

THE IMPACT OF THE PARTNER ON THE ECONOMIC INCORPORATION OF IMMIGRANTS

Household Specialization or Social Capital?*

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Abstract: This study examines the role of the partner in the economic incorporation of immigrant men and women. It derives hypotheses from household specialization theory and social capital theory, leading to opposite expectations on the impact of the partner's labour-market resources and employment status. To test the hypotheses, the study relies on data from a repeated, cross-sectional household survey that has been designed to examine four important ethnic minority groups in the Netherlands (Turks, Moroccans, Surinamese and Dutch Antilleans). The results do not support the theory of household specialization but are mostly in line with social capital theory. Most notably, it appears that immigrants with a partner who has obtained a high education in the country of origin and the Netherlands are more likely to be employed and have a higher status job. The positive role of partner's education yields for both men and women and persists even when immigrants own education and other skills are taken into account.

I. Background

Ethnic inequalities in the labour market have received ample attention in the literature (e. g. Van Tubergen et al. 2004). Studies on the economic performance of immigrants started with Chiswick's well known study on immigrants in the United States (Chiswick 1978), and many studies on economic assimilation have been done thereafter, on different ethnic groups and in different nations (Borjas 1994). Although there are differences among ethnic groups and nations (Van Tubergen 2006), most studies find that many immigrants are at an economic disadvantage at the moment of arrival in the host country compared to natives, but that the immigrant-native gap decreases with years of residence (Borjas 1994).

The declining gap is often interpreted in terms of human capital accumulation. At arrival, many immigrants lack host-country specific skills, most notably proficiency in the host language and educational qualifications obtained in the host nation, which are necessarily to participate in the labour market and to get a good job. Immigrants are assumed to invest in these skills, and hence to improve their resources and economic

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position over time. Research findings, indeed, show that many immigrants gradually learn the language (Chiswick/Miller 2001), obtain additional schooling (Van Tubergen/Van de Werfhorst 2007) and that those with better command of the host-country language (Chiswick/Miller 2002) and with host-country specific schooling (Bratsberg/Ragan 2002; Friedberg 2000; Kanas/Van Tubergen 2007; Zeng/Xie 2004) are better incorporated economically.

Some research findings, however, suggest that the conclusions on individual post-migration investments and economic assimilation are restricted to male immigrants. Research on the economic incorporation of immigrants has typically focused on men, not women. An early exception is the work of Long (1980). In a replication of Chiswick's (1978) seminal work, Long used the same data, methods, and models to analyze the economic mobility of immigrant females. Interestingly, he found that the economic mobility of immigrant women differs from that of men. His results showed that the relative earnings of immigrant women are rather high shortly after arrival and that their relative earnings somewhat decline with length of stay in the United States. As a consequence, his findings are at odds with the assumption that immigrant women are clearly disadvantaged at arrival, then invest in language and education, and as a result of these investments improve their economic standing.

Confronted with the surprising results on the economic mobility of immigrant women, Long suggested the possibility of *partner effects*. Rather than assuming that the economic mobility of immigrant men and women develops independently, Long (1980) argued that immigrant spouses affect each others occupational career. His idea has been tested recently in the economics literature (Baker/Benjamin 1997; Cobb-Clark 2004; Duleep 1998; Duleep/Dowhan 2002). In this article, I contribute to these recent studies on partner effects on the economic performance of immigrants, in two ways. First, I provide a *more direct test* than in previous empirical work of the economic theory of partner effects, i. e., the so-called 'family investment hypothesis', which was suggested by Long (1980) and more recently developed by other labour economists (Baker/Benjamin 1997; Cobb-Clark 2004; Duleep 1998; Duleep/Dowhan 2002). Second, I confront this theory with an *alternative theory* that comes up with opposite predictions. This alternative social capital theory on partner effects has been well developed in the more general family and stratification literature (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobnic 2001), but it has received little attention in the field of migration. To test the hypotheses derived from both theories, I look at the employment position and occupational status of married immigrant men and women in the Netherlands. Data are from repeated immigrant surveys that are specifically designed to study four important minority groups in the Netherlands: Turks, Moroccans, Surinamese, and Dutch Antilleans. The unique feature of the survey is that it is translated into minority languages, bilingual interviewers are used, and the surveys contain detailed questions on migration history and immigrant incorporation of the respondent and the partner. The survey has a cross-sectional design and I use the data from 1998 and 2002.

II. Previous Research on the Family Investment Hypothesis

In a way to understand the different assimilation profile for immigrant women, Long (1980) suggested what is now labelled the 'family investment hypothesis'. The hypothesis argues that both immigrant men and women do not possess the appropriate skills when they arrive in their new host country. Because of these problems, they decide that the husband will invest in host-country specific skills. Investing in these skills is costly, however, and because of credit constraints, it is assumed that the wife will finance such investments by temporarily participating in the labour market. When the husband has learned the language and has obtained host-country schooling, the couple will switch to a traditional model of specialization: he will start working for pay whereas the wife will specialize in domestic activities.

