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ABSTRACT

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With globalization, the size of migration and the value of ethnicity is rising. Also Cyprus undergoes a strong process of change while experiencing large inflows of migration. The paper investigates the challenges and the potentials of migration from a European Union perspective. It advocates for a new concept to measure the ethnic identity of migrants, models its determinants and explores its explanatory power for various types of economic performance. The *ethnosizer*, a measure of ethnic identity, classifies migrants into four states: integration, assimilation, separation and marginalization. Empirical evidence supports its relevance for economic outcomes.

JEL Classification: F22, J15, J16, Z10

Keywords: ethnic identity, acculturation, migrant assimilation, migrant integration, cultural economics

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1. Introduction

European Union (EU) economies are pressed by (i) a demographic change that induces population ageing and a decline of the native workforce, and (ii) a split labor market that is characterized by high levels of unemployment for low-skilled people and a simultaneous shortage of skilled workers that will further rise in the future. The lack of flexible high-skilled workers and the aging process has created the image of an immobile labor force and the eurosklerosis phenomenon. In such a situation, an economically motivated immigration policy at the European level can generate welfare improvements. A selective policy that discourages unskilled migrants and attracts skilled foreign workers could vitalize the labor market, foster growth and increase demand for unskilled native workers (Zimmermann, 2005). Attachment to the labor markets and to the cultures of the receiving countries seem to be essential for economic success. However, non-EU nationals have a substantially lower employment rate than EU nationals indicating low quality of selection and integration policies (Tranaes and Zimmermann, 2004).

In this paper, I deal with the interaction between ethnic identity and economic outcomes. In Section 2, I examine the relevance of migration for the economy and study its rising size in Cyprus. Section 3 provides a literature survey. I proceed in Section 4 by explaining the theoretical framework of migrant's ethnic identity, and what has been called *ethnosizer* by Constant, Gataullina and Zimmermann (2006a). Section 5 measures the ethnic identity of migrants using survey data from Germany. In Section 6, I analyze the potential causality of working hours for ethnic identity. In a simulation exercise, Section 7 evaluates the economic consequences of the *ethnosizer* for labor force participation, earnings and homeownership. Lastly, Section 8 concludes.

2. The Relevance of the Migration Issue

The economic dimension of the European integration process is captured by cross-border movements of firms, labor and capital, which will gain further relevance in the next future.

Mobility contributes to an optimal allocation of economic resources that generates high output and welfare; it ensures a quick adjustment of markets, for instance of labor supply to the needs of labor demand. The most relevant factor of mobility is migration: Labor migrants are far more mobile than the native population. Different ethnicities generate economic variety and hence increase the potential of the EU economy. The rapid increase in the demand for skilled workers in Europe cannot be satisfied by EU natives only and will even be accelerated by demographic changes. More EU unskilled workers will remain unemployed, resulting in a growing burden for the welfare state, unless more non-EU skilled migrants help generating jobs for them. The ethnic composition of a population is a potential or a burden depending on the balance a society finds.

Today's Cyprus seems to be a model case to investigate the general themes the EU is facing. First, there is the unfinished business of resolving the ethnic conflict with Turkey and the Turkish part of the island that is an ongoing challenge to the EU at its most Southern border. Second, over the last 15 years, Cyprus has seen a tremendous rise in the share of the foreign population as percent of total population (see Figure 1) that has brought the country into the group of those EU member states with the highest foreigner shares. Third, the island has a large variety of ethnicities with different source areas. The first and so far latest ethnic breakdown among the non-Cypriots (provided by the Cyprus Statistical Office, Department of Social Statistics) is from 2001 and counts 9.4% of the then 689,565 people as foreign. Of the no-Cypriots 27% were of Greek origin and 18% had a British passport. However, the next larger groups were from Russia (7.6%), Sri Lanka (7.6%), the Philippines (5%), Bulgaria (3.7%), Romania (2.7%), Syria (2.2%), India (2.0%), the Ukraine (1.9%), and ex-Yugoslavia (1.8%) representing the latest migration origin countries for Europe from the East and the South. Hence, the issue of ethnic identity and its economic implications is of large importance for Cyprus.

3. Ethnic Identity in the Literature

It is widely documented in the literature that ethnicity as well as the racial and ethnic characteristics of migrants affect demographics and have an impact on the growth and development of the host country. Ethnicity, as assigned by birth, usually coincides with economic and social inequality between the dominant and minority groups, with political and social repercussions. On the other hand, ethnicity and ethnic capital are acknowledged to be the impetus of entrepreneurial spirit. The role of culture and ethnic identity on economic outcomes is less acceptable. Recently, there is a growing literature on the effects of culture on economic outcomes. Constant, Gataullina and Zimmermann (2006a) include references on ethnic identity from the social sciences and psychology. Guiso, Sapienza, and Zingales (2006) using beliefs about trust show a pervasive impact of culture in many economic choices. The value of cultural diversity is evidenced in US cities through its net positive effect on the productivity of natives (Ottaviano and Peri, 2006). Zimmermann (2007) and a special issue of the *Journal of Population Economics* (volume 20, issue 3, 2007) documents the rising interest of economists into the field of ethnicity and identity.

