Turkish migrants and native Germans compared: The effect of inter-ethnic and intra-ethnic friendships on the transition from unemployment to work

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Abstract. In many European countries, certain groups of migrants are more frequently, and longer unemployed than native residents. One of the factors affecting labour market outcomes is the social capital a person holds. Especially ties bridging between different networks is found to contribute to achieve success on the labour market. However, it is not clear from the pertinent literature to what extent bridging social capital also affects the duration of unemployment. Moreover, there is not much known about whether the effects of bridging social capital are different for immigrants and native residents.

Comparing Turkish and native residents in Germany, we investigate in this paper to what extent social capital can help reducing the duration of unemployment. More specifically, we analyse whether having inter-ethnic and/or intra-ethnic friendships can be associated with shorter unemployment duration. With data from the German Socio-Economic Panel Survey (GOSOEP) we estimate an event history model and find that for native Germans, intra-ethnic friendships lower unemployment duration, whereas inter-ethnic friendships do not. For Turks, inter-ethnic friendships reduce the unemployment duration, whereas intra-ethnic friendships do not. In other words, only having German friends facilitates the transition to employment, for both Turks and Germans, but in particular for the first generation Turkish migrants.

Key Words: Turkish migrants, unemployment duration, transition to work, social capital, Germany, GSOEP

JEL classification: J64, J24, L14

1 This is a draft; please do not quote without permission by the authors (anne.hartung@soc.kuleuven.be; bram.lancee@eui.eu).
Introduction

The importance of social capital on the labour market has been widely discussed. Researchers have suggested that social capital contributes to economic outcomes such as social mobility and access to the labour market (Aguilera, 2002; Drever & Hoffmeister, 2008), wages (Aguilera, 2003; Boxman, De Graaf, & Flap, 1991) and occupational status (Lin, 1999; Franzen & Hangartner, 2006). As Offe and Fuchs put it, “[o]n the individual level, social capital may work as a precondition for economic success.” (Offe & Fuchs, 2004, p. 237). Especially for those at the bottom of the labour market, such as the unemployed, social capital can potentially be beneficial.

An important distinction is that between bonding and bridging social capital (Putnam, 2000; Portes, 2000). Loosely defined, bonding refers to within-group connections, while bridging social capital refers to between-group connections. Especially social capital of the bridging type is often thought to be useful to make headway on the labour market (Lancee, 2008; Sanders, Nee, & Sernau, 2002; Granovetter, 1995). The argument is that bridging ties (such as inter-ethnic friendships) diversify one’s network and consequently create opportunities for upward mobility on the labour market.

However, the idea of social capital being a capital is that by building connections between people, valuable resources come into reach. Put differently, a relevant question regarding bridging social capital is “To what extent do ties tap into resource-rich networks?” To gain more insight in the effect of a tie being bridging across ethnic groups and the effect of a tie providing access to valuable resources, one would need to compare bridging ties for a resource-rich and a resource-poor group.

Despite the large body of literature on social capital on the labour market, only few studies compare the effect of bridging social capital across ethnic groups (Battu, Seaman, & Zenou, 2004). Yet, it has been argued that social capital of migrants is closely linked to their social embedding and integration in the host society (Haug 2007: 90). On the one hand, inclusion into the ethnic community can stimulate integration into the host society due to the resources made available through this network, for instance regarding employment in ethnic business. On the other hand, Haug (2007) stresses the potential negative effects of social capital. When being embedded into ethnic networks, successful upward mobility may be impeded due to social obligations, pressure to conformity, or “downward levelling norms” (Portes, 1998). Such mobility traps can consequently lead to
ethnic segmentation or “downward assimilation” (Portes, 1995). The embedding into ethnic networks may prevent contacts with the host society and thus hamper integration (Haug 2007: 100). For these reasons, Haug (2007: 100) insists to distinguish between host-country and home-country specific social capital. In view of the disadvantages of Turkish migrants on the labour market (compare Kogan, 2004, 2007; Hartung and Neels, 2009), this paper follows this line of argumentation and analyses the effect of having inter-ethnic and intra-ethnic friendships on the duration of unemployment for Turks and Germans in Germany.

