

Workshop “Applied Network Analysis”

University of Mannheim, MZES

March 16, 2013

The organisers are grateful to both the MZES as well as the Lorenz-von-Stein Foundation for their generous financial support of the workshop.

8.30 **Workshop Registration**

9.00 **BÁLINT NÉRAY, ZSÓFIA BODA**

Negative Ties or the Lack of Positive Ties? - Ethnic Segregation in Secondary School

9.50 **ANKE MUNNIKSMA, PEER SCHEEPERS, JOCHEM TOLSMA**

A Test of Contact, Conflict or Constrict Theory among Adolescents: The Impact of Neighborhood and Classroom Ethnic Diversity on In- and Out-Group Helping within Classrooms

10.40 – 11.10 Coffee break

11.10 **LARS LESZCZENSKY**

Analyzing the relationship between young immigrants national identification and interethnic friendships

12.00 – 13.10 Lunch break

13.10 **JUDIT PÁL, ANDRÉ GROW, CHRISTOPH STADTFELD, KÁROLY TAKÁCS**

Reasons to Hate Mates: Effects of Status Considerations on Disliking Relations in the Classroom

14.00 **HANNO KRUSE, SANNE SMITH, FRANK VAN TUBERGEN, INEKE MAAS**

Ethnic Homogeneity in School Friendships – Why does Neighborhood Composition matter?

14.50 – 15.20 Coffee break

15.20 **PER BLOCK**

The Mysterious Three-Cycle Effect

16.10 **THOMAS DÄUBLER**

Electoral incentives and legislative bill co-sponsorship networks in Belgium

17.00 **End of Workshop**

Abstracts

BÁLINT NÉRAY, ZSÓFIA BODA

Negative Ties or the Lack of Positive Ties? - Ethnic Segregation in Secondary School

Ethnic integration, and specifically the problem of integrated education of students from different ethnic backgrounds, is the subject of serious socio-political debates. Advocates of integrated education often argue that in integrated school and classroom settings minority students have more opportunities to develop interpersonal relationships with the majority group. Through more developed positive connections, majority and minority groups get to know each other better, and through better knowledge one expects prejudice to decrease, and the minority group's chances in the labour market to increase. However, empirical evidence suggests that these benefits are not direct consequences of integrated education, since relationships themselves can still remain segregated in spite of the formal integration. Moreover, the level of friendship segregation seems to be the highest in classes with two similar sized ethnic groups, since in this situation, 'majority' students can feel their dominant positions to be threatened.

Nevertheless, for a more detailed picture it seems crucial to examine not only positive but also negative ties between students. Even if everyone has less friends from the other ethnic group(s) than from their own, this situation still can be more advantageous than the one in which ethnically different students do not even meet each other, so they do not have friends from the other group at all – but this is true only if the non-positive ties are mostly neutral and not negative ones. In our presentation, we focus on the effect of ethnicity (Roma and not Roma people) on negative ties in classroom networks. For the analysis, Exponential Random Graph Models are used. Our dataset contains 20 secondary school classes from 5 Hungarian schools.

ANKE MUNNIKSMMA, PEER SCHEEPERS, JOCHEM TOLSMA

A Test of Contact, Conflict or Constrict Theory among Adolescents: The Impact of Neighborhood and Classroom Ethnic Diversity on In- and Out-Group Helping within Classrooms

This study examines how ethnic diversity of the neighborhood and the classroom context affect adolescents' ethnic in-group and out-group helping. Contact, conflict and constrict theory provide contrasting hypotheses regarding the effect of ethnic diversity on in - and out-group helping. Hypotheses are tested among students ($n \approx 1200$) who just entered multi-ethnic middle schools ($n = 12$, 60 school classes) in the Netherlands. This is analyzed with the multilevel P_2 model.

LARS LESZCZENSKY

Analyzing the relationship between young immigrants national identification and interethnic friendships

Previous research has repeatedly reported a positive association between immigrants' identification with the receiving society and their share of interethnic friends. With respect to causal inference, however, earlier studies face two serious shortcomings. For one thing, since the bulk of research relies on cross-sectional data, the causal direction has not been established. For another, as virtually all earlier studies use ego-centric network data, important information about ego's friends such as their identifications is typically lacking. Taken together, both shortcomings make it difficult to infer the mechanisms underlying the relationship between immigrants' national identification and their interethnic friendships.

Theoretically, several mechanisms related to both selection and influence processes might operate empirically. Concerning selection, immigrants with strong national identification might be more motivated to befriend natives, but they might also be more often chosen as friends by natives. In other words, selection might be due to preferences of immigrants, of natives, or of both of them. Concerning influence, friendships with natives might per se enhance immigrants' national identification. It might also be the case, however, that (only) friends with strong national identification do so.