Ethnic identity, much like personality and other individual characteristics, influences labor market outcomes. Recently, personality and behavior traits have been considered as part of the individual human capital, which counts differentially for men and women and for different ethnic groups (Bowles, Gintis, and Osborne 2001). Constant, Gataullina, and Zimmermann (2006b) find that ethnic identity varies between the sexes and has a significant impact on their working behavior. Darity, Mason, and Stewart (2006) provide a secular theory of racial (or ethnic) identification formation. Their evolutionary game theory model may result in an equilibrium, where all persons follow an individualist identity strategy, another where all persons pursue a racialist (or ethnic) identity strategy, or a mixture of both. Consequently, race or ethnicity may be more or less significant for both market and non-market social interactions. A positive impact of racial identity on economic outcomes, that is, the productivity of social

interactions, is the cornerstone of the theory. This also explains the persistence of racial or ethnic privileges in market economies. Fearon and Laitin (2000) argue that ethnic identities are socially constructed, either by individual actions or by supra-individual discourses of ethnicity. They also may take the form of oppositional identities, which imply a rejection of the dominant, typically white behavioral norms (Austen-Smith and Fryer, 2005; Battu, Mwale and Zenou, 2007).

Mason (2004) establishes a stable identity formation among Mexican-Americans and other Hispanics. He shows that these ethnicities are able to increase their income substantially through acculturating into a non-Hispanic white racial identity. Bisin, Patacchini, Verdier, and Zenou (2006) find that, in line with their theoretical analysis, identity with and socialization to an ethnic minority are more pronounced in mixed than in segregated neighborhoods. The strength of identification with the majority culture regardless of strength of (ethnic) minority identity is very important for labor market outcomes (Nekby and Rödin, 2007). Expanding on the concept of ethnic human capital, Chiswick (2006) shows that economic determinants of "successful" and "disadvantaged" group outcomes are sensitive to the relationship between ethnic and general human capital, especially with regard to externalities in the processes by which they are formed.

4. A Theory of Ethnic Identity

I follow the concept of ethnic identity as suggested by Constant, Gataullina, and Zimmermann (2006a). While ethnicity denotes where people come from, ethnic identity is the balance between commitment to, affinity to, or self-identification with the culture, norms, and society of origin and commitment to or self-identification with the host culture and society. Ethnic identity becomes pertinent upon arrival in the host country, given that there is a sufficient cultural distance between home and host countries. Individuals may exhibit strong association with and commitment to either or both the culture of ancestry and the host culture.

The two-dimensional model of the measurement of ethnic identity suggests that commitments to two different societies can coexist and influence each other in several ways. The

level of dedication to the origin does not preclude the degree of the commitment to the host society. This assumption recognizes that a migrant, who strongly identifies with the culture and values of his or her ancestry, may or may not have a strong involvement with the dominant culture. Similarly, a migrant with a strong affinity to the values and beliefs of the host country may or may not totally identify with the culture of ancestry. At the same time, migrants may also be completely detached from the home or host country. The *two-dimensional ethnosizer* of Constant, Gataullina and Zimmermann (2006a) also deals with this case.

Assuming for simplicity that the commitments to the home and host countries are linearly dependent and mutually exclusive and they sum up to one. Then the more an individual commits to and feels for one country the less he or she commits to and feels for the other country. For example, the more migrants become similar to natives, the more they relinquish and abandon their own culture. This linear representation is a special (and rather restrictive) case of the concept of ethnic identity, and could be expressed in Figure 2 by a movement along an (invisible) diagonal line (1,0) to (0,1). Constant, Gataullina and Zimmermann (2006a) call this measurement of ethnic identity the *one-dimensional ethnosizer*.

Confronted with both cultures as in the *two-dimensional ethnosizer*, there are a few distinct combinations of commitments migrants can choose: Quadrants A, I, M, and S correspond to: *Assimilation* (A), a strong identification with the host culture and society, coupled with a firm conformity to the norms, values, and codes of conduct, and a weak identification with the ancestry; *Integration* (I), achieved when an individual combines, incorporates, and exhibits both strong dedication to the origin and commitment and conformity to the host society; *Marginalization* (M), a weak dedication to or strong detachment from either the dominant culture or the culture of origin; and, *Separation* (S), an exclusive commitment to the culture of origin even after years of emigration, paired with weak involvement in the host culture and country realities. Starting at point (1,0), a migrant can undergo a more complicated journey through the

various states, leaving separation towards integration, assimilation or marginalization, or remaining separated.

