The Power of Networks. Individual and Contextual Determinants of Turning to Social Networks for Help[*]

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Abstract

This paper looks at social networks in the classic Bourdieau sense, i.e. as a resource that is used by individuals in conjunction with other types of capital. In particular, we test a popular assumption that low-status individuals do not rely on their networks to the same extent as high-status individuals. We posit that networks may be used more efficiently when they are meant to compensate for the lack of other resources, and thus low-status will encourage network mobilisation. We also propose that economic and cultural context matters for how networks are mobilised to access resources. We find that i) poor people turn to their networks equally or more often (depending on the resource in question) than high income individuals; ii) this relationship is reversed in post-communist countries, where low-income groups are also the most disadvantaged in terms of mobilisation of their networks; iii) high-levels of income inequality encourage reliance on social networks to access resources.

Keywords: social capital, networks, inequality, income, post-communist, Central Eastern Europe

Introduction

Economic inequality or, in other words, unequal access to economic capital, has often been suggested to be strongly intertwined with access to other forms of capital, such as human and social capital. For instance, Pierre Bourdieu (1986) argues that that different types of capital are mutually convertible and that at the root of all the other types of capital is economic capital.

A key behavioural component of social capital are social networks. Depending on whether one treats social capital as an individual or a collective good (see Portes, 1998, 2000), it has returns primarily for individuals and/or communities. In this paper we operationalise social capital in line with the former approach, focusing on benefits drawn by individuals from participation in social networks (Bourdieu, 1986; Coleman, 1990; Lin, 2001; Burt, 2000; Paldam, 2000). In particular, we test a popular assumption that inequality in economic terms also implies shortage of social capital, i.e., that poor people do not rely on their networks to the same extent as wealthy people do. Previous research has been predominantly concerned with extensiveness of networks or with returns to networks, and it has concluded that people from the lowest social strata have smaller, but more importantly less powerful networks (Pitchler and Wallace, 2008; Portes, 1999; Lin 2001; Graaf and Flap, 1998; DeFilippis, 2001). It has also attributed returns from networks mainly to the type of network accessed (strong vs. weak) (e.g., de Graaf and Flap, 1988; Lin, 2001). In this paper we do not explore different types of networks. Instead, we assume that when in need, people will turn to where they expect help is most likely to come from, and we are interested in factors that make one see turning to their social network for help as a preferable solution.. In particular, we look at whether one's relative economic position and distribution of economic resources in the society matter for turning to social networks to access key resources, such as employment or money.

The advantage of our approach over previous studies is twofold: first, we do not analyse the size of networks or economic resources in them, but whether they are perceived by actors as means to access resources. Secondly, we operationalise inequality at the individual level by classifying respondents in reference to their income's contribution to the overall income in a given country. We use a largely underutilised ISSP 2001 "Social Networks" dataset, which has been designed specifically with the

purpose of studying social capital and social networks in the cross-national perspective. As a result, we provide a direct and thorough test of how unequal access to economic capital conditions the use of social capital.

Our findings show that the relationship between social position (defined in reference to income) and the degree to which one's social networks are mobilised to access resources is less clear-cut than so far believed. In general, the lowest income group declares they turn to their networks to access resources not less, if not more (depending on the resource in question) than higher income individuals. This relationship is reversed in post-communist countries, where low income groups are also the most disadvantaged in terms of mobilisation of their networks. Equally interestingly, high levels of income inequality encourage informality in accessing resources, and in case of money this effect is largely uniform across income groups.

Social networks as a resource

The point of departure for us is the individual level approach to social capital as a resource (Portes, 2000) or, as Paldam (2000) labels it, the rational choice approach, that is based on the notion of exchange and reciprocity in social and economic relationships. Bourdieu, Lin, Burt and other proponents of this approach all share the understanding that social capital consists of resources embedded in social relations and social structure, which can be mobilized to help an actor to achieve certain goals (e.g., Lin, 2001; Bourdieu, 1986). To possess social capital, one has to be linked to others, and these "others" are the source of one's advantages (Portes, 1998; Coleman, 1990, Burt 2000). According to Bourdieu (1986), in order to capture the power of one's network, we should distinguish between 1) social networks a person is embedded in, and 2) the outcomes of those social relationships:

> "the volume of the social capital possessed by a given agent depends on the size of the network of connections he can effectively mobilize and on the volume of the capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected" (Bourdieu, 1986: 51).

3

Having a broad network of strong relationships does not necessarily mean that a person will be able to generate any significant resources from them. Certain social networks are in greater positions of power than others, and they can therefore yield much more substantial returns to their members (DeFilippis, 2001, 791). De Graaf and Flap (1998) found that use of informal means per se does not lead to higher occupational prestige or greater income. What matters is the social position of a person and of those in his or her network.

Retaining relations and acquiring social capital requires certain effort. Thus, social agents engage in symbolic exchange of gifts and favours, expecting future returns from these transactions (Bourdieu, 1986, 1998). One can convert one type of capital into an other, yet at the root of them all is still economic capital (Bourdieu, 1986). Coleman sees social capital as embedded in relations between people, and defines it as "the value of those aspects of social structure to actors, as resources that can be used by the actors to realize their interests" (Coleman, 1990: 305). People give gifts and provide favours to each other, thus creating obligations and expectations which form the basis of reciprocal relations between individuals. Creation of obligations, or the so-called_credit slips is often intentional and strategic, for they can be seen as an additional source of power.

