

1. Daniel

Can urban social conflict explain the spatial variability of voting preferences in an urban area?

In most of electoral geography works urban areas play a role of homogenous spatial-analytical unit. Actually, the voting preferences in urban areas are spatially distributed heterogeneously. In general, a city does not take a big deal of electoral geography research attention. The goal of this paper is to take a look into voting behaviour inside the boundaries of the city of Warsaw. Instead of traditional explanations of the spatial distribution of voting behaviour by distribution of socio-economic status, the paper attempts to investigate whether there are any other spatial variables that may be typical for urban sociology and urban geography which might explain voting behaviour in city spaces. The study is based on the 2015 general election in Poland.

2. Monika

Introduction: The role of B-Myb protein during DNA repair

B-Myb is a highly conserved member of the Myb proto-oncogene family that is ubiquitously expressed in proliferating cells and performs essential roles as a transcription factor¹. This is also demonstrated by the phenotype of *B-myb*-knockout mice, which show early embryonic death caused by proliferation defects of the cells in the inner cell mass of the blastocyst². Recent work performed in *Drosophila* as well as mammalian cells has demonstrated that B-Myb and its *Drosophila* homolog (dmMyb) are part of dynamic protein complex (dREAM/Myb-MuvB, corresponds to human LINC complex) that regulate genes acting at the G2/M transition of the cell cycle including *CCNB1* (cyclin B1) and *CDC2* (Cyclin-Dependent Kinase 1)^{3,4}.

In addition to its function at the G2/M-transition, there is accumulating evidence that B-Myb might also be involved in DNA replication. In *Drosophila*, it was shown that Myb controls the activity of the replication origin that mediates chorion gene amplification by mechanism that does not have involve its transcriptional role⁵. Decreased expression of B-Myb also disturbs the DNA replication in embryonic stem cells including a slow-down of the speed, collapse of the replication forks, and an increase of the number of replication foci⁶. Furthermore, Werwein *et al.* (year?) showed that knock-down of B-Myb slows down S-phase entry and progression in HepG2 cells. Interestingly, expression of a mutant of B-Myb that lacks sequence-specific DNA-binding activity and is unable to activate Myb target genes is still able to rescue the defect in S-phase entry after the knockdown of endogenous B-Myb⁷.

Although it is hypothesized that the crucial role of Myb proteins in regulating the cell cycle progression is responsible for maintenance of genomic stability, their possible involvement in the regulation of DNA damage response (DDR) is often suggested in the literature. An initial study of the *Drosophila* Myb homologue revealed that the absence of *Drosophila* Myb causes genomic instability⁸. Furthermore, decreased genomic stability was also detected in zebrafish and mammalian cells carrying mutant versions of B-Myb or showing reduced B-Myb expression⁷. Mannefeld *et al.* have shown that B-Myb is required for re-entry into the cell cycle after recovery from the DNA damage-induced cell cycle block⁹. Ahlbory *et al.* have revealed an anti-apoptotic role of B-Myb in cells that were UV irradiated or treated with a DNA alkylating agent¹⁰.

Moreover, transcription factors B-Myb and c-Myb can regulate chromatin dynamics as shown in androgen receptor gene regulation. B-Myb and c-Myb are bound to the androgen receptor promoter at the ADF element and mediate the coregulatory switch between activator poly(ADP-ribose) polymerase PARP-1 and the repressor p53 in response to aging and oxidative stress¹¹. This finding is of special interest because changes in chromatin structure represent an important aspect of the response to DNA-damage.

Very recently, B-Myb was identified as a novel interaction partner of the Mre11-Rad50-Nbs1 (MRN) complex, a key player in the repair of DNA double strand breaks. It was shown that B-Myb directly

interacts with the Nbs1 subunit of the MRN complex and is recruited transiently to DNA-damage sites. In response to DNA-damage B-Myb is phosphorylated by protein kinase GSK3 β and released from the MRN complex. A B-Myb mutant that cannot be phosphorylated by GSK3 β disturbs the regulation of pro-mitotic B-Myb target genes and leads to inappropriate mitotic entry in response to DNA-damage¹².