5. *Ethnosizing* Migrants

To *ethnosize* the ethnic identity of migrants I follow Constant, Gataullina and Zimmermann (2006a) and use data from the German Socio-Economic Panel (GSOEP), a nationally representative survey collected annually since 1984 by the German Institute of Economic Research (DIW Berlin). The GSOEP focuses on migrants of the *guestworker* population, namely those who arrived from Turkey, Greece, Italy, Spain and the former Yugoslavia. They constitute the majority of the migrant population in Germany. The 2000, 2001 and 2002 waves of GSOEP contain the most relevant information on the respondents' ethnic identity. This is why I limit the analysis to those respondents who participated in these waves. The sample is also restricted to males and females aged 18-65 (with the upper limit corresponding to the official retirement age in Germany), whose nationality is not German, who were not born in Germany, and who were not in school at the time of the survey. This has generated samples of a typical size of about 1,200 migrants, where the precise number depends on the number of completed answers to the concrete questions under study.

To construct the four measures of the two-dimensional *ethnosizer* empirically, I identify pairs of questions in the GSOEP survey, which transmit information on personal devotion and commitment to both the German culture and society and to the culture and society of origin with respect to five key elements: (i) language; (ii) visible cultural elements; (iii) ethnic self-identification; (iv) ethnic networks; and (v) future citizenship plans. The GSOEP documents how well the respondents speak German and the language of origin, what are the origins of their preferred food, media and music, how strong is their self-identification with Germany and with the country of origin, what are the origins of their closest friends, and finally, what are their future citizenship and residency plans. For example, I classify migrants with a "very good" or

"good" command of both the German and the language of origin as linguistically integrated. Migrants with a good command of German and little or no command of the language of origin are considered linguistically assimilated; migrants with "very good" or "good" command of the language of origin and little or no command of German are labelled linguistically separated; and migrants with a "bad" command of both languages are classified as linguistically marginalized. I classify migrants with respect to their cultural preferences, ethnic self-identification, ethnic networking, and citizenship plans in a similar fashion.

This classification procedure suggests that despite the common belief in anthropology, sociology and psychology it is practically impossible to determine the overall balance of migrants' commitments. For example, linguistic and cultural integration does not guarantee integration with respect to self-identification or ethnic networking. Likewise, a migrant may have excellent command of German and the language of origin, but may still strongly identify only with the home country and have friends only of the same origin. To judge the individuals' general devotion to the culture and society of home and host countries across the five elements of ethnic identity, I generate four scores for each possible combination of commitments: Integration is the number of times that each respondent is identified as 'integrated' in the five aspects of ethnic identity, assimilation is the number of times that each respondent is identified as 'assimilated', separation is the number of times that a respondent is identified as 'separated', and marginalization is the number of times a migrant is identified as marginalized in the five aspects of ethnic identity.

These four measures or regimes of the *ethnosizer* are used to characterize the combination of socio-cultural commitments of each respondent in the sample. Each of them can take a value between zero and five, and add up to five for each individual. For example, migrants who score four in separation, one in integration, zero in assimilation, and zero in marginalization reveal a clear preference. Migrants who score two in integration, two in separation, one in

assimilation, and zero in marginalization, do not demonstrate a clear preference in their socio-cultural commitments.

To what extent does the *ethnosizer* differ from the direct measure of ethnic self-identification[1] provided by the survey? The self-identification question is subjective, and hence open to debate. I, therefore, seek to balance the responses by more objective 'indirect' measures of ethnic identity. The *ethnosizer* is basically such an attempt, and provides equal weights to the five elements. The direct measure of ethnic self-identification can be decomposed in four (0,1)-dummy variables reflecting the four *ethnosizer* regimes. This variable classifies each individual clearly into one regime. The *ethnosizer* system of indicators, however, classifies each individual five times (including the direct measure of ethnic self-identification), and potentially different in four cases than by the self-evaluation alone.

Table 1 uses GSOEP data optimized for the purpose of comparison of the *ethnosizer* with the direct measure of ethnic self-identification. I observe 1,339 individuals and generate 6,695 observations that are cross-classified according to the four regimes (integration, assimilation, separation and marginalization). The cells on the main diagonal of the contingency table contain the cases where self-classification coincides with the judgement of the *ethnosizer*. The agreement is, in general, small: 45.9% for integration, 53.6% for assimilation, 54.9% for separation and 31.9% for marginalization (percentages from the column totals). From those who consider themselves to be marginalized, in 23.7% of the cases I find evidence of integration. In 32.5% of the cases for those who self-report integration, I find evidence of assimilation. Self-classified assimilation goes with 12.6% cases of marginalization, and self-reported separation coincides with 21% cases of integration. This provides support for the attempt to balance the self-evaluation question out through the *ethnosizer*.