Lin puts the analysis of the relationship between social class and social capital in the context of rational choice, drawing from transactional economics and theory of social exchange. Like Bourdieu, he sees social capital as resources, real or potential, gained from relationships and "used by actors for actions" (Lin, 2001: 25). In line with Coleman's arguments, Lin believes that people consciously and strategically invest in maintaining and building relationships to increase the likelihood of success of purposive actions (Lin, 2001). He distinguishes between accessed and mobilised social capital, the former being resources "attached" to one's contacts within a network, and the latter being resources that are effectively mobilised through these networks. Accessed social capital is mobilised through instrumental actions to obtain resources that one lacks; what portion of accessed social capital will be used depends on a range of factors, including individual psychological predispositions, their human capital, relative position in a society, and cultural and institutional context (Lin 2001).

Lin's theory is supported by findings from de Graaf and Flap's (1998) study on the role of social resources in finding a better paying and more prestigious employment, that even in industrial societies success is significantly related to "whom you know". According to de Graaf and Flap, social resources can be conceptualised as „the number of people who want to help him/her, the resources that he/she can mobilize in this indirect way, and the extent to which others are prepared to give support" (1998: 453).

Social position and social networks mobilisation

The way networks are formed and used is strongly stratified. Individuals with higher status have higher accessed social capital, so they should also have more mobilised social capital. Also, given that the upper social class has more resource-wealthy networks to draw from and more to gain from using them, they should be motivated to use these connections more often, while low-income groups would not be able to rely on their networks to the same extent. This is why, in line with Bourdieu (1986) and Lin (2001), economists usually emphasize the strategic importance of networks, i.e., that they can be used and are used in the production and reproduction of social divisions in the society. The wealthiest social groups strategically use social capital along with other types of capital (economic, cultural, and social) to maintain their social position, gain advantages over other groups or avoid potential losses. In contrast, in poor communities the lack of any significant resources in their networks creates a self-reproducing condition of disadvantage (Portes, 1999; DeFilippis, 2001).

On the other hand, people's decision to defer to their networks for support is also likely to depend on how much they need that help, on cultural differences in norms and expectations regarding use of networks for support, and on their ability to get that support from alternative sources. Financial institutions are more hesitant to provide loans to poor people than wealthy people, considering the risk that the loan will not be repaid.[2] The use of commercial job search sites and employment agencies is also of limited availability to poor people, as they may be unable to pay for this service. Turning to an institution also requires knowledge about which institution and on what terms can provide the necessary support, and that

requires human capital, which is also unequally distributed. As a result, poorer people are not always in a good position to utilize the formal support that is available to them, and are "forced" to turn to their networks in time of need. Indeed, it has been documented in several studies about poor neighbourhoods that their inhabitants heavily depend on their social networks (Uehara, 1990; Edin and Lein, 1997; Putnam, 1995). As we can see, the evidence regarding the mobilisation of social networks among different social strata is mixed.

Social networks and economic inequality

When talking about social networks mobilisation, strategic interactions and social exchange one should not forget that people have preferences for cooperation with some over others based on the principle of homophily (see Fukuyama, 2001; Portes, 2000).[4] As demonstrated by previous research, social interactions tend to take place among individuals with similar status homophily and value homophily (Lazarsfeld and Merton, 1954), leading to a conclusion that "similarity breeds connection" (McPherson et al., 2001). A similar argument is made by Bourdieu, who notes that „proximity in social space predisposes to closer relations" (1998, 10-11)

Inequality represents a significant gap between social groups in terms of resources, education, culture, social status, and lifestyle. It makes contacts between people from different social classes less likely to occur, and more difficult to maintain (Bourdieu, 1998). Inequality also has some relevant psychological consequences: in more unequal societies status gaps between individuals cause feelings of threat, anxiety and stress, which is manifested in fewer interactions between people of unequal status (Wilkinson and Pickett, 2009). Inequality is likely to diminish the sense of solidarity, as it changes the perception of shared goals and having something in common. In addition, hierarchical social organization generates distrust due to information and power asymmetries (Herreros, 2004; Rothstein and Stolle, 2001). Vertical relations lead to opportunistic behavior by both the patron (exploitation) and the client (shirking) (Putnam, 1993), while low social polarization promotes the development of cooperative norms and trust

(Knack and Keefer, 1997). In short, more equal levels of resource distribution should facilitate social interactions, exchange of resources and general solidarity between different groups of society.

On the other hand, previous research suggests that inequality might limit willingness to rely on formal institutions, for it has a detrimental effect on confidence in them (Rahn and Rudolph, 2005). Inequality creates a perception of unfair and unequal treatment of the disadvantaged groups by the authorities (Tyler and McGraw, 1986), discouraging the underprivileged majority from turning to formal institutions. Moreover, high levels of social and economic inequality are paired with high political inequality (Solt, 2008), where those socially and economically privileged have a high influence on how unequal access to resources in a society is institutionalised. Thus, paradoxically, high levels of inequality may, in fact, force people to rely on their networks more than when resources are more equally distributed.

So far there has been little empirical research into how inequality affects the way people use their networks. Pitchler and Wallace (2008) find in a cross-national study of 27 European countries that upper layers of society have higher levels of social capital, especially through associational networks (formal social capital), and inequality magnifies these differences between classes, giving the upper classes further advantages. Unfortunately, this study is only concerned with the extensiveness and intensiveness of networks, without actually tracking to what extent and under what circumstances these networks are used as a resource.

