

The Mediating Role of Social Disorganization: A Case Study of Russian Neighbourhoods¹

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Following the theory of social disorganization, neighbourhoods with high poverty, ethnic heterogeneity, residential mobility, and a high proportion of incomplete families are expected to be disorganized. Thereupon, social disorganization leads to weak social control. The mediating role of social disorganization is explored in this study. This theory was tested in three Russian cities using self-reports of 9th grade students ($n = 4,860$) in 198 neighbourhoods. Social disorganization and informal social control were separately operationalized. There are two kinds of informal social control: residential vigilance and reactions to the norm violation. Only the length of residence (as an indicator for residential mobility) and the socioeconomic status (as an indicator for poverty) influenced social organization in the neighbourhoods. Social cohesion has the strongest effects on both kinds of informal social control, however, social disorganization mediates only the relationship between socioeconomic status and informal social control.

Key words: social disorganization, neighbourhood cohesion, self-report, mediating effect, Russia

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1 Introduction

Three kinds of fundamental problems are visible in the literature on social disorganization theory by Shaw and McKay (Siegmunt, 2012: 28). First, the definitions of social disorganization and informal social control are not always used separately. Secondly, the operationalization of social disorganization and informal social control is mostly insufficient. Thirdly, the modelling of the mediated role of social disorganization and informal social control is also mostly insufficient.

Social disorganization is the essential foundation of the theory by Shaw and McKay (1942/1972). However, Thomas and Znaniecki (1972) understand the neighbourhoods primarily as an institution of informal social control. Social disorganization is thereby considered only “a decrease of the influence of existing social rules of behaviour upon the individual members of the group” (Thomas, 1966: 4; Thomas & Znaniecki, 1927: 1171). Kornhauser (1978) differentiated both terms. Sampson and Groves (1989) took this position:

they operationalize both terms separately but they are not concerned about the casual relationships between social disorganization and informal social control in their analysis.

The cause of an insufficient operationalization by Shaw and McKay is the use of statistic data only. These data include rates of crime, of poverty, and of divorce but not information on informal organization or informal control in the neighbourhoods. There are some official data available regarding neighbourhood structural characteristics such as poverty, ethnical heterogeneity, residential mobility, or family structure. Against it, social disorganisation and informal social control in the neighbourhoods can be measured through observation or questioning.

In most studies, social disorganization has been operationalized as social integration in the neighbourhood, involvement in informal social networks, or social interactions between neighbours (Bellair, 1997; Elliott, Wilson, et al., 1996; Elliott, Menard, et al., 2006). Sampson, Raudenbush and Earls (1997) developed a scale to measure the collective efficacy which has been used often in other studies. The socially organized neighbourhood here is one where the people trust each other, live harmoniously, and supervise their neighbourhood. The social efficacy scale consists of two sub-scales: “social cohesion and trust” and “informal social control”.

Obviously, difficulties with the measure are challenges to the modelling of social disorganization’s mediating role in terms of the theory in empirical studies. Numerous studies an-

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alysed the influence of exogenous structural characteristics on crime (Beyers, Loeber, Wikström, & Stouthamer-Loeber, 2001; Hipp, 2010; Peeples & Loeber, 1994; Sampson, 1986; Yang & Hoffmann, 1998). Some studies examined the negative effect of exogenous structural characteristics on social organization in the neighbourhoods (Guest, Cover, Matsueda, & Kubrin, 2006; Kasarda & Janowitz, 1974; Sampson, 1988). However, they did not analyse social organization's mediating role.

The first study that analysed this effect of social (dis)organization was one by Sampson and Groves (1989). According to the authors, the residents identify with their residential area in an organized neighbourhood, and the local social organization of the neighbourhoods is also an involvement in a local friend's network or a membership in official local volunteer organizations. Informal social control was defined as the neighbourhood's ability to control and supervise gangs that hang around in the streets.

In addition to those by Sampson and Groves (1989), other studies have also examined the mediating role of social disorganization (Bellair, 1997; Veysey & Messner, 1999; Sampson, Morenoff, & Gannon-Rowley, 2002). Most of these studies analyzed social disorganization as a mediating variable only (Bellair, 1997), the rest only informal social control (Bellair, 2000; Sampson, 1997). Some studies considered both (Sampson & Groves, 1989). The casual relationship between disorganization and social control was not tested here.

Because the present work only made use of the control-theoretical part of social disorganization theory, the theoretical causal relationships are first represented at the neighbourhood level (Kornhauser, 1978). The basic model for this study is: Exogenous structural characteristics (poverty, ethnic heterogeneity, residential mobility, and incomplete families) cause social disorganization, which weakens informal social control.