The family investment hypothesis has been tested empirically in different ways (Duleep 1998). One line of research has looked at family differences in the *potential gains* from making investments after migration. Duleep and Sanders (1993) assumed that the benefits of post-migration investments differ across ethnic groups, being most profitable among groups that do not speak the official language and that have difficulties in transferring their educational qualifications. Relating these group-specific gains to female participation rates, they find evidence for the family investment hypothesis using the 1980 census of the United States. More specifically, they find that among Filipinos, Koreans, Chinese and Indians (groups with the largest expected growth in immigrant men's earnings) immigrant women have higher labour force participation rates in the beginning than among non-Mexican whites and Japanese groups.

Another line of research focuses on *the years of residence* in the host country. It is assumed that investments of the husband are made shortly after arrival rather than after a longer time period in the host country. Such investments would lead the wife to participate in the labour market, but, after a while, she stops working because the husband has completed his investments. Thus, it is hypothesized that recently arrived immigrant women are more often employed than immigrant women who arrived longer ago. In addition, it is hypothesized that the longer the husband has remained in the host country, the less likely immigrant women are to participate in the labour market and the more likely immigrant men are to participate in the labour market. These hypotheses are confirmed in the studies of Duleep and Regets (1999) using the 1980 census of the United States, and Baker and Benjamin (1997) using Canadian data. More recent studies, however, do not find support for these divergent gender patterns. Blau et al. (2002) find that, for the U.S., both immigrant men and women equally increase their working hours and earnings over time, suggesting that both men and women invest in skills after migration. A similar conclusion is drawn by Duleep and Dowhan (2002), who focus on recent immigrants in the United States.

There are at least two problems with previous tests of the family investment hypothesis. First, information on the (spouse's) *length of stay* in the host country is only loosely connected to actual investments. Theoretically, investments in host-country specific human capital need not be made in the first few years after arrival. For example, many immigrants migrate because of economic incentives and a substantial part of these labour migrants already have a job immediately after arrival. Asylum seekers and

political migrants are temporarily disconnected from society in the first years after migration, being unable to participate in the labour market or to acquire host-country specific skills. Furthermore, women who join their husband after several years presumably do not need to finance the husband's investments.¹ A second problem with previous tests of the family investment hypothesis is that immigrant men are always assumed to be more productive in work for pay than immigrant women. Although this might be true for the majority of couples, the more general theoretical assumption is that the person most productive in labour market activities will specialize in these activities, irrespective of *gender* (Cobbs-Clark/Crossley 2004).

III. Theories and Hypotheses

1. Household Specialization

Rather than assessing the family investment theory indirectly in terms of years of residence of the partner and in terms of gender differences, which has been done in previous work, I examine the role of the spouse's labour market skills more directly. Following research in family and stratification sociology (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobnic 2001), I directly look at the *skills* of the partner. According to the family investment hypothesis, one would expect that the spouse's skills are *inversely related* to economic performance.

Long's (1980) family investment hypothesis relied on the New Home Economics, or more specifically: Beekers' (1981) theory of household specialization. This theory argues that the husband and wife will specialize in order to maximize household utility, typically resulting in the husband to participate in the labour market and the wife to specialise in domestic activities. Becker's theory of household specialization subsumes the family investment hypothesis, and argues that household utility is maximized when the couple specializes, and each partner is engaged in activities in which he or she is most skilful. Specialization leads to the accumulation of skills. For paid workers, this means investments in education, on-the-job training and learning-by-doing.

Thus, according to Becker's theory, the couple compares the husband's marginal productivity in market work (M_h) and domestic work (D_h) with the wife's marginal productivity in market work (M_w) and domestic work (D_w) (Bernardi 1999). The husband has a comparative advantage in market work relative to his wife if $(M_h/M_w) > (D_h/D_w)$. It is generally assumed that $D_h = D_w$, so that the wife will specialize in domestic work if her husband has greater market productivity (i. e., $M_h > M_w$). It is

¹ There is another, methodological, problem as well: in cross-sectional analysis the impact of years of residence could be biased because of selective immigration and emigration patterns (Borjas 1985). Some researchers have used a synthetic cohort design to rule out selective immigration (Baker/Benjamin 1997), but because of selective emigration possible bias remains. The only design to examine the impact of duration directly is to use panel data, but panel studies are often criticised because of their short time span, being unable to examine investments later in life. Indeed, one study that has used a prospective design covered only the first 3,5 years of the settlement process (Cobb-Clark/Crossley 2004).

assumed that the potential labour market productivity of the partner is higher when he or she has more skills. Based on these insights, Bernasco (1994), Bernasco et al. (1998), Bernardi (1999) and Blossfeld and Drobnic (2001) have hypothesized more generally that *human capital of the partner has a negative effect on employment and occupational status*. The most straightforward indicator of partner's human capital used in empirical research is education (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobnic 2001), and that is also the approach taken in this study.