Social networks in post-communist Europe

As Coleman (1990) says, the more people need each other and call for each other's help, the more social capital is generated. Networks of cooperation and reciprocity are particularly valuable for their members, when formal institutional agreements are failing to provide the necessary support, and the economic as well as the social spheres are poorly organized (Rose, 1999; Letki and Evans, 2005). It is commonly assumed that precisely for these reasons the use of informal networks became so crucial and

widespread in Central-Eastern Europe (CEE) during the Communist times. Due to unfavourable regulatory conditions for business development and distortions of central planning, informal social relations became the base for trading and exchange (Stark and Bruszt 1998, 127-29). Also private individuals relied on social networks as the key way of compensating for the shortages and inefficiencies of formal institutions (Jowitt, 1992; Ledeneva, 1998; Rose, 1999; Howard, 2003, Cook et al., 2004). Unlike in Western countries, relying on connections to get something done was natural and completely acceptable, and turning to your acquaintances, not institutions, developed into a strong habit (Pitchler and Wallace, 2007).

In contrast to the predictable shortages and inefficiencies of the Communist period, the fall of communism created an environment characterized by high uncertainty, institutional weakness and unpredictability (Rose-Ackerman, 2001; Letki and Evans, 2005; Rose, 1999), combined with rapid economic polarisation of social groups. While uncertainty imposes commitment formation in order to reduce exchange risks, it simultaneously reduces the overall level of exchange in networks. Under high levels of uncertainty, actors tend to invest less heavily in their exchange relations (Cook et al., 2004, 198), as returns are not guaranteed. Accordingly, they do fewer favours to each other.

However, there is evidence for the continuity of the culture of informality from the communist to the post-communist period. Stark and Bruszt state that:

> "The existence of parallel structures in the informal and interfirm networks that got the job done under socialism means that instead of an institutional vacuum we find routines and practices, organisational forms and social ties, that can become assets, resources, and the basis for credible commitments and coordinated actions" (Stark and Bruszt 1998, 128).

Also studies of non-economic social ties produced evidence for the overwhelming presence of informal, personal ties in the post-communist societies. For example, on the basis of in-depth interviews Ledeneva (1998) found out that *blat* and exchange of favours within a tight personal network became the key element of informal reciprocity mechanism in post-communist Russia. Howard has concluded that while "civically weak", post-communist citizens still make use of their "vibrant social networks that they developed under Communism" (Howard 2003, 153).

Summing up, it is not possible to form a set of clear and unconditional hypotheses about the use of social networks in the post-communist context. We expect that although the experience of communism was conducive for networks formation and use, post-communism has introduced economic rivalry and uncertainty that undermined networks of favours and reciprocity. On the other hand, there is research showing that social networks remained the basis for social and economic exchanges well into the 1990s, and that the decrease of the significance of networks in post-communist Europe 1990s has been limited to 'strong ties' (Volker and Flap, 1995; Angelusz and Tardos, 2001). Finally, given the rapid economic polarisation of the society and the rise of economic gains at stake, we expect that the "winners of the transformation" will resort to their networks more often than wealthy groups in other contexts, which will be reflecting their preference for informality and using *blat* to reinforce their privileged status (Ledeneva 1998, see also Cook et al., 2004).

Hypotheses

The approach we have adopted in this paper calls for two types of hypotheses: across countries and across various income groups. We believe that an individual access to resources matters for how and why networks are formed and used, and so does an economic (inequality) and cultural (post-communist legacy) context. Networks are a resource which is used and strategically protected by the wealthy, but is more crucial for getting by for the poor. Therefore, we formulate the following hypotheses:

HI. *Mobilisation of networks*: Low-income groups will mobilise their networks to access resources equally or more than wealthy people do.

Communist legacy of getting things done informally as an alternative to shortages and inefficiency of formal institutions, combined with high income group's drive to maximise and maintain its advantaged social position acquired as a course of transition leads us to further two hypotheses:

H2a. *Communist legacy*: In the post-communist context networks will be more important for accessing resources than in other countries, and

H2b. *Winners of the transformation*: In the post-communist context the high-income group will be mobilising their networks to a higher extent than the low income group does.

In the case of the effect of inequality, our expectations are somewhat mixed. It has been demonstrated in past research that social and economic inequality discourages network formation, especially across social groups. However, in this paper we focus on networks mobilisation and, based on the evidence on the link between social and political inequality, as well as the effect of inequality on confidence in formal institutions, we propose that:

H3. *Income inequality:* Where resources are unequally distributed, people are forced to rely on their networks rather than on formal institutions.

Data and methods

Our analysis is based on the ISSP 2001 "Social Networks" dataset, which was designed with the purpose of studying social capital and social networks. Fieldwork was conducted between 2000 and 2002 in 27 countries, but due to the missing data only 21 of them are included in our analysis (six of them being the post-communist CEE countries: Czech Republic, Hungary, Latvia, Poland, Russia and Slovenia). The number of interviews in most countries is between 1000 and 1500, which is representative at the country level. Because of the nested structure of the data, we use hierarchical regressions, with respondents being nested within countries. Ignoring multilevel structure of the data is likely to result in underestimation of standard errors and thus to type II error, i.e. inferring that effects are statistically significant when they are not.