6. Work Intensity and the *Ethnosizer*

Using the *ethnosizer* and data from the German Socio-economic Panel, Constant, Gataullina and Zimmermann (2006a) investigate the relationship of the one- and two-dimensional ethnosizers to age, age at entry, religion, educational levels, and ethnic origins. In the two-dimensional *ethnosizer*, young migrants are integrated or assimilated the best. Women are only different than men in their assimilation scores, meaning that they assimilate or become alike to Germans less than men. When it comes to integration, that is, keeping and valuing both cultures, religion is on the way.[2] Muslims, Catholics, and other religions do not integrate, but Catholics and other Christians assimilate well. Muslim migrants also score high on marginalization in comparison to non religious individuals followed by the Christians. Migrants with college degree or higher education in the home country integrate well, but they do not assimilate. School education, whether complete or incomplete, is more harmful for the process of integration or assimilation than no education in the home country. Likewise, vocational training leads to less assimilation and more separation. The ethnicity of the individuals, measured by dummy variables of the countries of origin, remains statistically different from zero with an interesting pattern. Ex-Yugoslavs assimilate more and separate less than Turks, but they also marginalize more. While Spaniards and Italians are no different than Turks, Greeks integrate less and marginalize more.

In principle, migrants enter a host country with a strong ethnic commitment to their own origin and a lower attachment to the majority ethnicity. Depending on the planned duration of the move, and in interaction with investment in human capital, participation in the labor market and the degree of family formation, ethnic identity, and hence the *ethnosizer,* will evolve. If the *ethnosizer* will change across the tenure in the host country together with those factors, then they are potentially highly correlated and could be misleading regressors in an *ethnosizer* equation. Using direct measures of ethnic self-identification towards the own origin and to the host country, Zimmermann, Gataullina, Constant and Zimmermann (2006) find that human capital acquired in the host country does not affect the attachment and affinity to the receiving country.

Clearly, pre-migration characteristics dominate ethnic self-identification. In particular, human capital acquired in the home country leads to lower identification with the host country for males and females, while males only have a higher affiliation with the original ethnicity and culture.

While Constant, Gataullina and Zimmermann (2006a) had excluded human capital acquired in the host country and labor market integration in their analysis of the *ethnosizer*, I examine the potential of these post-migration characteristics for identity-formation. I argue that while ethnic identity should affect work participation and cultural activities like human capital formation, the ethnic identity of those working should not be influenced by work intensity and education from the receiving country. In the sequel, I will examine this by concentrating on a sample of working men.

Table 2 contains the descriptive statistics of our sample of migrants. There are 1,195 individuals in total, 658 are working (and have observed working hours), and 406 are working men. It is obvious that those working have larger *ethnosizer* measures for integration and assimilation, but lower *ethnosizer* values for marginalization and separation. Working men are younger and they were also younger at the time of entry into Germany, there are more Muslim, less Catholic, more individuals with no education in the country of origin, who are better educated in Germany than individuals in the total sample.

Since the four *ethnosizer* measures can take count values from zero to five, I have estimated robust Poisson regressions using a larger number of pre- and post-migration characteristics as determinants. The robust specification using the so-called sandwich estimator of the covariance matrix avoids a potential bias in the usual standard errors caused by possible dispersion. The reference group consists of non-religious Turks, with no education in the home country and primary or lower secondary education in Germany. Results of the parameter estimates of our new analysis are contained in Table 3. They imply that Muslims are less integrated and more marginalized, while Catholics integrate better. Educational activities in the home country like college attendance, vocational training and complete school lead to a lower

level of assimilation and a higher likelihood of separation. Greeks integrate less and marginalization is strongly affected by age. Education in Germany is insignificant, with the exception of a negative effect of a university degree in Germany on separation.

I have included hours worked as a measure of labor market integration. Migrant men typically work when they have a legal right to do so, or they are restricted by involuntary unemployment. They actually work within a wide span between 2 and 80 hours per week, and have mean weekly working hours of 42 with a standard deviation of 8 hours. Working hours are distributed like follows: 30% of the migrant men work 40 hours per week, 33% work less and 37% work more. I find here that hours worked does not affect the measures of the *ethnosizer*.

The tests for exogeneity that I have undertaken have not shown evidence that hours worked is endogenous. If it would be, this could bias the parameters estimates of the robust Possion model. The exogeneity test I have employed is based on a two-step quasi-likelihood method discussed in Woolridge (2002) that (i) either regresses the residuals of the Poisson earnings models under study on the residuals of the hours worked regression, where this potentially endogenous covariate is explained by the truly exogenous variables of the Poisson earnings model and a number of extra exogenous variables (here I have chosen health status and regional dummies) to satisfy the rank condition for identification or (ii) include the residuals of the hours worked regression into the Poisson earnings equation. Both attempts showed no indications of endogeneity (see Table 3): (i) The residuals of the Poisson regression are uncorrelated with the residuals of the OLS hours worked regression (residuals exogeneity test; two residuals OLS). (ii) The residuals of the OLS hours worked regression are all insignificant in the robust Possion models (residuals of hours worked equation, OLS), although the variable hours worked is significant at the boarder level for the marginalization equation. I conclude that there is no evidence that work intensity has an effect on ethnic identity.

