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Bilingual Language Development
among the First Generation Turkish Immigrants in the Netherlands

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Chapter 3

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Chapter 4

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Chapter 5

Yılmaz, G. & Schmid, M. S. (2012). L1 accessibility among Turkish-Dutch bilinguals. *Mental Lexicon* 7(3). 249–274.

¹ One reference list has been created for the entire dissertation and put after the concluding chapter.

Chapter 1. Introduction

1.1 Background of the Study

This study is a part of a larger project on Language, Multilingualism, Integration funded by the Netherlands Organization for Scientific Research (NWO). We aim at an in-depth exploration of bilingual proficiency of the first generation Turkish-Dutch bilinguals. Therefore, we investigated both the extent of their L1 maintenance and their L2 competence in relation to linguistic and socio-demographic factors. All participants in the present study are late L2 learners, with an age of migration above 15 years and long-term residents of the Netherlands (> 10 years). We are interested in seeing if their L1 system has changed during this time and in identifying the linguistic and socio-demographic factors which affect their L2 acquisition and L1 attrition (or maintenance).

The Netherlands hosts linguistically and culturally diverse speakers from a wide range of migrant backgrounds. The Turkish migrant community stands out as the numerically largest group of non-Western origin. The recruitment of Turkish individuals as contract workers in the sixties and seventies was arranged with the political and financial support of the Turkish and the Dutch governments. They came from different parts of Turkey, both big cities and rural backgrounds or small towns (e.g., Kırşehir, Kayseri, Kahramanmaraş, Gaziantep, Ordu, Istanbul, Adana, Ankara, Trabzon and Çorum). They share a similar socioeconomic and ethnic background to a large extent. They settled mainly in the four largest cities of the Netherlands (i.e., Amsterdam, Rotterdam, The Hague and Utrecht). The city of Groningen, from where the participants of this study are recruited, hosted 1.227 Turks in its total population of 181.845 according to the January 2007 census (email correspondence from the Groningen city council).

Members of the Turkish communities, in particular of the first generation across Europe, are known for their attachment to their mother tongue and culture over those of the host countries. Most of them expect future generations to preserve their roots, though their (grand)children are gradually shifting towards the host country language and culture. The findings, discussed in detail in chapters below, indicate that among our participants the amount of familial and social L1 use, the importance of maintaining the L1 and the willingness to pass it on to their children is quite high. These findings indicate a strongly dominant status of Turkish in the personal domain. Most parents seem sensitive regarding the preservation of the mother tongue as a medium of communication at home with their children. During the interviews conducted for the present study they explained that maintaining the L1 was important for emotional reasons, such as being accepted in the community, making friends, contacting the home country as well as for daily interactions. They also emphasized that they regarded Turkish important as a symbol of their ethnic identity. They spoke Dutch mainly at their workplace because they worked in Dutch companies and had mostly Dutch-speaking colleagues. They considered Dutch important for instrumental reasons such as educational and/or professional purposes. They mostly reported that they have an adequate level of proficiency in Dutch.

This chapter will present a general account of immigrant bilingualism. Then, previous investigations on bilingual skills of Turkish immigrants in general and in the Netherlands in particular are reported. This is followed by some background information about the major processes and concepts with regards to L1 attrition, bilingual language processing and the Activation Threshold Hypothesis. After that, factors that influence L1 attrition and vulnerable features of L1 knowledge researched in this study are discussed briefly. The next part is about the perceived association between L2 proficiency and integration into the L2 society and how L2 proficiency is measured in the present study. In the last section, data collection techniques and procedures are presented.

1.2 Bilingualism among Immigrants

As migrant populations are continuously growing across the world and many countries are hosting numerous migrant communities with linguistically distinct backgrounds, investigations on L2 acquisition, in particular exploring late L2 learning, have gained increasing significance. Successful L2 acquisition is accepted to be one of the major prerequisites, if not the most important one, for economic and social integration processes. Therefore, finding out the factors that facilitate L2 acquisition in order to encourage the migrants to improve their L2 skills has become one of the priorities.