Traditionally, it is assumed that men are more productive in the labour market than women, but in the case of immigrants there are several situations in which this is evidently not true. For example, it could be that the wife has arrived earlier in the host country, learned the language and obtained a new educational diploma, and after several years marries a recently arrived spouse, who's labour market potential clearly falls below that of his wife. In that scenario, the theory would assume that the wife is the "primary worker" and that she will specialize in labour market activities, whereas the husband will do domestic work.

In this study, I extend previous tests of the impact of the skills of the partner, by distinguishing *origin and destination specific human capital*. When the partner has obtained a high education in the country of origin and has worked for several years before migration, his or her potential market productivity is higher than when he or she arrives with little education and few experience. But productivity is especially associated with skills and work experience obtained after migration, since educational qualifications and experience obtained in the host country are valued more by employers than qualifications and experience acquired in the country of origin (Bratsberg/Ragan 2002; Friedberg 2000; Kanas/Van Tubergen 2007; Zeng/Xie 2004). This means that when the partner has made more post-migration investments, this would make it especially attractive to specialize in domestic work. Thus, capital theory hypothesizes that *destination specific human capital of the partner has a stronger negative effect on employment and occupational status than origin specific human capital*.²

Another way to test the household specialization theory, is to look at the present labour market position of the spouse (Bernasco 1994). Assuming that household utility is maximized when the partners specialize, the household specialization theory predicts that *current employment of the partner is inversely related to one's own employment*.

2. Social Capital

Hypotheses on the role of the partner can also be derived from social capital theory (Bourdieu 1986; Coleman 1990; Granovetter 1985; Ioannides/Loury 2004; Lin 1999; Portes 1998), which provides opposite predictions to the family investment hypothesis. Three assumptions are essential to the social capital theory. It is assumed that social

2 Having a partner with more origin-specific skills would lead to temporarily participating in the labour market (to finance investments in host-country specific human capital), and subsequently specializing in domestic activities (when the partner has completed his or her investments). The overall effect, however, should be negative (as immigrants only participate a few years in the labour market to finance the investments of the partner).

capital depends on (1) the number of contacts, (2) alters willingness to offer help, and (3) the resources available to alters (De Graaf/Flap 1988). Taken together, it is argued that people have more chances in the labour market when they have more contacts, when those contacts are more willing to help, and when those contacts have better resources. The theory has been used to explain a variety of social outcomes, including “school attrition and academic performance, children’s intellectual development, sources of employment and occupational attainment, juvenile delinquency and its prevention” (Portes 1998: 9).

In the sociology of migration, social capital theory has been mostly used to explain ethnic entrepreneurship (e. g. Flap et al. 2000; Sanders/Nee 1996). Few studies have used the social capital theory to explain ethnic inequality in unemployment and occupational status (or earnings). Exceptions are the studies that have been done on ethnic groups in the United States, most notably Aguilera (2003, 2005), Aguilera and Massey (2003), Nee et al. (1994), and Sanders et al. (2002). These studies, however, have paid little, if any, attention to the role of the partner. Instead, the impact of social capital is assessed by looking at ‘weaker’ social ties (Granovetter 1973), such as the number and quality of other family members, coethnic ties, friendships, and membership of organizations.

Recent theoretical and empirical work in family and stratification sociology (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobnic 2001) has argued that the partner is an important social resource, which significantly affects the occupational career. In particular, the partner is a *strong* social tie, and he or she is therefore especially willing to help the spouse. There are several ways through which the partner can be a resource, and whichever of them prevails, they all expect a positive effect of the partner (Bernardi 1999). Thus, the partner may provide directly information on a specific job that is available, he or she can inform about where to look for jobs in general, but also how to present oneself to employers, and how to behave on the job (Aguilera/Massey 2003; Bernardi 1999). In addition, the partner can influence the job-matching process by providing entry into desirable occupations (Lin 1999; Mouw 2003), and the partner can transmit his occupational skills, competences, and experiences (Bernardi 1999).

The degree to which the partner can provide help, however, is affected by his or her resources (Lin 1999). When the spouse is highly skilled, he or she has more information on the labour market and a more resourceful network than when the spouse is less skilled. Furthermore, a higher skilled spouse can transmit superior occupational skills, competences, and experiences as compared to a lower skilled spouse (Bernardi 1999). Based on these insights, researchers (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobnic 2001) have argued that social capital theory would expect that *human capital of the partner has a positive effect on employment and occupational attainment*.

In this study, I elaborate on this hypothesis by distinguishing again between origin and destination specific human capital. One could assume that, in particular, skills obtained in the Netherlands provide a resource for the partner. Such destination-specific skills increase the knowledge about the Dutch labour market, and they lead to more contacts with native Dutch. For example, when the spouse has attended school in the

Netherlands, he or she has not only learned the Dutch language and obtained a diploma, this also leads to connections with natives, who can provide access to jobs. Furthermore, obtaining education in the Netherlands leads to knowledge about the Dutch school system, to familiarity with the Dutch language, and such experiences and skills can be transmitted to the partner. Hence, social capital theory would expect that *the positive effect of the spouse's destination specific human capital is stronger than the positive effect of the spouse's origin specific human capital*.