2 The Social Disorganization Theory

Social disorganization theory was developed by Clifford Shaw and Henry McKay (1942/1972) in the tradition of the Chicago School. The early Chicago sociologists observed the rapid urban growth processes of the 1920s: They examined the question of how social order is possible in the face of increasing urbanization and individualization. Moreover, they looked at what social mechanisms or organizations in a city such as Chicago, can replace the function of the primary groups which lose power through the processes of modernization and urbanization. Shaw and McKay based their studies on the ecological model of urban growth previously

developed by Park and Burgess (Park & Burgess, 1921; Park, Burgess, & McKenzie, 1925).

This model creates an analogy to the natural processes of competition and displacement of plant ecology; it states that cities develop in a quasi-natural process subject to capitalistic market rules. The city model was originally developed by Burgess, who claimed that cities grow in concentric zones: Centrally located industrial zones invade residential areas, which in turn become so-called transitional zones. At the beginning of the 20th century, migrants of different migration waves settled in such transitional zones with cheap and poor living space in Chicago.

Shaw and McKay identified three important exogenous structural characteristics in neighbourhoods that lead to social disorganization. Neighbourhoods are also with concentrated poverty, high ethnic heterogeneity, and high residential mobility. Park and Burgess (1921) argued that economic competition is the most important social process for the segregation of neighbourhoods on the basis of the socioeconomic situation of the residents. From this point of view, socioeconomic status (SES) in the neighbourhoods is the main structural characteristic in this theory. Moreover, it has been successfully used in the numerous studies as an indicator of poverty.

The second structural characteristic is residential mobility. It makes sense that a high residential fluctuation comes along with a low social cohesion: commitment needs time to develop. Shaw and McKay also differentiated neighbourhoods in terms of increasing and decreasing populations (Shaw & McKay, 1942/1972: 143). Residential mobility was often operationalized as residential stability in subsequent studies (e.g. Sampson & Groves, 1989). Sampson and Groves used British Crime Survey data. The residential stability rate was a percentage of residents who was born within a radius of 15 walking minutes from the current address (Sampson & Groves, 1989: 790-791). The National Crime Victimization Survey (NCVS) includes also data about residential stability. It collects data with the question "How long have you been living in your current address?" (Addington, 2005).

The third structural characteristic is ethnic heterogeneity or rather the ethnic or cultural composition of the neighbourhoods. Shaw and McKay (1942/1972) also explained this in terms of cultural differences, generally a factor for the development of conventional norms of the children and youth in a neighbourhood. They assumed that "wide diversity of cultural backgrounds" impacts the effectiveness of organized neighbourhoods in solving collective problems (Shaw and McKay, 1942/1972: 184).

In the 1980s, Robert Sampson (1986) used a new structural characteristic, namely the family structure, which was operationalized as divorce rates and has – besides other structural characteristics – highly significant effects. Finally, the incompleteness of families – operationalized as a percentage of single parents – is one of the four main structural characteristics used in this study to explain the social disorganization of neighbourhoods.

3 Informal Social Control and Social Organization in Russia

The family, the school, and the neighbourhood are the main important institutions that exert informal social control. One of the functions of these social institutions is the stabilization of the social system. Social systems would be dysfunctional if stability under specific conditions is lost. In the case of the Russian situation at the end of the 1980s and the beginning of the 1990s, social institutions lost their efficiency because of the social change and the transition to the market economy. The transfer of social values and norms was affected by this situation. It led to a disorganization of the society: The kinships and the neighbours' relationships were weakened; the old tradition of the extended family was broken, and the school lost its importance in the socialization of young people.

Especially for neighbourhoods, other factors can influence social organization, or rather social cohesion such as the size of the location (metropolis, city, or town), the form of dwelling (one-family dwelling, apartment house, or high-rise building), or the educational level of the residents. The empirical results are contradictory in regard to a relationship between social organization in the neighbourhoods and the city's size (Schmerlina, 2006). The relationship between the dwelling form and educational level shows some regularities: Residents of one- or two-family dwellings prefer friendly contact with their neighbours more strongly (32%) than residents of the apartment houses (up to three levels) (20%), or the residents of the high-rise buildings (above three levels) (24%). This is strongly preferred by residents with low educational level: no general qualification for university entrance – 34%, general qualification for university entrance – 27%, apprenticeship or polytechnic degree – 26%; and university degree – 19%.

