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Language Proficiency and Usage Among Immigrants in the Netherlands: Incentives or Opportunities?

Frank van Tubergen and Matthijs Kalmijn

This article examines the determinants of immigrants' language proficiency and language use, two dimensions of language which have so far remained rather separate in the literature. The underlying question is whether similar or different patterns underlie these two aspects of language. The data are from large-scale, repeated cross-sectional surveys specifically designed to study Turkish and Moroccan immigrants in the Netherlands. We focus on Dutch speaking skills and Dutch language use with the partner. The results show that although speaking ability and language use with the partner generally go hand-in-hand, the correlation is modest. Language proficiency and language use are equally affected by migration motive, settlement intentions and ethnic concentration in the neighbourhood. Dutch language use with the partner is strongly and directly affected by the Dutch language skills of the partner. Age at migration and education are more important for language proficiency than for language usage.

Introduction

Why do some immigrants speak the host-country language fluently, whereas others experience more difficulties with the language? And why are some immigrants using the 'second language' more frequently than others? These are two major questions in research on language of the foreign-born population (Espinosa and Massey, 1997; Bean and Stevens, 2003; Portes and Rumbaut, 2006). Research on language proficiency is considered to be important because of its connection to the economic performance of immigrants. Immigrants who are more proficient in the second language are more often employed and they have higher status jobs and higher earnings (Dustmann, 1994; Chiswick and Miller, 2002; Shields and Price, 2002). The use of the second language,

in contrast, is studied because it informs us about ethnic identity and acculturation (Gordon, 1964; Alba *et al.*, 2002; Portes and Rumbaut, 2006). Immigrants who mainly rely on their mother tongue more strongly identify with the culture of their country of origin and are more willing to transmit their ethnic heritage to their children.

As language proficiency is considered to be directly related to economic success whereas language use is more connected to cultural adaptation, researchers have examined these two processes separately. Thus, many studies have examined the determinants of immigrants' language skills (e.g. Espenshade and Fu, 1997; Stevens, 1999; Esser, 2006; Chiswick and Miller 2007), and other studies have focused exclusively on the causes of language use (e.g. Stevens, 1992; Alba *et al.*, 2002).¹ By doing so, little is known if the

patterns that underlie the two outcomes are really different or that similar forces are at work.

Theoretically, the situation is unclear. Some researchers have suggested mechanisms that operate exclusively for language proficiency. More specifically, it is argued that language proficiency is a form of human capital and that *economic incentives* determine the investments immigrants make in learning the second language (Dustmann, 1994; Carliner, 2000; Chiswick and Miller, 2007). Economic considerations are thought to play a weaker role in language usage. Researchers have also argued that some mechanisms affect both language proficiency and language use. Most prominently, it is argued that *opportunities* for using the second language in the direct environment lead to more frequent use of that language (Stevens, 1992). In addition, opportunities improve language skills via greater exposure to the language (Chiswick and Miller, 1996).

In this article, we contribute to the literature on immigrants' language use and proficiency by studying both outcomes simultaneously. We theorize about and examine empirically whether there are any *differential effects* of economic incentives and opportunities on language proficiency and language use. Are opportunities, for example, more related to language use than to language proficiency? And are incentives more related to language skills? Furthermore, to what extent are the effects of opportunities and incentives on language usage and proficiency direct or indirect? In other words, does the influence of economic incentives on second language ability work through the day-to-day use of the second language or are these also independent of day-to-day language use? Similarly, does the role of opportunity in day-to-day language use work to some extent through higher levels of ability, or is the impact of opportunity on language use also independent of ability?

To address these questions, survey data are needed that contain questions on both immigrants' language use and proficiency. Surveys that have both aspects of language are rare, however, and that is probably the reason why few researchers have examined different aspects of language jointly. For example, the U.S. Census of Population is an often used data source for the analysis of language proficiency (Stevens, 1999), but it contains no questions on the frequency of minority language use.²

In this article, we use national survey data among two large ethnic groups in the Netherlands (i.e. Turks and Moroccans), who arrived in the country with no knowledge of the Dutch language. These data are well designed for our purposes, as they contain detailed

questions on both language use and language proficiency. Furthermore, the data were collected by bilingual interviewers, which reduces problems of sample selectivity and measurement error. By focusing on the Netherlands, we also contribute to the existing literature on immigrants' language use and proficiency, which has been mainly concentrated on classic immigrant countries (e.g. Australia, Canada, United States). Much less is known about the language of immigrants in the Netherlands and other (new) immigration countries in Europe.

Incentives, Opportunities or Both?

In this section, we formulate hypotheses on language proficiency and language usage. Figure 1 displays the presumed causal model of the impact of incentives and opportunities on language use and language proficiency. Part of the model is obtained from notions in the literature, but we extend earlier insights as well.

Most studies in the field of immigrants' language are concerned with *proficiency*, and with *speaking* skills in particular (Dustmann, 1994; Esser, 2006; Chiswick and Miller, 2007). In this article, we follow earlier studies and examine abilities to speak the Dutch language. A major explanation of immigrants' language skills relies on the well-known human capital theory (Becker, 1964). The economist Chiswick (1978) was the first to introduce this theory in research on language skills, and the approach has been extended later on (Dustmann, 1994, 1997; Carliner, 2000). If immigrants would act rationally, Chiswick assumed, then they would invest in the second language to the degree that such investments are attractive economically (Chiswick, 1991). The economic incentives are based on weighing the expected economic costs of investments in language and the economic benefits from acquiring that language. Like education, it is argued that language skills are a form of human capital and thereby determine immigrants' economic outcomes. At the same time, however, investments in language learning are costly: immigrants usually have to pay for following a language course or for obtaining additional schooling and they usually can work fewer hours than if they would not have invested in language learning. An important determinant of the costs is the efficiency with which immigrants acquire a new language: some people learn a new language more easily than others. When immigrants are very efficient in learning the second language, the costs of investments are lower (Esser, 2006; Chiswick and Miller, 2007).

