

# Language Use of Migrant Families in Flanders & Brussels

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## How Does Family Language Reflect Family Acculturation?

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## **Abstract**

We investigate the determinants of language use between migrant parents and their children in Flanders. Coleman's family capital theory serves as the theoretical orientation of the study. Differences in physical, human and social capital are believed to account for differences found between migrant families' use of the heritage and/or destination language (Dutch) at home. Furthermore, we expect that variances in ethnic heritage (e.g. ethnic group and generation) might explain different linguistic repertoires. Last but not least, family structure is believed to serve as a gateway through which different forms of family capital influence the use of heritage language. Data from 1318 migrant adolescents from the Leuven Adolescents' and Families Study is analyzed by means of Multinomial Logistic Regression (dependent variable is 'language-use at home': 1) only Dutch, 2) only heritage language & 3) Dutch & heritage language). Preliminary multinomial logistic regression results point to the importance of human capital, generation, ethnic group and structural variables (first born and number of siblings).

## 1 Introduction

In this study, we investigate factors associated with patterns of language use at home among migrant families in the Belgian regions of Flanders and Brussels. Among the distinctive aspects of this research is our focus on communication by adolescents in the home environment (i.e. communication between parents and children and among siblings) as reported by the adolescents themselves. Apart from considering traditional variables such as migrant generation and ethnic background<sup>1</sup>, we bring family dynamics into our analytical framework via Coleman's (1988; 1990) theory of family capital. Thus, we consider the physical, human and social capital present in migrant families and how these factors may influence the language situation at home. We also devote specific attention to the impact of varying family structures on language use, because of its potential for shaping the impact of other factors.

Our analyses are based on information collected in four rounds of the LAGO (Leuven Adolescents and Families Study) data set. LAGO is a yearly survey amongst secondary school pupils from the first year up until the sixth or seventh year (in case of vocational education) (Vanassche, Sodermans, Dekeyser, & Matthijs, 2012). Multinomial logistic regression models provide estimates of the influence of the various types of family capital, ethnic heritage and family structure on the likelihood of monolingual use of either Dutch or the migrant mother language as compared with using two or more languages at home.

We think that Belgium provides an especially interesting case for the study of linguistic adaptation and maintenance. Although there is now an extremely extensive literature on the linguistic adaptation of immigrant population, much of the literature is situated in a North American or an English-dominant context. The unique features of Belgian immigration history and complicated role of language in Belgian culture and politics offer a comparative counterpoint for extending the extant literature. To familiarize the reader with some of the particulars, we next present an overview of the most salient issues related to immigration and language-use in Belgium and in the regions of Flanders and Brussels in particular.

## 2 Immigration in Belgium, 1914-2014

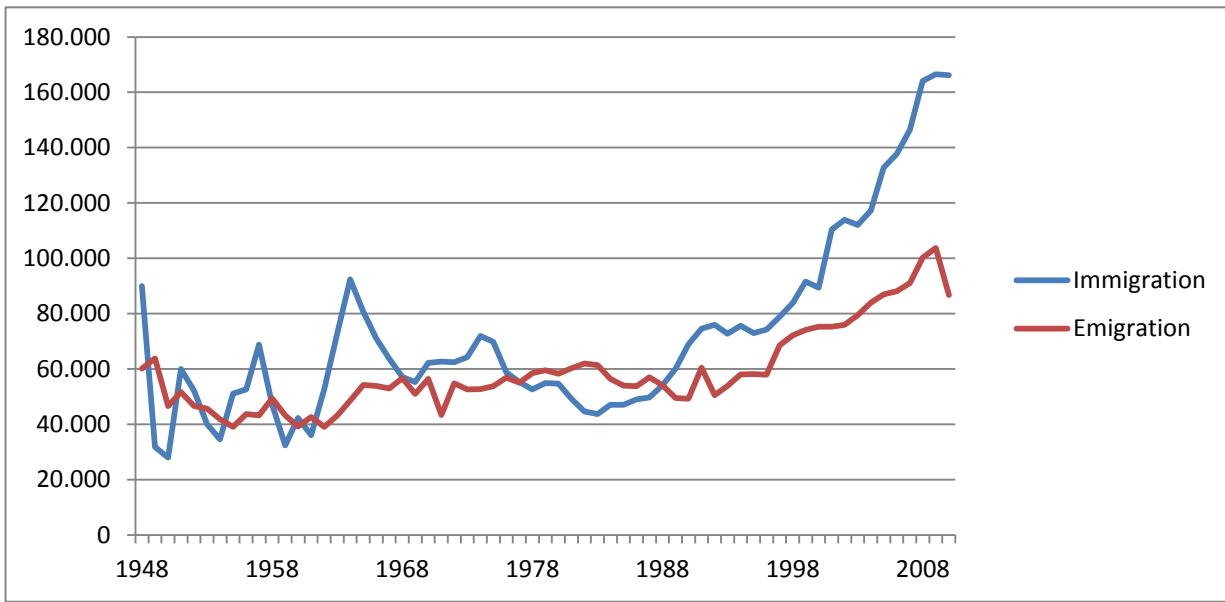
During the course of the twentieth century, Belgium decisively turned into a destination country for international migrants (Lesthaeghe, 2000). Prior to WWII, immigrants moved almost exclusively towards the Walloon region, where the heavy metal and mining industry

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<sup>1</sup> In this paper we use second and third generation of immigrants to designate the children and grandchildren of migrants. Contrary to the situation in the U.S., children and grandchildren of migrants do not necessarily hold Belgian nationality.

demanded increasing supplies of manual labor, initially met by workers from Flanders. But from the 1920's on, the number of migrants from Southern and Central Europe, especially Italians and Poles, rose substantially (Lesthaeghe, 2000; Timmermans, Vanderwaeren & Crul, 2003). After WWII, both the origin and destination of migration currents shifted gradually. Brussels and Flanders became more important destinations (Phalet & Swyngedouw, 2003). Whereas the earliest waves of migrants in Belgium originated largely from Catholic countries in Southern and Central Europe, from the 1960's onward immigrants were increasingly born in Islamic countries around the Mediterranean (Lesthaeghe, 2000; Timmermans, Vanderwaeren & Crul, 2003). In the 1960's bilateral agreements were signed with Morocco (1964), Turkey (1964), Tunisia (1969) and Algeria (1970) in which the recruitment of labor migrants was formally established. Similar to earlier agreements with Italy (1946), Greece and Spain (1956), they were aimed to recruit mainly men who were willing to work temporarily in Belgium and to return to their home country after one or two years. These 'guest-workers' was seen as an inexpensive temporary solution to Belgium's labor shortage at the time (Vandecandelaere, 2012). They performed unskilled, often dangerous labor in jobs which were unpopular among the native population and most intended to earn as much as possible and return with their savings to their country of origin (De Munck, Greefs & Winter, 2010).

**Figure 1: Immigration and Emigration in Belgium, 1948-2010**



Source: NIS, Population Statistics

The guest worker era ended abruptly in the early 1970's. Economic recession associated with the oil crisis halted the demand and the Belgian government called for a moratorium on migration (Martinello & Rea, 2003; Timmermans, Vanderwaeren, & Crul, 2003). But

immigration did not stop. As figure 1 shows, immigration decreased and fell below emigration for a short period, but during the early 1980's immigration began to increase again and rose sharply over the next decades. As in other Western-European countries, post-1973 immigration is grounded in family reunification and family formation (Phalet & Swyngedouw, 2003). Attempts to curb immigration may have had an opposite effect, tending to turn temporary migrants into more permanent residents and shifting the influx from labor migrants to marriage migrants (De Haas, 2009; Vandecandelaere, 2012).

More recently, the widening of the European Union has incentivized migration from Central and Eastern Europe. Citizens from those countries that have become EU member states can now move to Belgium without any visa requirements, and they have done so in increasing numbers. Additional components of the recent immigration streams include those arriving on student visas (Martinello & Rea 2003, refugees and asylum seekers, along with a considerable number of undocumented persons (Martinello & Rea, 2003).

Rising immigration along with the relatively high fertility among first generation immigrants, have increased the percentage of foreigners in Belgium's total population over the last few decades (see figure 2). In 1947, some 4,3% (some 368.000 people) were of foreign nationality. By 2012 this figure had risen to 10,6% (1.169.064). In fact, these statistics underestimate the real proportion of persons with an immigrant background, as they neither take into account naturalization, nor irregular immigration (Noppe & Lodewyckx, 2012; Timmermans, Vanderwaeren & Crul, 2003).

Migrant communities are not spread evenly over the Belgian territory. Migrants tend to cluster in urban areas (Lodewijckx, 2013). From a regional perspective, immigration plays the largest role in the Brussels Capital region, where in 2012 some 36,2% of the population had a non-Belgian nationality but in absolute terms, the largest number of immigrants live in Flanders.