Social capital theory also predicts that the current labour market position of the spouse is important (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobnic 2001). When the partner is currently unemployed or inactive, he or she has fewer connections that might provide information on available jobs, and he or she could less well transmit useful competences and skills. By contrast, when the partner works he or she has more information on job openings, he or she could transmit his labour market skills and experiences. Following earlier studies (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobnic 2001) it is hypothesized that *current employment of the partner has a positive impact on employment and occupational status*.

IV. Data and Methods

Data are from the Social Position and Use of Welfare Facilities by Immigrants survey (SPVA), which was conducted first in 1988 and repeated in 1991, 1994, 1998, and 2002. I use the final two waves, in order to obtain a sufficiently large number of cases. SPVA is a large-scale, cross-sectional, and immigrant-specific household survey (Van Ours/Veenman 2003). SPVA provides a wide range of information on the socio-economic and socio-cultural position of four large ethnic minority groups in the Netherlands: Turks, Moroccans, Surinamese and Antilleans. The analysis is restricted to first generation immigrants between the ages of 25 and 55. The age category was chosen based on the presumption that individuals older than 24 have finished their studies and that (some) individuals older than 55 have left the labour market as a consequence of (early) retirement (Bevelander/Veenman 2004). I analyze couples that are formally married and that are cohabiting, although I speak of married couples throughout.

An important advantage of the SPVA data is that they contain direct measures of pre-migration and post-migration schooling, and direct measures of work experience obtained in the Netherlands. Most data contain only a single measure of schooling and work experience, thereby being unable to test hypotheses on differential effects of origin vis-à-vis destination human capital. The SPVA data are the major source for social policy making on immigrants in the Netherlands, and they have been frequently used in the scientific literature (e. g. Kalmijn/Van Tubergen 2006; Van Tubergen 2007).

It is important to mention the limitations of the SPVA data as well. One issue is its cross-sectional design. This makes it impossible to examine the causality between some variables (most prominently current employment status of the partner), and to incorporate issues of selective immigration and emigration. Another issue is non-response. The non-response rate for the 1998 and 2002 waves was the lowest among the

Turks (39 percent), and the highest among the Surinamese (56 percent) (Groeneveld/Weijers-Martens 2003). These numbers are rather high when compared to surveys in other countries, but they are typical when compared to other surveys in the Netherlands (Van Ours/Veenman 2001). Moreover, special measures were taken to include respondents that are less well-integrated culturally and economically and there is no evidence for systematic non-response (Groeneveld/Weijers-Martens 2003; Martens 1999). Data were collected by means of personal interviewers, who were fluent in the minority language, and survey instruments were translated. Another drawback of the SPVA surveys is that the sampling frame is not representative of the entire country. To reduce costs of data collection, the sample frame consists of ten to thirteen cities (depending on the survey year) with a larger concentration of immigrants, covering about 50 percent of the four minority groups' population. Finally, SPVA contains a long questionnaire for the head of the household and a short questionnaire for the partner (and the children). In case the partner was not available, the main respondent could provide answers about the spouse. Couples for which no information was present for the partner were deleted from the analysis. Because in the case of Moroccans and Turks the head of households are mostly males, I had to rely on questions that are asked for both partners. As a result, the analysis omits several potentially important variables – such as language proficiency and health – in the analysis of females.

1. Dependent variables

I analyze the employment and the occupational status of immigrants. The dependent variables are measured as follows: *Employment*: Respondents were asked about their employment status. Those who are employed, including self-employed, are contrasted with those who are unemployed or inactive. *Occupational status*: Employed respondents were asked about the status of the current job. Occupational status is measured in terms of the International Socio-Economic Index (ISEI). The ISEI scale measures the hierarchical position of the occupation and is linked to education and income. To obtain ISEI scores for the occupations I use tools that convert the ISCO-88 classification into ISEI (Ganzeboom et al. 1992).

2. Independent variables

Following the stratification literature, I measure human capital (of the partner and the individual) with education. *Education*: Respondents were asked about the highest level of completed education in their country of origin and in the Netherlands. In order to facilitate comparisons between education obtained in the country of origin and destination, I constructed five common categories: (1) no education, (2) primary, (3) lower secondary, (4) higher secondary and (5) tertiary. I include this ordinal measure of education as a linear variable to get a more parsimonious model (and likelihood ratio tests show that this specification does not lead to a significantly lower fit). *Unemployed*: indicates that the partner is currently unemployed or inactive (as opposed to employed).