In the new environments of the host countries, L2 is dominant, L2 acquisition is strongly encouraged and there is not much space allowed for L1 use. Migrant settings in general are similar in this respect; however, language outcomes vary greatly from one migrant group to another. At one end of the spectrum, there are migrants who shift to the L2 within a couple of generations. The L1 gradually loses its social, emotional and economic prominence among the speakers and deteriorates. Eventually, it comes to be used rarely and by few people. At the other end, there are some groups who would like to preserve their language as a part of their identity, maintain it over generations and achieve relatively limited levels of L2 proficiency (e.g., Dutch versus Macedonians in Australia, Clyne, 1992; Tomić, 1992).

Learning the language of the new environment is an important step for migrants in order to be able to fully participate in public and private life in their new country. Being aware of that, they usually try to acquire the language as fast as they can and they often do this primarily through interaction with their new environment (rather than formal instruction in language classrooms). In such a setting, the outcomes of the language learning process typically show a high degree of individual variation, with some speakers attaining far higher degrees of proficiency than others. As for their mother tongue, they may still continue using it among family members (in particular the first generation migrants). They use both languages on a daily basis at various levels of proficiency for different purposes and in different domains.¹

Their L1 and L2 knowledge merge together and form a compound language system with two grammars (Cook, 1991). This occurs irrespective of the proficiency level in an L2. That is, even if they learn the basics

¹ They are referred to as 'bilingual' since both languages are part of their life (see Grosjean, 1989 for the definition of bilingual).

of the host country language, this is expected to impact the mother tongue because from the initial stages of learning, the two languages operate together (Grosjean, 1989). It is acknowledged that there is a two-way interaction between them (Pavlenko & Jarvis, 2002) and they continuously interact with external factors. In order to gain further insight into the complexity of this process, recent approaches have offered multi-dimensional perspectives (e.g., de Bot, 2008; Herdina & Jessner, 2002). Therefore, we, too, attempted to capture as many angles as possible by looking at the development of both the L1 and the L2 in relation to linguistic, psychosocial and sociodemographic factors.

1.3 Previous Research on Immigrant Turks' Turkish and Host Country Language Ability

Turkish belongs to the Altaic language family and is typologically different from Dutch (and other Indo-European languages). For instance, it is a typical SOV language and it has a rich system of agglutinative inflectional morphology. It is a world language spoken by more than 150 million people living in Europe (i.e., migrants and residents in the Balkans), in the Turkish Republic of Cyprus and in various regions of Central Asia, Australia and North America (Johanson, 1993; Kornfilt, 1997). According to an overview of 30 European member and candidate states, it is the second most widely spoken language in Europe after German (2007 EU statistics reported in Extra et al., 2009). Turkish immigrants in the Netherlands may speak Turkish, Kurdish, Arabic or Azeri (Extra & Verhoeven, 1993)². Some might also speak different local varieties of Turkish at the phonological, lexical (and rarely morphosyntactic) level depending on their place of origin (i.e., the South East Anatolia, Central Anatolia, Aegean Region or Black Sea Region) but the extent of variation is fairly small.³ The Turkish language input migrants receive in the Netherlands exhibits a certain degree of variation, as well. That is, they are exposed to language from the home country (through frequent travels, contacts with home and media input) and the immigrant community (first, second and third generation speakers) at the same time. Their continuous interaction with their fellows in Turkey and widespread presence of Turkish television channels help them to keep up with up-to date intricacies of Turkish. On the other hand, the interaction with (grand)children may contain code-switches, crosslinguistic influence and sentence insertions from Dutch.

1.3.1 Studies on L1 Turkish in European Countries

It is acknowledged by Backus (1992) that the interest in the mother tongue of Turkish immigrants started with Tekinay (1982) who investigated the influence of German on spoken Turkish. She found that single German words (usually nouns) were treated as Turkish words phonologically, syntactically and morphologically. A more recent study reported that Turkish- Norwegian bilinguals inserted Norwegian words in Turkish grammatical frames. They also displayed structural and semantic changes in their spoken Turkish (Türker, 2005). A wide scope study targeting Turks in Northern and Western Europe reported extensive code-copying due to the interaction of Turkish with European languages (Johanson, 1993). A number of studies attempted to explore the relevance of the emotional value of Turkish for the individuals to language preference and attrition. Among Turkish-French bilinguals in France, the second generation's

² For the purposes of this study, only Turks who learnt Turkish as their mother tongue were included.