### **3 Immigration and Integration Policy, 1980-2014**

As guest-workers in the 1960's and early 1970's did not intend to stay permanently in Belgium, no need for profound adjustments to the host society was felt, neither by the migrants themselves, their employers or the Belgian authorities (Vandecandelaere, 2012). Family reunification changed the outlook only gradually. Once, husbands, wives and children were reunited in Belgium, the odds of returning to the country of origin fell considerably. However, as many immigrants expected to return to country of origin, it took much longer before the need to create roots in the host society took priority (Hermans, 2002). In the meantime a number of processes were operating to preserve or even strengthen the ties with the country of origin, but lowered the chances of successfully establishing themselves in Belgium. Illustrative in that respect are remittances and capital

expenditures in real property in the country of origin. Those investments had a positive impact on development (of non-migrants, especially kin of migrants) in the country of origin (De Haas, 2008; Van Gemert, 1998), but lowered the migrants' own possibilities of getting established in Belgium. The frequent choice for spouses from the home region also seems to have undermined integration/ assimilation, as these partners share the same language, religion, and ethno-cultural background. Segregation formed another serious obstacle in the adjustment process of newcomers and their offspring. As newcomers clustered in certain urban areas, which were gradually abandoned by the ethnic Belgian population, migrants and natives lived separated lives (Lesthaeghe, 2000; Vandecandelaere, 2012).

Like the migrants themselves, politicians were slow to realize that a majority of the migrants would not return to their country of origin and that they and their offspring had become a constituent part of Belgian society. Only towards the end of the 1980's, did return migration disappear from the political agenda and it was only then that the first real attempts were made to develop a policy, which aimed to foster the functional integration of migrants into the mainstream society (Martens & Caestecker 2001). The formation of the Royal Commission for Immigrant Policy (Koninklijk Commissariaat voor het Migrantenbeleid; KCM) can be seen as the first political attempt to integrate newcomers into Belgian society. The shift from a 'guest-worker attitude' to an integration policy is highly related to the electoral success of the Extreme right-wing movement 'Vlaams Blok' (nowadays Vlaams Belang) (Lesthaeghe 2000; Martens & Caestecker, 2001).

During the 1990's migration policy focused primarily on the integration of Moroccan and Turkish migrants, who in contrast to European immigrant groups experienced little social mobility, even among those who became naturalized (Martens & Caestecker, 2001). The Royal Commission for Immigration developed a comprehensive integration concept – based on democracy: equal rights for everybody, especially also for females - which was used as a starting point for future migration policy. This integration concept, which was later maintained by *The Centre for Equal Opportunities and Opposition to Racism* (Centrum voor Gelijkheid van Kansen en voor Racismebestrijding; CGKR, follow up on the Royal Commission for Immigrant Policy in 1993), highlights equal participation in society among migrants and natives, yet recognizes differences between ethnic groups (elsewhere referred to as functional integration). Migrants are not expected to fully assimilate into mainstream society (no melting pot goal). Rather, it is expected that ethnic minorities will keep their own identity, culture, and especially their own religion (Martens & Caestecker, 2001). In order to guarantee the well-being of members of minority groups and to avoid social exclusion, migrants were expected to learn the language and integrate in the labor market. Migration policy should make sure that ethnic minorities enjoyed equal chances in society and faced no discrimination. In this way Belgium navigated in the direction of a multicultural society.

## 4 Language Situation in Belgium

Belgium consists of four different language communities: the Dutch-speaking community (Flanders), the French-speaking community (Wallonia), the small German speaking community in the East (only about 75,000 speakers) and the bilingual community of Brussels, in which both Dutch and French are official languages (De Caluwe, 2012; Willemyns, 2002). Language differences have played a major role in political life, ever since Belgium became an independent state in 1830 (Mettewie & Janssens, 2007). The origins of the so-called language struggle go indeed back to that early phase of modern Belgian history. The problem was that within Belgium the Dutch-speaking Flemings were a majority, but the main power was in the hands of a French speaking elite. This French-speaking elite managed to make French the exclusive language in administration, justice, newspapers, education and the army even within Flanders and Brussels. Dutch became more or less restricted to the private sphere (Van de Crean & Willemyns, 1988)

Discrimination against Dutch-speakers in Belgium gave rise to the so-called Flemish movement (Willemyns, 2002). From about 1860 on this movement managed to put the language issue on the political agenda and from 1873 on, a variety of laws were passed which intended to improve the status of Dutch in public life in Flanders. In the 1960's Dutch became the only official language in Flanders and Brussels became officially a bilingual territorial entity. A language border was drawn, separating municipalities in which the official language was French, from those in which the official language was Dutch. Moreover in eastern Belgium for the German speaking community, a parallel formalization was executed.



Although there are three official languages in Belgium distributed over four different geographic entities, the actual language situation is much more complex. This has to do with the fact that French speakers live in municipalities in which Dutch is the official language and vice versa, but even more with immigration. Although Brussels is officially a bilingual city and Flanders is a monolingual region, in practice they are multilingual geographic entities. In addition to French and Dutch, English has become another lingua franca in Belgium, and especially in Brussels because of its function as the European capital (Mettewie & Janssens, 2007). Moreover, as many immigrants continue to speak their heritage language in their own ethnic community and transmit it from one generation to the next, language-use in Flanders and Brussels is quite variegated. Yet this phenomenon

remains difficult to specify with precision. As a consequence of political tensions between the Flemish and French-speaking communities, it has been forbidden to include questions on home language in the census since 1947 (De Houwer, 2004). Recent surveys have only begun to fill this gap. Very few statistics on home language use are available for Flanders. An exception is data on language use between mothers and their children from *Kind & Gezin* (Child & Family). In Flanders about 76% of the mothers spoke Dutch to their children in 2011. The most frequently spoken languages are French, Arabic, Turkish, Berber and English followed by the Polish, Russian, and Spanish. Geographically, most non-Dutch mothers are found in the provinces of Vlaams Brabant (33,8%) and Antwerp (30,7%).

## 5 Literature review

### 5.1 Language-use as indicator of assimilation

As a consequence of the immigration streams of the past few decades the number of first, second and third generation children attending secondary schools in the Dutch speaking educational system has been increasing (Groenez, Nicaise, & De Rick, 2009; Jacobs & Rea, 2011; Noppe & Lodewijckx, 2012; Opdenakker & Hermans, 2006; de Heus & Dronkers, 2010). In the discussion section, we will elaborate further on the central place of language practices of these children in societal and academic debates about their school trajectories and labor market integration. For now, it suffices to point out that the continuous use of heritage languages by migrant youngsters in and outside of the school settings is a cause for controversy regarding the integration of these youngsters and their families into Belgian society.

Although expressed in various and nuanced forms, most scholars have shared the expectation that immigrant populations will in due course adopt the principal language of their destination country. Research questions are more likely to center on how long will the process take and the extent to which dynamics of the destination language acquisition are similar across and within immigrant populations. While there is a large literature on the maintenance of the heritage language, it is probably fair to say that acquisition issues have taken precedence over maintenance ones and that the long-term salience of the heritage language is limited. Indeed many studies have presented results that are consistent with a basic linguistic assimilation model. By this we mean a pattern of migrant families learning the destination language rather quickly and their children giving up (or never learning) the heritage language apace. These processes proceed in large part through generational time. Second generation children are much less likely to be proficient in their heritage language. Perhaps as a result of this lack of fluency, the preference for the destination language, even when speaking to their parents, also seems to be quite common amongst second-generation children. The second generation 'loss of the native tongue', leads to the conclusion that the

heritage language rarely lasts past the third generation (Portes & Hao, 1998; Portes & Rumbaut, 1996; Alba, Logan, Lutz, & Stults, 2002; Lopez, 1996; Veltman, 1981).

But the loss of the heritage language use proficiency across generations is not predestined. Research in the United States, for example shows that a considerable share of the children of Latino migrants continue to use the native tongue of their parents (Portes & Schauffler, 1994). So elements of assimilation processes are important but the mechanisms by which they operate are much less understood (Arriagada, 2005).

Learning of languages takes place in several social contexts (Li, 2006; Hull & Schultz, 2002). The school context facilitates learning of the destination language. The home context however, can operate as a 'transmission belt' (Schönpflug, 2001; Padilla, 2006) of the heritage language, as well as supporting the acquisition of the destination language. In this paper we specifically look at the influence of characteristics of the family context of different migrant groups on the language-use at home. Previous research is quite consistent in finding that the preservation of heritage languages in host societies is strongly influenced by language practices in the home setting (Hakuta & D'Andrea, 1992).

## 5.2 Language as a vehicle of cultural continuity

In general, language can be regarded as the vehicle through which we are socialized into our culture. Children learn about the cultural heritage of their parents and previous generations through language and by language they themselves can most richly transmit the cultural heritage to subsequent generations (Tannenbaum & Howie, 2002). As such, language occupies a central position in the cultural transmission patterns of most migrant parents as an ethnic identity marker (Ketner, Buitelaar, & Bosma, 2004; Clycq, 2009; King & Fogle, 2006; Park & Sarkar, 2007). When migrant parents are unable to transmit their native tongue, a sizable share of them feel that they are not in a position to pass on important cultural values, beliefs and norms nor do they feel that they are adequate in supporting the development of a strong sense of self or culture (Wong Fillmore, 1996).