To summarize, this paper aims at contributing to the existing body of literature on social capital and labour market outcomes in three ways. First, by simultaneously analyzing the effect of having inter-ethnic and intra-ethnic friendships for Turkish migrants and native Germans we are able to differentiate between the effect of bridging ties and ties tapping in a resource-rich network. Second, we analyze the effects of social capital on the duration of unemployment, a dependent variable that is highly relevant in labour market research, but not analysed yet in relation to social capital. Third, by making use of an event history design we are able to better deal with the problem of reversed causality than most previous studies do. Our research question is formulated as follows: ‘Comparing Turks and Germans, what are the differential effects of inter- and intra-ethnic friendships on the transition from unemployment to employment?’

Theory and hypotheses

Social capital and the labour market

Social capital implies that people well equipped with social resources – in the sense of their social network and the resources of others they can call upon – succeed better in attaining their goals. Because of the expected future value of the resources made available by these relations, people will invest in relations with others (Flap & Völker, 2004). A social network can be considered a social resource, which can produce returns in order to improve the conditions of living. In other words, one’s social network can be treated as a capital (Flap and Völker, 2004: 6). Van der Gaag and Snijders (2004, p. 200) define individual social capital as: ‘the collection of resources owned by the members of an individual’s personal social network, which may become available to the individual as a result of the history of these relationships’.
There is some research on the impact of friendships on labour market outcomes. According to the strength of weak ties hypothesis (Granovetter, 1973), weak ties such as friendships and acquaintances are profitable, rather than strong ties, such as family members. Granovetter (1973) defines the strength of a tie as a combination of amount of time spent, emotional intensity, intimacy and reciprocity. Based on these dimensions, friendships can be considered as weak or strong ties, depending on the context. When being compared to acquaintances or fleeting relations, friendships are clearly the stronger ties. When being compared to family members, friendships are considered weaker ties. In the GSOEP survey, it is only possible to distinguish between family relations and friendships. By analyzing friendships, we therefore do not focus on the weakest ties available in one’s network, but the weakest ties measured.

Generally, friendships are found to positively affect labour market outcomes (both for immigrants and natives), like finding a job (Patacchini & Zenou, 2008; Granovetter, 1995; Flap & Boxman, 2001; Aguilera, 2002; Drever & Hoffmeister, 2008; Battu, Seaman, & Zenou, 2004) or higher wages and occupational status (De Graaf & Flap, 1988; Lin, 1999). With respect to our dependent variable, we are not aware of any research that analyses the relation between friendships (or social capital in general) and the duration of unemployment. In view of similar studies, we expect a positive effect of friendships on the transition from unemployment to employment. This is formulated in Hypothesis 1.

H1: Having friendships reduces the duration of unemployment, both for Germans and Turks.

Bridging and bonding social capital and the resource argument

Recent discussions on social capital distinguish between ‘bonding’ and ‘bridging’ ties (Gitell & Vidal, 1998; Putnam, 2000; Woolcock & Narayan, 2000; Leonard & Onyx, 2003; Schuller, 2007). Bridging social capital, i.e. between-group connections, often span gaps across socio-economic variables such as class, ethnicity and age (Portes, 1998; Narayan, 1999). These gaps in networks, called structural holes, disrupt thus the flow of information between people (Burt, 2001). Ties ‘bridging’ such structural holes are often assumed to be more effective than non-bridging ties (Putnam, 2000; Portes, 2000; Beugelsdijk & Smulders, 2003) as unique information and opportunities come into reach.
(Putnam, 2000: 22). On the contrary, bonding ties connect to a network where the same information is being circulated and therefore do not necessarily provide useful job market information. We define bridging ties as relations that cut across the ethnic divide and bonding ties as those not cutting across the ethnic divide. In the section ‘measures’, we operationalise this as inter-ethnic and intra-ethnic friendships (see also figure below).