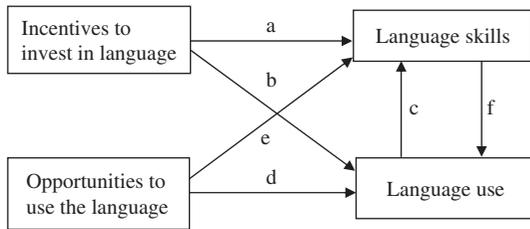


Figure 1 Causal model of the impact of economic incentives and opportunities on language proficiency and language use

Drawing on these insights, one would expect a *direct* positive effect of economic incentives on language skills (arrow ‘a’, Figure 1). Thus, the higher the economic incentives to investment in language are, the better their skills in the second language will be. The mechanism that underlies the relationship between economic incentives and language skills (arrow ‘a’) is, what we call, *learning-by-training*. This means that people deliberately invest in their own language skills, for example, by following language courses, learning the language themselves with coursebooks, videos and cds, reading newspapers and magazines in Dutch, and by watching Dutch television.

However, we argue that there may also be an *indirect* effect of economic incentives on language skills, via language use in the home setting, i.e. with the partner (i.e. arrows ‘b’ and ‘c’). The assumption is that immigrants can also learn a language by practising that language with their partner. We call this mechanism *learning-by-doing*, and it underlies relationship ‘c’ in Figure 1. This means that when immigrants expect more economic returns to speaking the second language, they will deliberately use the second language more often at home. Thus, we expect that economic incentives have a direct effect on language usage at home as well (arrow ‘b’) and in this way, have an indirect effect on language skills (arrows ‘b’ and ‘c’).

Although fewer studies have been done on immigrants’ language use, there seems to be consensus among researchers that opportunities for using the mother tongue play an important role (Stevens, 1992). Using Blau’s structural opportunity theory (Blau, 1977), Stevens (1992) argued that structural properties of groups play a prominent role in the language with which people communicate. Most prominently, it is argued that in larger and more concentrated groups, immigrants meet co-ethnics more often in the street, in shops and at work, enabling them to use their mother tongue.

Unlike previous studies, however, we do not examine language use in ‘general’. Instead we examine language use with a specific person, i.e. the partner. We focus on language use in a specific context, because opportunities to speak the minority language vis-à-vis the majority language differ by social setting: one could speak a minority language with the partner and communicate in the majority language with the children or colleagues (Fishman, 1965). Hence, it is important to focus on language use in a specific setting.

It is to be expected that when the partner has better command of the second language, there are more opportunities to speak the second language with the partner. Thus, underlying arrow ‘d’ is the idea that immigrants can only use the second language when other people in their environment are proficient in that language, i.e. using the second language requires that other people are skilled in that language. In the present context, one would therefore expect a direct effect of opportunities related to the language skills of the *partner* on language use with the *partner* (arrow ‘d’).

Naturally, there are other opportunities besides those provided by the partner to communicate in the own language or in the second language, such as with other family members, neighbours, colleagues, and friends. Such opportunities are expected to affect the language usage with the partner indirectly. Immigrants who have more opportunities to hear and speak the minority language outside the home setting, will be less often exposed to the host-country language, leading to limited proficiency in the second language (arrow ‘e’). This, in turn, could affect language use with the partner. The mechanism underlying arrow ‘f’ is that immigrants who have more command of the second language will also use that language more often with their partner.

In sum, according to the theoretical model we propose, economic incentives should positively affect both language skills and language use with the partner. Likewise, opportunities should be positively related to ability and use as well. We expect, however, that the direct impact of economic incentives is stronger on language proficiency than on language use. Opportunities for language use with others besides the partner should mainly affect language proficiency, and affect language use with the partner only indirectly, via increased ability. Opportunities related to the partner are expected to mainly affect language use with the partner, and to affect language proficiency only indirectly.

Hypotheses on Investments

We start with formulating hypotheses on the role of economic incentives, derived from the human

capital theory. Economic incentives could be related to migration motives (Chiswick and Miller, 2007). Migrants who came to the Netherlands for study reasons presumably benefit the most of speaking and using the Dutch language, as Dutch is the language of instruction in virtually all educational programs. Language skills are somewhat less required for the labour market, in which lower quality jobs can be done with limited knowledge of the Dutch language. Indeed, the so-called 'guest worker' program in the 1960s was initiated to attract low-skilled Turkish and Moroccan men who had little or no command of the Dutch language. Finally, some immigrants migrate for family reasons, like marriage or family reunion, and we expect that these migrants have the least incentives to learn and speak Dutch. Taken together, our hypothesis is that people who migrated for study purposes have the best Dutch language skills, followed by labour migrants, whereas those migrating for family reasons have the poorest Dutch language skills. We predict the same order for language use (H1).

Incentives to invest in the second language are also related to the intentions to stay in the host country (Dustmann, 1994; Espenshade and Fu, 1997; Esser, 2006). Immigrants who plan to return to the country of their origin, particularly in the nearby future, will have fewer incentives to invest in learning the Dutch language. By contrast, those who intend to stay permanently in the Netherlands have more to gain economically from language learning. We therefore expect that the more strong immigrants intend to stay in the Netherlands, the better they speak the Dutch language and the more often they speak Dutch (H2).