³ The data of the present study are analyzed according to the Istanbul Turkish as it is considered the standard Turkish in Turkey.

language vitality ratings were found to be higher than those of the first generation despite the fact that they were shifting towards French in all domains of life except in their interactions with their parents. Conversely, the parents, first generation members, predominantly used Turkish while their attachment to Turkish was less strong (Yağmur & Akıncı, 2003). Among first generation Turkish-Australian bilinguals, ethnolinguistic vitality measures (i.e., language status, sociohistorical variables, group norms, host community's attitudes) did not turn out to be associated with the change/deterioration in the lexicon and grammar (Yağmur, 1997).

1.3.2 Studies on L1 Turkish in the Netherlands:

In the Netherlands, researchers mainly focused on isolated aspects of Turkish such as code-switching and loan translation (e.g., Boeschoten & Verhoeven, 1985; Backus, 1992, 1993, 1996; 2004), sentence structure (e.g., Doğruöz & Backus, 2007; Schaufeli, 1996), pronominal domain (Gürel & Yılmaz, 2012) and grammatical complexity (Huls & van de Mond, 1992). Boeschoten & Verhoeven (1985) found evidence for single word code switching among adults. Backus (2004) pointed out that compound NPs indicating possession in Turkish started to shift towards the Dutch norms. Schaufeli (1996) reported variation among first and second generation participants with respect to the use of word order patterns but Doğruöz and Backus (2007) detected no preference towards Dutch word order (Subject-Verb-Object) among the intermediate generation.⁴ Gürel and Yılmaz's (2012) findings revealed a tendency towards the Dutch norms in the interpretations of the binding properties of pronouns. The participants chose the disjoint-only interpretation for the overt pronoun 'o' at a lower percentage than the native controls. Huls and van de Mond's (1992) is the only study that looked at language change/attrition from a sociolinguistic perspective. They reported that structural deterioration (i.e., a shift towards grammatically less complex sentences) correlated with the amount of Dutch language use in the family and the duration of residence in the Netherlands.

1.3.3 Studies on L2 Development of Turkish migrants in European Countries

As regards the L2 development of Turkish migrants abroad, researchers were primarily interested in finding out the determinants of L2 success. Generally speaking, social participation in the L2 community, amount of L2 exposure, educational background, formal instruction, proficiency in the L1, length of residence, age at the time of immigration, co-ethnic versus local partner and presence of co-ethnics in the neighborhood (residential segregation) have been found to impact their L2 attainment (e.g., in Germany-Dustmann, 1994; Ersanılı, 2010; in Belgium-van Tubergen & Wierenga, 2011; in France-Ersanılı, 2010). In addition, labor market participation (in Germany, France and the Netherlands, Ersanılı, 2010) and settlement intentions (in Germany-Dustmann, 1994 and in Belgium-van Tubergen & Wierenga, 2011) were associated with the degree of linguistic assimilation, too. Orientation of the integration policies in the host countries (i.e., assimilationist or multiculturalist) did not influence L2 proficiency (in Germany and France, Ersanılı, 2010).

⁴ The most frequent structure in Turkish is SOV; but word order can change according to which element is being emphasized. While words in an SOV are neutral sentence, in SVO, 'subject' is emphasized.

1.3.4 Studies on L2 development of Turkish migrants in the Netherlands

In the Netherlands too, similar factors turned out to affect success in L2 acquisition to varying degrees. Eranıllı (2010) stated that the amount of interethnic social contact, L2 exposure, educational profile, proficiency in the native language and religious identification impact proficiency in the Dutch, but that the immigrant integration policy of the Dutch government does not. Van Tubergen and Kalmijn (2009) stressed the importance of age at migration and schooling rather than Dutch language use and reported only modest correlations between L2 proficiency and language use. The impact of settlement intentions and living with co-ethnics in the same neighborhood was found to be weak. In addition to these, a number of studies investigated the acquisition of specific structures (e.g., pronominal references, Broeder et al., 1985; word formation, Broeder et al., 1993; spatial reference, Extra & van Hout, 1993; acquisition of word order, Jansen & Lalleman, 1980), competence in a specific skill (e.g., reading comprehension, Hulstijn & Bossers, 1992) and proficiency in Dutch in relation to competence in Turkish (de Jong et al., 2013). Finally, a small group of studies looked into the initial stages of Dutch acquisition; for example, Jansen et al. (1981) reported that Turkish learners overgeneralized verb-final Turkish word order and tended to omit prepositions.