The resource argument refines this perspective. Social capital being a capital – in the sense that it yields positive returns – is based on the assumption that social relations connect people with valuable resources. The statement that bonding social capital is to ‘get by’ while bridging social capital is to ‘get ahead’ (Narayan, 1999; Putnam, 2000) is predominantly argued from the perspective of a resource-poor group (compare left panel of Figure 1). (Bonding social capital therefore often has a negative connotation, and bridging a positive one.) To assess the returns of bridging social capital, one could compare bridging ties of a resource-poor and those of a resource-rich group, or the bridging ties from resource poor, to resource-rich, with the bonding ties within a resource-rich group. In Figure 1, these comparisons are visualized: bonding connections to a resource-rich and a resource-poor network; bridging connections from resource-poor to resource-rich, and vice versa. Such a design truly enables one to disentangle bonding and bridging ties, and compare the effect of accessing a resource-rich group.

Applying the latter design, we analyse the effect of inter- and intra-ethnic friendships for Turkish migrants and Germans on the duration of unemployment. In doing so, we expect that bridging social capital is more effective for Turkish migrants than for native Germans as for Turkish as it represents (potential) access to information and structures important with regard to the host country’s labour market (compare Haug 2007). Haug (2003) points out that it is in particular host-country specific social capital that is beneficial for labour market outcomes: “Since […] in Germany most employers are Germans, it is useful for immigrants to have contacts to Germans”. In this sense, German natives are in this study seen as the resource-rich(er) group compared to Turkish migrants.

Empirical research confirms that ties to a higher-status group improve the chances of finding a better job (Wuthnow, 2002; Lin, Ensel, & Vaughn, 1981). Since natives hold often higher occupational statuses than immigrants, it can be expected that inter-ethnic
friendships affect labour market outcomes more positively for immigrants than it does for native residents. In this sense, the ‘bridging argument’ does not only refer to the ethnic dimension but also to occupational stratification or the ‘resource dimension’.

For native Germans, the case is different. For them, inter-ethnic friendships have a diversifying effect, but represent a link to a resource-poor(er) group. In other words, the bridging-argument holds, but not the resource-argument. Inter-ethnic friendships are therefore expected to provide lower returns for Germans than they do for immigrants. This is formulated in Hypothesis 2a.

H2a: The positive effect of inter-ethnic friendships on finding employment is larger for Turks than it is for Germans.

By the same token, we expect the opposite with respect to intra-ethnic friendships: intra-ethnic friendships are more favourable for native Germans than for immigrants. The argumentation is that for Germans, intra-ethnic friendships tap into a resource-rich environment, whereas for immigrants it does not. This is formulated in Hypothesis 2b.

H2b: The positive effect of having intra-ethnic friendships on finding employment is larger for Germans than it is for Turks

**Methodology**

*Data and construction of the sample*

For the analysis we use the German Socio-Economic Panel (GSOEP, see (Wagner, Burkhauser, & Behringer, 1993)), which over-samples immigrants and therefore contains a relatively large number of Turkish respondents. Furthermore, it provides a detailed monthly activity calendar from which can be seen if a person is in education, works, or is unemployed. Due to the availability of information on friendships, the observation period is limited to 1996-2007.

We are interested in unemployed persons and which factors positively influence the transition to work. Taking all unemployment periods from the monthly activity calendar, a direct transition to work is defined as realizing part-time or full-time employment that
lasts at least three months and which occurs maximum three months after the end of the unemployment spell. Taking only the ethnic groups of interest (see below), we retrieved a person period file (N= 10,911) with multiple unemployment spells per person (N= 6,367), of which only 38.9 percent end in a transition to work.

Ethnic groups

Besides native Germans, we identify first and second generation Turks (see Table 1): first generation Turks have a Turkish nationality, and are born in Turkey. Second generation Turk when born in Germany and having a Turkish nationality, or when born in Turkey and having a German nationality. The naturalised second generation could not be identified and is therefore coded into the category of the ‘native’ population.

<INSERT TABLE 1 ABOUT HERE>

Inter- and intra-ethnic friendships

In the 1996, the 2001 and the 2006 wave a module on social networks is included in the GSOEP. In these years, respondents are asked to mention up to three persons outside of their household that are important to them. The introduction phrase reads: ‘Now some questions about your friends and acquaintances: Please think of three friends or relatives or other people whom you go out with or meet often. Please do not include relatives or other people who live in the same household as you’. In the questionnaire, the mentioned persons are subsequently classified by the type of relationship (related or not related) and whether the tie is of German nationality or other. For those ties classified as ‘other’, it is asked whether the respondent comes from the same country as the person mentioned.

