooperation.
3. *The Gossip Lab*: We designed and run the first series of experiments that involved controlled forms of gossip and investigated its impact on cooperation using the classical Prisoner’s Dilemma game. We designed a second experiment to test simple hypotheses about costly signaling.
4. *Triad-Based Methodology*: We have started to conceptualize the ways how triadic network data, such as gossip, could be analyzed statistically in self-reported surveys about a certain period and in time-stamped relational event data. A new colleague (Srebrenka Letina) has been hired for this project.
5. *Gossip in Schools*: We have written a review chapter on gossip and reputation in the school context for the Handbook of Gossip and Reputation (Kisfalusi, Takács, and Pál, *Oxford University Press*, edited by Rafael Wittek and Francesca Giardini). We have utilized network panel data collected by our research group in primary and secondary school classes on gossip and reputation. In our further analyses, we found that reputational concerns play a strong role in the establishment of informal social order in the well-bounded communities of the classroom. Kisfalusi, Janky, and Takács (submitted) found that informal communication in social networks is responsible for the ability perceptions of

third-party individuals and these ability perceptions are easily generalized to gender and ethnic groups.

6. *Gossip in Organizations*: We newly gathered information on gossip and reputations in organizations. We have approached several business organizations and have conducted surveys in five of them. Our preliminary analyses show the importance of wage perceptions on gossip and reputation and the importance of opinion brokers.
7. *High-Tech Hunt for Secrets*: Self-reports and even ethnographic observations of gossip and reputation might largely be biased because of the confidentiality of informal discourse. We therefore make a pioneering use of wearable devices (smartwatches) for gathering reliable information on social interactions. In line with our expectations, our first field requests of access were denied. Failed attempts helped us to improve the security and confidentiality measures taken to ensure the protection of the personal rights of participants. After failed attempts, we have gained access to a dormitory floor that is going to be the first field of the subproject. We have designed the functional requirements for a new smartwatch based application tool that we are going to use in our research. We openly advertised the job task, selected and started to work with a professional developer. We have purchased the wearable devices following the public procurement rules. We have established a secure server connection for the storage and handling of the large amount of audio data. We have started preparations for automatic speech processing and manual transcription of text. We have hired a computational linguist (Martina Szabó), who started preparations for the text, topic, and discourse analyses. In addition, we have acquired a uniquely large corpus of spontaneous conversations in a closed small group that we are going to use for the same research purposes. This corpus allows us to test prescription rules, annotation methods, text and topic analysis tools before our large data gathering.

The tenured Lendület project has kept its original focus and investigates the dynamics of negative relations and competition in different contexts. We have extended the primary school data gathering with a last (6th) wave in the spring of 2017. Data processing and cleaning of this wave have taken place in the second half of the year.

As pupils in our sample were in their final year in elementary school, we have taken a step forward and translated our research findings about peer influence on educational aspirations to a policy perspective. Based on our social network assessments, we have designed an experiment in which we tested whether educational aspirations can be efficiently stimulated by approaching and training opinion leaders or not. The outcome variable of the experiment is educational decision (of choosing a grammar school track). Results of this experiment are mixed, but show the success of the intervention for those seeds who were from disadvantaged background, had high aspirations, but low willingness to study further (Keller, Elwert, and Takács, submitted).

The ongoing primary school research is comparable to the secondary school network panel data gathered by RECENS between 2010 and 2013. New progress has been made also in the analysis of the latter dataset. Vörös and Snijders (*Social Networks*, 2017) addressed the issue of measuring social relations as multidimensional constructs. By combining established statistical methods and measures, they developed a method for clustering strongly multiplex network data. Their procedure helps to identify the main latent dimensions in a relational dataset with several items and suggests the use of fewer aggregated network measures.

A new experiment has been conducted that is based on our earlier findings that desk-mates are

important sources of peer influence for academic achievement. Unlike overall classroom composition, which is difficult and costly to change, we ask how seating policies can improve student learning. Since teachers generally have full control over the seating chart, understanding the effects of desk mates on student outcomes will offer new and cost-effective approaches to improve on student outcomes overall and to reduce educational disparities between particular groups of students.

Leading publications in 2017 in international journals with impact factor

- Keller, T. 2017. Mighty Oaks from Little Acorns? The Role of Self-Assessment in Educational Transitions: Mediation and Moderation Effects. *Research Papers in Education*. Impact Factor (IF 2016): 0.833
- Neulinger, Á., Radó, M. 2017. The impact of household life-cycle stages on subjective well-being: Considering the effect of household expenditures in Hungary. *International Journal of Consumer Studies*, DOI: 10.1111/ijcs.12397 IF: 1.51
- Righi, S. and Takács, K. 2017. The miracle of peer review and development in science: an agent-based model. *Scientometrics*, DOI: 10.1007/s11192-017-2244-y. IF: 2.147.
- Számadó, Sz. 2017. When honesty and cheating pays-off: the evolution of honest and dishonest equilibria in a conventional signalling game. *BMC Evolutionary Biology*. 17(1), 270. <https://doi.org/10.1186/s12862-017-1112-y> IF: 3.221.
- Vörös, A. and Snijders, T.A.B. 2017. Cluster analysis of multiplex networks: Defining composite network measures. *Social Networks*, 49: 93–112. IF: 2.462