As seen above, investigations into the language development of Turkish immigrants mainly focused on isolated aspects of languages and studies either looked into Turkish or L2. Very little work has been done on bilingual language processing or the interaction between languages and the role of the external factors. In this dissertation, three studies explore the processes of L1 syntactic and lexical attrition and one study the development of L2 proficiency. Also, all four studies include an in-depth investigation about linguistic, social and demographic factors in order to find what best predict change and development in bilingual skills. Below, some background information is provided which we believe will be useful in order to understand the following chapters, about L1 attrition, bilingual language processing and linguistic domains affected by attrition (i.e., lexical access, lexical richness and sophistication, fluency and structural complexity).

1.4 L1 Attrition⁵

A two-way interaction between L1 and L2 was depicted as early as 1953 when Weinreich first wrote about “those instances of deviations from the norms of either language which occur in the speech of bilinguals as a result of familiarity with more than one language”(p.1). However, since then, research has focused more on the influence of the first language on the second. Several studies have been conducted within the perspective of Contrastive Analysis (e.g., Lado, 1957), cross-linguistic influence (e.g., Kellerman & Sharwood Smith, 1986), parameter resetting (e.g., Clahsen & Muysken, 1986) and so forth. The impact that foreign languages have on the speaker’s first language and loss of first language skills have been investigated relatively less.

Interest in the influence of bilingualism on the first language started in 1980s (see Köpke & Schmid, 2004 for a historical overview) and since then several studies have been conducted within various frameworks such as the Regression Model (e.g., Jordens, et al., 1986; Keijzer, 2007), the Interlanguage Model (e.g.,

⁵ Attrition refers to non-pathological language change (i.e., not due to a stroke or dementia).

Gürel, 2002; Pavlenko, 2004), the Parameter Hypotheses (e.g., Gürel, 2002; Montrul, 2004), the Simplification Hypothesis (e.g., Seliger, 1991; Treffers-Daller et al., 2007) and the Activation Threshold Hypothesis (e.g., Gürel, 2004; Köpke, 2002). A number of languages such as Croatian, German, Dutch, Danish, English, Hungarian, Italian, Greek, Finnish, Romanian, Russian, Serbian, Spanish and Turkish have been tested for attrition in various L2 settings such as Australia (Ammerlaan 1996; de Bot & Clyne 1994; Waas, 1996; Yağmur et al., 1999), Canada (Cherciov, 2012; Schmid & Dusseldorp, 2010), Denmark (Zsolt, 2012), France (de Bot et al., 1991), Germany (Dostert, 2009); Great Britain (Tsimpli et al., 2004), Ireland (Opitz, 2011), Norway (Skaaden, 2005; Türker, 2005), Switzerland (Py, 1986), the Netherlands (Schmid & Dusseldorp, 2010), Turkey (Gürel, 2007) and the United States (Gürel, 2002, 2004, 2007; Halmari, 2005; Jarvis 2003; Pavlenko, 2003, 2004; Schmitt, 2004).

Researchers mostly agree that all language areas might be affected by attrition (i.e., lexicon, phonology, morphosyntax, semantics and conceptual representations) to varying degrees (Thomason, 2001). Additionally, one does not necessarily have to be very advanced or near-native in an L2 and even limited L2 knowledge will slightly influence the L1 (Schmid, 2011; Chang, 2012). The most noticeable effects can be distinguished as the following (see Schmid, 2011, for more details):

- Borrowing: Items from the L2 lexicon are incorporated into the L1 phonologically and/or morphologically. This is one of the most commonly observed phenomena among migrants. e.g., Backus (1992) reports extensive use of Dutch words among Turkish migrants and also longer Dutch constituents in the speech of Turkish adolescents.
- Restructuring: L2 elements are incorporated into L1 resulting in some changes, simplifications or substitutions. For instance, the meaning of a word or a phrase may be extended or changed under the influence of the L2. Yağmur (1997) reports semantic copying from English L2 in Turkish immigrants in Australia.
- Convergence: The speakers arrive at a system which is neither L1 like nor L2 like. e.g. Processing of overt subjects in Dutch by Turkish (pro-drop) learners was not influenced by the features in Turkish and it was not target-like either (Roberts et al., 2008).
- Shift: The speaker moves away from L1 structures to approximate those of the L2. Pavlenko (2004) reports evidence of shift in linguistic framing of emotions by Russian speakers of English.