In our analysis, since we focus on friendships, we use only non-related ties and subsequently recode them on the basis of the nationality specified. For a Turkish person, inter-ethnic friendships are friendships to German nationals. An inter-ethnic friendship

2 Other ethnic groups were excluded from the sample. But we also ran models identifying the other ethnic groups with a dummy. For reasons of parsimony, we present only the models that include the Germans and the Turks. In addition, 59 cases were excluded from the analysis due to missing nationality.

3 This is the wording as used in the 2001 questionnaire. The wording in 1996 and 2006 differs slightly, but has the same substantial content.
for a German is coded as having one or more friends that have another nationality than German. Intra-ethnic ties are coded inversely: for native Germans, these are friendships with German nationals; for Turks these are friendships with people not having the German nationality. We include the friendships as a dummy rather than a count, since the most important difference is between having a friendship and not having a friendship, rather than an interval scale of friendships assuming equal distances between the categories (following Van der Gaag & Snijders, 2004).

Control variables

Educational attainment was operationalised according to the ISCED scheme with the following categories: (1) Inadequately, (2) General Elementary, (3) Middle Vocational, (4) Vocational plus Abitur (A levels), (5) Higher Vocational Education, and (6) Higher Education (UNESCO, 1997). For the analysis, (1) and (2) as well as (4) and (5) were collapsed into one category respectively. In addition, we control for language proficiency and language proficiency squared, gender, age and age squared. Last, we include three dummies to control for differences among the observed survey years (1996-1999, 2000-2003, and 2004-2006).

Method of estimation

Many studies that analyze the returns of social capital suffer from an endogeneity problem, since the direction of the association between labour market outcomes and social capital is not clear (compare Mouw, 2002; Offe & Fuchs, 2004). Both theoretical arguments are plausible: on the one hand, social capital may contribute to economic success, but economic participation may on the other hand also enhance social capital.

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4 This is the category, ‘other nationality’. We checked with the follow-up question ‘Do you come from the same country?’ whether these ties are indeed intra-ethnic. This appeared to be the case: in 97 percent of the cases that Turks indicate that their friend has another nationality than German, this friend is also of Turkish origin.

5 Applying a longitudinal design, the explanatory variable, i.e. social capital, is measured before the event. This on the other hand led in a number of cases to a considerable delay between both points of time or even to missing values.

6 The measure of language proficiency consists of a scale containing three items, measured in 1997, 1999, 2001, 2003, 2005. The items included are ‘Own opinion of spoken German’, ‘Own opinion of written German’, Language usually spoken (German, mostly that of country of origin, equally). Reliability analysis (Alpha varies between waves from .83 until .86) as well as cumulative scaling with Mokken analysis (Loevinger H varies from .74 to .79 between waves) show that these items can be seen as a single construct. The native Germans did not receive the language items, and are therefore given the highest value on the scale.
Panel studies can isolate the effects, as the temporal order of cause and effect is unambiguous (Singer & Willett, 2003). In the empirical analyses of this paper, we apply an event history design that better deals with the problem of reversed causality than cross-sectional studies and allows moreover for dealing with characteristics typical for longitudinal analysis such as censoring (Allison, 1984: 11).

An event history is a longitudinal record of changes in variables and their timing (Blossfeld, Golsch, & Rohwer, 2007). The hazard and survival function are key means to investigate such changes (or transitions). The continuous-time the hazard $\lambda(t)$ is a (time-specific failure) rate measuring the “conditional probability of event occurrence per unit of time” (Singer and Willett 2003: 474):

$$\lambda(t) = \lim_{\Delta t \to 0^+} \frac{pr(t \leq T < t + \Delta t | t \leq T)}{\Delta t}$$

(1)

with $T$ denoting the failure time (Cox 1972: 187). The continuous-time survivor function $F(t)$ refers to the probability of surviving at least until time $t$ or, in other words, that the event time of an individual $i$ exceeds time $t$ (Singer & Willett, 2003, p. 472; Cox, 1972, p. 187):

$$F(t) = pr(T \geq t)$$

(2)