City dwellers differ from villagers with regard to their openness to talk to their neighbours about private matters. City dwellers (62% to 67% from different cities) normally do not see a need to tell their neighbours about their problems; for villagers, this is at 52%. Relationships between neighbours

living in the one- or two-family dwellings are more harmonious than in the other dwelling forms. In general, residents are satisfied with their relationship with their neighbours: one- to two family dwellings, 92%; apartment houses, 77%; and high-rise buildings, 87% (Schmerlina, 2006: 44–45).

Overall, these results point to the special role of socioeconomic status that was measured by two indicators: educational level of the residents and the dwelling form.

4 Data and Methods

4.1 Data

Based on the information about the student and class population, a class sample of 9th grade students from three Russian cities (Volgograd, Krasnoyarsk, and St. Petersburg) was defined and used for this study. A multilevel analysis at the neighbourhood level was only possible when based on a sample of at least 1,000 students from each city.

Data collection in all cities took place between the end of November 2008, and April 2009. Standardized interviews were conducted with a maximum duration of 60 minutes per interview that took place during school lessons in classrooms. The interviewers emphasized that participation in this study was by choice and that the data would be used anonymously.

Sample Characteristics

The final sample was $n = 1,602$ in Volgograd, $n = 1,546$ in Krasnoyarsk, and $n = 1,712$ in St. Petersburg. Based on the school enrolment in the participating classes, the response rate was 77.5% in Volgograd, 76.5% in Krasnoyarsk, and 72.4% in St. Petersburg. Based on the number of students present on the day of the questioning, the response rate was 96.3% in Volgograd, 98.7% in Krasnoyarsk, and 93.8% in St. Petersburg.

In all three cities, a slightly higher number of girls than boys were questioned: 51.0% in Volgograd, 51.8% in Krasnoyarsk, and 52.3% in St. Petersburg, and the age of the participants ranged from 13 to 18; the average was 15.0 years ($sd = .55$) in Volgograd, 15.0 years ($sd = .64$) in Krasnoyarsk, and 14.9 years ($sd = .69$) in St. Petersburg. The majority of the students attended general secondary schools³:

³ The Russian school system is divided into three levels: primary general education (first 3 or 4 years), lower secondary education (subsequent 5 years), and upper secondary education (last 2 years). After the primary school, the system differentiates among three main types of school: "general schools" (including "general

75.5% in Volgograd, 75.4% in Krasnoyarsk, and 77.2% in St. Petersburg.

Only ecological models were tested in this study, therefore, the individual data were aggregated to the neighbourhood level. The neighbourhoods were defined as administrative units or historically grown parts of the city; the *urban district* is the biggest administrative unit, and the *locale district* (local authority) is the next smallest administrative unit in Russian cities. The definition of the neighbourhoods on the basis of local districts was possible only in St. Petersburg, with 18 urban districts that are divided into 111 local districts. In Krasnoyarsk, there are seven urban districts, and these had to be divided into a total of 82 local districts, which are the historically grown parts of the city. Volgograd consists of eight urban districts. Here, as in Krasnoyarsk, the research units were divided into a total of 90 local districts on the basis of natural borders.

Local districts that did not have any respondents were excluded from this study. We also identified 230 local districts with a minimum of one respondent. In the following ecological analysis, only those local districts in which the aggregate level variables are based on the information of more than three respondents were considered. The maximum number of respondents per local district is 66. Finally, 198 local districts remained in a dataset for the analysis, and the local districts were named neighbourhoods in this work.

4.2 Conceptual Model

The conceptual model was based on theoretical considerations that were derived from the theory of social disorganization by Shaw and McKay (1942/1972). This conceptual model is limited to the relationship between exogenous structural characteristics, social disorganisation and informal social control (Figure 1). The effect of crime was not tested here. Some studies such as the one by Sampson, Raudenbush and Earls (1997), who tested the social disorganisation theory, operationalized neighbourhood characteristics (in this case collective efficacy) as a combination of neighbour’s social cohesion and informal social control. However, Kornhauser (1978) noted that social cohesion and informal social control are different things and

their relationship has a clear direction, specifically that weak social cohesion produced low informal social control. This idea was adopted in this study, thus, neighbourhood characteristics were operationalized separately. Therefore, the direct and mediator effects were tested in this study.