JUDIT PÁL, ANDRÉ GROW, CHRISTOPH STADTFELD, KÁROLY TAKÁCS

Reasons to Hate Mates: Effects of Status Considerations on Disliking Relations in the Classroom

Disliking ties (when i has negative feelings towards j) are often explained with structural balance theory. If, for example, actor i dislikes actor j , then i 's friend k may turn to dislike j , as well. This means that emerging triadic structure with one friendship relation and two dislike relations would be balanced. This mechanism may result in segregation of communities into two antagonistic groups. However, the theory does not explain the emergence of initial disliking and ignores alternative structural explanations of disliking relations. In this paper, we argue that disliking ties frequently occur as a consequence of status-related frustration and competition. We differentiate personal status attributions (i respects j), perceived status attributions (i thinks that j is respected by other group members) and friendship based in-degree popularity. This allows us to test three hypotheses on how status considerations may influence the formation of disliking relations. First, the *frustration hypothesis* suggests that asymmetric disliking ties are more likely to develop from i to j when i has a high in-degree on perceived status attributions, but does not receive a personal attribution from j . Second, the *competition hypothesis* states that reciprocal disliking ties develop more likely when both i and j have a high in-degree on perceived status attributions, but they do not nominate each other directly. Third, the *tension reduction hypothesis* states that disliking ties are more likely to develop when j 's status considerations are dissimilar among friends, but they agree on having a disliking tie toward the same j . We will show preliminary results using descriptive network statistics and SIENA model by analyzing classroom networks of the first three waves of Hungarian high-school dataset (OTKA K/81336) collected by RECENS.

HANNO KRUSE, SANNE SMITH, FRANK VAN TUBERGEN, INEKE MAAS

Ethnic Homogeneity in School Friendships – Why does Neighborhood Composition matter?

Interethnic friendships within high school classes have been related to the ethnic composition of students' neighborhoods, but the mechanisms underlying this association are less well known. Therefore, we examine to what extent and why the ethnic composition of adolescents' neighbourhoods is related to ethnic homogeneity in high school friendships. We add to previous studies by simultaneously examining if the neighborhood composition affects the *availability* of outgroup peers, the *propinquity* to outgroup peers, i.e. additional shared foci to meet, and *preference* for interethnic friendships.

Using cross-sectional classroom network data from the "Children of Immigrants Longitudinal Survey in Four European Countries" we estimate ethnic homogeneity of friendships using exponential random graph models and predict its variation across classes by neighbourhood characteristics in a meta-analysis.

PER BLOCK

The Mysterious Three-Cycle Effect

Siena Models applied to friendship networks regularly find a negative parameter for the three-cycle effect. Thus, there is a tendency in a triad against three unreciprocated ties where each individual is the sender and recipient of exactly one tie. This is often interpreted as indicating presence of local hierarchies, as predicted by the Davis-Leinhardt model. In this model, a one-directional tie represents a status difference between the sender and recipient. Under this assumption, a three-cycle means a circular hierarchy between three individuals - contradicting the idea of hierarchy and therefore rarely observed.

The present study proposes a different interpretation of the negative parameter for the three-cycle effect found in Siena models. I suggest that the negative parameter is spurious and what is really modelled with the three-cycle effect is the relatively lower tendency towards reciprocation within triads. A three-cycle in combination with a transitive triad results in a triad with two asymmetric and one reciprocated tie - therefore, the three-cycle effect could also model the relative tendency against reciprocation in triads. This alternative explanation is tested by including both a three-cycle effect and an effect that specifically models the formation of dense triads with 4, 5 or 6 ties in the triad. If either of these effects is included in any of 12 datasets of adolescent friendships, the three-cycle effect loses significance; instead the dense triad effects show a negative parameter. Hence, the interpretation that the negative three-cycle parameter shows presence of local hierarchies does not stand to empirical testing.

THOMAS DÄUBLER

Electoral incentives and legislative bill co-sponsorship networks in Belgium

It is well known that some electoral systems increase the degree of competition among politicians of the same party and their incentives to pursue a personal rather than a party-based vote. In parliamentary systems of government, however, party discipline at the same time constrains members of parliaments' opportunities to foster a personal profile. In parliaments that grant individual members the right to initiate their own legislative bills, analyzing legislative behavior of individual MPs is an interesting avenue for studying the effects of electoral incentives on intra-party competition and co-operation. A key question is

whether higher levels of intra-party competition lead to lower levels of legislative co-operation. Belgium is an especially interesting case to study this, since the flexible list electoral system (where citizens can vote for a party list as a whole or for individual candidates) creates cross-sectional variation in personal-vote seeking incentives across party-in-a-district-lists. In addition, an electoral reform in 2003 increased the weight of individual votes in intra-party seat allocation, creating institutional variation over time. Specific empirical questions about the legislative co-sponsorship network are the following: Do MPs from lists with more intense electoral competition have weaker connections to their district co-partisans than MPs from lists with less intense competition? Did the institutional reform reinforce such an effect? Did MPs who were in parliament before and after the reform become less close to their competitors? Is there a difference in closeness to competitors of first-time MPs in the parliaments before and after the reform?