Dependent variables: Mobilising networks

We have no information on the resources and social position of people included in the respondents' networks. However, we can assess subjective perceptions of the usefulness of these networks by referring to questions in which respondents indicate who they would turn to or have turned to in case of a hardship.

Therefore, we do not analyse the potential of the networks to provide resources to an individual, but mobilisation of these networks for a personal benefit (Lin, 2001).

ISSP 2001 respondents were asked who they would turn to if they needed to borrow a substantial amount of money.[5] The range of answers offered included close and more distant family, friends, neighbours and acquaintances, as well as a range of professionals and institutions designed to assist people in case of economic hardship. There was also an option "I would turn to no one". Those who would turn to networks for money were coded as "1", and others -,as "0". Respondents were also asked how they have learnt about their current job (in the case of unemployed or retired - their last job). Those who indicated their family members, relatives, friends or acquaintances as the source of information were coded as "1" and others - as "0". As a result, we have two indicators that capture mobilisation of people's networks for accessing key resources: work and money.

What these informal networks are "made of", however, differs depending on the resource in question. Table 1 shows that when in need of money, people turn most often to their closest family, while to access job information they use mostly friends and acquaintances. This is hardly surprising, as trust necessary to pass over substantial amounts of money is more likely to be present within close family, while the circle of friends and acquaintances is more diverse than family and thus more likely to have access to diverse information (e.g., about employment opportunities).

[Table 1 about here]

Independent variables

Individual level INCOME POSITION. One of the key hypotheses tested here is that individuals who are disadvantaged economically use their social capital to compensate for their lack of economic capital. Previous research has typically used ISCO occupational groups to capture social position and resources (e,g,., Pitchler and Wallace 2008). However, the type of occupation, especially in post-communist countries, is not a good indicator of economic position, therefore we have decided to use income based groups.[6]

11

The major challenge was to find a way that would allow grouping respondents according to their income in a manner that would correspond to their relative position in a society. We have decided to group them on the basis of information whether they contributed to the lowest 25% of total equalised household income in a given country, to the top 25%, or to the middle category. Employing Eurostat approach, we first calculated the equalised disposable household income of an individual (HIDI) for all households in every country.[7] The data used was taken from available sources, such as the Luxembourg Income Study (LIS), but in some cases also The European Union Statistics on Income and Living Conditions (EUSILC) (Latvia, Cyprus), or National Statistical Office (Chile).[8]

In the next step, households were sorted according to their HIDI, and assigned to three different income groups. The 'lowest income group' consists of the poorest households, whose HIDI together accounts for the lowest 25 per cent of the total HIDI in that particular country. The 'highest income group' consists of the wealthiest households, whose HIDI together account for the top 25 per cent of the total equalized disposable household income in that particular country. All other households represent the 'middle income group'. In the final step, we applied thresholds between the lowest and middle, and middle and highest income groups estimated in the previous step, to the ISSP Social Networks equalised household income variable (calculated using the Eurostat approach described in footnote 6). As a result we were able to group respondents according to whether they belong to a household contributing to the bottom 25%, top 25% of total equalised household income in a country, or they fall in between.

This method is superior over the traditionally used approach of grouping respondents into four or five equal categories based on their reported income for two reasons: first, we do not rely on the incomplete and distorted distribution of declared income to classify respondents, and second, we created groups that are much more homogenous, especially at the top end of the distribution, and especially in the more unequal countries. For example, if we used the traditional approach, and simply divided respondents into four quartiles, in Chile the cut-off point for the wealthiest group would be 154 thousand Chilean pesos, and the group making income above this amount of money would be 25% of the total population. With our approach, the cut-off point for the high-income group is 500 thousand pesos, and the group

constitutes just 1% of the population. The size of groups varies from country to country. The average size of the lowest income group in all countries is 56 per cent, the highest income group 9 per cent and the medium income group 35 per cent (see Table 5 in the Appendix).

Contextual effects There are two main country-specific characteristics that are of interest from the point of view of our hypotheses. First, we look at the effect of income inequality measured by GINI coefficient taken from the Standardized World Income Inequality Database (SWIID, see Solt, 2009) on networks mobilisation. Post-communist status is included in the models to account for the communist legacy of informality and relying on networks as a means of getting by and getting ahead in the context of institutional inefficiency and unpredictability. We also expect that the country's wealth affects networks formation and reliance on them, with people living in wealthier countries forming smaller networks and mobilising them to a lower extent than people in countries where resources are more scarce. We therefore control for economic development by accounting for the real GDP per capita in US dollars at base year 2000 (Gleditsch Expanded Trade and GDP Data). Since there are only 21 level 2 observations in our sample, and the three contextual characteristics (GINI, GDP and post-communist status) are relatively closely correlated, our concern was collinearity. However, our findings are robust: all models presented below were also estimated with the level of unemployment instead of GDP, which did not have a substantial effect on the results.

Other control variables

RECIPROCITY. By giving gifts or providing favours individuals create obligations. Individuals differ with respect to the extent of credit slips on which they can draw, and they can be seen as an additional source of power (Coleman, 1990). Therefore, it is important to control for the effect of reciprocity on networks' mobilisation. We have used four items referring to how often a respondent has helped others within the past 12 months by doing their household work when they were ill, talking to them when they were depressed, lending them money or helping to find a job. Since the general rule of reciprocity is more important here than equity of exchange, we do not distinguish between various types of resources used by

the respondents to help others and we do not match them with the resources they access through their networks (money or information about a job). Instead, we create a composite index called *giving*, which indicates on a scale from 0 to 5 frequency of helping others (where 0 means that the respondent has not helped anyone in any of the four described situations during the past 12 months, and 5 means that they have been helping more than once a week in all of these situations).