3. Šárka

Dissociative-like experience in live online betting: case study

Dissociative-like experience is defined as the state of relief which occurs at predisposed ones during an exercising of addictive behaviour (Jacobs, 1986, 1988). Previous studies (ex. Griffiths et al., 2006) established evidences about the significant effect of dissociative-like experience on gambling behaviour. However, this phenomenon and its specification is not described in the case of online gambling. There are three variables attributed to the experience of dissociation – the gambler, the gambling environment and the type of gambling. The aim of this article is to explore the dissociative-like experience in the case study of live online tipster – a former client of the out-patient programme.

Dissociative-like experience is used as an escape from everyday reality. The online environment enabled and simplify the experience. Accessibility, velocity, simplicity and convenience play important role in the online gambling process. Additionally, specific types of gambling, for instance, live online betting, deliver illusions of skill or expertise, impulsivity and interactivity. The case study shows bright palette of dissociative manifestation in gambler's daily reality. Dissociative-like experiences are important factors in the genesis of problem gambling or addiction. Therefore, the following research surrounding dissociative-like experiences among online gamblers (regardless of gambling game) is important for the creation of harm reduction, prevention and treatment methods and policy.

Case study – short summary (before results section)

Thomas, 45 years, entered the addiction outpatient program after several months of intensive gambling. He have already lost almost all his wages and family money. Additionally, his debt was about 100 000 CZK. Recently, Thomas have played very intensively: almost 24/7 – during work, and all night, with an estimate of between 8 to 15 hours a day.

His main drive was winning back lost money. And so he has started to risk more and more. He stopped bet rationally – small bets, sure tips, low risk. He was betting on different sports in the USA, Asia – and in other parts of the world when the sports started to broadcast live in different time zones. As soon as an opportunity presented itself, he was connected to a betting website. He was quickly returning from work meetings to connect online and gamble. Live bets absorbs his whole live. He preferred live bets for their quick responds here and now.

Retroactively, Thomas connected the start of his gambling addiction with his marriage and family problems. Misunderstandings with his wife observed for longer time. Furthermore, an illness and the hospitalization of his wife accelerated the situation. Gambling served like an escape from an empty house, and confrontation with reality. Live bets also brought excitement and an adrenalin rush which was missing even before. Live online betting has become his coping strategy, his cure for difficult and stressing situations.

4. Barbora

Infrared stellar radiation

In this thesis we spectroscopically study Wolf-Rayet stars in infrared wavelengths. We concentrate on particular Wolf-Rayet stars, namely WR 105 (subtype WN9h), WR 102g (subtype WC8), WR 102f (subtype WC8) and LHO 76 (subtype WC9d). Stellar data were obtained from the ESO (European Southern Observatory) archive, where they were acquired using spectrographs CRIRES and SINFONI. We downloaded these data and reduced them through the use of programs Gasgano and

EsoRex. Reduction cascade of the infrared data is meticulously described in one of the chapters in this thesis. We also observed one data set of the star WR 105 at Ondřejov observatory and we reduced these data with IRAF. Finally, we carried out the identification of lines in the spectra and we interpreted their meanings, which helped, for example, in the reclassification of some investigated stars.

5. Ján

A **common** problem when analysing data from the thermal desorption of thin layers is the determination of the activation energy of observed reactions. **Common** methods, like the Redhead method, are known for their imprecise results caused by diffusion: diffusion changes the width of desorption peaks, which often leads to strong inaccuracies. However, our computational model has shown that the diffusion coefficient and the depth from which the gas comes leave unique signatures in the peaks' shapes. Making use of these properties, we have developed software which is capable of fitting experimental data into the model. The results were considerably more precise than the results obtained through common methods. In most cases, the results of fitting turned out to be within the expected range, which was rarely true when using the traditional methods. We believe that this novel method we have developed is a powerful new tool for computing the activation energy of chemical reactions and can replace the methods presently used as it can produce more accurate results.

6. Veronika

Characterization of HGF/Met signaling pathway in osteosarcoma cell lines, specifically reference cell line Saos-2 and five osteosarcoma cell lines derived from patients.

The expression of *Met* and *HGF* was determined by RT-PCR in all the lines derived from osteosarcoma patients. Using the techniques of Western blotting and protein array, we **analyzed** the phosphorylation profile of MAPK and serine/threonine kinases and other proteins that could be involved in the HGF/Met signaling pathway in osteosarcoma cells. We also applied two inhibitors (Crizotinib, Tivantinib) and monitored their effect on activation of the HGF/Met signaling pathway in osteosarcoma. The influence of these inhibitors on proliferation and cell viability was **analyzed** using the MTT assay. The effect of the inhibitors on the cytoplasmic microtubules was **analyzed** using indirect immunofluorescence.