Hypotheses on Opportunities

Which factors determine the opportunities to speak the minority language vis-à-vis the Dutch language with the partner? We first look at the impact of the spouse, whose language proficiency in the Dutch language has a direct effect on opportunities to communicate in Dutch. Ideally, we would want to incorporate the language skills of the partner in the model, but we have no direct measures on this. Instead, we look at characteristics of the partner that are associated with language proficiency. From that perspective, an important issue is the ethnic background of the partner. Being married to a co-ethnic spouse provides the opportunity to speak and hear the mother tongue on a daily basis. At the same time, people in endogamous marriages are less often exposed to the Dutch language because of the ethnic network of the spouse and the use of ethnic media at home.

In ethnically endogamous couples, one would expect less frequent use of the Dutch language than in exogamous couples. Although marriages with a Dutch are partly selective in the sense that those with better command of the Dutch are more likely to marry a Dutch spouse, one would expect that such intermarriages lead to more exposure to Dutch as well. In summary, our hypothesis is that immigrants married to a co-ethnic spouse speak Dutch less often with their partner than immigrants married outside the group. We expect the same order for language proficiency (H3). Similar arguments can be formulated for the generational status of the spouse. Persons married to a second generation spouse will use the Dutch language more often and will be more proficient in Dutch than persons married to a first generation spouse.

The education of the partner can affect the opportunities for language use as well. A higher educated partner generally has a better proficiency in the Dutch language than a lower educated partner. Moreover, a higher educated partner has more incentives to use and practice the language. This would result in more frequent exposure to the Dutch language. Our hypothesis is that the higher the education of the partner, the more often a person uses the Dutch language and the better the Dutch language skills (H4).

The presence of children may also determine the opportunities of language use with the partner, although indirectly (via language proficiency). It is well documented in the literature that the children of immigrants generally speak the host-country language better than their parents (Portes and Rumbaut, 2006). The children of immigrants are mostly raised in the receiving nation, they learn the language at school, and they speak the official language more often with their peers than their parents do. As a consequence, the presence of children at home presumably leads to stronger exposure to the Dutch language. By speaking Dutch with their children immigrants will learn that language themselves. Thus, it is argued that having children increases the proficiency in Dutch, and thereby also promotes Dutch language use with the partner (H5).

Hypotheses on Opportunities and Investments

There are situations in which both economic incentives and opportunities are at work. The first factor that fits into this situation is age at migration. People who arrive at a younger age are generally more sensitive to acquiring a new language (Stevens, 1999). For older

immigrants, language investments may take too long, and the costs of these investments are not outweighed by the positive returns to knowing the second language. Age at migration is also related to opportunities. Younger immigrants participate less often in ethnic-based organizations and more frequently in native settings, such as school (Stevens, 1999). This means that those who arrived at a younger age also use the Dutch language more frequently outside the home setting, and by practising that language they also improve their language skills. Because of their better language skills, they could communicate more often in Dutch with their partner. Our hypothesis is that immigrants who arrived at a younger age in the Netherlands speak the Dutch language better and (via better language skills) use it more frequently with their partner (H6).

The role of education is related to incentives and, indirectly, to opportunities as well. Higher educated immigrants have more economic incentives of investing in language learning (Chiswick and Miller, 2002; Esser, 2006). Higher educated immigrants are more efficient in learning a new language than lower educated immigrants. Furthermore, the opportunity costs of investments (i.e. foregone earnings while learning) do not outweigh the difficulties higher educated immigrants face when participating in the labour market without speaking the language well. Lower educated immigrants more easily find jobs with no or few Dutch language requirements, leading to fewer language investments. Education could also affect language use. Higher educated immigrants generally have more contacts with natives, they are more frequently a member of Dutch organizations, and they less often live in ethnically concentrated areas. This leads to fewer opportunities of using the minority language outside the home setting and a better understanding of Dutch. Thus, considering the effects of incentives and opportunities, one would expect that higher educated immigrants have better Dutch language skills and, furthermore, that (via better language skills) they use that language more often with their partner than lower educated immigrants (H7).

The spatial concentration of ethnic minorities affects both opportunities and incentives. The size of the ethnic group in a region is related to the opportunities to hear, speak, and study the second language (Stevens, 1992; Chiswick and Miller, 1996). The presence of co-ethnics in the neighbourhood affects the opportunities to communicate in their own ethnic language with neighbours, colleagues, and friends. It is also related to the availability of minority media and to inter-ethnic relations (Stevens and Swicegood, 1987; Chiswick and

Miller, 1996). In more concentrated areas, immigrants use the Dutch language less frequently outside the home situation, thereby lowering their language skills and (indirectly) reducing Dutch language use with their partner. Group size is also related to investments. Economic incentives are particularly low for immigrants who live and work in ethnic communities, in which they can rely on their first language (Portes and Bach, 1985; Stevens, 1992; Bauer *et al.*, 2005). For both reasons, we expect that ethnic-group size hampers both Dutch language proficiency and (via poorer language skills) reduces language use with the partner (H8).