In Flanders, Clycq (2009) recorded the importance of transmitting the heritage language amongst Italian and Moroccan parents. He found that language is central to the sense of cultural continuity for these parents. Firstly, because of emotional reasons: it's 'our' language, our mother tongue so there is no way that children should not learn Italian or Moroccan. Secondly, there are instrumental reasons, because Italian or Moroccan serves as the communication language with grandparents. There is also the feeling that central elements of their cultural heritage cannot be authentically transmitted without knowledge of the heritage language. Furthermore, international research has pointed to the fact that in 'intimate' settings, parents value the ability to express themselves in the most spontaneous and natural manner and as such prefer a communication mode that makes them feel closest

to their children (Tannenbaum M. , 2003). In many cases, this 'emotion' language is the heritage language. Immigrants often feel that speaking another language is almost like being someone else, alienated from one's familiar way of thinking and feeling (Marcos, Eisma, & Guimon, 1977).

Inside the home setting, Clycq (2009) however found that migrant parents applied several different linguistic strategies. First of all, parents themselves tried to speak the heritage language. However, especially second-generation families found it difficult to do so in a consistent manner. In first generation families, it was frequently forgone that the heritage language was the dominant communication language since these first generation parents knew little or no Dutch and children acted as language brokers between the family and the larger community (Roer-Strier, 2000; Timmerman, Vanderwaeren, & Crul, The Second Generation in Belgium, 2003). In contrast, second generation families frequently use different languages inside the home setting since both parents and children know Dutch along with the heritage language.

The research literature thus recognizes the importance of parental investment in the transmission of the heritage language but seldom targets the specific contribution of each parent. The available evidence points to the differential involvement of mothers and fathers and associated differential effects of these investments (Sabatier, 2008). Therefore, we will investigate in so far as possible the different contributions of parents in human and social shares of family capital. We will also consider the differential impact of maternal versus paternal migration history.

### 5.3 Family capital and language acquisition

The theory of family capital by Coleman (1990; 1988) serves as our theoretical point of departure. Instead of focusing on demographic and group level indicators of assimilation such as ethnic group size, migration generation, geographic region, etc., we emphasize that language learning occurs to a large extent in a family context, especially when looking at the acquisition and maintenance of the heritage language of migrant youngsters. This leads to a family system perspective that views the family as a dynamic unit, comprised of individuals who are not wholly independent actors but instead form parts of one system (Minuchin, 1985). In Coleman's view, the family unit possesses different forms of capital and within the family environment these capitals are transformed from the parental generation into educational attainment in the children's generation (Li, 2007). We anticipate that these forms of capital not only have an effect on the educational outcomes of children but also shape in part how language-use patterns in families are formed. In fact, educational outcomes may be shaped in part by those language use patterns.

Coleman's theory claims that three distinct forms of capital are interrelated within the family setting and operate interdependently (Li, 2007). Firstly, physical or financial capital refers to the material resources of a family. This factor consists of the family income, wealth and/or possessions. It determines to a large extent the socio-economic status of the family. Secondly, human capital refers most straightforwardly to the educational attainment of an individual that is embodied in someone's knowledge, skills and capabilities to negotiate social structures and situations. Thirdly, social capital refers to the social resources of family members within the family context as well as in the community. When one takes these three forms of family capital into account, the quality of the children's home environment comes into focus.

### **5.3.1 Physical capital**

The first form of family capital in Coleman's (1990; 1988) theory is conceptualized as 'physical capital' or financial capital. Coleman himself suggests, following Bourdieu (1977), that children born into families with a higher social economic status are more acquainted with elite cultural activities such as theater visits, concerts, museums, libraries and art. Several studies point to the effect of higher income levels on the likelihood of children being less fluent in the native tongue of their parents (Portes & Hao, 1998). The authors argue these findings may be due to parents being aware of the fact that destination language proficiency is crucial to enter the host society successfully. As a consequence, these parents may discourage the use of the heritage language.

However, Coleman states that the mere fact of having a higher socio-economic status alone doesn't mean that this has a direct effect on learning and school results. Only when physical capital is invested productively will children benefit from it. So a rich family may have the financial resources to facilitate learning and literacy results, but if parents don't invest time and energy in helping children with their homework e.g., this financial advantage is neutralized. Li's (2007) study about Chinese migrant families concurs with Coleman's theory. He finds that it is more important what families do with their physical capital in relation to the other forms of family capital (human and social) than the mere fact of possessing it.

### **5.3.2 Human capital**

A second form of family capital that plays a leading role in Coleman's theory is 'human capital' or educational capital. The educational levels of parents affects the language situation at home in an important way (Parcel & Dufur, 2001). Even though parents with low educational attainment might have the same aspirations for their children as parents with high educational levels, they might be less able to become 'efficiently' involved in

language and literacy activities (Li, 2006; Li, 2007). Indeed, studies confirm that human capital plays a crucial role in the transformation process of other forms of family capital children's language learning. When parents themselves, have experienced an extensive period of formal schooling, they are likely to be acquainted with how the educational system works. Or at least, they are aware of the differences between the formal schooling systems in the heritage versus the host society and may act on this knowledge. On the other hand, parents who have only limited experience with formal schooling rely far more on the school to educate their children, particularly in learning the host language.

Previous research subscribes to the importance of parental educational attainment in transmitting the heritage language as well (Brown, Tanner-Smith, Lesane-Brown, & Ezell, 2007). Next to fact that more educated parents may be more competent in transmitting their cultural heritage, Schönplug (2001) relates this finding to the positive effect of educational attainment on the acceptability of parents as a role model for children. This greater acceptability as a role model leads to more efficient transmission (Bandura, 1986; Grusec, 1997). At the same time, there are researchers who report a positive effect of higher parental educational levels on the likelihood of speaking only the host language in the home environment (Alba, Logan, Lutz, & Stults, 2002). Bills, Chavez, and Hudson 1995. In the analyses below, we examine which effects parental human capital forms have on the language-use outcomes at home. Higher educational levels may increase the likelihood of speaking more than one language at home, as well as speaking only Dutch. In addition, we expect that lower parental educational levels will increase the likelihood of speaking only the heritage language.

### 5.3.3 Family relations

Another form of family capital that Coleman (1990; 1988) theorizes, is 'social capital'. Coleman's definition of social capital is fairly broad and entails more than relationships with and activities undertaken by parents in the nuclear home setting. Also the presence of grandparents and other extended family members may be of relevance as well as the families' networks and interactions with the representatives of the larger community such as teachers, other parents, etc. Here we must rely on a somewhat restricted assessment of the global concept by considering only the quality of relationships within the home context.

As noted above, a significant share of migrant parents believe that it is important that children master their mother tongue. However, the research literature indicates that the success of intergenerational transmission of cultural heritage, and thus heritage language proficiency and use, is a function of the quality of relationships within the family system (Schönpflug, 2001; Wong Fillmore, 1996). Children are less likely to report using and preferring their heritage language when they have a negative view of their family. Conversely, when family cohesion is high and family members are treated equally, chances

are higher that children maintain the language of their parents, both attitudinally as in practice. This applies to relationships between parents and children and the quality of the relationship between parents as conjugal partners. A positive marital relationship implies that the mother and the father of a child are more consistent in their attitudes and orientations. According to Cavalli-Sforza and Feldman (1981) such attitudinal homogeneity facilitates a more intense intergenerational transmission of that particular attitude.

Furthermore, when turning our attention to parent-child relationships, there is evidence for a positive effect of good parent-child interactions on the maintenance of the heritage language among immigrant children. One possible explanation is that positive involvement of parents and feelings toward parents may bring about a greater sense of loyalty toward their family and as such, encourage the use of the mother tongue of their parents. The viability of this mechanism is supported by research showing higher levels of family closeness among migrant families who use the heritage language at home (Tseng & Fuligni, 2000). The closer the family, the more children learn about the values, attitudes and motivations of their parents which in turn may foster the knowledge and use of the heritage language. In contrast, children who perceive their family as distant and remote, the parent's language may lack emotional salience and, as such, there will be less motivation to maintain it. However, Tannenbaum and Howie (2002) found that the association between family relationships and language maintenance, holds for negative perceptions of the relationships with parents but positive feelings towards parents do not seem to predict language maintenance.

Based on the literature review, we expect that positive parent-child relationships will promote the use of the heritage language in the home as compared to speaking Dutch. Furthermore, conflict between parents is expected to have a negative influence on the use of the heritage language.

#### **6.4 Ethnic heritage**

When we refer to 'ethnic heritage' in this paper, we refer to a broad conceptualization as to the degree of ethnic connectedness and internalization of ethnic cultural norms, values and symbols (Chow, 2004). This sort of ethnic heritage is expected to diminish as time goes by and in later generations. However, in Europe rather few studies have devoted detailed attention to these generational differences. The third migrant generation has been rarely the object of study despite the fact that research in the United States has pointed to the importance of comparing third and second generations when analyzing longitudinal trends in integration or incorporation patterns (Alders & Keij, 2001).