Based on the results achieved, we concluded that the activation of the HGF/Met signaling pathway in osteosarcoma cells leads to the activation of the MAPK and serine/threonine kinases, in particular Erk2 and Akt2. Another observation is that Crizotinib is potentially applicable as a specific inhibitor of Met receptor activation in osteosarcoma. However Tivantinib has only limited influence on the activation of the Met receptor and causes depolymerization of microtubules in osteosarcoma cells.

7. Petr

BACKGROUND: Excessive bodyweight or unfavourable body composition is a growing health problem world-wide. Recently it has been assumed that chronically low energy intake under value of BMR (basal metabolic rate), low intake of particular macronutrients, accompanied by short periods of overeating, lack of physical activity and other factors could be associated with unfavourable bodyweight and body composition.

METHODS: A sample of 200 students (100 males, 100 females) was recruited for this study. Basal metabolic rate was measured by indirect calorimetry early in the morning after 12 hours of fasting. Body composition, including fat-free mass, fat mass and visceral fat was calculated using the BIA body composition analyzer. Daily energy and macronutrient intake were measured using a 3-day weighed food record. The Nonparametric Mann-Whitney U test was performed to test possible differences between groups of students with an intake of energy under and above BMR. The

Spearman correlation coefficient was used to test possible associations between nutrition, BMR and body composition.

RESULTS: The group of females eating energy under BMR had significantly higher body fat-percentage ($p=0,01$) and a higher amount of visceral fat ($p=0,001$) compared with those above BMR. There was a strong inverse correlation between body fat percentage and intake of protein ($r_s=-0,357$, $p=0,005$) for the whole sample. There was a strong positive correlation between fat free mass and intake of protein for the whole group of males ($r_s= 0,751$, $p=0,001$).

CONCLUSIONS: These results indicate that chronically low intake of energy could be associated with unfavourable body composition. wrong expression, the intake of protein is associated both with body fat percentage and fat free mass. Thus, medical authorities should emphasize proper nutrition as a main determinant of favourable body composition.

8. Jan

The Myth of Jan Hus as Result of Modern Social Imaginary

This article builds on the concept of social imaginaries in order to analyze discourses surrounding the Czech martyr Jan Hus, whose death was commemorated in 2015 during the 600 year anniversary after he was burned at the stake in the city of Constance. The dilemma tackled by the text is a transformation of meaning within various socio-cultural contexts and spatio-temporal dimensions, and their related ambiguities and paradoxes. Drawing on the modern imaginary signification of rational mastery, social actors implicitly presuppose that two temporarily separated periods are also qualitatively distinct: the 'modern' era is referred to as progressive and rational, while the previous era, labelled as 'pre-modern', is implicitly considered to be outdated and devalued. Nevertheless, the actual entanglement of modern and pre-modern social imaginaries shows that such a hierarchy only serves to conceal that there is a considerable volume of meaningful phenomena that cannot be grasped by rational inquiry. The surplus of meaning, which is undefined, yet already part of our experience, is an ever-growing outcome of meaning-making processes related to the figure of Jan Hus. The more that people try to discover the 'truthful' and 'real' version of Hus' story, the more it becomes blurred and multifaceted. Consequently, the extraordinary power and persistence with which Jan Hus resonates in numerous discourses is caused by the never-ending struggle to fulfill what his interpreters believe are the possibilities of modern knowledge.

9. Klara

Teachers as initiators of immigrant parents' involvement at schools: Czech and Norwegian context

Abstract: Parents are considered as an important part of the school reality. Immigrant children usually have more difficulties with adapting to the major school system than their native counterparts. That is why immigrant parents' involvement at school is even more important. The aim of this study was to examine how Czech and Norwegian teachers try to involve immigrant parents at school. A comparative case study using the qualitative approach was chosen as the research method for this study. Analyses of national, local and school strategical documents and in-depth interviews with ten Czech and ten Norwegian teachers were used for data collection. Two regular schools with a significant number of immigrant children were studied in both contexts. The findings show that the teachers consider knowledge of a major language to be important in communication with immigrant parents. Both Czech and Norwegian teachers have agreed on the importance of immigrant parents'

involvement at school. Czech teachers have a tendency to give up on communication with immigrant parents when they don't succeed the very first time. Contrary, Norwegian teachers try repeatedly. An important reason behind this difference could be that there are strategical documents to instruct teachers on how to involve parents in school, while no such document exists in the Czech context. This article presents further ways in which teachers in both contexts try to involve immigrant parents in schools and discuss whether they feel they are being successful.