I also include several control variables. *Work experience*: The survey provides a direct measure of work experience in the Netherlands, measured in years. There is no direct information on work experience abroad. *Ethnicity*: measures the country of birth of the respondent. I distinguish between immigrants born in Turkey, Morocco, Suriname and the Dutch Antilles. *Children*: I include a measure that combines information on the number of children and the presence of children at home: (1) no children, (2) children not at home, (3) children at home. These categories are included as dummy variables. *SPVA 2002*: To control for survey and period effects, I include a dummy variable indicating the 2002 wave. For the analyses of the male sample, I conduct an additional analysis that includes measures of age at migration, language proficiency and health, as these are considered to be important determinants of immigrants' economic incorporation. *Age at migration*: measures the age at the time of migration to the Netherlands, in years. *Language skills*: refers to self-assessed skills in speaking the Dutch language. I contrast those who report not to have difficulties with the Dutch language with all others. *Health*: self-assessed health, ranging from (1) 'very bad' to (5) 'very good'. I include this as a continuous variable.

Table 1 presents the descriptive statistics of the independent and dependent variables. It shows that 70 percent of the males and 36 percent of the female immigrants are employed. Immigrants in the sample are generally low educated: about 60 to 70 percent has obtained at most primary education in the country of origin. Similar rates pertain to schooling in the Netherlands.

Table 1: Descriptive Statistics of Independent and Dependent Variables

	Men			Women		
	Range	Mean	S.D.	Range	Mean	S.D.
Dependent variables						
Employed	0/1	0,70		0/1	0,36	
Occupational status	16-88	36,77	14,55	16-85	36,17	15,98
Independent variables						
<i>Individual characteristics</i>						
Education abroad	1-5	2,30	1,13	1-5	1,98	1,06
Education in the Netherlands	1-5	1,89	1,27	1-5	1,66	1,12
Work experience in the Netherlands	0-40	11,84	8,01	0-38	4,78	6,50
Ethnic group						
Turks	0/1	0,40		0/1	0,40	
Moroccans	0/1	0,28		0/1	0,30	
Surinamese	0/1	0,23		0/1	0,22	
Antilleans	0/1	0,09		0/1	0,07	
Age at migration	0-55	21,08	7,92	n/a		
Good Dutch language skills	0/1	0,36		n/a		
Health	1-5	3,69	0,98	n/a		
<i>Partner characteristics</i>						
Education abroad	1-5	1,91	1,05	1-5	2,20	1,12
Education in the Netherlands	1-5	1,90	1,25	1-5	1,74	1,20
Currently unemployed	0/1	0,61		0/1	0,37	
<i>Control variables</i>						
Children						
Children at home	0/1	0,83		0/1	0,86	
No children	0/1	0,13		0/1	0,09	
Children, not at home	0/1	0,04		0/1	0,05	
Survey 2002	0/1	0,32		0/1	0,33	

V. Results

The results of the multivariate analyses are presented in *Tables 2, 3, 4* and *5*. *Tables 2* and *3* present the findings of the logistic regression of employment (vis-à-vis inactivity and unemployment), and *Tables 4* and *5* show the results of the linear regression of occupational status (in terms of ISEI scores). Each table presents at least three separate regressions. Model 1 contains only individual characteristics. One can see this as the “individual human capital model”, which focuses only on immigrants’ own human capital. Model 2 includes only characteristics of the partner, which one could refer to as the “partner model”. Model 3 includes both individual and partner characteristics, and thereby provides the best model to test the hypotheses.

By estimating these models separately, we gain several important insights. Comparing Model 1 with Model 3 is interesting, because it informs us whether the role of individual characteristics, documented in many earlier studies, persist when we take into account the characteristics of the partner. By comparing Model 2 with Model 3, one can observe whether partner characteristics have an effect over and above one’s own characteristics. Marriage is highly selective along several dimensions and it is therefore important to see both such selectivity into marriage (e. g. educational homogamy) and the direct effects of one’s own skills and that of the partner. Note that, for immigrant males, I also test an additional model that includes important de-

Table 2: Logistic Regression of Employment of Married Male Immigrants in the Netherlands, 1998 and 2002 (odds ratio’s)

	Model 1		Model 2		Model 3		Model 4	
	OR	p	OR	p	OR	p	OR	p
<i>Individual characteristics</i>								
Education abroad	1,34	0,00			1,19	0,00	1,00	0,99
Education in the Netherlands	1,71	0,00			1,59	0,00	1,50	0,00
Work experience in the Netherlands	1,07	0,00			1,08	0,00	1,09	0,00
Ethnic group (ref. Turks)								
Moroccans	0,98	0,85			1,03	0,79	0,93	0,59
Surinamese	2,02	0,00			1,34	0,01	1,17	0,45
Antilleans	2,81	0,00			1,72	0,01	1,43	0,26
Age at migration							1,02	0,02
Good Dutch language skills							1,27	0,11
Health							2,98	0,00
<i>Partner characteristics</i>								
Education abroad			1,34	0,00	1,20	0,00	1,23	0,00
Education in the Netherlands			1,48	0,00	1,35	0,00	1,22	0,00
Currently unemployed			0,49	0,00	0,58	0,00	0,60	0,00
<i>Control variables</i>								
Children (ref. children at home)								
No children	1,47	0,02	1,00	0,99	1,16	0,36	1,17	0,43
Children, not at home	0,31	0,00	0,46	0,00	0,38	0,00	0,45	0,02
Survey 2002	1,17	0,13	1,30	0,01	1,09	0,40	1,16	0,25
Constant	0,19	0,00	1,09	0,00	0,18	0,00	0,00	0,00
<i>N</i>	2852		2901		2852		2344	
<i>Df</i>	9		6		12		15	
<i>Model Chi-square</i>	491,43		293,51		573,67		819,85	
<i>Nagelkerke R²</i>	0,23		0,14		0,26		0,42	