Variation within the second generation must also be taken into account. There is a sizable difference in 'migration experience' of 'ethnic heritage' for a family consisting of a first

generation migrant married to a native (a so-called mixed marriage), compared to a family of two second-generation parents or a family established by marriage of a second generation parent with a first generation migrant out of the heritage country (the so-called 'import marriages'). Certainly in the future, more attention should be given to the cultural continuity patterns of these different types of ethnocultural family types (Becker, 2011). Research in Flanders shows that most of the first generation migrants of the sixties married a partner from the heritage country and a sizable share married a native partner. But for the second generation, instead forming ethnically endogamous marriages with second generation partners in the host country or interethnic marriages with a native, until recently researchers have found that a high proportion of these second generation migrants searched for their marriage partner in their country of origin (Corijn & Lodewijckx, 2009). These different marriage patterns have a direct influence on the central place of the heritage language in the family setting. Import marriages and first-generation marriages should foster the use of the heritage language at home. Conversely, one can expect more diverse linguistic patterns in the other ethnocultural family types. Special attention should also be given to the gender of migrant parent. In families where the mother is the bearer of a migration background, it may be more likely that the heritage language is part of the everyday language-use of the family. Previous literature indicates that women are more likely to act as transmitters of the cultural heritage than men (Yuval-Davis, 1993; Veltman, 1981).

Becker (2011) hypothesizes that these different forms of ethnocultural family types are related to different forms of family capital in Coleman's conceptual terms. Mixed marriages with a native are likely to possess higher levels of general capital such as educational attainment and financial capital as compared to a traditional first generation labor migrant. Indeed, as stated above, most of the first-generation migrants settling in Belgium had quite low levels of formal education. When looking at the general capital of import marriage partners, one frequently observes a heterogamous marriage pattern, dependent of the gender of the second-generation partner. Second generation males are hesitant to marry a progressive second-generation female and search for a 'traditional' marriage partner in the heritage country. Second-generation females, often better educated than their male counterparts, do not want a traditional groom as some second-generation males pretend to be and therefore also turn to the heritage country in order to find a marriage partner. However, most of the suitors are from the same rural background as their own family (Hooghiemstra, 2003).

A second dimension of ethnic heritage is *ethnicity*. In Flanders, the largest non-Western ethnic minority groups are Moroccans and Turks. In our research, we focus on families from these two minorities and compare them with families with 'other' heritage roots. Several studies indicate similarities (e.g. time of migration and SES) but also differences between Turks and Moroccans. Turks have been known to be more oriented towards Turkey than

Moroccans towards Morocco. For example, Turks are more likely than Moroccans to define themselves as 'Turk' instead of 'Belgian' or 'Turkish Belgian' (Vancluysen, Van Craen, & Ackaert, 2009). Some authors refer to the national history of Morocco as an explanation for the less established national Moroccan consciousness. First of all, Morocco was colonized by France and Spain. Even after the independence of Morocco, many Moroccans continued to orient themselves toward the French culture. Another reason that might explain the differences in nationalism between Moroccan and Turkish migrants follows differences in migration movements (Reniers, On the history and selectivity of Turkish and Moroccan migration to Belgium, 1999; Surkyn & Reniers, 1997). Up until now, not a lot of research has focused on the impact of selective migration on the use of the heritage language after migration (Feliciano, 2005). Literature that is relevant to this study suggests that Turks who came to Belgium migrated because of socio-economic reasons and settled in the same regions in Belgium. As such, they are sometimes referred to as 'transplanted communities' with the migrant community mirroring the community in the heritage country. Social structures remained quite the same after migration to Belgium, and as a consequence, the need for learning another language less acute since social capital can be build up within ones own community. Finally, in Morocco, the language situation has always been quite diverse: next to Moroccan-Arabic (Darija), at least one third of the population speaks one of the main Berber languages – Tarifit, Tamazight, *Tashelhit*- and also French and to a lesser degree Spanish- are well established in Morocco. So it could be that Moroccans have a less emotional tie with their language and have a more functional attitude towards it (Van Craen, Vancluysen, & Ackaert, 2009). Jaspers (2005) indeed found that Turkish boys are less likely than Moroccan boys to speak Dutch with each other. Furthermore, they also had more difficulties with speaking and writing Dutch in class. We could therefore hypothesize that Turkish families are more likely to speak only their heritage language at home than Moroccan families.

With regards to language-use and proficiency of the newer migrant heritage groups such as Eastern European families, much less research is available for the Belgian context. A majority of these families are first generation in the sense that the children were born in the heritage country, and some of these children even received formal schooling before migrating to Belgium. One could expect therefore that these children would be less likely to use Dutch and have more difficulties with this 'new' language than second-generation children who have been immersed from birth into a dominant Dutch environment. However, teachers report that these Eastern European newcomers are often quicker in picking up Dutch than second-generation Turkish or Moroccan children. General results of the PISA study also points into that direction (Heyerick, 2008). Our study may shed light on this issue by investigating possible differences in family capital and family structure as explanatory mechanisms.

## 6.5 Family structure

Previous research also pointed to the importance of family structure when investigating the language-use of migrant youngsters in their home setting. The size of the household by the number of children is often mentioned as a factor contributing to the language situation of Latino children in the United States. The larger the household, the more opportunities there are to speak the heritage language (García & Otheguy, 1988). Conversely, research has found that large families are on average less fluent in English (Espenshade & Fu, 1997). However, some researchers report the opposite effect of household size for later born children. If people only have one child, parents have more resources, time and energy to invest in the transmission of their mother tongue. Thus, first-born children are found to be more successful bilinguals than later born children (Ellis, Johson, & Shin, 2002; Nesteruk, 2010). This is attributed by some researchers and respondents to the fact that there is a preference of children to speak in the host language when talking amongst themselves, especially after they have begun school (Wong Fillmore, 1991). Thus there are somewhat contradictory predictions about the effect of household size on the use of the heritage language.

Furthermore, previous literature has devoted less attention to family dissolution and various types of family forms following this parental separation as compared to traditional variables such as generation and ethnicity. Portes and Rumbaut (2006) and Arriagada (2005) do point out that two-parent migrant families are more likely to have fluent bilingual children. However, since the sixties the Western world has seen a rise in the divorce rates (Sodermans, Vanassche, Matthijs, & Swicegood, 2012; Kalmijn, 2010; Lesthaeghe & Surkyn, Cultural dynamics and economic theories of fertility change, 1988). Significant changes in attitudes and behaviors regarding marriage and divorce have lead to a variety of alternative family forms (Lodewijckx, 2010). With regard to migrant families and the experience of divorce, one could argue that migrants with a Islamic background such as Turks and Moroccans are less likely to divorce. For Belgium, we see that this is true to some extent since divorce is rarely observed amongst first generation migrants. However, second generation marriages do have a higher divorce rate, especially in case of a so called 'import marriage' where a second-generation migrant marries a partner from the heritage country (Koelet, et al., 2009). How does the language situation unfold in various family types following the parental dissolution?

Similarly, in the case of interethnic marriages between a native and a migrant, it might be of crucial interest to investigate the structural living arrangements of migrant youngsters. Stevens (1992; 1985) found that the likelihood of speaking the heritage language of the migrant parent, is much lower amongst children of interethnic marriages. But especially in case of a divorce, no contact with the parent of migrant descent is likely to mean a loss of the heritage language since there may be almost no family context where the migrant heritage is in the foreground. However, in case of co-parenting, differential effects of

custody arrangements might be found. Also, the effect of a stepparent (and possible stepsiblings) on the original language situation at home should be considered in future research on this topic. Furthermore, family types vary in the amount of available social, physical and human capital (Amato, 2000). Thus, our aim in this paper is to disentangle the possible moderating or mediating effects of family composition on the impact of ethnic and family capital.

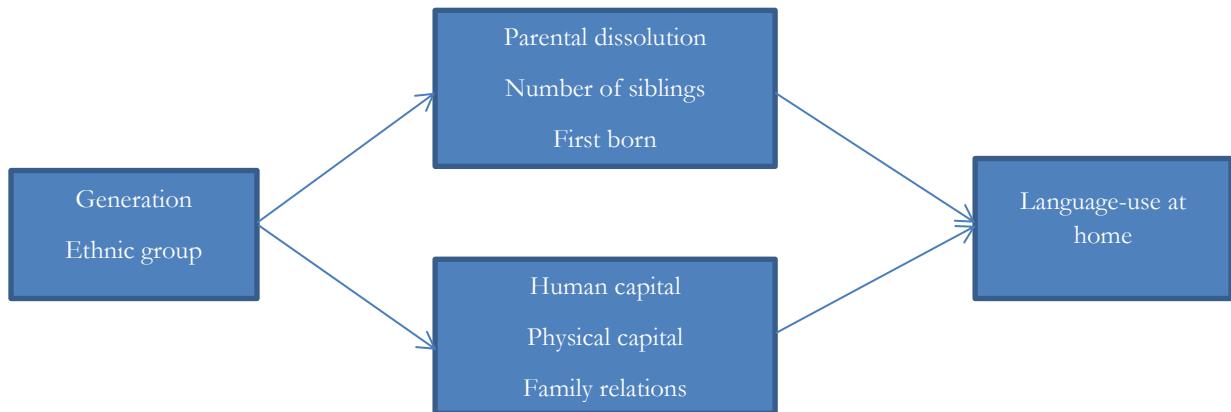
## 6.6 Controls

Previous literature suggests the possible independent effects of sex and age of youngsters on their maintenance of the heritage language. Portes and Hao (1998) for example, found that Latino girls and boys had different skills with respect to their bilingualism. Girls were more proficient in the heritage language of their parents than boys and were also more fluent bilinguals. Stevens (1986) attributed these differences to the different socialization settings of boys and girls. Girls were more often restricted to the home setting and thus more exposed to the heritage language. For our migrant youngsters, we thus may expect a differential language-use at home according to sex. This effect might especially apply to the youngsters with a Turkish and Moroccan background since these ethnic groups tend to lend girls less free movement outside the house (Hooghiemstra, 2003; Ketner, Buitelaar, & Bosma, 2004; Koelet, et al., 2009; Pels & de Haan, 2003; Van Oort, 2006).