STRATEGIC FRIENDSHIP. People who see networks primarily as a resource often knowingly search for the most useful contacts and build their relationships *strategically*. Poor individuals may be building their networks with the purpose of gaining access to resources they lack themselves, while wealthy people will select friends and acquaintances strategically to protect their advantaged position. To deal with this potential endogeneity problem, we employ a question whether a respondents approves or disapproves of developing friendship with someone just because they can become of use.

SOCIO-ECONOMIC BACKGROUND. Following Pitchler and Wallace (2008), we account for whether respondents are *economically inactive*: those who are unemployed, disabled, retired or home-makers are usually less involved in social life and less likely to cooperate and interact with people outside of the household. In addition to that, we account for the *sector of employment*: we expect private sector employees to be less secure jobwise and more likely to be in an informal or partially formal employment, especially in post-communist countries. If a person does not have a formal work contract, they may have problems with receiving institutional support, so they are forced to turn to their networks.

The remaining control variables are standard socio-economic background indicators: gender, age, and education level (whether a respondent has a degree or not).

Mobilisation of networks: Empirical analysis

First, we look at the determinants of turning to networks to borrow money. Table 2 below shows results of a series of regressions, testing the hypotheses outlined above: that income position, and cultural and economic context affect how people use networks to access money. The results are largely supportive of our expectations: first, there is no difference between income groups in how they mobilise their networks

to access money (Model 2.1). Even if resource-wealthy individuals are embedded in networks of equally wealthy people, they would not refer to them to borrow money more than poorer people to their networks. Secondly, the higher levels of economic inequality in a country, the more likely people are to turn to networks, not institutions, for help in financial hardship. Also post-communist status makes a difference, with post-communist citizens choosing to turn to their networks more often than people in other countries. The intraclass correlation correlation (ICC) in the "borrowing model" is 0.07, which means that 7 per cent of total variance is explained by the country-level factors. Comparison of Table 2 and variance components in the intercept-only model (see Table 7 in the Appendix) shows that adding contextual variables results in a 45 per cent proportional reduction of intercept variance.

[Table 2 about here]

Model 2.1 shows also the presence of reciprocity in exchange: those, who help more, are more likely to turn to their networks. There is also some evidence of self-selection into networks: those, who approve of strategic network formation, choose to turn to networks more than those who disapprove of being strategic in friendship. Finally, even though Pitchler and Wallace find that economically inactive respondents form smaller networks (2008), our findings suggest that students and economically inactive respondents would refer to networks for money more than those who are in paid employment. This effect is net of the individual's income group, and we take this as an indication of their weak position vis a vis formal institutions, where due to the lack of stable earnings they are unlikely to be able to secure, for example, a loan. This seems to be a very good example of how extensiveness of networks does not translate directly into how seriously they are mobilised.

In the next step we explore whether the context effects how particular income groups mobilise their networks to access money. Model 2.2 shows that the effect of income inequality is largely uniform across all three groups; this model does not fit the data better than Model 2.1. In the next step (Model 2.3) we interact income groups with post-communist status. The chi-square test of deviances shows that, adding these interaction terms significantly (at $p<0.01$) improves the model fit. In post-communist

15

countries high-income group chooses to turn to its networks to access money significantly more than the resource-poor group, whereas in other countries the three income groups do not differ with respect to mobilizing their networks to access money (the conditional effects are plotted in Chart 1). It confirms our expectations about the post-communist legacy of *blat* and informality as a tool applied by the 'winners of transition' to secure their privileged position, as well as about the disadvantaged position of the poor in post-communist countries.

Table 3 below presents models that are identical to those in Table 2, but the dependent variable is utilising networks to access information about a job. Model 3.1 shows that in this case income groups are significantly different: individuals in middle and high-income groups use networks to find a job less than individuals in the low-income group, and this effect is particularly strongly pronounced for the high-income group. Unlike in the case of borrowing money, country-level income inequality, as well as post-communist status does not have a significant effect on using networks to learn about a job. However, the level of economic development matters, with respondents from wealthier countries using networks to find a job significantly less often than those from poorer countries. As in the case of borrowing money, reciprocity is also relevant, with those who have helped others being more likely to learn about a job from their network. Strategic friendship formation, however, does not play a role here: unlike in the case of money, when one is selecting friends that might become useful, they can relatively easily assess their "target" friend's wealth, but it is more difficult to predict who, one day, may provide you with useful information, such as information about a job opening.

[Table 3 about here]

Model 3.2 shows that income inequality does condition how particular income groups use networks to find employment. In particular, it demonstrates that inequality facilitates nepotism in the middle-income group. This seems to reflect the fact that under the conditions of unequal distribution of resources, good employment is a highly valued and narrowly accessible resource. Information about it becomes a means to create reciprocity obligations within the network (usually friends and acquaintances), and reinforce the more favourable position of some people at the expense of those who

16

are not "well connected".