Table 3: Logistic Regression of Employment of Married Female Immigrants in the Netherlands, 1998 and 2002 (odds ratio's)

	Model 1		Model 2		Model 3	
	OR	p	OR	p	OR	p
<i>Individual characteristics</i>						
Education abroad	1,57	0,00			1,45	0,00
Education in the Netherlands	1,51	0,00			1,39	0,00
Work experience in the Netherlands	1,21	0,00			1,21	0,00
Ethnic group (ref. Turks)						
Moroccans	0,85	0,27			0,88	0,39
Surinamese	2,73	0,00			2,39	0,00
Antilleans	3,30	0,00			2,89	0,00
<i>Partner characteristics</i>						
Education abroad			1,41	0,00	1,11	0,03
Education in the Netherlands			1,42	0,00	1,09	0,09
Currently unemployed			0,36	0,00	0,53	0,00
<i>Control variables</i>						
Children (ref. children at home)						
No children	1,77	0,00	2,44	0,00	1,74	0,04
Children, not at home	0,48	0,01	1,36	0,16	0,59	0,06
Survey 2002	0,91	0,46	0,92	0,35	0,86	0,20
Constant	0,03	0,00	0,18	0,00	0,04	0,00
N	2725		2744		2725	
Df	9		6		12	
Model Chi-square	1302,77		447,67		1339,88	
Nagelkerke R ²	0,52		0,21		0,53	

Table 4: OLS Regression of Occupational Status of Married Male Immigrants in the Netherlands, 1998 and 2002 (unstandardized coefficients)

	Model 1		Model 2		Model 3		Model 4	
	B	p	B	p	B	p	B	p
<i>Individual characteristics</i>								
Education abroad	2,66	0,00			2,25	0,00	2,08	0,00
Education in the Netherlands	5,07	0,00			4,73	0,00	4,40	0,00
Work experience in the Netherlands	0,16	0,00			0,19	0,00	0,17	0,01
Ethnic group (ref. Turks)								
Moroccans	-1,17	0,10			-1,13	0,12	-1,51	0,05
Surinamese	3,38	0,00			2,43	0,00	1,00	0,00
Antilleans	2,48	0,00			0,99	0,33	0,73	0,01
Age at migration							-0,01	0,91
Good Dutch language skills							2,48	0,00
Health							-0,36	0,34
<i>Partner characteristics</i>								
Education abroad			2,88	0,00	1,42	0,00	1,67	0,00
Education in the Netherlands			3,35	0,00	1,34	0,00	1,66	0,00
Currently unemployed			-0,25	0,71	1,13	0,07	0,85	0,22
<i>Control variables</i>								
Children (ref. children at home)								
No children	1,61	0,06	2,09	0,03	1,36	0,11	0,79	0,39
Children, not at home	-1,02	0,53	1,56	0,39	-1,25	0,44	-1,78	0,30
Survey 2002	0,71	0,22	0,98	0,13	0,46	0,43	0,77	0,23
Constant	16,26	0,00	23,46	0,00	11,84	0,00	13,28	0,00
N	1913		1940		1913		1579	
Adjusted R ²	0,34		0,14		0,35		0,37	

Table 5: OLS Regression of Occupational Status of Married Female Immigrants in the Netherlands, 1998 and 2002 (unstandardized coefficients)

	Model 1		Model 2		Model 3	
	B	p	B	p	B	p
<i>Individual characteristics</i>						
Education abroad	2,94	0,00			2,48	0,00
Education in the Netherlands	5,02	0,00			4,70	0,00
Work experience in the Netherlands	0,07	0,30			0,07	0,24
Ethnic group (ref. Turks)						
Moroccans	-2,37	0,12			-2,22	0,14
Surinamese	4,97	0,00			4,90	0,00
Antilleans	3,14	0,04			3,23	0,00
<i>Partner characteristics</i>						
Education abroad			2,50	0,00	1,63	0,00
Education in the Netherlands			2,97	0,00	0,74	0,03
Currently unemployed			-1,89	0,14	0,39	0,73
<i>Control variables</i>						
Children (ref. children at home)						
No children	4,37	0,00	7,21	0,00	4,45	0,00
Children, not at home	-0,98	0,65	1,10	0,65	-0,82	0,71
Survey 2002	0,72	0,44	-0,71	0,49	0,43	0,64
Constant	14,00	0,00	23,01	0,00	10,056	0,00
N	940		951		940	
Adjusted R ²	0,32		0,13		0,33	

terminants of economic performance (i. e. age at migration, language skills and health). These variables are not available for the female sample.