Not making assumptions regarding the shape of the hazard function, Cox proportional hazards models are used as to estimate the impact of the covariates. The Cox model can generally be formulated as:

$$h(t_j) = h_0(t_j)e^{\beta_1X_{1i} + \beta_2X_{2i} + \ldots + \beta_pX_{pi}}$$

(3)

with $\log h_0(t_j)$ as the unspecified general baseline log cumulative hazard function. The estimations are specified as hazard ratios:

$$\frac{H(t_j)_{COVARIATE=1}}{H(t_j)_{COVARIATE=0}} = \frac{H_0(t_j)e^{\beta_i}}{H_0(t_j)} = e^{\beta_i}$$

(4)

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7 The Cox regression assumes that the probability of events happening at the same time is minuscule and expecting thus no tied events. The estimates are obtained by the Breslow method handling tied events as if the order of the events is not known.

8 When a hazard ratio is greater than one, the hazard increases with the covariate, leading to shorter survival times. On the contrary, if the hazard ratio is less than one, the opposite is the case; the risk decreases leading to longer survivals times. Finally, if the hazard rate is not significantly different from one, no substantive effect of the respective covariate can be concluded.
As the sample contains multiple records per person, which are not expected to be independent, we allow standard errors to be intragroup-correlated (clustering). In that way, independence across (but not necessarily within) groups is assumed.

**Results**

*Descriptive results*

Table 2 displays the percentages of persons with one or more inter-ethnic and one or more intra-ethnic friendships in our sample. Only a small fraction of the native Germans has one or more inter-ethnic friendships, and a high percentage has at least one friendship with another German. Of the first generation Turkish migrants, around 55 percent has one or more friendships with other Turks, but a little less than 28 percent indicates to have one or more friends with the German nationality. For the second generation this picture looks rather different: roughly half of them have at least one friend that is native German; half of them have at least one Turkish friend.

<INSERT TABLE 2 ABOUT HERE>

With respect to our dependent variable, only 39 percent of the unemployment spells end with a transition to employment. Figure 2 visualises the survival curve for this transition for native Germans, and first and second generation Turkish migrants. Whereas first generation Turkish migrants make a slower transition to employment than Germans do, this does not apply for the second generation: they make slower transitions when looking at unemployment durations up to about 32 months but find after this quicker employment than native Germans do. Naturally, these survival curves are a univariate picture of the transition from unemployment to employment. To account for other individual characteristics as well, we include relevant covariates and estimate multivariate models in the following section.

<INSERT FIGURE 2 ABOUT HERE>

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9 Remind that the sample includes pooled multiple unemployment spells from several years and can therefore not be claimed as representative for the whole population.

10 Of course, these results to do neither say something about the initial probability to enter unemployment nor about the transitions into different types of employment (for the latter, see Hartung & Neels 2009).
Multivariate analysis

In Table 3, a Cox regression is presented predicting the duration of the transition from unemployment to employment for Turkish migrants and native Germans. Model 1 includes inter-ethnic and intra-ethnic friendships, plus all controls. The results with regard to social capital indicate that having friends from the same ethnic background does not make a difference for the transition from unemployment to work. However, friendships within the same ethnic group seem to accelerate the process of finding a job by 13 percent. This only partly confirms our first hypothesis. Contrary to our expectations, not all types of friendships have a positive effect on the transition to employment. However, since we expect a domination of these results by the ethnic majority, we differentiate in Model 2 by ethnic group and include interactions with first and second-generation Turkish migrants.

The estimates of Model 2 turn out to be in line with Hypothesis 2a. We can conclude that first generation Turkish migrants profit more from inter-ethnic friendships than native Germans and the second generation. More so, it even offsets the enormous negative (main) effect of ethnicity on the duration of unemployment (hazards ration of 0.480). For second generation Turks this is not the case: the Turkish second generation does not significantly benefit from inter-ethnic friendships. With respect to intra-ethnic friendships, the returns of social capital are the same for Turkish migrants and Germans. This implies that, based on Model 2, we have to reject Hypothesis 2b.