These findings confirm previous literature. A successful immigration policy that aims at a decent integration and assimilation has to rely largely on entry selection and not on education in

the host country, with the exception of German university education. Former foreign students with a university degree could get easier legal access to the German labor market, and migrants should be young at first entry. Education from the country of origin is typically a burden for adjustments.

7. The Economic Consequences of Ethnicity

In this section I compare recent findings about the effects of ethnic identity on economic behavior. I report new results on earnings and summarize work by Constant, Gataullina and Zimmermann (2006b) on the probability to work and by Constant, Roberts and Zimmermann (2007) on homeownership. All three approaches use the GSOEP data, as discussed above in section 3, and employ Probit (work probability, homeownership) and Tobit models (earnings), where the two-dimensional *ethnosizer* is added to standard regressions to examine the particular contribution of ethnic identity. Consistently, it is found that ethnicity matters significantly and that the findings are very robust with respect to the concrete model specification. To put it differently: The inclusion of the *ethnosizer* does not change the parameter estimates of the standard variables in any relevant way. Nevertheless, the parameter estimates of the ethnicity effects have a strong impact on economic behavior.

Table 4 summarizes the findings. In the probability to work and earnings analyses there are separate estimates for both genders. In the case of the housing or homeowner decision the focus is on female and male household heads together. The entry in each cell of a column should be understood as a simulated absolute change of the observed percentage (work, homeownership) or a percentage change in income if the listed *ethnosizer* is set at the theoretical maximum (equal to five) and the remaining three measures are at their theoretical minimum (equal to zero). While such changes are unrealistic in practice, the simulation exercise provides a clear picture of the relative importance of the ethnic identity factors.

Following Constant, Gataullina, and Zimmermann (2006b), the first two columns of Table 4 deal with the probability to work for males and females. In their particular sample, 74% of the sampled migrant men and 46% of the sampled migrant women worked at the time of the survey. If all men were fully assimilated, this would result in a 12% increase, or a jump to an 86% probability to work among migrant males. In the case of integration, the rise would be somewhat smaller, only 82%. Thus, integration is not as sizable as assimilation for men, although the difference in estimation is not statistically different. Complete separation leads to a drop in work probability by 6%, or a decrease to 68% among men. Finally, if all male migrants were marginalized, their working rate would drop to 54%, and thus, become somewhat closer to the actual probability to work of the sampled migrant women. Integration for females functions quite differently. Unlike the male effects integration matters very much, while the effect of assimilation is close to zero. If all females were integrated, their probability to work would increase by 20%, to 66%, and hence become about the same as the probability to work for males if they would be fully separated. For assimilation, the female work probability would drop down to 45%. For separation and marginalization it would decrease to 38%, although the difference in estimation is not statistically different.

A further issue is earnings: In the data set used here the average monthly labor earnings of the sampled male migrants are 3,492 Euros, while the average monthly labor earnings of the sampled female migrants are 1,175 Euros. If all male migrants were fully integrated (or fully assimilated), their earnings would grow dramatically by 157% (or 119%) to 5,493 Euros (or 4,170 Euros) a month. Full separation of male migrants would lead to a reduction in monthly earnings to 853 Euros, and full marginalization would decrease the average monthly earnings of male migrants below subsistence level to 271 Euros. If all female migrants were fully integrated their earnings would increase to 4,290 Euros a month, a much higher amount than that for males in the sample. Total assimilation, separation or marginalization of female migrants, however, would lead to a decrease in labor earnings to about 1,147 Euros, 414 Euros or 38 Euros,

respectively. These numbers are substantial, indicating in particular the advantage of integration above assimilation and the disadvantage of marginalization in comparison with separation.

Simulation on the probability of homeownership using the coefficients from an estimated Probit model, Constant, Roberts, and Zimmermann (2007) illustrate that if all migrants were assimilated, 55% would be homeowners. This is more than double the actual 20% homeownership rate in their sample. Similarly, if all migrants were integrated, 46% would own their own homes. Although, being all marginalized is not statistically different from being all separated, the rates are economically different, namely 12% for marginalization and 3% for separation. This implies that it is the lack of attachment to the host country, rather than continuing ties to the origin country, that contribute to poor homeownership outcomes.

8. Policy Conclusions

It seems impossible to ignore push and pull migration due to the excess supply of low-skilled workers in the world and the excess demand for high-skilled workers in the EU. Europe needs an economically motivated migration policy, which does not ignore the need to deal with ethnic identity, especially assimilation and integration. A healthy European migration system recognizes labor immigration and emigration flows, and hence the potential of repeat migration. Ethnicity matters, and the cornerstone is ethnic identity. Integrated migrants have more global chances and better employment and income potentials.