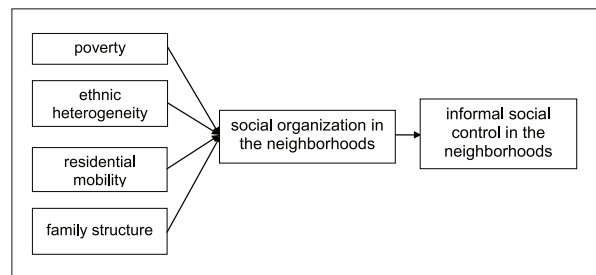


Figure 1: Conceptual model of the relationship of exogenous structural characteristics, neighbourhood disorganization, and informal social control

Accordingly, the hypotheses are:

H1: High poverty, ethnic heterogeneity, residential mobility, and share of incomplete families in the neighbourhoods is, the weaker social organization is (direct effect).

H2: In socially organized neighbourhoods, informal social control is higher than in socially disorganized neighbourhoods (direct effect).

H3: The neighbourhood characteristics—high poverty, ethnic heterogeneity, residential mobility, and share of incomplete families—do not affect informal social control directly; their effect is mediated by social disorganization (indirect effects).

5 Measures

5.1 Dependent Variables

To measure the *organization in the neighbourhoods* and *informal social control*, a total of 13 items were presented to the students: eleven, 4-stage⁴ Likert-items to the juveniles’ neighbourhood perception, and two, 5-stage⁵ items to juve-

schools with intensive learning programs”, for example languages, sports, or music), which normally offer general education programs; “gymnasiums”, which offer humanities knowledge besides the general education programs, and “lyceums”, which offer other knowledge areas, in this case out of natural science and technology, besides the general education programs which the gymnasiums also offer (ConsultatPlus, 2012). Both last types of school, gymnasiums and lyceums, are almost identical in their structure and programs. Therefore, this study joins these types in one type of school, namely the gymnasium (Siegmunt, 2012, 2013).

⁴ The answer categories range from “not correct at all” and “rather not correct” to “rather correct” and “totally correct”.

⁵ (1) Vignette 1 “damage to property”. *Imagine this:* You were on the street one night with other people. You were having fun, a couple among being very loud. You kicked a car, left a dent on it, and broke one of its mirrors. (2) Vignette 2 “extortion”. *Imagine this:* A ten-year old boy was sitting on a bench. He has a great-looking MP3 player, and you would like to get it. You threatened the boy with a brawl when he does not give you it. The boy got scared

niles' expectation of neighbour's reactions to norm violation, based on two vignettes. A few items related to social cohesion were developed by Sampson et al. (1997) and used in terms of *social cohesion and trust*. The other items to social cohesion were self-developed for this study. To measure informal social control, another seven items were developed, and these new items asked both the residential vigilance and the neighbour's potential reactions to norm violation. Altogether, three factors⁶ were extracted: "social cohesion"⁷, "residential vigilance"⁸, and "reaction to norm violation"⁹. All items were converted to the scale with values from 0 to 100.

5.2 Independent Variables

Poverty in the neighbourhoods represents the neighbourhoods socioeconomic situation and is measured on the basis of two indicators: *socioeconomic status* of the families and *family affluence*. To measure the family's *socioeconomic status* (SES), students were asked about their parents' (separate for the mother and for the father) school education, professional education, occupational status, and current or last job. This information was classified according to the ISCO88 (International Standard Classification of Occupations). For every ISCO occupational class, empirical values for socioeconomic status (International Socio-Economic Index of Occupational Status (ISEI)) available (Ganzeboom, de Graaf, Treiman, & de Leeuw, 1992; Wolf, 1995) were appropriated to the parents as a measure of socioeconomic status. Thus, a

and gave you the MP3 player. *Question*: If this happened in your neighbourhood would one of the neighbours intervene or call the police? The answer categories were "certainly not", "rather not", "perhaps", and "rather yes", and "certainly yes".

⁶ For the factor loadings, means, standard deviations and inter-total correlations see the Appendix.

⁷ (1) People in this neighbourhood can be trusted. (2) Adults in this neighbourhood get along with each other. (3) People in this neighbourhood help their neighbours willingly. (4) I am often in my neighbour's apartment; (5) If something is out of order in this neighbourhood, there are always neighbours who take care of it. (6) If I meet adults in my neighbourhood, I would know for sure whether they live here or not.

⁸ (1) Most of our neighbours are interested in what the other is doing (e.g. to get a visit, to get home late). (2) If juveniles in this neighbourhood get into mischief, the neighbours who witness this upbraid them. (3) People in this neighbourhood tell someone if a certain person does not properly dispose his garbage. (4) It happens often that adults in this neighbourhood are doing something together.

⁹ (1) If this (damage to property) happened in your neighbourhood, would one of the neighbours intervene or call the police? (2) If this (extortion) happened in your neighbourhood, would one of the neighbours intervene or call the police? (3) If people in this neighbourhood see anyone break open a car, they will intervene or call the police.

quasi-continuous value for SES, which can theoretically range from 16 to 90, is obtained.