However, when running a separate model for first generation Turks (Model 4), it appears that whereas inter-ethnic friendships have a very large positive effect on the transition to work, the coefficient of intra-ethnic friendships is not significant anymore. For first generation Turkish, having native German friends accelerates the process of finding a job by 77 percent, compared to those without such friendships.

The opposite holds when including only native Germans (Model 3): whereas intra-ethnic friendships have a positive effect, inter-ethnic friendships do not affect the transition to employment significantly. For Germans, the effect of having friendships to German nationals results in a duration of unemployment that is 13 percent lower than native Germans that do not have such friendships. Confirming the domination of the previous results (Model 1 and 2) by the high number of native Germans in the sample, these separate analyses reveal the necessity to differentiate by ethnic group. Model 3 and
show that two the effects of intra- and interethnic friendships have to be disentangled. This is an important result for future research backing up the resource-argument and thus also Haug’s (2007) thesis on host-country related social capital: apparently it is simply friendships with Germans that are effective in smoothing the transition to employment. More specifically, friendships bridging across the ethnic divide prove to be effective. Being more similar to German natives, than the first generation, for the second generation Turks these results were not significant.\textsuperscript{11}

With respect to the controls, the findings on human capital characteristics (gender, age, age square, level of education) are in line with the literature (see for example Kogan, 2004; Hartung and Neels, 2009). Furthermore, Turks (either first or second generation) remain in some cases longer unemployed compared to native Germans even when controlling for their human and social capital. Last, language proficiency and language proficiency squared are reducing the duration of unemployment.\textsuperscript{12}

**Conclusion**

In this paper, we analyzed the impact of inter-ethnic and intra-ethnic friendships on the transition from unemployment to work for Turks and Germans in Germany. We hypothesized that friendships (either inter- or intra-ethnic) reduce the unemployment duration for both Turks and Germans (Hypothesis 1) and that inter-ethnic and intra-ethnic friendships do not have the same meaning for Turkish migrants and Germans. In line with the resource argument, we expected intra-ethnic friendships to be more effective for Germans than for Turks, since it is having German friends granting access to a resource-rich environment in the sense of host-country related information. For Turks, intra-ethnic contacts imply accessing a relatively resource-poor environment (Hypothesis 2b). Conversely, applying the bridging-argument, we expected inter-ethnic friendships to be more effective for Turks than for Germans (Hypothesis 2a).

The results partly confirmed our expectations. With respect to Hypothesis 1, it appears that for Germans intra-ethnic friendships positively affect the transition to employment, whereas for Turks inter-ethnic friendships have a positive impact on the

\textsuperscript{11} The results on the second generation are, due to the low case numbers, not reliable in the separate model.

\textsuperscript{12} The age of immigration was not significant in the models including language skills. Language skills turned out to have more explanatory power than age of immigration. This result is interesting as it points into the direction that the ethnic gap is indeed related to human capital characteristics rather than stereotyping on the basis of biographical facts or education obtained abroad.
transition to employment. Rather than friendships *per se*, it is having friendships with native Germans that reduces unemployment duration. This directly translates into accepting both Hypothesis 2a and 2b: intra-ethnic friendships are more effective for Germans; inter-ethnic friendships are more effective for Turks (although only for the first generation Turkish migrants). The results are summarized in Figure 3.

The results of our study must be seen in the light of a few limitations. The higher impact of having German friends for the Turkish minority may also be explained alternatively. It could well be that ‘knowing Germans’ in the case of Turkish migrants also captures to some extent unobserved characteristics related to some dimensions of (social or psychological) integration. In other words, it is not (only) social capital as such that has a positive effect on the transition to work, but (possibly also) certain dimensions of integration into the host society measured indicated by ‘having German friends’.

In addition, the effects could be overestimated for Turks if ethnic minorities make more often use of their social ties to find employment (Drever and Hoffmeister 2008). Mouw (2002) argues similarly explaining that the costs of the job search process increase for minorities in the presence of discrimination. To reduce search costs, migrants therefore rely more heavily on their social networks than natives do. However, we were not able to include information on whether the ties were actually used for the job search.