Furthermore, previous research also points to the importance of age on the language-use and proficiency of migrant youngsters. For example, Portes and Rumbaut (2001) found that the preference of migrant children in the United States for English increases as they grow older. Alba et al. (2002) found similar results when studying the home languages of Chinese, Cuban and Mexican groups in the United States. A majority of these second and third generation children spoke only English at home. There is considerable consensus that while growing up, children tend to lose rapidly their heritage language skills in favor of the destination language (Portes & Rumbaut, 2001; Wong Fillmore, 1991). Some authors suggest that the reason for this decline in bilingual skills can be attributed to the increasing autonomy of children as they age (Nesteruk, 2010; Schönpflug, 2001). Intergenerational transmission processes are relatively unchallenged during the early developmental periods of a child, but when puberty arrives, children are not a proverbial barrel wherein parents pour language and culture. The bidirectionality of socialization processes is much more likely to occur. We therefore expect that older children are less likely to report speaking only the heritage language at home as well as speaking multiple languages (in this case Dutch and at least one other language). Furthermore, we hypothesize that possible effects of age are mediated by the relationships between children and their parents.

## 7. Conceptual model

Our literature review suggests a basic conceptual model (sketched below) to guide model specification and interpretation of result. As suggested by the linguistic assimilation theory, we expect that ethnic heritage indicators such as generation and ethnicity will have an effect on the language-use patterns at home. However, we presume that these effects are in fact mediated by the available family capital at home (measured by human, physical and family relations capital) and family structure since it conditions the available resources in the home setting for learning.



We should also note, as implied at various points in the literature review, that the ethnic heritage groups in Belgium have sufficiently different migration histories and settlement patterns that the basic parameters of the model might vary significantly across groups. Further modifying conditions might hold for other factors such as gender and age.

## 8. Method

### 8.1 Data

Our analyses are based on data from the LAGO dataset (Leuven Adolescent- en Gezinnenonderzoek or Leuven Adolescents and Families Study). This survey is conducted on a yearly basis by FaPOS (Family and Population Studies) of the KU Leuven. A paper and pencil questionnaire is distributed in class to pupils from all years of secondary school during a free hour. The questionnaire consists out of three parts: 1) a general A-part to be filled in by all pupils, 2) a B-part with questions only applicable to the pupils who have

experienced a parental dissolution and 3) a C-part to be filled in by pupils of whom the biological (or adoptive) parents are still together (Vanassche, Sodermans, Dekeyser, & Matthijs, 2012).

The total dataset of LAGO contains information from nearly 8000 pupils from 56 Flemish and Brussels' secondary schools. Around 12% of the respondents have a migrant background, which is less than the 18.8% of secondary school children of migrant descent in Flanders for the 12-17 year-old population. (Noppe & Lodewijckx, 2012). However, the distribution of gender, year and educational track strongly resembles the total school population of the Dutch educational system in Belgium (Vanassche, Sodermans, Dekeyser, & Matthijs, 2012). Also note that LAGO data contains reports from pupils living in Brussels where the number of Flemish pupils of migrant descent is still relatively small.

The dataset contains information on family configurations, family relations, individual well-being, family-related attitudes and future family expectations and aspirations. For the analyses we use data from the completed second, third and fourth data collection rounds along with data gathered in the first semester of the fifth, still ongoing round. (Data from the first round of the project did not include information on the ethnic heritage or home language-use.)

We restricted our sample to youngsters with a migrant background. We removed respondents with roots in the Netherlands since they share a common native language with the Flemish-speaking Belgians. The final subset contains information on 1208 respondents. The descriptive statistics for 'language-use at home' and the independent variables are reported in Tables 1 and 2.

## 8.2 Dependent variable: language-use at home

We measured 'language-use at home' by asking youngsters which language they spoke at home with different family members. In round two of the LAGO survey, an open-ended question was posed: 'which languages do you speak at home?'. We recoded the answers into three categories: 1) only Dutch, 1) only (an)other language(s) and 3) Dutch and at least one other language. From round three up to round five, youngsters were asked several questions regarding the language that they used with various family members. To maintain maximum sample size, we recoded the set of responses in the later rounds to be consistent with the information available in round 2. 25.00% (N=302) of the pupils reported to speak only Dutch at home. 33.11% (N=400) youngsters reported that only another language was spoken with family members whilst 41.89% (N=506) reported to use Dutch and at least one other language. There were 7 missings on the dependent variable which were excluded from further analyses.

### 8.3 Independent variables

The independent variables can be grouped into five conceptually based categories. The first block of independent variables relates to the concept of 'human capital'. We take the highest educational degree of both mother and father into account. The *educational level of mother* is included as a categorical variable with following categories: 1) primary education, 2) secondary education, 3) higher, non-university education, 4) higher, university education and 5) missing. For the whole LAGO sample, we found a substantial number of missing values on this variable. This could be due to the fact that a lot of pupils just do not know the level of education that their parents completed or that they do not know which specific educational specialization corresponds to which type of educational degree (e.g. the difference between non-university and university level higher education). Especially children from migrant families may find it difficult to relate the education their parent(s) received in the heritage country to the Belgian context. For *educational level of the father*, we used the same categories.

The second category of variables includes indicators of 'physical capital'. Financial difficulties consists of three categories: 1) never or seldom problems getting by, 2) often or always problems getting by and 3) missing. We constructed a separate category for the missing on this question due to the relatively high non-response rate. A significant number of youngsters may not respond because they find the question to be too personal or intrusive. Missing data might thus be related to the migrants group's greater sensitivity to social desirable answers about family issues such as financial situation (van Gemert, 2002). Another possible reason for not answering the questions about conflict might follow from the fact that these questions are only asked in the second part of the questionnaire (B-part for the children from non-intact families; C-part for the children from intact families). Children who are not so proficient in the Dutch language, might have more difficulties completing the questionnaire during a one-hour period. The third set of variables concern 'social capital'. We focus on indicators of relationship quality. First, we measured the *relationship with mother* (Cronbach's alpha = 0.87) and the *relationship with father* (Cronbach's alpha = 0.91), by means of the Network of Relationship Inventory scale (NRI) (Furman & Buhrmester, 1985). The scale is centred about its mean (20 for fathers, 22 for mothers). Second, *current parental conflict* is measured by a set of five 5-item Likert response scales asking youngsters about different types of conflict between their parents. We constructed a categorical variable consisting out of three categories. No or seldom conflict responses are coded as '0', often and all the time conflict are coded as '1'. Since the conflict items all have a considerable number of missings, we constructed an additional category 'missing'. Again, we argue that this missing category might be of interest because of the reasons stated above when discussing the categories of physical capital. Also the conflict questions are in the second part of the questionnaire and are prone to social desirability.