10. Roman

The EU's Migration Crisis and its effects on Social Work with Migrants in the Czech Republic

The presented paper aims to discuss the effects of the EU's migration crisis on social work with migrants. The author's goal is to understand how social workers construct their practice in the age of the migration crisis and how these constructions effect their actions in the system of migrant integration. The above mentioned understanding could uncover serious organizational and ideological problems in the Czech system of migrant integration.

The Czech Republic is affected by the EU's migration crisis fractionally (CSO 2017). It is predominantly known that the Czech Republic has one of the most closed migrant's policy of all EU member states (MIPEX 2015). The Czech integration regime is highly closed in the similar way (Papadopoulos 2011). Migrants **don't** flow to the Czech Republic in their hundreds and thousands. Nevertheless, the Czech society is mainly influenced by various discourses which construct miscellaneous effects of the migration crisis and shape the actions of diverse inhabitant groups. These dynamics reconstitute public interest (particularly political and media interest) and agencies whose mission it is to support the integration of migrants in Czech society attract public concern. Increased political and media interest causes pressure on the agencies and their specialized workers in their daily direct work with migrants. Social workers are an important part of these professionals. After the outbreak of the EU's migration crisis, the social work with migrants is under rising public, political and media pressure in the Czech Republic.

The presented paper is focused to answer the question *"How do social workers construct their practice with migrants in the age of the migration crisis in the Czech Republic?"*

The nature of research the question determines the research strategy. The strategy of understanding known as a qualitative research was chosen. A combination of critical discourse psychology (Wetherell 1998, Edley 2001, Willing 2013) and Foucauldian research (Parker 1992, Gill 2000, Willing 2013) became the research method which uses interpretative repertoires, discourses and subject positions as basic analytical tools. Interpretative repertoires are flexible discursive resources. During social interactions, particular actors achieve their communicative goals via those discursive resources. Discourses are more constant than interpretative repertoires. According to Parker (1992) we understand discourse as a system of statements which construct an object and array of subject positions. Davies and Harré (1990) describe subject position as one position in the discourse. Within social interactions, the person reflexively locates himself and others within the constructed reality. Every subject position "incorporates both a conceptual repertoire and a location for persons within the structure of rights for those that use that repertoire. Once having taken up a particular position as one's own, a person inevitably sees the world from the vantage point of that position and in terms of the particular images, metaphors, story lines and concepts which are made relevant within the particular discursive practice in which they are positioned" (Davies and Harré, 1990:46). Edley (2001) points out that subject positions can be defined as a location within a conversation.

In order to address the research question using the chosen methods, we will:

- Search for the different ways in which the "work with migrants" is constructed.
- Locate the various discursive constructions of the "work with migrants" within wider discourses.

- Gain a clearer understanding of what the various constructions of the “work with migrants” are capable of achieving.
- Seek which subject positions constructions of the “work with migrants” offer.
- Map the possibilities for action contained within the discursive constructions identified in the data.

The presented study is based on data collected from interactions with 18 participants, all of whom are social workers. As a tool of data collecting it was used in-depth interview, double interview and focus groups. More than 20 hours of audio recordings were collected in total. In compliance with discourse analysis convention, the gathered data were transcribed in accordance with the rules of conversational analysis, and the software Atlas.ti was utilized for data management.

Although currently we are in the process of analysing, we could define some tentative constructions of social workers (with certain simplification of course):

- Social work with migrants endangers social workers and their families.
- Processes and results of decision making in the public administration is more influenced by ethnicity of migrants.
- Ethnicity of migrants becomes a relevant obstacle of collaboration between social workers and other actors in the system of migrant integration.
- Willingness to interpret rules (professional discretion) to migrants profit decrease.