The third limitation is that in this analysis we focus on a limited number of friendships rather than on a person’s large network of acquaintances. In this way, we may not be able to estimate global effect of weak ties in Granovetter’s (1973) sense. Furthermore, we do not include family related ties. It could well be that Turkish migrants rely more on family ties than native Germans do; for example in the context of the ‘ethnic niche economy’ or self-employment. This does not bias the effect of intra-ethnic friendships for the Turks, but does underestimate the effect of having intra-ethnic relations. On the other hand, excluding family relations could also undervalue the potential negative effects of downward assimilation or so-called mobility traps. It remains for future research to throw light on these processes in more detail.

Nevertheless we are able to confirm that accessing the resources available in the native population is an effective strategy to make the transition from unemployment to
employment faster. Friends can provide valuable information on job offers and/or support in the application process. As a result, those persons with native German friends find a job more quickly than people who do not have such friends. This positive effect holds for Turks, but also for native Germans.

However, having native German friends is more effective for Turks than for native Germans. Whereas for Germans having German friends (intra-ethnic) accelerates the process of finding a job with 13 percent, for Turks having German friends (inter-ethnic), this is 77 percent. On this basis, we conclude that friendships are most ‘profitable’ when accessing a resource-rich environment, in combination with diversifying one’s social network by building inter-ethnic contacts. In other words, there seems to be a premium for bridging the ethnic divide, compared with only accessing a resource-rich environment.

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## Tables

### Table 1. Native Germans and first and second generation Turks in Germany.

<table>
<thead>
<tr>
<th>Country of origin: Germany</th>
<th>Nationality: German</th>
<th>Nationality: Turkish</th>
</tr>
</thead>
<tbody>
<tr>
<td>N= 10,359</td>
<td>2nd generation</td>
<td></td>
</tr>
<tr>
<td>Country of origin: Turkey</td>
<td>1.5 generation/ naturalised first generation, coded as 2nd</td>
<td>1st generation</td>
</tr>
<tr>
<td>N=73</td>
<td>N=353*</td>
<td></td>
</tr>
</tbody>
</table>

Note: N refers to number of observations (spells); * incl. 9 cases where one of the items was missing
Source: GSOEP 1996-2007

### Table 2. Observations with at least one inter-ethnic and/or intra-ethnic friend, by ethnic group (percentages).

<table>
<thead>
<tr>
<th></th>
<th>Inter-ethnic ties</th>
<th>Intra-ethnic ties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native Germans</td>
<td>3.7</td>
<td>79.2</td>
</tr>
<tr>
<td>First generation Turkish</td>
<td>27.7</td>
<td>55.5</td>
</tr>
<tr>
<td>Second generation Turkish</td>
<td>51.4</td>
<td>49.1</td>
</tr>
</tbody>
</table>

Source: GSOEP 1996-2007
Table 3. Cox regression predicting the transition to employment/ the duration of unemployment (hazard ratios; robust standard errors, clustered by individual).