A fourth category of variables involve 'ethnic heritage'. We constructed the variable *generation* on the basis of the birth countries of the respondent, mother, father, maternal and paternal grandparents. Three categories are constructed: 1) first generation youngsters (respondent born abroad), 2) 1.5 generation youngsters of whom the mother is a first generation migrant (born abroad) but the father is not, 3) 1.5 generation youngsters of whom the father is a first generation migrant but the mother is not, and 4) second generation youngsters of whom both parents are born abroad. In a next stage, we hope to establish separate categories for youngsters born out of a mixed marriage (native x migrant) and youngsters born out of a so-called endogamous 'import marriage' (second generation parent x migrant) (Becker, 2011). For this version of the study, these categories were not yet viable due to too few observations. Also, we aim to construct a third generation category, consistent out of youngsters from which at least two grandparents are born abroad. In an earlier stage of the paper, we opted to merge the youngsters with at least two grandparents born abroad together with the youngsters with only one grandparent born abroad because of the relatively small number of observations. However, the results for this category were both theoretically and empirically distorted. So in this version of the study, we did not include youngsters belonging to this category in the study. *Ethnicity* consists out of five categories and is constructed on the basis of the seven indicated birth countries: 1) Northern, Western and Southern Europe, 2) Eastern Europe, 3) Turkey, 4) Maghreb countries and 5) other.<sup>2</sup>

Lastly, a fifth group of variables generates a picture of structural components of family life. First, we look at the structural position of youngsters in their family. We take into account whether or not youngsters are *first born* children or not and how many *siblings* they have. Further, we constructed the variable *family type*. Unfortunately, only three types of family composition could be retained with sufficient observations: 1) intact families (biological parents are still together), 2) single mother families (youngsters are always with their mother), 3) other family types after parental dissolution (e.g. single father families and joint custody arrangements). But due to collinearity issues we had to substitute a dichotomous

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<sup>2</sup> In constructing these categories of ethnicity, we based ourselves largely on the classification reported in the reports of the Research Department of the Flemish Government (<http://www4dar.vlaanderen.be>). We added respondents from Tunisia, Algeria and Libya to the category 'Morocco' in order to set up the category 'Maghreb countries'. We opted to do so because of the comparable language situation (Berber languages next to Arabic) and the political agreements Belgium had during the time of the guest labor migration (exc. Libya). Our classification is as follows:

- Netherlands (not included in the research sample);
- West- & Northern-Europe: Ireland, United Kingdom, France, Germany, Luxembourg, Austria, Switzerland, Liechtenstein, Denmark, Sweden, Finland, Norway, Iceland;
- Southern-Europe: Italy, Spain, Portugal, Greece, Malta, Cyprus, Andorra, Monaco, San Marino;
- Eastern-Europe: Estland, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Bulgaria, Romania, Albania, Belarus, Serbia, Kosovo, Moldavia, Russia, Croatia, Macedonia, Bosnia, Montenegro, Ukraine, former Yugoslavia, former Soviet-Union;
- Turkey;
- Maghreb: Morocco, Tunisia, Algeria, Libya ;
- Other countries.

variable indicating where or not the youngsters parents had separated (0= no parental dissolution; 1 = parental dissolution).

The control variables that are included are: age and sex. The dummy variable for sex has 'females coded 1 and boys as 0. The mean age of the youngsters in our subsample is 15.34. *Religion* was included in the preliminary analyses but because of multicollinearity with both ethnicity and generation, it is not included in the models presented here.

For the multivariate analyses of the language-use of migrant youngsters at home, we use multinomial logistic regression technique. Reference category for the models presented below is 'multilingual' which is the category with the most observations. This category is used as the reference since most migrant youngsters in the formal Flemish educational system are at least somewhat bilingual themselves (Dutch is the formal schooling language while the heritage language is expected to be the emotional language of migrant families).

**Table 1: Distribution and means of independent variables**

Categorical variables	Categories	N	%
<b>Educational level mother</b>	Primary education	226	18.71
	Secondary education	429	35.51
	Higher, non-university education	175	14.49
	Higher, university education	172	14.24
	Missing/Don't know	206	17.05
<b>Educational level father</b>	Primary education	192	15.89
	Secondary education	452	37.42
	Higher, non-university education	163	13.49
	Higher, university education	199	16.47
	Missing/Don't know	202	16.72
<b>Financial difficulties</b>	No	753	62.33
	Yes	231	19.12
	Missing	224	18.54
<b>Current parental conflict</b>	No conflict	743	61.51
	Conflict	228	18.87
	Missing	237	19.62
<b>Parental dissolution</b>	No	909	77.10
	Yes	270	22.90
<b>Firstborn</b>	No	522	43.21
	Yes	686	56.79
<b>Ethnicity</b>	NWS EU	133	11.35
	Eastern EU	157	13.40
	Turkey	261	22.27

<b>Categorical variables</b>	<b>Categories</b>	<b>N</b>	<b>%</b>
	Maghreb	364	31.06
	Other	257	21.93
	<i>Missing</i>	36	
<b>Generation</b>	First generation	344	28.67
	1.5 generation (mother=born abroad)	144	12.00
	1.5 generation (father=born abroad)	233	19.42
	Second generation	479	39.32
	<i>Missing</i>	8	
<b>Sex</b>	Boy	564	46.69
	Girl	644	53.31
<b>Metric variables</b>	<b>Range</b>	<b>N</b>	<b>Mean</b>
Age	10-25	1208	15.36
Relationship with mother	0-36	1199	22.84
Relationship with father	0-36	1174	20.20
Number of siblings	0-7	1173	2.88
			<b>Standard Deviation</b>
			2.13
			6.94
			8.13
			1.74

## 9. Results

### 9.1 Restricted models

Table 2 shows the results of the multinomial logistic regression of the restricted models of the independent variables on the dependent variable 'language-use at home'. The category 'Dutch + other language(s)' serves as the reference category. First, we examine the association between the ethnic heritage variables and language practices at home. The odds on speaking only the heritage language as compared to being bilingual for 1.5 generation families where the mother is born abroad are 0.40 times smaller than the odds for first generation families. This can be largely due to the fact that the father is born in Belgium and as such has mastered the Dutch language (because he is a native or because he is himself of the second generation). Thus, it is not surprisingly that in these families the native tongue of the migrant mother is less likely to be the only language spoken. However, it is interesting to note that we do not find the same effect for 1.5 generation families where the father is the migrant. Here we see that these families are much more likely to speak only Dutch as compared to being bilingual. As noted in the literature review, our initial results suggest that there might be differential parental contributions to language-use repertoires according to the sex of the parent. We should further investigate if this might be caused by differences in human capital of the parents, differences in relationship qualities or family structure. Next, we find that second generation families are less likely to speak only the heritage language at home compared to families of first generation children. This is in line with the generational effect found in previous studies.

Turning our attention to differences between ethnic groups, we find that NWS European families are more likely to speak only Dutch at home as compared to Turkish families. This may seem surprising since less NWS youngsters are of second generation than Turkish youngsters. However, as the bivariate analysis shows, the majority of the NWS consists out of mixed families with one native parent. Eastern European families are more likely to speak only the heritage language at home as compared to the Turkish youngsters. Again, this might be related to differential distributions of generation across ethnic groups. But overall, the model with ethnic group seems to explain more variance than the generational model when comparing the -2loglikelihoods and the AIC's.

We then looked at the "total effects" of the different types of family capital: human capital, physical or financial capital and family relations. When mothers have only a primary education, it is less likely that the family speaks only Dutch at home. Similarly, when there are low-educated fathers in the household, chances are smaller that the family only uses Dutch. With regards to the available physical capital in the home setting, we see that having financial difficulties increases the chance of speaking only the heritage language, as well as

for the missing category on this variable. As discussed in the methods section, is possible that because of their lack of proficiency in Dutch, youngsters were unable to complete this question near the end of the questionnaire. Since we don't find the relationship between the missing conflict category and language-use at home, the missings on the conflict category might be more related to social desirability. There are no significant differences between adolescents from high-conflict families and low-conflict conflict families, contrary to what we would have expected from our literature review. So at first glance, the explanatory strength of the family relations variables seems low but when looking at the -2loglikelihood and the AIC value, we see that this set of variables does seem to explain more variance than the other family capital variables.

Thirdly, we look at the association between family structure variables and language-use. Youngsters who have experienced a parental dissolution are more likely to use only Dutch at home. Above, we mentioned the importance of looking at different types of ethnocultural family types and especially mixed marriages where only one partner is bearer of the migrant heritage culture. At present we do not have enough observations to construct a viable distinct category for these types of families.<sup>3</sup> The association between number of siblings and language use is somewhat unique: the more siblings a household counts, the less likely families are to speak only Dutch as well as being less likely to speak only the heritage language. This is in line with the seemingly contradictory findings of previous research. Our results are quite logical in this sense: the more persons there are, the more options there are when choosing a communication language and conversely, the less chance you consistently use only one language. However, this mechanism seems more pertinent with regards to the 'only Dutch'-repertoire than for the 'only other'-repertoire. Furthermore, first-born children are less likely than higher parity children to report using only the heritage language when talking to their family members. This is in line with the finding that first-born children in particular have a role as 'language brokers' between their parents and the host society. In general, the family structure variables have more explanatory power than the other independent variables, except the model comparing ethnic groups, when comparing the -2loglikelihoods and the AIC values.

Lastly, we also ran a restricted model with the controls 'sex' and 'age'. Girls are less likely than boys to speak only the heritage language, concurring with previous research results. We did not find any direct effect of age. We assume that this is due to the small age range in

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<sup>3</sup> We also ran a restricted family structure model taking the variable 'family type' into account instead of 'parental dissolution'. This was intended to differentiate the effects of various family forms after dissolution, such as single parent families, stepfamilies, joint custody arrangements etc. However, only the single mother families could be retained as a distinct category, next to intact families and 'other' family types. Since the subsequent regression models did not indicate any significant effects of this variable, we have not reported these models here.

our sample. Probably the effect of age plays more when comparing primary children to adolescents.