The *family affluence scale* (FAS) was originally developed by Boyce and colleagues (2006), and has four questions,¹⁰ and two self-developed items were added to it.¹¹ The FAS score shows the ability of the families to afford something: also the higher the value the higher the ability. Some questions include two variables: one dichotomous variable (yes or not) and one continuous variable (if yes: one or more). New trichotomous variables were built for these questions, and some dichotomous variables were recoded to generate more polarization.¹² All six items were added to a score by mean and the scores were transformed to the scale of 0 to 100.

As a measure of *ethnic heterogeneity*, the Herfindahl Index (Blau, 1977: 78) was selected from a number of indexes of qualitative variation (Gibbs & Poston, 1975; Wilcox, 1973), because it has already been successfully used in several criminological studies (e.g., Sampson & Groves, 1989: 784). This heterogeneity index is based on the proportions of the relative subgroups. Moreover, it is influenced by the number of these subgroups and the size of their proportions. Theoretically, the values of the heterogeneity index range from 0 ("maximum homogeneity") to 1 ("maximum heterogeneity").

Residential mobility (in terms of residential stability) was measured by *length of residence* of the juveniles in their district. The students were asked: "How long have you lived in the part of town that you now call home?" The answers varied from 0 months (just moved) to 18 years (the maximum age of the interviewees).

Incompleteness of the families was operationalized on the basis of the juveniles' family structure. The students were asked

¹⁰ (1) Do you have your own room at home? (No, I share a room with ... others = 0, yes = 1). (2) Do you have your own mobile phone? (no = 0, yes = 1). (3) Do you have your own computer at home? (no = 0, yes, but not only for myself = 1, yes, only for myself = 2). (4) Does your family own a car? (no = 0, yes = 1 – state the number of cars).

¹¹ (5) Did you go on vacation on your own or with your family in the last 12 months (do not include visits with relatives or weekend trips)? (no = 0, yes = 1 – state the number of trips). (6) Did you go to a real restaurant for lunch or dinner with your family in the last four weeks (no snack bar, McDonalds or the like)? (no = 0, yes = 1 – state the number of visits).

¹² (1) Own room: 0 "I share a room with 2 person and more", 1 "I share a room with one person", 2 "I have an own room". (2) Property of a mobile phone: 0 "no mobile phone", 1 "own mobile phone". (3) Property of computer: 0 "no computer at home", 2 "computer at home". (4) Property of a car: 0 "no car", 1 "one car", 2 "2 cars and more". (5) Vacation: 0 "0-1 vacation", 2 "2 and more vacations". (6) Eating out: 0 "no eating out", 1 "1 or 2 times eating out", 2 "3 and more times eating out".

whether they live together with both biological parents, and in addition, were asked whether they live together with a biological parent and their new partner, only with the biological mother, only with the biological father, or with other people. As a result of this information, a dichotomous variable – "incompleteness of the families" – was generated. This variable distinguishes juveniles who live in complete families with both biological parents or in families with a parent and their new partner from those who live with a single parent or in other family constellations.

relationships with their neighbours compared with those with high or middle educational level (Schmerlina, 2006).

Nevertheless, this negative effect needs an explanation. A probable explanation is related to what SES measures, being the educational level, and, in general, the higher the educational level is, the more contacts people have outside their own neighbourhood, and the lower the need is for relationships with neighbours. This observation is confirmed for juveniles in this study. The friends of students from high second-

Table 1: Descriptive statistics (N = 4,860)

Variables	M	SD
Social cohesion (min = 0, max = 100)	48.82	22.52
Residential vigilance (min = 0, max = 100)	47.68	21.46
Reaction to norm violation (min = 0, max = 100)	62.58	21.07
Socioeconomic status (SES) (theoretically min = 16, max = 90)	47.10	15.30
Family affluence (min = 0, max = 100)	59.80	17.30
Ethnic heterogeneity (0 = max homogeneity, 1 = max heterogeneity)	0.13	0.11
Length of residence (min = 0 months/just moved, max = 18 years), in years	10.40	5.20
Incompleteness of the families (0 = complete families with two parents, 1 = incomplete families/families with single parents, or other family constellations)	0.27	0.01