Considering first the 'individual human capital model' (i. e. Model 1) it appears that higher educated immigrants are more often employed and have higher status jobs. In addition, the results show that the returns to education obtained in the Netherlands are much higher than the returns to education acquired in the country of origin (except for the employment chances of women). Furthermore, I find that prior work experience in the Netherlands increases the odds of presently being employed and the status of the current job (except for women's occupational status). In addition, the results show that Caribbean immigrants (i. e. Surinamese and Antilleans), who speak Dutch well already at the moment of arrival, have a better economic position than the Turks and Moroccans. They are more likely to have a job, and they occupy better jobs. In summary, these results suggest the importance of human capital, particularly host-country specific skills.

What about the role of the partner? To answer this question, we look first at Model 2, which contains only characteristics of the partner. The results show that migrants married to a higher educated spouse are more likely to be employed and have higher status jobs. This finding yields for both males and females, for both employment and occupational status, and effect sizes are substantial. Furthermore, there is a clear positive effect of current employment of the partner on own employment. These findings are at odds with the household specialization theory, and in line with social capital theory.

An important issue, however, is that looking at partner characteristics only, as Model 2 does, ignores selectivity into marriage. A positive effect of the spouse's education could reflect educational homogamy, and the importance of people's own educa-

tion. For that reason, we need to examine both individual and partner characteristics at the same time, which is done in Model 3. Do the positive effects of partner's resources persist when we control for individual characteristics? Generally, this is indeed the case, although the impact of the partner becomes less pronounced. This means that part of the positive effect of the partner's education results from educational homogeneity: higher educated people are more likely to marry each other. However, all models clearly show a significant effect of partner's education, even after taking into account people's own education. These are real 'partner effects' and cannot be attributed to educational homogeneity. The positive partner effects confirm the social capital theory and are not in line with the household specialization theory.

Another test of both theories is to compare the effect of origin vis-à-vis destination human capital. I do not find a clear pattern here. The analysis of employment and female's occupational status suggest that the positive effect of partner's education obtained in the Netherlands is higher than his or her education obtained in the country of origin. These results support social capital theory, and are clearly opposite to what is expected from household specialization theory. The differences are not large, however, and with regard to the occupational status of males I find the opposite pattern (i. e. the wife's education acquired in the Netherlands is *less* important).

What about the role of partner's current employment, when we control for individual skills? In line with social capital theory and against household specialization theory, I find that those married to a partner who is employed still have a higher odds of being employed -even when individual skills are controlled. There is no such positive partner effect on occupational status, however. Thus, the employment of the partner increases the chances of finding work, but conditional on having a job, does not further enhance the occupational career.

Several additional important observations can be made. First, it appears that individual characteristics are more important than partner characteristics, although this is perhaps not surprisingly. Thus, being married to either a low or high educated partner has a lower impact on employment and occupational status than immigrants own (low or high) education. Controlling for spouse's resources leave conclusions based on the traditional human capital approach almost unchanged. That is to say, the results of Model 1 (including only individual characteristics) are similar to that of Model 3 (which adds partner effects). Only a small part of the positive effect of one's own resources is due to partner effects: higher educated and more productive immigrants are married to higher educated and more productive spouses, which positively affects their occupational career.

It could be the case, however, that these findings *underestimate* the total impact of the partner. One possibility is that characteristics of the partner affect one's own economic performance *indirectly*, by influencing post-migration investments in education. To examine this issue, I computed the bivariate Pearson correlation between partners' investments in education after migration and one's own post-migration investment in education. Looking at the entire sample, I find a significantly *positive* correlation of 0,38; when focussing only on those couples who were married before migration (thereby overcoming problems of marital selectivity), the correlation is somewhat

lower, 0,23, but still significantly positive.³ Thus, rather than adopting a family investment strategy in which only one of the spouses invests in education and the other spouse finances such investments, (which would imply a negative correlation between individual and partners host-country schooling) these results are in line with social capital theory. Being married to a partner who invests in education after migration is positively associated with making such investments as well. These results suggest that the spouse not only informs about job openings, but also assists in the transition to school in the Netherlands, presumably because such investments play a pivotal role in the occupational career.

One could object to the present analysis that the presumed partner effects are *overestimated*. More specifically, one could argue that important individual determinants of immigrants' economic incorporation are not included, thereby overestimating the effects of the partner. As a way to assess the sensitivity of omitting such "unobserved" variables, we need to compare Model 3 with Model 4, in which three well-known determinants of immigrant incorporation are included: age at migration, language skills and health (*Table 2 and 4*).⁴ Although I can only examine this issue for the male sample, this additional analysis finds no evidence for the idea that partner effects become different or even disappear once additional individual factors are included. The results show that the positive effect of immigrants' *own* education diminishes, but, more importantly, the positive effects of *partner's* education remains. This means that above and beyond people's own education, work experience, ethnicity, age at migration, language skills and health marriage to a higher skilled partner has an independent positive effect on the occupational career.