**Table 2: Restricted multinomial logistic regression models on language-use at home**

<b>Independents</b>					<b>N</b>	<b>-2loglikelihood</b>
	<b>Only Dutch</b>		<b>Only other</b>			
	<b>O.R.</b>	<b>S.E.</b>	<b>O.R.</b>	<b>S.E.</b>		
<b>Human capital</b>					2804	2562
<b>Education mother (ref= secondary)</b>						
Primary	0.52**	0.23	0.77	0.19		
Higher, college	0.65	0.23	0.75	0.22		
Higher, university	0.96	0.25	1.09	0.23		
Missing	0.57*	0.28	0.86	0.24		
<b>Education father (ref= secondary)</b>						
Primary	0.47**	0.27	1.23	0.20		
Higher, college	1.11	0.23	1.07	0.20		
Higher, university	1.17	0.23	1.31	0.22		
Missing	1.41	0.27	1.34	0.25		
<b>Physical capital</b>					1208	2584
<b>Financial difficulties (ref = no difficulties)</b>						
Difficulties	1.06	0.19	1.59**	0.17		
Missing	0.93	0.20	1.78***	0.17		
<b>Social capital</b>					1170	2506
<b>Relationship quality with mother</b>	1.01	0.01	0.99	0.01		
<b>Relationship quality with father</b>	0.98	0.01	0.99	0.01		
<b>Current parental conflict (ref = no or seldom)</b>						
Conflict	0.96	0.18	0.93	0.18		
Missing	0.86	0.21	1.36	0.17		
<b>Family Composition</b>					1147	2445
<b>Parental Dissolution (ref = intact)</b>						
Parental dissolution	1.48*	0.17	0.94	0.17		
<b>First born (ref = not first born)</b>						
First born	0.84	0.16	0.73*	0.14		
<b>Number of siblings</b>	0.85***	0.04	0.92*	0.04		
<b>Ethnic Heritage</b>						
<b>Generation (ref = 1st generation)</b>					1200	2536
1.5 generation (Mother1)	1.27	0.24	0.40***	0.25		

1.5 generation (Father1)	1.99***	0.21	0.72	0.20		
2nd generation	0.80	0.19	0.67**	0.16		
<b>Ethnicity (ref= Turkish)</b>					1172	2469
NWS EU	2.65***	0.25	0.60	0.30		
Eastern EU	1.48	0.27	1.80**	0.23		
Maghreb	0.98	0.22	1.15	0.18		
Other	1.31	0.23	1.25	0.20		
<b>Controls</b>					1208	2589
<b>Sex (ref = boy)</b>						
Girl	0.78	0.15	0.68**	0.13		
<b>Age</b>	0.94	0.03	1.01	0.03		

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

## 9.2 Associations between ethnic heritage and family capital and family structure

### 9.2.1 Ethnicity and migration generation

In Model 1, we added the ethnic group dummies to multinomial logistic regression model of generation. The generational effects remain strong and the same as in the restricted models. However, under control of generation we do seem slight differences in the ethnic relationships with language-use. A new positive relationship is found between being Eastern European and the chance on speaking only Dutch as compared to being Turkish (see Table 3). Furthermore, the relationship found between Eastern European families and the chance on speaking only the heritage language has abated (see Table 4). The increase in the odds ratio of the 1.5 generation families where the mother is the migrant, seems to suggest that the generational effect completely mediates the ethnicity effect for Eastern European families.

### 9.2.2 Mediating models

One specific aim of our research is to investigate the extent to which family capital and family structure might be mediating the influence of ethnic heritage variables on language-use patterns at home. Therefore, we investigated in Model 2 if the relationship between generation and language-use and ethnicity and language-use, found in the restricted models, would still hold under control of the family capital variables. In Model 3, we repeated this for the family structural variables.

In general, we must conclude that apart from some exceptions, the main findings of the restricted models maintain their level of substantive and statistical significance. In particular, the effects of generation and ethnicity on the likelihood on speaking only Dutch seem to be largely unaffected by family capital and family structure. However, the chances on speaking only the heritage language do suggest some mediational mechanisms, in particular for the second generation. Second generation families are less likely to speak the heritage language than first generation families, but this relationship disappears when taking the financial situation of the family into account. Furthermore, second generation families do not differ anymore from first generation families in using only the heritage language at home when there are more children in the household or when the respondent is a first born child. Thus, it seems like we have some ground for partially confirming our hypotheses about mediation.

In general, when comparing the results for chances on speaking only Dutch with the results for the likelihood of speaking only the heritage language, there seem to be some indications that different mechanisms are at play. Structural variables such as number of siblings and the position in the family (first born child or not) appear to more crucial in determining the

chances on speaking only the heritage language, but not so much the likelihood on speaking only Dutch as compared to being bi-or multilingual at home. Family capital variables also function quite differently. Human capital, measured as educational levels of parents, seem to influence the chances of speaking only Dutch but not the chances on speaking only the heritage language. For physical capital (or the financial situation of the parents) though, we find quite the contrary: having financial difficulties influences the chances of a migrant family on speaking only the heritage language as compared to being multilingual at home but not the likelihood on speaking only Dutch. So as suggested by the literature review, linguistic assimilation is not a straightforward process.

**Table 3: Multinomial logistic regression models of migration generation on language-use at home, under control of ethnicity, family capital and family structure**

Results for 'only Dutch'												
	Model 0		Model 1		Model 2		Model 3		Model 4		Model 5	
	O.R.	S.E.										
<b>Ethnic Heritage</b>												
<b>Generation (ref = 1st generation)</b>												
1.5 generation (Mother1)	1,27	0,24	1,35	0,27	1,31	0,28	1,30	0,28	1,20	0,29	6,91	1,13
1.5 generation (Father1)	1,99***	0,21	2,50***	0,25	2,44***	0,27	2,46***	0,26	2,39***	0,27	5,23	1,11
2nd generation	0,80	0,19	1,16	0,23	1,16	0,24	1,25	0,24	1,21	0,25	6,88	1,07
<b>Ethnicity (ref= Turkish)</b>												
NWS EU	2,65***	0,25	2,27***	0,26	2,04**	0,28	1,95**	0,27	1,81*	0,28	6,32	1,20
Eastern EU	1,48	0,27	1,78*	0,29	1,53	0,30	1,66	0,30	1,49	0,31	6,57	1,09
Maghreb	0,98	0,22	0,95	0,22	0,94	0,23	1,00	0,23	0,98	0,24	2,15**	1,25
Other	1,31	0,23	1,59	0,25	1,41	0,26	1,54	0,26	1,35	0,27	5,36	1,07
<b>Human capital</b>												
<b>Education mother (ref= secondary)</b>												
Primary							0,53**	0,25			0,47**	0,27
Higher, college							0,58*	0,25			0,53*	0,26
Higher, university							0,84	0,26			0,78	0,27
Missing							0,67	0,32			0,72	0,33
<b>Education father (ref= secondary)</b>							0,43***	0,29			0,47**	0,30
Primary							1,03	0,25			1,06	0,26
Higher, college							1,18	0,25			1,22	0,25
Higher, university							1,31	0,31			1,28	0,33
<b>Physical capital</b>												
<b>Financial difficulties (ref = no difficulties)</b>							1,09	0,21			1,13	0,22
Difficulties							1,26	0,35			1,34	0,37
Missing											1,47	0,37
<b>Social capital</b>												
<b>Relationship quality with mother</b>							1,01	0,01			1,00	0,02
<b>Relationship quality with father</b>							0,99	0,01			1,00	0,01
<b>Current parental conflict (ref = no or seldom)</b>							0,94	0,21			0,98	0,23
Conflict							0,69	0,35			0,68	0,37
Missing											0,64	0,37
<b>Family Composition</b>												
<b>Parental Dissolution (ref = intact)</b>									1,20	0,19	1,29	0,22
Parental dissolution												
<b>First born (ref = not first born)</b>									0,79	0,17	0,79	0,18
First born									0,88**	0,05	0,91	0,06
<b>Number of siblings</b>												

<b>Controls</b>							
<b>Sex (ref = boy)</b>							
Girl					0,76	0,17	0,77
<b>Age</b>					0,94	0,04	0,94
<b>Interaction effects of generation with ethnicity (only significant results shown)</b>							
Maghreb*1,5 generation (Mother)						0,01**	1,54
Maghreb*2nd generation						0,03**	1,29
<b>Constant</b>		-1,14	-0,77	-0,70	0,73		-0,69
<b>N</b>		1164	1129	1109	1080		1080
<b>-2Loglikelihood</b>		2.416	2291	2287	2171		2116

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Note: Model 0 refers to the results of the restricted models of ethnicity and generation. In order to be thrifitly with the available table space, we show the results together in the Model 0 column. Model 1 shows the results of the model with both generation and ethnicity included as independent variables.

Note: The S.E. shown in the tables refer to the S.E. of the logits.