Data and Methods

The data are from the survey ‘Socio-Economic Position and Welfare Use of Immigrants and Natives’ (SPVA), which was specifically designed to study immigrant populations in the Netherlands. The survey was first conducted in 1988 and repeated in 1991, 1994, 1998, and 2002. We use the last four surveys, since these contain the most detailed questions about language. The SPVA is a large-scale, cross-sectional survey of a native sample and four minority groups in the Netherlands: Turks, Moroccans, Surinamese, and Antilleans. Because Surinam and the Dutch Antilles are former colonies of the Netherlands, Surinamese and Antillean migrants speak the Dutch language (almost) perfectly upon arrival. For that reason, we excluded them from our analysis.³

People in cities were over-represented in the sample frame since most members of ethnic minorities live in cities. The sample frame consists of 10–13 ‘municipalities’ (depending on the survey year).⁴ About 50 per cent of the four immigrant groups in the Netherlands live in these 13 municipalities. The municipalities have a higher proportion of immigrants than the Netherlands as a whole, which may bias descriptive figures on language skills. To provide sufficiently large numbers for detailed analyses, the minority groups have been over-sampled. Data were collected by means of personal interviews. Interviewers were fluent in the minority language and survey instruments were translated. The overall non-response rate for the minority groups was about 40 per cent. The non-response rate is rather high compared to other countries, but common for survey research in the Netherlands. It should be further remarked that the SPVA contains a small panel (about 10 per cent of the sample), and that we only used respondents when they were interviewed for the first time. In the Netherlands, the SPVA is among the most authoritative sources of information for policy

debates and policy development on immigrants and integration. Researchers have used the SPVA survey to study a variety of aspects of immigrant integration, such as ethnic inter-marriage (Kalmijn and Van Tubergen, 2006) and ethnic differences in schooling (Van Ours and Veenman, 2003).

The SPVA has some limitations for our study. One limitation is that heads of the households were the primary respondents. Partners were interviewed as well, but with a shorter questionnaire. As in the Turkish and Moroccan groups, women are rarely heads of households, we excluded Turkish and Moroccan women who were primary respondents. Another limitation of the SPVA data is that they refer to language proficiency at the moment of the survey. Although the use of cross-sectional data is standard practice in research on second-language proficiency (Esser, 2006; Chiswick and Miller, 2007), it means that we cannot examine the dynamics of language acquisition, thereby neglecting reverse causality and possibly overestimating the impact of some determinants like settlement intentions and group size. Note that estimates of other determinants, such as age at migration, are probably not biased in cross-sectional data.

From the samples, we selected men who were living with a partner at the time of the survey. The main reason for doing so is that language use is based on what the respondent speaks with the partner. Of Turkish men, about 82–90 per cent are living with a partner (mostly married), depending on the survey year. For Moroccan men, 77–78 per cent are living with a partner (mostly married). All ages were included in the survey and the analysis. The sample ages range from 17–82 years.

Dependent Variables

We examine *language proficiency* by looking at the difficulties immigrants experience with speaking Dutch. Answering categories are: (i) often/always, (ii) sometimes, and (iii) never. With respect to *language use*, we look at the frequency with which immigrants speak Dutch with their partner. Responses are: (i) never, (ii) sometimes, and (iii) often/always. The assessment of language proficiency and language use is based on self-evaluations of the respondents.⁵

Method

Since the language categories are ordered and the distances between them may not be equal, we use ordered logit regression techniques to analyse the

determinants of language use and proficiency (Table 4). This analysis informs us about the total (or ‘gross’) effect of the independent variables on both language outcomes.

To analyse direct effects on language usage (i.e. given language proficiency) and direct effects on language proficiency (i.e. given language usage), several approaches were considered. One approach is to include usage in the model for proficiency and to include proficiency in the model for usage. A drawback of this approach is that there is mutual causality between usage and proficiency. As a result, the errors of each equation will be correlated with the dependent variable. One can estimate the mutual causal effects using instrumental variables, but that requires good instruments (i.e. variables affecting only one of the outcomes). Our data do not provide good instruments since virtually all possible instrumental variables could in principle affect both outcomes. Panel data would offer a good way to analyze the two influences, but our data are cross-sectional.

We therefore chose a simpler but effective way to estimate direct (or ‘net’) effects. More specifically, we present an additional multinomial logit model in which combinations of language use and proficiency form the dependent variable (Table 5). We distinguish ‘low ability’ (i.e. sometimes or often difficulties with speaking Dutch) from ‘high ability’ (i.e. never difficulties with speaking Dutch). Similarly, we contrast ‘low usage’ (i.e. never uses Dutch with partner) with ‘high usage’ (i.e. sometimes or often/always uses Dutch with partner). This resulted in the following language combinations:

1. low ability, low usage (50 per cent);
2. high ability, low usage (11 per cent);
3. low ability, high usage (26 per cent);
4. high ability, high usage (13 per cent).

Groups (2) and (3) are essential for our theoretical model, as they inform us whether determinants have differential direct effects on ability and usage (i.e. keeping, respectively, usage and ability constant). To test this difference, we compare effects on (2) versus (1) to the effects on (3) versus (1). These tests are presented in the last column in Table 5.