Interactions of respondents' income group with their country's status (post-communist vs. other) included in Model 3.3 yet again tell the story of *blat* and post-communist informality[13]. In countries other than post-communist, the higher respondent's income group, the less likely it is that they have learnt about their last job from their network, relying on institutional channels instead. In post-communist countries, as plots in Figure 1 demonstrate, networks are an equally popular source of job information among all income groups. In fact, the highest income group in post-communist countries use networks to find a job almost as much as the highest income group in the rest of the sample, while the low-income individuals in post-communist countries clearly can not rely on their networks for job to the same extent as low-income individuals in other countries.

[Figure 1 about here]

Strategic friendship?

Analysis in the proceeding section have shown that people who approve of strategic friendship formation, are more likely to turn to their networks for money. We believe that strategic network formation deserves a more detailed investigation, as self-selection into a more powerful network may be the way of counteracting one's own disadvantaged position in terms of resources owned or accessible. Table 4 below presents results of a regression of approval for strategic friendship formation on income groups, income inequality, post-communist status and control variables. The results are quite telling: low-income individuals are far more approving of choosing friends strategically than middle-income individuals, but high-income individuals are not significantly different in their strategic approach to friendship than the low-income respondents. It seems, therefore, that the poorest have economically the most to win, and the wealthiest have the most to lose in friendship.

[Table 4 about here]

Also those who are resource-poor because of their socioeconomic position (students and

economically inactive) are more likely to approve of being strategic in forming networks. This ties nicely with an earlier finding that these groups of respondents rely on networks to borrow money far more than people in full employment. Finally, both income inequality and post-communist status encourage people to choose friends with the potential advantages in mind. This shows that strategic approach to friendship formation is not a psychological trait, but rather a mechanism enabling one to get by and get ahead.

Conclusions

In this paper we have examined the effect of individual income position, as well as distribution of income in a given country, on mobilising social networks to access resources, controlling for a range of exchange-related factors such as reciprocity and strategic network formation. We have also looked at whether legacy of communism and post-communist transition culture of *blat* and informality effect how individuals use their networks. Our approach has been unique in that we have focused on network mobilisation rather than formation, and that we have accounted for individual's relative income position in a society. Our results, described above, shed new light on how social networks are used as a resource depending on one's own resources and context they live in.

First, we have dispelled the myth that low-income individuals cannot rely on their networks: although they are likely to be relatively resource poor, they are mobilised for help not less (in the case of borrowing money), if not more successfully (in the case of job information) than networks formed by resource-wealthy individuals. While poor people are forced to rely heavily on their networks due to unavailability of institutional support, wealthy people may be reluctant to use networks in order not to create obligations (Lin, 2001; Coleman, 1990). Secondly, while income inequality may well discourage network formation (Pitchler and Wallace, 2008), it does encourage existing networks mobilisation (here: to borrow money), and that effect is independent of one's own access to resources. It also encourages middle-income individuals to get jobs with the help of their networks, which further reinforces the disadvantaged position of the poor and unconnected. Finally, we have shown that, even when controlling

for levels of income inequality and economic development, cultural traits of post communism put low-income individuals in a particularly disadvantaged position when it comes to using their networks. Although we cannot link this finding directly to either pre or post - 1989 experience, we are inclined to associate it with the experience of post-communist transition. Rapid economic reforms of the 1990s in ECE brought a division between transitional winners and losers, with the latter becoming economically and socially alienated (Ellman, 1997; Brainerd, 1998). Informality and *blat* became the key ways of maintaining privileged status achieved by some groups in the course of transition (Hellman, 1998), and this is evident from how networks are mobilised by higher-income groups in post-communist countries in comparison with other countries in our data. The low-income individuals in post-communist countries are not just the poorest of all, but also they also can not rely on networks to the same extent as low-income individuals in other countries. They often become socially isolated (Karstedt, 2003).

Our analysis has revealed several factors that are likely to affect the dynamics of formation and mobilization of networks. First, we have shown that both poor and wealthy people approve of choosing friends strategically more than middle-income respondents, and will try to use their friends' resources to their own advantage. However, when economic and social circumstances are particularly disadvantageous, resource-poor people lose their capability to rely on networks. Second, our analysis confirms that help is based on reciprocity: what you give is what you get.

These findings have powerful policy implications. In contrast with conclusions drawn from earlier research, poor people see potential in their networks to get them ahead, and not just get them by. However, when economic resources are unequally distributed in a society, the balance between relying on networks vs. relying on institutional resources is destroyed, and people turn away from institutions, forming an alternative, informal exchange order. As the example of post-communist countries shows, such a culture of informality and *blat* 'locks' the poorest in their disadvantaged position and makes it impossible to mobilise their networks to their full potential.. Our findings are concurrent with the arguments emphasizing the importance of institutional arrangements for alleviating social exclusion (Giddens, 1998; Kronauer, 2002; Gallie, 2004). Policy efforts should, therefore, focus on forming institutional environment that assists individuals irrespectively of their social status and resources owned,

19

which will help to minimise deprivation, social marginalization, and rectify the negative effects of low-income status on life chances and achievements.

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Appendix

[Table 5 about here]

[Table 6 about here]

[Table 7 about here]

References

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24

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Tables and Graphs

Table 1 Composition of networks by resource type (money and job info)

	Relying on networks for job	Relying on networks for money
	Col %	Col %
A. Closest family members	21.7	78.7
B. Other relatives	15.1	7.6
C. Friends, acquaintances	63.2	13.8
Networks (A, B, C)	44.1	64.7

Note: Closest family members: parents, brothers, sisters and, in case of borrowing, children

Table 2 Multilevel regressions of relying on networks to borrow money, on income groups, networks,

contextual characteristics and controls, N1=20897, N2=21 (unstandardised coefficients, with SE in

parentheses).