**Table 4: Multinomial logistic regression models of migration generation on language-use at home, under control of ethnicity, family capital and family structure**

Results for 'only heritage language'												
	Model 0		Model 1		Model 2		Model 3		Model 4		Model 5	
	O.R.	S.E.										
<b>Ethnic Heritage</b>												
<b>Generation (ref = 1st generation)</b>												
1.5 generation (Mother1)	0,40***	0,25	0,45***	0,27	0,51**	0,28	0,38***	0,29	0,43***	0,30	1,17	0,59
1.5 generation (Father1)	0,72	0,21	0,79	0,24	0,86	0,25	0,80	0,25	0,92	0,26	1,13	0,54
2nd generation	0,67**	0,16	0,67*	0,20	0,72	0,20	0,68	0,21	0,75	0,22	1,13	0,47
<b>Ethnicity (ref= Turkish)</b>												
NWS EU	0,60	0,30	0,59	0,30	0,58	0,31	0,58	0,31	0,58	0,32	1,60	0,67
Eastern EU	1,80**	0,23	1,49	0,25	1,51	0,26	1,46	0,26	1,52	0,27	2,73*	0,50
Maghreb	1,15	0,18	1,15	0,19	1,07	0,19	1,24	0,20	1,13	0,21	4,66*	0,73
Other	1,25	0,20	0,98	0,23	0,96	0,24	0,92	0,24	0,93	0,25	1,13	0,46
<b>Human capital</b>												
<b>Education mother (ref= secondary)</b>												
Primary					0,75	0,21			0,73	0,22	0,72	0,22
Higher, college					0,72	0,24			0,74	0,24	0,76	0,25
Higher, university					1,06	0,25			1,00	0,26	1,06	0,27
Missing					0,75	0,27			0,84	0,29	0,86	0,29
<b>Education father (ref= secondary)</b>												
Primary					1,22	0,21			1,28	0,22	1,38	0,23
Higher, college					1,00	0,24			0,97	0,25	0,93	0,26
Higher, university					1,37	0,23			1,32	0,24	1,20	0,24
Missing					1,48	0,28			1,41	0,29	1,34	0,30
<b>Physical capital</b>												
<b>Financial difficulties (ref = no difficulties)</b>												
Difficulties					1,54**	0,19			1,53*	0,19	1,61**	0,20
Missing					1,77	0,30			1,87*	0,32	1,88*	0,32
<b>Social capital</b>												

<b>Relationship quality with mother</b>			1,00	0,01		1,00	0,01	0,99	0,01	
<b>Relationship quality with father</b>			0,99	0,01		0,99	0,01	1,00	0,01	
<b>Current parental conflict (ref = no or seldom)</b>										
Conflict			0,91	0,20		0,89	0,21	0,87	0,21	
Missing			0,91	0,30		0,87	0,32	0,85	0,32	
<b>Family Composition</b>										
<b>Parental Dissolution (ref = intact)</b>										
Parental dissolution					1,00	0,18	1,02	0,21	1,10	0,21
<b>First born (ref = not first born)</b>										
First born					0,66**	0,15	0,66**	0,16	0,64***	0,16
<b>Number of siblings</b>					0,90*	0,04	0,91*	0,05	0,91*	0,05
<b>Controls</b>										
<b>Sex (ref = boy)</b>										
Girl							0,68**	0,15	0,65***	0,15
<b>Age</b>							1,01	0,04	1,03	0,04
<b>Interaction effects of generation with ethnicity (only significant results shown)</b>										
Eastern EU*1,5 generation (Mother)									0,04**	1,24
Maghreb*2nd generation									0,18*	0,78
<b>Constant</b>		-1,14	0,09		0,55	0,66			-0,09	
<b>N</b>		1164	1129		1109	1080			1080	
<b>-2Loglikelihood</b>		2.416	2291		2287	2173			2116	

\*p < 0,05; \*\*p < 0,01; \*\*\*p < 0,001

Note: Model 0 refers to the results of the restricted models of ethnicity and generation. In order to be thrifly with the available table space, we show the results together in the Model 0 column. Model 1 shows the results of the model with both generation and ethnicity included as independent variables.

Note: The S.E. shown in the tables refer to the S.E. of the logits.

## 9.2.2 General full models

Model 4 displayed in Table 3 shows multinomial logistic regression models of generation and ethnicity on language-use controlling for family capital and family structure and the control variables. Here we see that the results of the intermediate models remain the same and quite strong.

But an interesting result with regards to the interaction of family capital processes with family structural processes, is the finding that the effect of number of siblings disappears when controlling for the educational level of parents. This result subscribes to previous research illustrating that the educational level of parents influences the number of children in the household. The higher educated, the less children. However, this mediation is only found in the results for the likelihood on speaking only Dutch. The logical explanation for this would be: lower educated parents have more children and lower educated mothers have less chance on speaking only Dutch. In a next stage, we will dig further into this finding.

Furthermore, we see that the gender effect for the likelihood of speaking only the heritage language remains strong in the full models. Girls are much less likely than boys to speak only one language at home. We should dig deeper into this gender effect in next versions of the paper. Preliminary full models run for boys and girls separately seem to suggest that structural position in the family is more important for girls than boys in determining their language use at home. Interaction effects should give us more clarity about the gender mechanisms at play. Also, based on the literature, we might expect that gender effects are greater for some ethnic groups (e.g. the Turks and the Maghrebians) than for others (e.g. Eastern Europeans and NWS Europeans).

Furthermore, in a next stage, we want to investigate whether the family capital dynamics and family structural dynamics might run in different directions for our ethnic and generational groups. While mediation is small, moderation might be more at play in determining language-use patterns at home.

## 9.2.3 Full models per ethnic group: interaction effects

Lastly, in Model 5 (see Table 3 and Table 4), we added interaction dummies of our generational groups with our ethnicity groups in order to answer our last research question: are generational effects running in different directions according to ethnic group? In the tables, only the significant interactions are shown.

When looking at the results for speaking only Dutch at home, we seem to find that the generational effect is negative for Turks but positive for Maghrebians but only for the 1.5

families where the mother is the migrant and for the second generation families. So, Turks have less chance on speaking only Dutch while Maghrebians have more chance on speaking only Dutch.

Turning our attention to the results for the likelihood of speaking only the heritage language compared to being multilingual at home, we seem to find that the generational effect is negative for Turkish families but positive for Eastern EU families when the mother is the migrant and for Maghreb families when it concerns a second generation family. Again we should dig deeper whether or not this might be related to the differences in family capital and family structure according to ethnic group.

## 10. Conclusion and discussion

The preliminary results presented here collectively demonstrate the complexity that the variegated nature of successive migration flows which characterize the Belgian context introduce to the study language-use patterns. Results show that different factors are of influence for different language-use patterns. Language-use at home is not a one way route to linguistic assimilation. This might be related to the fact that migrant groups in Belgium are not comparable with regards to family capital and family structural variables. In a next paper, we will focus on these possible moderating mechanisms.

Our results until now do seem to counter some previous results with regards to language-use. First of all, lower educated parents do seem to have a negative effect on speaking only Dutch in the home but there is no indication that they are more likely to use only the heritage language. So in Berry's (2002) acculturation terms, there is no evidence that lower educated parents point to family separation or marginalization. Furthermore, having financial difficulties only seems to be of importance in determining the chances of speaking only the heritage language, but not the chance of speaking Dutch in the home. Lastly, although language functions as a socialization tool and socialization processes are supposed to be more effective when the relations between parents and children are good, we do not seem to have any evidence pointing to the relevance of neither positive nor negative relations on the language-use of families. By contrast family structure seems to be of more importance. First of all, it conditions the risk of being exposed to different languages. If there is a divorce between a native and a migrant and the child remains with the native parent, chances are small this parent will continue the use of the heritage language of the ex-partner. Further investigation is needed though since the prevalence of a parental dissolution is quite different between ethnic groups and generations. Second, family structure as reflected in the number of siblings does seem to shape the opportunities in choosing a language. More siblings means that families have less chance in speaking only Dutch as well as only the heritage language. We can thus confirm here in part the literature: the more persons available in a household, the less likely you will speak only one language with them. Again, this effect needs be investigated further in different ethnic groups because of the differential fertility patterns of migrant groups. The persistent effect of being a first born child in the family seems to point into the direction that first born children do function as a language broker for their families.

With regards to our hypotheses about the mediational influence of family capital and family structure, we can conclude that some mediation suggested by Coleman's theory might be at play in determining language-use at home but this seems to be confined to the second generation.

Lastly, we seem to find some indication that the generational effect of 1.5 families where the mother is the migrants runs different for Turkish families compared to Maghreb families and Eastern European families.

As of now, we did not investigate the differential functioning of family capital and family structure for specific generational group. In a next step, we will try to establish whether or not different mechanisms are at play within different generational groups. Furthermore, we have not investigated in a detailed way how gender may be shaping language use at home. However, the restricted model pointed us into the direction of possible differences between boys and girls with regard to their language-use patterns and this gender “effect” became even more pronounced in our most complete models. As we work with reports of children about their used language with mother, father and siblings, we can presume that sex of the child might influence the results for the whole group since boys and girls may evaluate some variables differently (e.g. family relation variables tend to vary between boys and girls).

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## Appendix

**Figure 2: Migration generation by ethnicity in column percentages, N = 1164 (Cramer's V: 0.3838\*\*\*)**