Notes

1. See Zimmermann, Zimmermann and Constant (2007) and Zimmermann, Gataullina, Constant and Zimmermann (2006) for an econometric analysis of ethnic self-identification using GSOEP data.
2. The role of religion for ethnic identity, especially of Muslims, is further discussed in Constant, Gataullina, Zimmermann and Zimmermann (2006).

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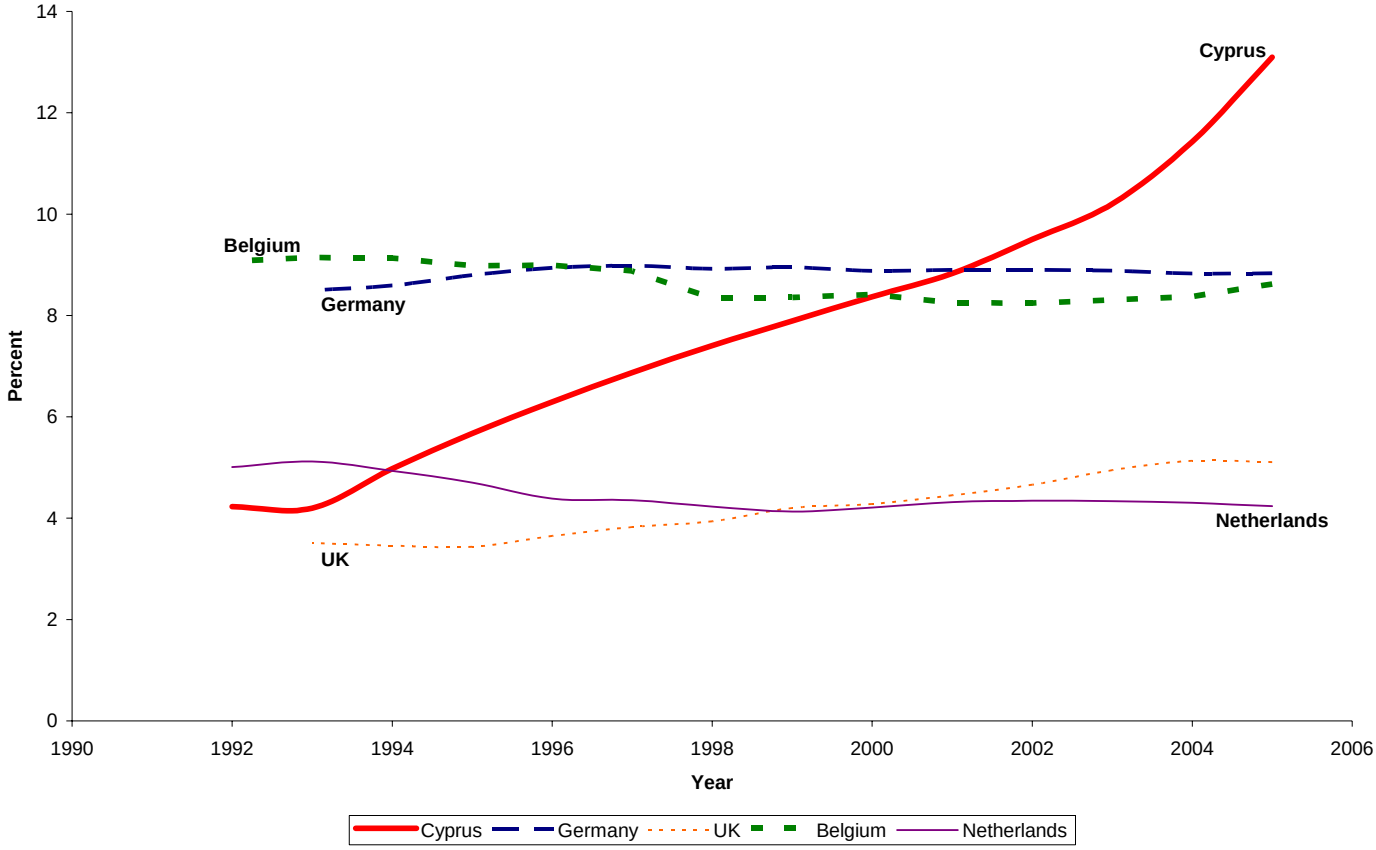

Source: Eurostat, 2007, Author's Own Calculation
Note: Interpolation for Cyprus in 2002 and 2003, and UK in 1993, 2000 and 2001, due to missing data.