	Model 2.1		Model 2.2		Model 2.3	
Constant	-.598	(.559)	-.526	(.554)	-.601	(.558)
Individual-level predictors						
Income group (ref.cat. low income):						
Middle income	.035	(.038)	-.065	(.058)	-.077	(.043)
High income	.025	(.061)	-.070	(.094)	-.075	(.067)
Socio-economic status (ref.cat. employed):						
Student	.738***	(.089)	.731***	(.089)	.722***	(.089)
Economically inactive	.272***	(.041)	.274***	(.041)	.270***	(.041)
Exchange in networks:						
Reciprocity	.242***	(.019)	.241***	(.019)	.240***	(.019)
Strategic friendship	.085***	(.015)	.085***	(.015)	.088***	(.015)
Country-level predictors:						
GDP	0.334^{e-4}	$(.184^{e-4})$	319^{e-4}	(0.183^{e-4})	0.350^{e-4}	(0.183^{e-4})
GINI	.045**	(.014)	.042**	(.014)	.045**	(.014)
Post-communist	.917**	(.302)	.896**	(.299)	.784**	(.302)
Cross-level interactions:						
GINI*middle income			.008	(.005)		
GINI*high income			.013	(.011)		
Post-communist*middle income					.320***	(.083)
Post-communist*high income					.471**	(.147)
Variance components						
Country level	.127		.124		.126	
-loglikelihood	12328		12326		12318	

Note: All models include the following controls: age, sex, education (degree), and sector of employment.

***p<0.001, **p<0.01, *p<0.05, ~p<0.1

Table 3 Multilevel logistic regressions of relying on networks to find a job, on income groups, contextual characteristics and controls, N1=20506, N2=21 (unstandardised coefficients, with SE in parentheses).

	Model 3.1		Model 3.2		Model 3.3	
Constant	1.197*	(.608)	1.310*	(.613)	1.206**	(.603)
Individual-level predictors						
Income group (ref.cat. low income):						
Middle income	-.144***	(.037)	-.266***	(.059)	-.205***	(.044)
High income	-.223***	(.061)	-.355***	(.097)	-.305***	(.071)
Exchange in networks:						
Giving	.100***	(.018)	.098***	(.018)	.098***	(.018)
Strategic friendship	.027	(.014)	.027	(.014)	.028	(.014)
Country-level predictors:						
GDP	-0.518^{e-4}**	$(.201^{e-4})$	-0.539^{e-4}**	$(.202^{e-4})$	-0509^{e-4}**	$(.199^{e-4})$
GINI	.007	(.015)	.002	(.015)	.007	(.015)
Post-communist	-.416	(.329)	-.448***	(.332)	-.504	(.328)
Cross-level interactions:						
GINI*middle income			.013**	(.005)		
GINI*high income			.017	(.010)		
Post-communist*middle income					.197**	(.076)
Post-communist*high income					.306*	(.134)
Variance components						
Country level	.152		.154		.149	
-loglikelihood	12684		12680		12679	

Note: All models include the following controls: age, sex, education (degree), sector of employment and employment status.

***p<0.001, **p<0.01, *p<0.05, ~p<0.1.

Table 4 Multilevel regression of approval for strategic friendship building on income group, networks, contextual effects and controls, N1=21902, N2=21 (unstandardised coefficients, SE in parentheses).

	Model 4.1.	
Constant	1.744**	(.676)
Individual level predictors		
Income group (ref.cat low income)		
Middle income	-.104***	(.017)
High income	-.041	(.028)
Socio-economic status (ref. cat. Employed)		
Student	.079*	(.034)
Economicly inactive	.079***	(.019)
Country-level predictors:		
GDP	.096^{e-4}	(0.224^{e-4})
GINI	.028	(.017)
Post-Communist	.772*	(.368)
Variance components		
Individual level	1.091	
Country level	.195	
-2*loglikelihood	32269	

Note: All models include the following controls: age, sex, education (degree), sector of employment.

***p<0.001, **p<0.01, *p<0.05, ~p<0.1.

Table 5 Dependent variables by countries and country groups

	Job Info	Money
	%	%
Scale	(0-1)	(0-1)
Country average	39.1	63.8
Post-com.	39.5	71.3
Other countries	38.8	60.8
Czech Republic	45.2	70.4
Hungary	50.9	56.7
Latvia	43.5	70.8
Poland	39.2	71.7
Russia	26.7	85.8
Slovenia	39.2	72.6
Australia	27.5	68.4
Austria	24.1	58.3
Brasil	69.3	64.9
Canada	34.7	47.6
Chile	57.0	71.7
Cyprus	50.3	49.1
Denmark	27.3	42.0
Finland	24.4	55.3
France	36.9	55.1
Great Britain	29.8	57.5
Italy	47.1	68.9
Norway	27.8	55.1
Spain	47.6	75.0
Switzerland	28.2	70.4
United States	43.6	72.7