6 Results

In the first model¹³, the influence of the neighbourhood structural characteristics on the social cohesion of their residents is examined in a total of 193 neighbourhoods.¹⁴ The first hypothesis was also tested here. Overall, all five characteristics explain 15.6% of the variance (Figure 2). However, only a negative effect of SES and a positive effect of the length of residence in the district were found. Firstly, the negative effect of SES means that social cohesion is higher in the neighbourhoods with low socio-economic status. Secondly, because of the different effects of SES and family affluence, it is obvious that both these characteristics measure two different dimensions. Family affluence measures the consumption behaviour of the families and it is dependent on economic fluctuations, while SES measures the level of education of parents. The effect of SES corresponds to the findings of one Russian national survey where residents with low educational level found the need for stronger friendly

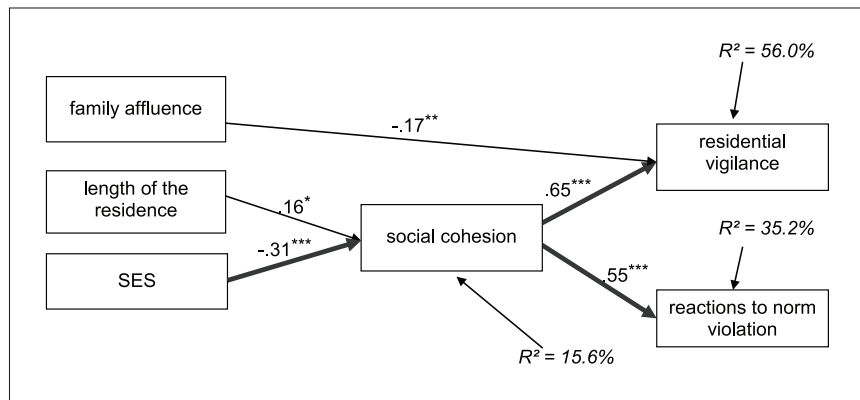
dary schools live outside or farther from their neighbourhood compared with friends of students from the general secondary schools (Oberwittler, 2004). In addition, social cohesion measures anonymity and trust here, but not the involvement in neighbourhood organizations which will be affected by SES positively (Sampson & Groves, 1989).

However, it is plausible to assume that only those residents with a high level of education have more contacts outside their neighbourhoods. Accordingly, there should also be less need for emotional attachment within the neighbourhoods. This interpretation is not necessarily specific to the Russian situation. For Russia, a specific interpretation could be that because of historical reasons, nowadays, mainly those people with a higher SES move into development areas with comfortable apartments, and in these areas, social cohesion is still in a developing phase.

As expected, the length of residence also corresponds to high social cohesion, as is observed in other studies (Kasarda & Janowitz, 1974; Guest et al., 2006), close relationships, socialness, and helpfulness between neighbours develop with an increasing length of residence. Ethnic heterogeneity has no effect in this model. In contrast to the situation in Chicago in the 1920s, modern Russian cities are very homogeneous relative to their ethnic composition. Moreover, the non-Russian ethnoses are highly integrated in the Russian culture on the basis of collective history.

¹³ The following analyses were based on WLS (weighted least squares) regression analyses, in which the neighborhoods were weighted in proportion to the number of respondents.

¹⁴ The sample includes 4,262 respondents in the 193 neighborhoods. Only neighborhoods which have a minimum of 4 respondents after the leastwise deletion of the cases with missing values were considered: the number of respondents range also from 4 to a maximum of 58; the average of respondents per neighborhood was 22.



Notes: $n_{\text{neighb.}} = 198$; standardized betas; regression models

Figure 2: Significant effects of ecological regressions of the indicators of social control in the neighbourhoods on social cohesion and structural characteristics

The second assumption of this study is that informal social control is higher in socially organized neighbourhoods than in socially disorganized ones. Informal social control has also two dimensions: “residential vigilance” and “reaction to norm violation”. All together, the results of the model correspond to the following theoretical expectations: In neighbourhoods with high social cohesion, the vigilance and the people’s reactions to norm violation are higher. The effects are substantial with $\beta = .65$ and $.55$. Social cohesion explains (under statistical control of the exogenous structural characteristics) 56% of the variance of the residential vigilance and 35.2% of the variance of the residential reaction to norm violation.

The last assumption of this study is that the exogenous structural characteristics do not affect the neighbourhood’s social control directly, but are mediated by the organization of the neighbourhoods. The testing of mediating effects includes two steps. On the first step, a regression without mediating variable will be estimated. The result from this regression – between dependent and independent variable – names *total effect*. On the second step, a regression with three variables will be estimated: independent, dependent, and mediating variables. This regression splits the result into two effects: direct and indirect. The *direct effect* is a result from the relationship between dependent and independent variables. The *indirect effect* is the mediating effect and it consists of a multiplication of the results of two relationships: between an independent and a mediating variable on the one hand and a mediating and a dependent variable on the other hand. The sum of a direct and an indirect effect gives the total effect. The mediating effect can be interpreted only in case of significance of the total effect.