Figure 1. Foreign nationals as percent of total population in selected EU-member states, 1992-2005

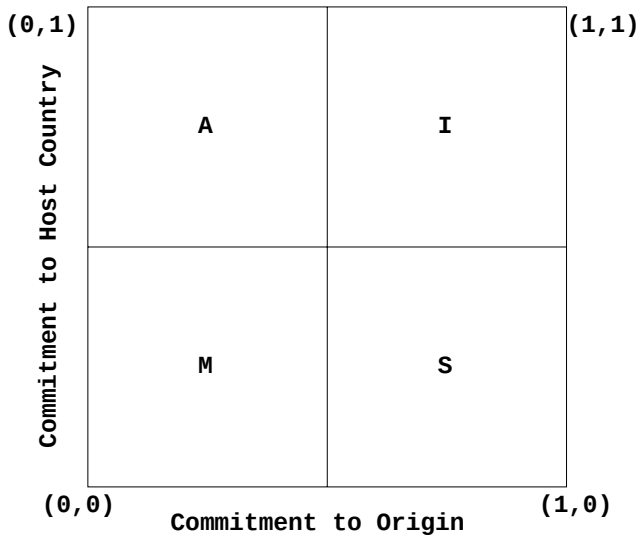

Figure 2. The two-dimensional non-negative *ethnosizer*

TABLE 1. Direct Measure of Ethnic Self-identification and the *Ethnosizer*

	Self-Identification				
	Integration	Assimilation	Separation	Marginalization	Total
Ethnosizer					
Integration	**202**	**219**	**729**	**444**	**1,594**
	45.91	*24.07*	*20.98*	*23.74*	
	3.02	3.27	10.89	6.63	23.81
Assimilation	**143**	**488**	**435**	**378**	**1,444**
	32.50	*53.62*	*12.52*	*20.21*	
	2.14	7.29	6.50	5.65	21.58
Separation	**62**	**88**	**1,908**	**451**	**2,509**
	14.09	*9.67*	*54.90*	*24.12*	
	0.93	1.31	28.50	6.74	37.48
Marginalization	**33**	**115**	**403**	**597**	**1,148**
	7.50	*12.64*	*11.60*	*31.93*	
	0.49	1.72	6.02	8.92	17.15
Total	**440**	**910**	**3,475**	**1,870**	**6,695**
	100.00	*100.00*	*100.00*	*100.00*	
	6.57	13.59	51.90	27.93	100.00

Note: Own calculations on the basis of the GSOEP. Number of individuals: 1,339. **Bold** numbers are cell counts, followed by percentages of the column totals (*italic*) and the relative frequencies of the total sample size.

TABLE 2. Descriptive Statistics

	All respondents		Working respondents		Working men	
	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Ethnosizer						
Integration	1.188	0.997	1.386	1.002	1.352	0.985
Assimilation	1.063	1.065	1.199	1.086	1.219	1.128
Separation	1.902	1.397	1.676	1.326	1.695	1.320
Marginalization	0.846	0.879	0.739	0.801	0.734	0.803
Female	0.488	0.500	0.383	0.486		
Pre-migration characteristics						
Age at entry	22.552	11.113	20.129	10.072	19.603	10.130
Muslim	0.351	0.477	0.305	0.461	0.360	0.480
Catholic	0.295	0.456	0.318	0.466	0.276	0.447
Other Christian	0.275	0.447	0.302	0.460	0.276	0.447
Other religions	0.035	0.184	0.036	0.188	0.042	0.201
Non religious	0.044	0.206	0.038	0.191	0.047	0.211
College in home country	0.060	0.238	0.061	0.239	0.067	0.249
Vocational training in home country	0.276	0.447	0.289	0.454	0.261	0.440
Complete school in home country	0.254	0.435	0.248	0.432	0.259	0.438
Incomplete school in home country	0.159	0.366	0.109	0.312	0.081	0.274
No education in home country	0.251	0.434	0.293	0.456	0.333	0.472
Turkish	0.358	0.479	0.319	0.467	0.372	0.484
Ex-Yugoslavian	0.178	0.383	0.184	0.388	0.163	0.369
Greek	0.081	0.273	0.087	0.282	0.079	0.270
Italian	0.142	0.349	0.149	0.356	0.153	0.360
Spanish	0.038	0.192	0.047	0.212	0.047	0.211
Other ethnicities	0.203	0.402	0.214	0.411	0.187	0.391
Post-migration characteristics						
Age	45.036	13.715	42.125	10.818	41.975	10.953
No degree in Germany	0.197	0.398	0.134	0.341	0.108	0.311
Primary/ lower secondary in Germany	0.212	0.409	0.254	0.436	0.296	0.457
Higher degree in Germany	0.507	0.500	0.521	0.500	0.498	0.501
University degree in Germany	0.084	0.277	0.091	0.288	0.099	0.298
Hours worked	20.657	20.834	37.578	12.381	42.065	8.843
Number of observations	1,195		658		406	

Note: Own calculations on the basis of the GSOEP.