Table 6 Key predictor variables by countries and country groups

| | Income Group | | Gini |
	Highest	Lowest	
	%	%	
Scale	(0-1)	(0-1)	(0-100)
Country average	9.6	55.6	31.9
Post-com.	8.4	56.0	31.7
Other countries	10.0	55.4	33.4
Czech Republic	25.2	17.5	25.5
Hungary	2.2	82.1	27.7
Latvia	3.0	55.5	33.2
Poland	8.5	47.7	28.2
Russia	1.8	75.6	43.4
Slovenia	9.9	57.5	24.9
Australia	19.2	46.1	31.7
Austria	5.1	62.0	25.7
Brasil	1.0	92.4	52.3
Canada	6.3	71.6	31.5
Chile	0.8	90.6	51.3
Cyprus	10.0	28.4	27.0
Denmark	24.8	38.8	22.6
Finland	6.9	58.6	24.6
France	18.4	33.1	27.8
Great Britain	6.6	48.6	34.5
Italy	17.6	33.2	33.3
Norway	7.9	53.4	25.0
Spain	1.8	76.6	33.6
Switzerland	10.6	45.6	27.6
United States	13.0	52.4	37.7

Table 7 Variance components of the regression models

		Empty model (random intercept only)	With individual level explanatory var's
Borrowing	Country level	0.232	0.232
	-loglikelihood	17286	12334
Job	Country level	0.257	0.288
	-loglikelihood	16921	12690
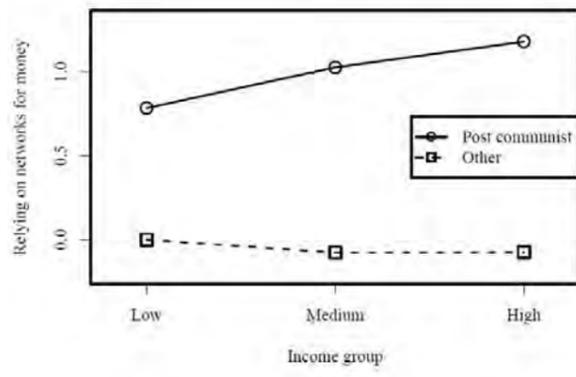
1.1. Relying on networks for money   **1.2. Relying on networks for job**
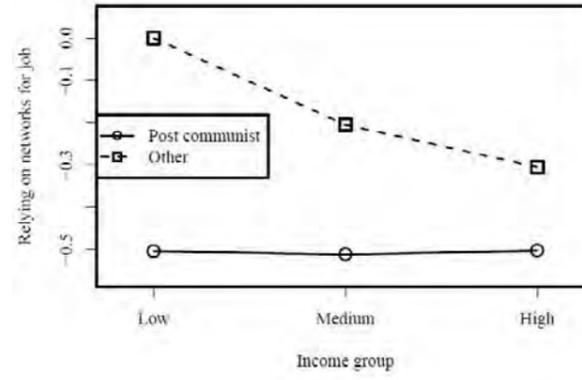

Figure 1 Relying on networks for money and job on income groups, conditioned by country's status (post-communist vs. other).

Note: The graphs represent conditional effects from models 2.3 and 3.3 respectively.

Notes

[2] One might argue that the same is true for individuals. However, in personal exchanges the affectional, relation-building aspect comes in place as well, and the moral obligation to help. In fact, friendship is often understood as the refusal to calculate (Ledeneva, 1998).

[4] Homophily is usually invoked as an explanation of inter-group hostility or prejudice, however, in the case of resources, it may be interpreted as a positive discriminating mechanism that allows to select potential cooperation partners who, while possibly poorer in resources than out-group members, are more likely to cooperate and reciprocate favours by the virtue of membership in the same group.

[5] Two other questions referred to who people would turn to if they were ill and needed help around the house or if they felt depressed and wanted to talk to someone. We have decided to exclude these items from the analysis because the significant majority of respondents in both scenarios pointed to relying on networks in the first and second instance. As a result, variables referring to these scenarios had almost no variance.

[6] Research on post-communist countries has shown that while some have followed the path towards greater meritocracy, in others there has been no evidence for an increase of returns to education (see Domanski 2011).

[7] Total household income after taxes and contributions was divided by the weighted number of household members. For most of the countries we applied standard Eurostat weights: 1.0 to the first adult; 0.5 to the second and each subsequent person aged 1. and over; 0.3 to each child aged under 1. When the data on household members under 1. was not available, which was the case for Chile, we provided altered weights: 1.0 to the first person; 0.5 to the second person; 0. to each subsequent household member.

[8] In cases where the information for the exact year of the ISSP fieldwork was not available, the value to be used was calculated as the weighted average between the two nearest data points, considering their "closeness" to the ISSP data (Australia, Austria, Hungary, Norway, Slovenia, Spain, Finland). When external data was available only for one year, the value was adjusted on the basis of the change in average wages during the period of time between the ISSP fieldwork and the available external data according to the official statistics (Czech Republic, Russia, Brasil, Chile, Cyprus, Latvia, Italy, France). Usually the difference was up to two years, but the farthest data points were . years oi (Brasil, Latvia, Cyprus). In case where the data in ISSP was collected about gross income instead of net income (Australia, United States, Canada, Great Britain, Norway, Denmark, Finland) it was adjusted by subtracting the proportion that accounts for direct taxes and social contributions.

[13] Chi-square test of deviances shows that Model 3.3. presents a significant improvement over Model 3.1, whereas

Model 3.2. does not.