In the case of significance of the total effect, the direct and indirect effects can be interpreted. In this study, mediating effects of social disorganization for two dependent variables – residential vigilance and reaction to norm violation – were tested. Obviously, SES is the most important indicator for social situation in the neighbourhoods: Only the effect of SES is mediated by social cohesion in the neighbourhoods: (1) it is mediated on both factors of informal social control, (2) it is mediated completely (Table 2). These results mean that the development of social control in the neighbourhoods does not directly depend on the average level of education or professional status of its inhabitants.

Because the length of residence has no total effect on informal social control, thus, they will not be able to be mediated by social cohesion. Family affluence has only a direct negative effect on residential vigilance. Structural characteristics, such as family affluence, ethnic heterogeneity, and rate of incomplete families have no mediating effects on both factors of informal social control.

Table 2: Total, direct, and indirect effects

	Total effect		Direct effect		Indirect effect	
<i>DV: residential vigilance</i>						
SES (z)	-.32	(-4.06)^{***}	-.12	(-1.93)	-.20	(-3.30)^{***}
Family affluence (z)	<i>-.17</i>	<i>(-2.29)[*]</i>	<i>-.17</i>	<i>(-2.98)^{**}</i>	<i>-.01</i>	<i>(0.09)</i>
Ethnic heterogeneity (z)	.01	(0.20)	-.00	(-0.06)	.02	(0.32)
Length of residence (z)	.09	(1.31)	-.01	(-0.21)	.11	(1.94) [*]
Incompleteness of the families (0 = complete families)	-.04	(-0.07)	.12	(0.25)	-.16	(0.34)
<i>DV: reaction to norm violation</i>						
SES (z)	-.29	(-3.42)^{***}	-.11	(-1.56)	-.17	(-2.32)[*]
Family affluence (z)	.05	(0.62)	.05	(0.80)	-.00	(0.06)
Ethnic heterogeneity (z)	.02	(0.21)	.00	(0.03)	.01	(0.22)
Length of the residence (z)	.07	(0.88)	-.02	(-0.35)	.09	(1.37)
Incompleteness of the families (0 = complete families)	-1.01	(-1.46)	-.87	(-1.49)	-.14	(0.24)

Notes: DV: dependent variable; bold: significant mediating effect; italic: significant direct effect; WLS regression (standardized betas/for “incompleteness of the families” unstandardized *b*-coefficient (*t*-value); level of significance); ^{*}: *p* < .05, ^{**}: *p* < .01, ^{***}: *p* < .001; weight data

7 Discussion

The causal assumptions of informal social control, theoretically part of social disorganization theory, were tested at the macro level in this study. First, the results show that social cohesion is affected by two structural characteristics, namely the length of residence in the district and the SES. As expected, neighbourhood cohesion becomes stronger when the average length of residence in the neighbourhood is longer. Contrary to our expectations, higher neighbourhood cohesion is still found in the neighbourhoods with a lower SES.

Secondly, two forms of informal social control were distinguished here: “residential vigilance” that captures the everyday control behaviour of the neighbours, and “reaction to norm violation” that captures interventions in the interest of third parties during observed criminal activities. Our hypothesis was confirmed by the data: In neighbourhoods with high social cohesion, the vigilance and the people’s reactions to norm violation are higher.

Thirdly, the results show that of all the structural characteristics, only the relationship between SES and the two factors of informal social control are mediated by social cohesion. This mediation is complete, and means that the development of social control in the neighbourhoods does not directly depend on the average level of education or professional status

of its inhabitants. Contrary to our expectations, the second indicator of poverty – family affluence – has a direct negative effect on residential vigilance.

It was an expected result that SES has the strongest effect compared with the other exogenous structural characteristics, with reference to Park and Burgess’s study that economic competition is the main important social process for the segregation of neighbourhoods. Moreover, SES is the main structural characteristic in this theory. However, the negative effect of SES is unexpected. Perhaps the key to explaining this result lies in an understanding of what constitutes the substantive meaning of SES: SES is mainly based on the educational level of the parents. However, it is plausible to assume that only those residents with a high level of education have more contacts outside their neighbourhoods. Accordingly, there should also be less need for emotional attachment within the neighbourhoods. This interpretation is not necessarily specific to the Russian situation. For Russia, a specific interpretation could be that because of historical reasons, nowadays, mainly those people with a higher SES move into more developed areas with comfortable apartments; and in these areas, social cohesion is still in a developing phase.