Independent Variables

The variables are measured as follows. *Age at migration* is measured in years. *Migration motive* is based on the reasons respondents gave for coming to the Netherlands. We distinguish immigrants who came to the Netherlands for work reasons, family reasons,

Table 1 Means and standard deviations of independent variables

	M	S.D.	Range	n
Year of survey	1996	4.0	1991–2002	4,377
Country of origin				4,377
Turkish	0.54		0/1	
Morrocan	0.46		0/1	
Age at migration	23.24	7.55	5–61	4,275
Years of schooling	5.48	4.54	0–16	4,286
Migration motive				4,377
Family	0.29		0/1	
Work	0.54		0/1	
Study	0.03		0/1	
Other	0.15		0/1	
States willingness to return	1.84	0.87	1–3	4,356
Duration of stay	17.41	8.94	0–54	4,271
Partner's years of schooling	4.06	4.16	0–16	4,122
Country of origin partner				4,377
Co-ethnic	0.93		0/1	
Partner is Dutch	0.06		0/1	
Partner is of other origin	0.01		0/1	
Partner is of second generation	0.02		0/1	4,377
Children living at home	0.91		0/1	4,377
Percentage non-western in zipcode	0.36	0.20	0.01–.83	4,377

Source: SPVA 1991, 1994, 1998, and 2002 (panel members appear once).

educational purposes, or other reasons. The variable *settlement intentions* is based on a direct question, namely whether immigrants intend to return to their country of origin. This is coded as (1) no, (2) and maybe, and (3) yes. We treat this as an interval variable rather than two separate categories because we want to simplify our comparisons in the multinomial model.⁶ *Schooling* of the respondent is a categorical variable with four categories (less than elementary, elementary, secondary, and tertiary education). The variable was recoded to the approximate number of years that are required for that level (De Graaf and Ganzeboom, 1993). We tested whether the model containing dummy variables for education is an improvement of the model with a continuous measure. Results show that the continuous approach fits the data better.⁷

Partner's ethnicity is based on the country of birth of the partner. We distinguish between native-born partners (i.e. Dutch partner or second-generation partner), co-ethnic partners (i.e. first-generation partner), and partners of another origin. *Partner second generation* is a dummy variable indicating whether the partner is a second-generation immigrant. This variable reflects the difference between second-generation partners and native-born, Dutch partners. *Partner's schooling* measures the schooling of the partner and is also included as a continuous variable.⁸

Children living at home is included as a dummy variable representing the presence of one or more children at home. We also include *group size*, which is the percentage of non-western immigrants per four-digit postcode area in 1995 (CBS, 2001). A four-digit postcode area roughly concurs with a neighbourhood within a city. For instance, the city of Amsterdam has more than 700,000 inhabitants and about 70 four-digit postcode areas.

We include several control variables. *Survey*: dummy variables for survey year to control for survey effects. *Ethnicity*: we include a dummy variable representing the difference between Turks and Moroccans. *Length of stay*: measured in years, and including a quadratic specification. Table 1 presents an overview of the independent variables.

Some variables have missing cases as shown in Table 1. The number of missings is reasonable, however. The maximum number of missings is 5.8 per cent for the partner's education and the numbers of missings for the other variables are considerably lower. To deal with the missing cases, we used the multiple imputation procedure originally developed by Rubin (1987) and recently applied in the program STATA (Royston, 2004). In this iterative procedure, all independent variables are used to impute the missing values of all other independent variables.

Table 2 Ability and usage of Dutch by Turkish and Moroccan men (%)

	Moroccan	Turkish
Ability to speak Dutch		
Often difficulties	30	39
Sometimes difficulties	43	40
Never difficulties	27	21
N	(1,965)	(2,304)
Speaking Dutch with partner		
Never	62	61
Sometimes	28	30
Always/often	10	9
N	(1,947)	(2,301)

Source: SPVA 1991, 1994, 1998, and 2002 (panel members appear once).

Results

Tables 2 and 3 provide descriptive results on language usage and skills. Table 4 presents the findings of the ordered logit regression of language proficiency and language use. Table 5 gives the results of the multinomial logit model, in which we examine combinations of language outcomes.

Descriptive results

Table 2 provides an overview of language proficiency and usage per ethnic group. It is shown that many Turks and Moroccans have difficulties speaking the Dutch language. More specifically, 39 per cent of the Turks and 30 per cent of the Moroccans often experience difficulties with speaking Dutch. We also see that a sizeable minority of both groups use Dutch when speaking to the partner. About 30 per cent 'sometimes' speaks Dutch with the partner and another 10 per cent 'often' speaks Dutch. We note that the percentages who are married to a Dutch partner are lower (Kalmijn and Van Tubergen, 2006). Hence, speaking Dutch is not simply a product of having a Dutch partner, although this plays a role too, as we will see.

To assess the relationship between language proficiency and usage more closely, Table 3 provides a cross-classification. It shows that although there is a tendency of people who have less difficulties with Dutch to use that language more frequently, there are also clear deviations from this pattern. We find that the bivariate correlation between speaking skills and language use with the partner is $r=0.28$, a moderate

Table 3 Cross-classification of language proficiency and language usage (N)

Dutch language use with partner	Difficulties with speaking Dutch			Total
	Often	Sometimes	Never	
Never	1,127	1,010	458	2,595
Sometimes	291	578	375	1,244
Often/always	51	158	180	389
Total	1,469	1,746	1,013	4,228

relationship. This means that although Dutch speaking skills and usage of Dutch with the partner generally go hand-in-hand, the phenomena are clearly not the same. Table 3 shows, for example, that of the 1,013 respondents who never have difficulties with speaking the Dutch language, 458 (45 per cent) never use that language with the partner. Similarly, of the 1,469 respondents who often have difficulties in speaking the Dutch language, 342 (23 per cent) use the Dutch language at least sometimes with their partner. We also see that among those who often speak Dutch, large groups still have (at least sometimes) difficulties in doing so (54 per cent). In sum, there is quite a bit of 'poor' usage and there is quite a bit of what we could call 'underusage'.

Incentives

According to the first hypothesis, immigrants who migrated for educational purposes would have the best Dutch language skills, followed by labour migrants, and those who migrated for family reasons (H1). We expected the same order for language use. Table 4 shows that Turkish and Moroccan migrants who came to the Netherlands to pursue their educational career indeed speak better Dutch than family migrants, and they also use Dutch more frequently with their partner. Unexpectedly, however, labour migrants speak Dutch *less* well than family migrants. Moreover, there is no statistical difference in language use between labour migrants and family migrants. All in all, our hypotheses about migration reasons are only partly corroborated by the analyses. The multinomial regression models do not provide additional evidence.