Accepted publications in 2017 in international journals with impact factor

- Keller T. in press. Dare to Dream: A Vignette Survey on Self-Selection in Secondary Education Track Choice. *Sociological Research Online*, IF: 0.519
- Keller T. in press. The mid-week effect and why Thursdays are blue: The weekly rhythm of satisfaction in Hungary. *Czech Sociological Review* IF: 0.143
- Zachar, I., Szilágyi, A., Számadó, Sz., & Szathmáry, E. 2018. Farming the mitochondrial ancestor as a model of endosymbiotic establishment by natural selection. *Proceedings of the National Academy of Sciences*, <https://doi.org/10.1073/pnas.1718707115> IF: 9.661
- Számadó, Sz. & Penn D.J. in press. Does the handicap principle explain the evolution of dimorphic ornaments? *Animal Behaviour*, IF: 2.869

Other leading publications

- Czakó Á., Győri Á., Schmidt L., ifj. Boros I. 2017. Innovatív pedagógiai módszerek a szakmai oktatásban. *Socio.hu* 2017/2. DOI: 10.18030/socio.hu.2017.2.1
- Kubik, B. Gy. and Pápay, B. 2017. The Boundaries and External Connections of the Hyperlink Network of Hungarian Websites in Romania. *Intersections*, 3 (1): 76-95.
- Neulinger Á., Radó M. 2017. Generációk fogyasztási sajátosságainak bemutatása a családi életciklusok tükrében. *Marketing & Menedzsment*. 2017. 3. szám
- Righi, S. and Takács, K. 2017. Parallel versus Sequential Update and the Evolution of Cooperation with the Assistance of Emotional Strategies. In: Cordier, S. et al. (eds.): *Understanding Interactions in Complex Systems: Toward a Science of Interaction*, Cambridge Scholars Publishing.
- Szvetelszky, Zs. 2017. *Rejtett szervezetek*. Typotex, Budapest, 2017.
- Szvetelszky Zs. 2017. Közösségi kételyek. *Századvég*, 84, 2017/2. 27-39.

Defended PhD-thesis

Néray B. 2017. *Relational Integration as The Analysis of Friendship, Negative Ties and Ethnic Identity Among Adolescents*, Corvinus University of Budapest, Doctoral School of Sociology.

MTA TK EFOP ‘Give Kids a Chance’ Research Group

Leading publications

Kiss Márta: Bálványos és Martos 2014. In: Bali János, Hajdu Ágnes, Marelyn Kiss József, Nadas Zsófia (szerk.): *Hazatalálók és hazát találók. Tanulmányok a külföldi magyar ifjúság helyzetéről*. Budapest: NSKI, 2017. pp. 208-225.

Perpék Éva: Önkéntesség közel s távol: hazai és nemzetközi helyzetkép. In: Szép Katalin (szerk.): *Háztartási munka, fizetetlen munka, láthatatlan munka*. Budapest: Központi Statisztikai Hivatal, 2017. pp. 108-121.

Vastagh Zoltán: *Társadalmi struktúra és állami redistribúció*. Budapest: Napvilág Kiadó, 2017. 223 p.

MTA Lendület-HPOPs Research Group – The policy opportunities for Hungary in the European Union

Leading publications (published or accepted)

Conflict and Complementarity: EU Obligations, Member State Interests and Services of General Interest, *EUROPEAN PUBLIC LAW* 23:(2) pp. 347-364. (2017)

The crisis, judicial power and EU law: could it have been managed differently by the EU Court of Justice? in: Zoltán Sente (ed.) *New Challenges to Constitutional Adjudication in Europe*, Routledge (2018), 274-287.

Between compliance and particularism: Member State interests and European Union law (szerkesztett kötet (szerk.: Varju Márton), Springer (2018)).

Közös hang a világpolitikában: Az EU kül- és biztonságpolitikájának elméleti megközelítései. *POLITIKATUDOMÁNYI SZEMLE* 26:(3) pp. 133-149. (2017)

Value promotion and Europeanisation by EU trade agreement. *BRATISLAVA LAW REVIEW* 1:(1) pp. 84-94. (2017)

MEMBER STATE ECONOMIC PATRIOTISM AND EU LAW: LEGITIMATE REGULATORY CONTROL THROUGH PROPORTIONALITY? In: Geröcs Tamás (szerk.) *RISING TENSION BETWEEN MARKET-LIBERALISM AND ECONOMIC PATRIOTISM IN CAPITALIST SYSTEMS*. 86 p. Budapest: MTA KRTK Világgazdasági Intézet; Világgazdasági Kutatásokért Alapítvány, 2017. pp. 86-102.

Member State economic patriotism and the law of the EU Single Market: imposing legitimate boundaries through law In: Geröcs Tamás (ed.) *TBC*, Palgrave (2018).

Member State capitalism(s) and EU law: protecting local varieties in the Single Market In: Csongor István Nagy (ed.) *TBC*, Springer (2018).

The crisis, economic patriotism in Central Europe and EU law In: *TBC*, Springer (2018).

The Hungarian rule of law crisis and its European context, Zurich: Schultheiss Juristische Medien AG, 2017. In: Rule of Law in Europe – Current Challenges (szerk. Andreas Kellerhals, Tobias Baumgartner) pp. 149-168.