VI. Conclusion and Discussion

In this article, I examined the role of the partner in the economic performance of immigrants in the Netherlands. Several studies in the economics literature have recently examined Long's (1980) idea of household specialization among immigrant couples (Baker/Benjamin 1997; Cobb-Clark 2004; Duleep 1998; Duleep/Dowhan 2002). I tried to contribute to this literature in two ways. First, rather than assessing this so-called 'family investment hypothesis' or 'household specialization theory' indirectly (i. e. in terms of years of residence of the partner or in terms of gender differences), I come up with more direct tests by looking at the impact of partners' skills. By looking at the skills of the partner directly, I follow the literature in family and stratification sociology (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobic 2001). In addition, I look more specifically at the role of skills acquired before and after migration, which provides a more refined way of testing the household specialization theory. Second, while subsequent research to Long (1980) has strongly relied on the household specialization theory (Baker/Benjamin 1997; Cobb-Clark 2004; Duleep

3 Controlling for own and partners education obtained in the country of origin, the partial correlation in the entire sample is 0,41.

4 I do not include length of stay, as it correlates too highly with immigrants' own labour force experience in the Netherlands and other time-varying factors in the model (e. g. age at migration).

1998; Duleep/Dowhan 2002), I argued that social capital theory provides opposite hypotheses on partner effects. This alternative social capital theory on partner effects has been well developed in family and stratification sociology (Bernardi 1999; Bernasco 1994; Bernasco et al. 1998; Blossfeld/Drobnic 2001), and I introduced this theory in the field of migration.

Hypotheses were tested with a survey specifically designed to study four ethnic minority groups in the Netherlands (i. e. Turks, Moroccans, Surinamese and Dutch Antilleans). The data are unique in the sense that they contain direct measures of pre-migration and post-migration human capital. Using multivariate logistic and linear regression analyses to examine employment (versus being unemployed or inactive) and occupational status, the results do not support the theory of household specialization, while they are mostly in line with social capital theory.

Contrary to a household specialization strategy, I do *not* find that current employment of the partner decreases the odds of employment and the status of the job. Nor do the results show that being married to a higher educated partner, and particularly to a partner educated in the Netherlands, leads to unemployment and lower quality jobs. In addition, it appears that partners' post-migration investment in schooling does *not* negatively correlate with individuals investments in schooling. In summary, the empirical findings presented here are not in line with predictions derived from the theory on household specialization, thereby questioning the idea that one partner accumulates his or her labour market skills, whereas the other acquires domestic skills.

On the contrary, labour market resources of the spouse seem to be beneficial for the occupational career. There is ample evidence to suggest that, for both men and women, a higher educated partner leads to a higher chance of employment and, if one is employed, to a job with a higher status. Furthermore, I find that current employment of the partner is associated with a higher odds of being currently employed as well. Thus, the results of this study do not refute predictions derived from social capital theory. Importantly, the positive partner effects remain even when people's own skills are taken into account.

It is highly unlikely that marital selectivity can explain these positive partner effects, as the event of marriage took place long before the outcome studied here: current employment in the Netherlands. Many immigrants married before migration to the Netherlands, thus not being able to select their spouse in terms of current labour market participation in the Netherlands. In addition, controlling for other individual skills besides education that might have affected the marital choice (e. g. work experience, language proficiency, health) do not change the conclusions either. Thus, over and above processes of marital selection and educational homogamy, this study is unable to falsify the idea that labour market inequalities among couples cumulate because a resourceful partner positively affects the occupational career. It should be remarked that the "positive" partner effects I find, are in line with earlier studies in the Netherlands, which were based on cross-sectional and panel data from different countries (Bernasco 1994; Bernasco et al. 1998).

Contrary to social capital theory, however, my results do not suggest that spouse's education obtained in the Netherlands is *more* important for the occupational career than spouse's education acquired in the country of origin. A possibility that needs to

be further examined is that such post-migration investments in education of the partner affect the occupational career indirectly, by helping to make such investments as well. Indeed, I find a clear positive association between partner's host-country schooling and individual's post-migration investments in education, even among those married before migration. More research on such positive partner effects on human capital investments is to be encouraged.

There are several mechanisms suggested by social capital theory for the positive effect of partner's education on labour market outcomes, net of people's own education. The partner may provide directly information on a specific job that is available, he or she can inform about where to look for jobs in general, but also how to present oneself to employers, and how to behave on the job (Aguilera/Massey 2003; Bernardi 1999). In addition, the partner can influence the job-matching process by providing entry into desirable occupations (Lin 1999; Mouw 2003), and the partner can transmit his occupational skills, competences and experiences (Bernardi 1999). Further research is encouraged to find out in detail what explains the positive partner effects.

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