We find stronger evidence for the role of return intentions, which were expected to be negatively related to Dutch language proficiency and usage (H2). The results in Table 4 show that people who want to return to their country of origin speak the

Table 4 Ordered logit regression of ability and usage of Dutch among Turkish and Moroccan men in the Netherlands

	Ability to speak Dutch		Speaking Dutch with partner	
	<i>B</i>	<i>P</i>	<i>B</i>	<i>P</i>
Year 1994 (versus 1991)	0.201	0.03*	0.441	0.00*
Year 1998 (versus 1991)	0.146	0.07	0.439	0.00*
Year 2002 (versus 1991)	0.384	0.00*	1.025	0.00*
Country of origin (reference: Morocco)				
Turkey	-1.038	0.00*	-0.297	0.00*
Age at migration	-0.100	0.00*	-0.036	0.00*
Years of schooling	0.105	0.00*	0.045	0.00*
Migration motive (reference: family reasons)				
Work	-0.232	0.01*	-0.039	0.68
Study	0.453	0.02*	0.397	0.05*
Other	0.148	0.14	0.088	0.39
States willingness to return	-0.174	0.00*	-0.205	0.00*
Duration of stay	0.157	0.00*	-0.055	0.00*
Duration of stay squared	-0.003	0.00*	0.001	0.02*
Partner's years of schooling	0.025	0.01*	0.088	0.00*
Country of origin partner (reference: co-ethnic)				
Netherlands	1.056	0.00*	3.812	0.00*
Other origin	0.626	0.02*	1.641	0.00*
Partner second generation (versus Netherlands)	-0.878	0.00*	-2.938	0.00*
Children living at home	-0.104	0.33	-0.040	0.73
Percentage non-western in zipcode area	-0.599	0.00*	-0.523	0.00*
Cutoff point 1	-2.139	0.00*	-0.506	0.05*
Cutoff point 2	0.195	0.40	1.905	0.00*
<i>N</i>	4,377			4,377

Source: SPVA 1991, 1994, 1998, and 2002 (panel members appear once).

* $P < 0.05$.

Dutch language less well and use Dutch less often with their partner. Table 5 shows further that the effect of return intentions on proficiency given usage, and on usage given proficiency are not significantly different from each other. Moreover, we see a significant effect on usage given ability, which suggests that the effect of return intentions does not exclusively work via incentives.

Opportunities

Hypothesis 3 stated that immigrants who are married to a Dutch wife speak better Dutch and use Dutch more often than those married to a co-ethnic. We find strong support for these claims. That there is an effect on usage may not be surprising but we note that there is also a strong (total) effect on proficiency. As expected, Table 5 shows that marriage to a Dutch wife has a stronger impact on language usage given proficiency, than on language proficiency given usage. Likewise, Table 5 shows that marriages with a Dutch

spouse are significantly more likely to be found in the 'high usage-low ability' category, but this is not true for the 'low usage-high ability' group. Hence, there is no *net* effect on proficiency, given usage. These observations underscore the theoretical assumption that the Dutch language skills of the partner affect the opportunities to use the Dutch language with the partner and that the higher levels of proficiency are entirely a product of this.

Interesting to see is that there is also an effect of other mixed marriages. Men who are married to a spouse from another non-Dutch group speak Dutch more often than men who are married within the ethnic group. In other words, the Dutch language functions as a common ground for these non-Dutch mixed marriages. Some of these marriages may also be with Surinamese or Antilleans, in which case Dutch is a logical choice. Finally, we see that respondents have lower levels of proficiency and usage when the partner is from the second generation than when the partner is Dutch. In an extra model, we compared second

Table 5 Multinomial logit regression of ability and usage of Dutch among Turkish and Moroccan men in the Netherlands (selected coefficients)

	High ability and low usage		Low ability and high usage		High ability and high usage		Comparison	
	b1	P	b2	P	b3	P	b1–b2	P
Age at migration	−0.121	0.00*	−0.027	0.00*	−0.141	0.00*	−0.094	0.00
Years of schooling	0.101	0.00*	0.028	0.01*	0.162	0.00*	0.073	0.00
Migration motive (reference: family reasons)								
Work	−0.329	0.04*	−0.072	0.53	−0.382	0.02*	−0.257	0.14
Study	0.244	0.14	0.145	0.27	0.038	0.82	0.099	0.67
States willingness to return	−0.081	0.21	−0.187	0.00*	−0.325	0.00*	0.106	0.13
Duration of stay	0.122	0.00*	−0.070	0.00*	0.089	0.00*	0.192	0.00
Duration of stay squared	−0.002	0.00*	0.001	0.02*	−0.002	0.04*	−0.003	
Partner's years of schooling	0.011	0.52	0.083	0.00*	0.106	0.00*	−0.072	0.00
Country of origin partner (reference: co-ethnic)								
Netherlands	0.914	0.30	3.103	0.00*	4.066	0.00*	−2.189	0.00
Other origin	0.422	0.48	1.085	0.00*	1.770	0.00*	−0.663	0.00
Second generation partner	−0.842	0.41	−2.376	0.00*	−3.083	0.00*	1.534	0.08
Children living at home	−0.155	0.41	−0.124	0.38	−0.004	0.99	−0.031	0.87
Percentage non-western in zipcode area	−0.399	0.14	−0.217	0.28	−1.260	0.00*	−0.182	0.54

Note: Reference is low ability and low usage. Included are controls for year of survey and country of origin (coefficients not presented).