11. Hussam Aswad

Myeloproliferative Neoplasms from Immunological Viewpoint

Myeloproliferative neoplasms are three chronic BCR/ABL-negative hematological diseases with a clonal proliferation character on the level of one or more of the hematopoietic cellular component of the bone marrow. This characteristic places them in a group called myeloproliferative neoplasm (MPNs) which includes essential thrombocythemia (ET), polycythemia vera (PV), and primary myelofibrosis (PMF). From a genetic perspective, since 2005 a great breakthrough was made by the identification of the JAK2V617F mutation in almost all patients with PV, later genetic mutations were also presented to be held by MPNs patients which are CALR and MPL, respective frequencies of these mutations are approximately 95%, 0%, and 0% in PV, 60%, 20%, and 3% in ET, and 60%, 25%, and 7% in PMF. The main common morphological characters of the marrow in MPNs' patients are represented as hypercellularity, megakaryocyte proliferation, and fibrosis with an variably enlarged spleen as a systemic character.

The main problem with MPNs, despite their low-incidence, is the big changes in the quality of life and the mortality of the patients: the threats come from the dangerous cardiovascular complications and thrombosis. Based on these facts, the global interest is shifted nowadays toward identifying and proving the complete treatment in order to reach a full cure, or at the very least, minimizing risk and associated complications.

The perspectives of the MPNs as “A Human Inflammation Model for Cancer Development” are/were being driven by chronic inflammation in a self-perpetuating vicious circle from the early cancer stage ET/PV to the advanced “metastatic” stage with severe MF and egress of CD34+ cells from bone marrow niches to the circulation (metastasis to the spleen and liver and elsewhere) are several as shown above, and this sets a big treatment challenge where the traditional “watch-and-wait” strategy should be replaced by “the early intervention” concept. The new treatment is based on interferon-alpha2 (INF) which has the ability to induce deep molecular responses with normalization of the bone marrow. It can also be used as treatment JAK2V617 inhibitors which can induce partial changes in

JAK2V617 gene and revert to cytogenetic, the novel usage of statins is due to the proved (anti-proliferation, anti-angiogenic, proapoptotic, anti-coagulant, and anti-inflammation) effect, by concerted efforts the way is reopened to the patient to restore the normal quality of life and improve the prognosis.

12. Anton Poludněv

[An abrupt start...do you have a paragraph/some sentences that come before this to introduce the subject?] Scheer (2012) divides the Polish *e~∅* alternations into two types: lexically-based and epenthetic. The former occur in the PATTERN B roots as $\sqrt{\text{zeber}}$: *zeber* (GenPI) vs. *zeberko* (DIM), while the latter can be noticed in the PATTERN A roots as $\sqrt{\text{form}}$: *form* (GenPI) vs. *foremka* (DIM). The GenPI structure is decisive: it shows whether a root contains the vowel /e/ lexically or not. As the PATTERN A roots do not contain /e/ in the GenPI, they should not have one in the DIM structure, either. However, the opposite is true. Scheer (2012) concludes that /e/ of the PATTERN A DIM structures is of the epenthetic nature.

In § 3, I argue that epenthesis is not a phonological operation. There are two reasons for this. As every grammar module, the phonology is deterministic and cannot provide evaluative statements about itself. If no evaluation is present, the statement 'ill-formed representation' cannot be done and, thus, there is no need to repair something. Epenthesis is also a more complex process than the default phonological operations as GOV, LIC and association. It uses association as its own operation and supplement it with melody insertion. The different ontological status of association and insertion implies that epenthesis is not a computational process. On the basis of Scheer's (2014) theory of the post-phonological Spell-Out, I claim that the repair techniques as epenthesis and elision are an epiphenomena of lexical insertion. At the phonology-phonetics interface, there is a lexicon which exchanges the phonological structures with the phonetic material. GOV and LIC must be present in the lexical records as well as association, since all three operations are of the same kind – they are relationships. Communication between a module and an interface lexicon is governed by a principle that I call Spell-Out Isomorphism: (a) every module communicates with its lexicon in the same way, (b) every lexicon stores the records in the same way. I also argue that the property (a) stands on the Elsewhere Principle (Kiparsky 1973; Neeleman & Szendrői 2007). The empty nuclei which are governed are exchanged with phonetic zero, while those which are not governed are exchanged with [ɛ]. No special operations as epenthesis or elision are needed anymore.

In § 4, I claim that if Spell-Out Isomorphism Hypothesis is correct, then its (b)-property serves as a referee for the morphosyntactic theories: it prefers the phrase Spell-Out theories to the head Spell-Out ones.