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>Germans</th>
<th>Turks and Germans</th>
<th>Model 2: 1+ interactions</th>
<th>Model 3: Native Germans only</th>
<th>Model 4: Turkish first generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>First generation Turkish</td>
<td>.537*</td>
<td>.480*</td>
<td>(.145)</td>
<td>(.153)</td>
<td>(.117)</td>
</tr>
<tr>
<td>Second generation Turkish</td>
<td>.690*</td>
<td>.726</td>
<td>(.021)</td>
<td>(.021)</td>
<td>(.021)</td>
</tr>
<tr>
<td>Female</td>
<td>.484***</td>
<td>.484***</td>
<td>.478***</td>
<td>.369***</td>
<td></td>
</tr>
<tr>
<td>(.021)</td>
<td>(.021)</td>
<td>(.021)</td>
<td>(.111)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td>1.126***</td>
<td>1.126***</td>
<td>1.201</td>
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<tr>
<td>(.014)</td>
<td>(.014)</td>
<td>(.015)</td>
<td>(.119)</td>
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<td></td>
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<tr>
<td>Age squared</td>
<td>.998***</td>
<td>.998***</td>
<td>.998***</td>
<td>.997**</td>
<td></td>
</tr>
<tr>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education: Middle vocational</td>
<td>ref.</td>
<td>ref.</td>
<td>ref.</td>
<td>ref.</td>
<td></td>
</tr>
<tr>
<td>Inadequately /General elementary</td>
<td>.646***</td>
<td>.648***</td>
<td>.638***</td>
<td>.846</td>
<td></td>
</tr>
<tr>
<td>(.041)</td>
<td>(.042)</td>
<td>(.044)</td>
<td>(.235)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational/Abitur/Higher vocational</td>
<td>1.177*</td>
<td>1.177*</td>
<td>1.177*</td>
<td>.711</td>
<td></td>
</tr>
<tr>
<td>(.084)</td>
<td>(.084)</td>
<td>(.085)</td>
<td>(.496)</td>
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<td>Higher education</td>
<td>1.323***</td>
<td>1.322***</td>
<td>1.333***</td>
<td>1.125</td>
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</tr>
<tr>
<td>(.079)</td>
<td>(.079)</td>
<td>(.081)</td>
<td>(.481)</td>
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<td>No information on education</td>
<td>1.626*</td>
<td>1.606*</td>
<td>1.444</td>
<td>2.273*</td>
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</tr>
<tr>
<td>(.381)</td>
<td>(.362)</td>
<td>(.399)</td>
<td>(.886)</td>
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<td></td>
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<tr>
<td>Language Proficiency</td>
<td>1.682*</td>
<td>1.643*</td>
<td>1.643*</td>
<td>1.898</td>
<td></td>
</tr>
<tr>
<td>(.398)</td>
<td>(.404)</td>
<td>(.684)</td>
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<tr>
<td>Language Proficiency Squared</td>
<td>.974*</td>
<td>.975</td>
<td>.968</td>
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<td>(.013)</td>
<td>(.013)</td>
<td>(.021)</td>
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<tr>
<td>Survey year: 1996-1999</td>
<td>ref.</td>
<td>ref.</td>
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<td>.999</td>
<td>1.012</td>
<td>.696</td>
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<tr>
<td>(.043)</td>
<td>(.044)</td>
<td>(.045)</td>
<td>(.201)</td>
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<tr>
<td>2004-2006</td>
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<td>.995</td>
<td>1.007</td>
<td>.649</td>
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<td>(.052)</td>
<td>(.052)</td>
<td>(.054)</td>
<td>(.234)</td>
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<tr>
<td>Inter-ethnic friend(s)</td>
<td>1.081</td>
<td>1.099</td>
<td>.998</td>
<td>1.774*</td>
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<tr>
<td>(.100)</td>
<td>(.111)</td>
<td>(.110)</td>
<td>(.462)</td>
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<tr>
<td>First gen. Turkish * Inter-ethnic friend</td>
<td>1.683*</td>
<td></td>
<td>(.440)</td>
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<td></td>
</tr>
<tr>
<td>Second gen. Turkish * Inter-ethnic friend</td>
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<td>(.284)</td>
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<tr>
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<td>1.130*</td>
<td>1.133*</td>
<td>1.084</td>
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<tr>
<td>(.060)</td>
<td>(.063)</td>
<td>(.063)</td>
<td>(.245)</td>
<td></td>
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<tr>
<td>First gen. Turkish * Intra-ethnic friend</td>
<td>.954</td>
<td></td>
<td>(.217)</td>
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<tr>
<td>Second gen. Turkish * Intra-ethnic friend</td>
<td>.970</td>
<td></td>
<td>(.270)</td>
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<td>N of observations</td>
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<td>7824</td>
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<td>N of failures</td>
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Note: * p<0.05, ** p<0.01, *** p<0.001, Source: GSOEP 1996-2007
Figures

Figure 1. Bonding and bridging in a resource-rich and a resource-poor group.

![Bonding and bridging for Turkish migrants](image1)

![Bonding and bridging for native Germans](image2)

Figure 2. Kaplan-Meier survival estimates for the transition from unemployment to employment, by ethnic group.

![Kaplan-Meier survival estimates](image3)

Source: GSOEP 1996-2007
Figure 3. Friendships that reduce the duration of unemployment.

Note: dashed arrows denote non-significant effects