Source: SPVA 1991, 1994, 1998, and 2002 (panel members appear once).

* $P < 0.05$.

generation partners with co-ethnic partners. As expected, this model showed that second language usage is higher when the partner is second generation than when the partner is co-ethnic ($b = 0.88$, $P < 0.01$). There was no significant difference for language proficiency.

Another important finding is that when the partner is higher educated, immigrants speak better Dutch and use it more frequently with their partner. These observations confirm hypothesis 4. The effects in Table 4 seem larger for usage than for proficiency. To test this, we look at the multinomial logit model in Table 5. This table shows that—in line with expectations—partner's education particularly affects the opportunity to speak the Dutch language, rather than affecting language abilities. Thus, immigrant men with a higher educated wife are significantly more likely to speak Dutch often but not well (as compared to those having few Dutch skills and speaking the language rarely), but marriage to a higher educated wife does not lead to speaking the Dutch language well but not often. The difference between these effects is significant, as the last column in Table 5 shows. Again, this illustrates the direct importance of the partner in providing opportunities to speak Dutch, and in doing so, foster ability in Dutch. There is no remaining direct effect of partner's education on ability.

Do children affect the language proficiency and usage of the partners? Hypothesis 5 stated that couples with children would speak Dutch better and, because of that, more frequently with the partner. However, we do not find any significant effect of having children. In a more detailed analysis, not presented here, we examined differential effects of the age of children, but no clear patterns were observed.

Incentives and Opportunities

We also formulated hypotheses on conditions that are related to both investments and opportunities. Hypothesis 6 stated that age at migration has a negative direct effect on language proficiency and an (indirect) negative effect on language usage with the partner (via language skills). The results in Table 4 are in line with this hypothesis. The later the immigrants came to the Netherlands, the less often they use Dutch and the poorer their ability in Dutch. Table 5 shows a strong effect on ability given usage, and a weak (but still significant) effect on usage given ability. The test for comparing these effects is significant, which confirms that the net effect on ability is stronger than the net effect on usage. Hence, age at migration negatively affects language use with the partner mostly *indirectly*, via lowering language learning outside the home setting. A small net effect on ability remains, however.

Table 6 Overview of hypotheses and empirical findings

Theory	Hypothesis	Total effect		Main direct effect	
		Language ability	Language use	Predicted	Observed
Investments					
Migration motive	1	+/0	+/0	Ability	Same
Return intentions	2	+	+	Ability	Same
Opportunities (direct)					
Partner's ethnicity	3	+	+	Use	Use
Partner's education	4	+	+	Use	Use
Opportunities (indirect)					
Children	5	0	0	Ability	No
Investments and opportunities					
Age at migration	6	+	+	Ability	Ability
Education	7	+	+	Ability	Ability
Neighbourhood	8	+	+	Ability	Same

+ hypothesis confirmed; 0 hypothesis not supported; +/- hypothesis partly supported.

According to hypothesis 7, education would have a positive effect on Dutch language proficiency and an (indirect) positive effect on language usage with the partner. Table 4 confirms this. Higher educated immigrants speak better Dutch and they use the Dutch language more often with their partner. The results in Table 4 also suggest that, as expected, education is more strongly associated with an increase in language ability than with language use. To test this, we look at the net effects in Table 5. The results show that higher education is associated with better skills, given usage, and also with more frequent usage, given skills. The test which compares these effects shows that, as predicted, the net effect of education on ability is stronger than the net effect on language use. This suggests that incentives are more important than opportunities in understanding the role of education.

Finally, it was expected that the presence of non-western immigrants in the neighbourhood would negatively affect Dutch speaking skills and usage of Dutch with the partner (hypothesis 8). The hypothesis is confirmed in our study. Table 4 shows that the concentration of non-western immigrants has a significant impact on language ability *and* usage. The more co-ethnic members there are in a neighbourhood, the less often and the less well immigrants speak Dutch. Table 5 reveals that the net effect on language ability is not significantly stronger than the net effect on language use with the partner. We also see that the only meaningful difference from the baseline category ('no ability, no usage') is the top category of people who both speak Dutch well *and* use Dutch frequently. The effect on increasing ability without increasing

usage (and vice versa) is also negative, but it is too small to attain statistical significance.

Conclusion and Discussion

This study examined the determinants of second language use and proficiency of immigrants for one of the new immigration countries in Europe, i.e. the Netherlands. Most research on immigrants' language has been done in the United States and other classic migration countries and much less is known about the linguistic integration of ethnic minorities in Europe. In the international literature, no studies have been published on immigrants' language skills and usage in the Netherlands. Although the Netherlands differs in possibly important ways from the classical immigration countries studied before (e.g. in terms of ethnic groups, integration policy, language exposure before migration), our results are strikingly similar. For instance, in line with previous studies (Esser, 2006; Chiswick and Miller 2007), we find that second language proficiency is higher among immigrants who arrived at a younger age, have been longer in the host-country, are higher educated, intend to settle permanently, live in less ethnically concentrated areas and who are married outside their ethnic group.

Theoretically, we tried to make progress by studying language proficiency and language use simultaneously, two dimensions of language which have so far remained separate in the literature. The underlying question was whether different patterns underlie these dimensions. Table 6 provides a summary of hypotheses and empirical findings. Several conclusions can be drawn.