TABLE 3. Robust Poisson Models of the *Ethnosizer* for Working Men

	Integration	Assimilation	Separation	Marginalization
Constant	1.547	1.191	1.176	-10.214*
	(1.346)	(2.005)	(1.691)	(3.292)
Pre-migration characteristics				
Age at entry	-0.011	-0.050*	0.043*	0.040*
	(0.014)	(0.016)	(0.016)	(0.020)
Age at entry squared	-0.0001	0.001*	-0.0003	-0.001*
	(0.0003)	(0.0003)	(0.0003)	(0.0004)
Muslim	-0.318*	0.251	-0.084	0.608*
	(0.188)	(0.228)	(0.186)	(0.360)
Catholic	-0.262	0.363*	-0.163	0.300
	(0.183)	(0.214)	(0.199)	(0.383)
Other Christian	-0.105	0.128	-0.148	0.507
	(0.177)	(0.217)	(0.197)	(0.364)
Other religions	-0.198	-0.062	-0.027	0.858*
	(0.204)	(0.253)	(0.247)	(0.424)
College in home country	0.079	-0.425*	0.463*	0.102
	(0.191)	(0.258)	(0.212)	(0.302)
Vocational training in home country	-0.113	-0.354*	0.319*	0.122
	(0.149)	(0.183)	(0.147)	(0.223)
Complete school in home country	-0.190	-0.522*	0.515*	0.056
	(0.156)	(0.189)	(0.154)	(0.234)
Incomplete school in home country	-0.150	-0.008	0.079	0.329
	(0.228)	(0.267)	(0.194)	(0.255)
Ex-Yugoslavian	0.005	0.077	-0.106	0.299*
	(0.111)	(0.162)	(0.114)	(0.180)
Greek	-0.303*	0.081	0.009	0.398
	(0.152)	(0.193)	(0.160)	(0.235)
Italian	-0.204	0.033	0.133	0.239
	(0.149)	(0.194)	(0.143)	(0.241)
Spanish	-0.102	-0.178	0.170	0.331
	(0.227)	(0.270)	(0.230)	(0.277)
Other ethnicities	-0.006	0.804*	-0.623*	0.153
	(0.123)	(0.158)	(0.147)	(0.198)
Post-migration characteristics				
Age	-0.033	-0.054	-0.131	0.755*
	(0.096)	(0.132)	(0.116)	(0.244)
Age squared	0.001	0.002	0.003	-0.017*
	(0.002)	(0.003)	(0.003)	(0.006)
Age cubic	-3.770E-06	-1.580E-05	-2.070E-05	0.0001*
	(1.820E-05)	(2.680E-05)	(2.010E-05)	(4.420E-05)
No degree in Germany	-0.292	-0.330	0.180	0.230
	(0.192)	(0.218)	(0.169)	(0.230)
Higher degree in Germany	-0.021	0.239	-0.175	-0.095
	(0.123)	(0.149)	(0.113)	(0.186)
University degree in Germany	0.050	0.157	-0.480*	0.346
	(0.159)	(0.186)	(0.192)	(0.260)
Hours worked	-0.005	-0.005	0.015	-0.042*
	(0.019)	(0.020)	(0.017)	(0.024)
Residuals of hours worked OLS	0.003	0.005	-0.011	0.039
	(0.020)	(0.021)	(0.017)	(0.024)
Number of observations	406	406	406	406
Log Likelihood	-553.306	-542.104	-614.326	-434.485
Pseudo-R^2	0.024	0.072	0.076	0.034
Residuals exogeneity test (two residuals OLS)	0.0002	0.0004	-0.001	0.001
	(0.005)	(0.006)	(0.008)	(0.004)

Note: The reference group consists of non-religious Turkish men who had no education in home country and received primary or lower secondary education in Germany; Robust standard errors in parantheses; one-tailed t-test, * significant at 5%.

TABLE 4. Simulated Change in the Probability of Indicators of Economic Performance Caused by a Change of the Respective *Ethnosizer* Measure to its Maximum

	Working probability		Earnings		Homeownership
	Males	Females	Males	Females	
Integration	0.079	0.199	1.573	3.651	0.261
Assimilation	0.122	-0.011	1.194	-0.024	0.348
Separation	-0.064	-0.081	-1.410	-1.043	-0.171
Marginalization	-0.204	-0.078	-2.556	-3.438	-0.082

The entry in each cell should be understood as a change in the corresponding economic variable if the referenced measure of ethnic identity were at a maximum (i.e. equal to 5) and the remaining three measures were at a minimum (i.e. equal to 0) for all men and women respectively. In case of the working probability and the homeownership probability we investigate the resulting absolute change in the probability, comparing the state of full absorption with the average *ethnosizer* in the sample. In the case of earnings, numbers are the log differences of earnings of the hypothetical average individual in full absorption and the average individual in the sample (evaluated at sample means for all variables).