The benefit of this study is that the survey allows research phenomenon like informal social control or social cohesion to be examined which cannot be studied by statistical data.

Indeed, this study has methodological limitations. The validity of the data is suspect on the basis of examining only one data source. A suitable source could be statistical data for exogenous structural characteristics such as percentage of families with only one parent or divorce rate. In the best case, the survey data would be combined with statistical data, but unfortunately, statistical data for exogenous structural characteristics were not available in this study. The validity of the measures of social cohesion and informal social control in the neighbourhoods on the basis of school student responses can be increased through the use of other data sources like teacher questioning or local observations.

A consequence of these data limitations can be a low explained variance of the theoretical model for social organization: it is only 15.6% here. It means that the exogenous structural characteristics in this model cannot sufficiently explain a neighbourhoods social organization. There are two reasons for this: the indicators there were deduced from the social disorganization theory have to be measure in one other way or future studies need new indicators.

It is the task of the municipality and police to address crime prevention. The consequences of low social organization and low informal social control were not tested in this study, but we know from other studies that it is a strong relationship between them. Based on our findings, we can say that the municipality has to care for a better and more efficient infrastructure and living together especially in new districts. The development of social relationships needs time. It would be useful to support this process for example through common events in the neighbourhoods, meeting points for different social groups, or social projects.

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Appendix

Table: Factor analysis – social cohesion, residential vigilance and reaction to norm violation

Items	M	SD	FL	r _{it}
Factor 1: social cohesion				
People in this neighborhood can be trusted	49.12	31.12	.82	.62
Adults in this neighborhood get along with each other.	47.87	28.05	.69	.63
People in this neighborhood help their neighbors willingly	48.08	30.05	.67	.62
I was often in my neighbor's apartment.	40.60	35.13	.54	.53
If something is out of order in this neighborhood, there are always neighbors who take care of it.	50.15	30.37	.50	.56
If I meet adults in my neighborhood, I know sure whether they live here or not.	57.01	35.39	.34	.43
	48.82	22.52		α = .81
Factor 2: residential vigilance				
Most of our neighbors are interested in what the other doing (e.g. to get a visit, to get home late)	37.99	31.24	.59	.42
If juveniles in our neighborhood get up into mistake the neighbors observe this and tell it them.	62.28	30.77	.52	.42
People in this neighborhood tell someone if this person takes waste on the false place.	50.95	33.32	.46	.37
It happens often that adults in this neighborhood doing something together.	39.45	29.37	.41	.41
	47.68	21.46		α = .63
Factor 3: reaction to norm violation				
If this (damage to property) happened in your neighborhood would one of the neighbors intervene or call the police?	58.87	25.95	.68	.56
If this (extortion) happened in your neighborhood would one of the neighbors intervene or call the police?	59.77	27.06	.68	.52
If people in this neighborhood would see anyone break open a car, they will be intervene or call the police.	69.30	28.64	.30	.36
	62.58	21.07		α = .67

Notes: FL: Factor loading; r_{it}: Item-total correlation; α: Reliability of the scale (Cronbach Alpha)

Posredna vloga družbene dezorganiziranosti: študija primera ruskih sosesk

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Teorija družbene dezorganiziranosti predpostavlja, da je v soseskah, v katerih je prisotna velika revščina, etnična heterogenost, stanovanjska mobilnost in velik delež nepopolnih družin, prisotna dezorganiziranost. Nadalje, družbena dezorganiziranost vodi v šibko družbeno nadzorstvo. V študiji smo raziskovali posredno vlogo družbene dezorganiziranosti. To teorijo smo testirali v treh ruskih mestih z uporabo samoporočanja učencev devetega razreda osnovnih šol ($n = 4860$) v 198 soseskah. Družbeno dezorganiziranost in neformalno družbeno nadzorstvo smo operacionalizirali ločeno. Obstajata dve vrsti neformalnega družbenega nadzorstva: sosedske straže in reakcije na kršenje norm. Dolžina prebivanja (kot kazalnik stanovanjske mobilnosti) in socialno-ekonomski status (kot kazalnik revščine) sta edina vplivala na družbeno organiziranost v soseskah. Družbena kohezija ima največji vpliv na obe vrsti družbenega nadzorstva. Vendar pa družbena dezorganiziranost nastopa v vlogi posrednika le v odnosu med socialno-ekonomskim statusom in neuradnim družbenim nadzorstvom.

Ključne besede: družbena dezorganiziranost, kohezija v soseski, samoporočanje, posredni učinek, Rusija

UDK: 343.9(470)