First, there is a modest positive correlation between language proficiency and usage ($r=0.28$). That this correlation is indeed positive has two reasons. Immigrants are strongly hampered to speak the second language when they do not have at least some understanding of that language and by using the language in day-to-day contexts, people are better able to learn the language. That the correlation is not much stronger is perhaps more surprising. Hence, there are immigrants who speak Dutch well, while still using the minority language with their partner. Likewise, some people with little command of the Dutch language nevertheless communicate in Dutch with their spouse.

In analyzing the determinants, we find that language usage is strongly and directly affected by the *opportunities* of others to speak that language. For example, in our study we find that the second language skills of the partner strongly affect language use, although they affect language proficiency as well. Immigrants married to a native Dutch, a second-generation immigrant, or a higher educated spouse clearly use Dutch more often, and these effects on language usage are significantly stronger than on language proficiency.

By contrast, second language *proficiency* is more strongly affected by economic *incentives*. Knowledge of the second language is an important ingredient for economic success and immigrants deliberately invest in learning the host-country language. Immigrants who arrive at a younger age and who are higher educated are more efficient in language learning (reducing the costs of investments) and have more economic gains to know the language, which leads to higher language investments. In line with this, we find that age at migration and education affect language use with the partner primarily indirectly, via increased language skills.

Another observation of our study is that some determinants that are typically assumed to mainly affect language proficiency equally affect language use. We find a strong positive effect of the intention to stay in the Netherlands on Dutch language skills and a significant negative effect of ethnic concentration on language proficiency. Surprisingly, however, settlement intentions and ethnic concentration equally affect language use with the partner. One reason why the impact of settlement intentions and ethnic concentration on language use with the partner are stronger than expected, is that intentions and ethnic concentration are related to ethnic identification and group pressure. Those who intend to return to their home country not only have fewer economic incentives to invest in the host-country language (leading to fewer language skills), but also at the same time those immigrants

more strongly identify themselves with the ethnic group, possibly leading to more frequent use of the ethnic language with the partner as well. Likewise, immigrants who live in more ethnically concentrated areas not only have fewer economic incentives to learn the host language, they are less affected by the pressure of the host country to use the majority language. Instead, in such ethnic neighbourhoods immigrants are more strongly controlled by their ethnic group, in which usage of the majority language with the partner and in other settings can be conceived as disloyalty to the ethnic community. This interpretation would mean that language use is not only determined by opportunities to speak the language, but also by ethnic identification and normative pressures of 'third parties' to use the ethnic minority language vis-à-vis the majority language. Previous studies have documented the impact of ethnic socialization and social control in inter-ethnic marriages (Kalmijn, 1998) and immigrants' religiosity (Van Tubergen, 2007), and our study suggests that these forces also affect minority language use.

An interesting negative finding of our study is that immigrants who have children at home do not speak Dutch more often with their partner than immigrants without children. Because immigrant children speak Dutch better than their parents, we expected that this would foster the usage of Dutch in the home, and via increased language skills, also encouraging the use of Dutch with the partner. The lack of an effect is striking. It suggests that a potentially important source of integration—having children in the destination country—is not beneficial for Dutch language proficiency and use. One explanation that needs further testing is that children sometimes function as translators for their parents, which may reduce the incentives to learn Dutch (Chiswick *et al.*, 2005).

Overall, our study shows that speaking skills and language usage with the partner go together among foreign-born immigrants in the Netherlands, that ability and usage do have common determinants, but that there are unique determinants and underlying processes for each outcome as well. Future research can elaborate on these analyses. On the one hand, there are other aspects of immigrants' language proficiency that can be studied, such as reading and writing skills. On the other hand, language use with other people, in other contexts can be studied as well. Language use with the partner is obviously very important to study, but there are also other important persons that need to be studied, especially children, friends, and colleagues. The theoretical model outlined in this study can be extended to these settings as well.

Notes

- Note that another line of research has specifically looked at language use and proficiency of the *children* of immigrants (i.e. the so-called second generation), particularly of Spanish-speaking groups in the United States (e.g. Lutz, 2006).
- The US census only asks whether people use only English at home, and if people use another language, what minority languages are used. Hence, it contains little information on the frequency of English language use at home.
- We exclude second-generation immigrants from Turkey and Morocco, for several reasons. Although language problems among these groups prevail at primary school, after completing secondary school virtually all Turks and Moroccans speak Dutch very well (analysis not presented here). In addition, there are few second-generation immigrants in our data set, and we want to compare our results with earlier findings on language proficiency, which were exclusively based on the foreign-born population.
- Municipalities are comparable to cities.
- Although evaluations of the respondents could deviate from interviewer assessments, previous research has found no evidence for that (Van Tubergen and Kalmijn, 2005). Furthermore, earlier studies have found high correlations between such subjective language assessments and more objective test scores (See Carliner, 2000 and Stevens, 1999 for discussion).
- The improvement in fit when treating return intentions as a discrete variable is not significant ($\chi^2 = 3.5$, $P > 0.05$ for ability and $\chi^2 = 2.2$, $P > 0.05$ for usage).
- For ability, the improvement in fit is $\chi^2 = 5.0$ with 2 degrees of freedom ($P > 0.05$). For usage, the improvement in fit is $\chi^2 = 1.4$ ($P > 0.05$).
- A model containing partner's education as a discrete variable does not fit better for ability (change in $\chi^2 = 1.5$, d.f. = 2, $P > 0.05$) and only marginally better for usage (change in $\chi^2 = 6.8$, d.f. = 2, $0.025 < P < 0.05$). To keep the model similar for respondent and partner and for usage and ability, we chose a continuous measure.

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