To illustrate some examples from among the participants of this study, almost all participants borrowed the Dutch words *afspraak* and *groep* and integrated them into Turkish both phonologically and morphologically. It is possible that their access to the Turkish equivalent of the first word was compromised, because making appointments may not have been as common in their previous life in Turkey. As for the second item, which they used to refer to the ‘class’ their children attended, there is no corresponding word in Turkish that fits this word well. They also substituted the Dutch collocation *afspraak maken*, ‘to make an appointment’, into Turkish very often, but they said *randevu yapmak* which could be *randevu almak*, *randevu vermek* or *randevu ayarlamak* in Turkish.

- The last one of the L2 effects has been categorized as attrition, which in general refers to the difficulty in producing and recognizing some lexical items and grammar structures in the L1.

As research on language attrition expanded over the years, more specific definitions have been put forward depending on the researchers' approach, i.e., whether they focus on linguistic, sociolinguistic or psycholinguistic aspects. To illustrate only a few examples, from a linguistic point of view, attrition is identified as "any structural deviation from the standard" (Vago, 1991:242). From a sociolinguistic point of view; it is "a form of language change that causes potential communication problems between individuals and the community of which they consider themselves a member" (Jaspaert & Kroon, 1989:80). From a psycholinguistic point of view, it is defined as "a kind of forgetting which can be characterized as negative change (i.e., decline, decrease) in linguistic knowledge (competence) and/or control over that knowledge (performance) rather than loss of the knowledge itself" (Ammerlaan, 1996:1; see also Sharwood-Smith, 1983). A more inclusive and general interpretation is that "a linguistic system in disuse will be vying for memory space with the other linguistic system(s) occupying the same brain, that not being kept 'fresh' and 'strong' through constant use will somehow weaken it, and that it will therefore suffer in some way." (Schmid, 2006:74).

In sum, L1 attrition implies a gradual weakening of native language skills caused by a limitation in use and input of that language due to moving into an environment where another language is dominant. The most obvious findings related to L1 attrition come from investigations of early bilinguals who are exposed to an L2 in childhood or before puberty (e.g., Montrul, 2004; Schmitt, 2004; Ventureyra & Pallier, 2004). In the present study, we limit ourselves to individuals who fully completed L1 acquisition before they were immersed in an L2 context. Attrition among adults is typically observed among migrants who live in language environments other than their mother tongue for a long time. It is possible that migrants with even fully developed native languages with stable grammar and phonology may undergo attrition (e.g., Dussias & Sagarra, 2007).

1. 5 Bilingual Language Processing and Lexical Access

The effects of bilingualism on the native language have been investigated by several psycholinguists. They primarily focused on how bilinguals are able to choose and speak the language they intended. In order to explain that, they proposed a number of bilingual speech production models (e.g., Bilingual Interaction Activation, Distributed Feature, Revised Hierarchical, Inhibitory Control Model; see Kroll & Sunderman, 2003 for details). Without going into much detail about these models, we can point out that all of them agree that speech production is target language non-specific (e.g., de Bot 1992, de Bot & Schreuder 1998; Green, 1986; Hermans, 2000; Kroll & Sunderman, 2003; Poulisse & Bongaerts, 1994). The conceptual system spreads activation to the lexical representations of both languages and the links within phonetic and orthographic features, word forms, lemmas and concepts are triggered regardless of the language in which the task is being performed. Therefore, bilinguals need to make use of an additional processing mechanism in order to choose the item from the target language and this costs them extra time and effort. There is

extensive evidence from cross language picture-word interference, lexical decision and priming experiments where phonologically, orthographically or semantically related alternatives (as apposed to unrelated words) delay production in the target language (e.g., Caramazza, 1997; de Bot, 2004; Levelt et al., 1999; van Hell & Dijkstra, 2002).

Lexical selection refers to the process of selecting a lexical item from the mental lexicon. Retrieving a lexical item from the lexicon is called ‘lexical access’. It is a mapping between a conceptual representation and a word’s phonological form, which consists of two basic stages: lemma retrieval (semantic and syntactic characteristics of a word) and phonological encoding (sound structure within the lexeme). First, a speaker chooses the concept s/he wants to express (lexical selection). Then, this determines the activation and the selection of the lemma. This in turn triggers the necessary syntactic procedures to take place. In the next step, a word-form matching is carried out and an articulatory plan of the message is constructed. Lastly, the message is expressed overtly in speech (Levelt, 1989) (see figure 1.1).

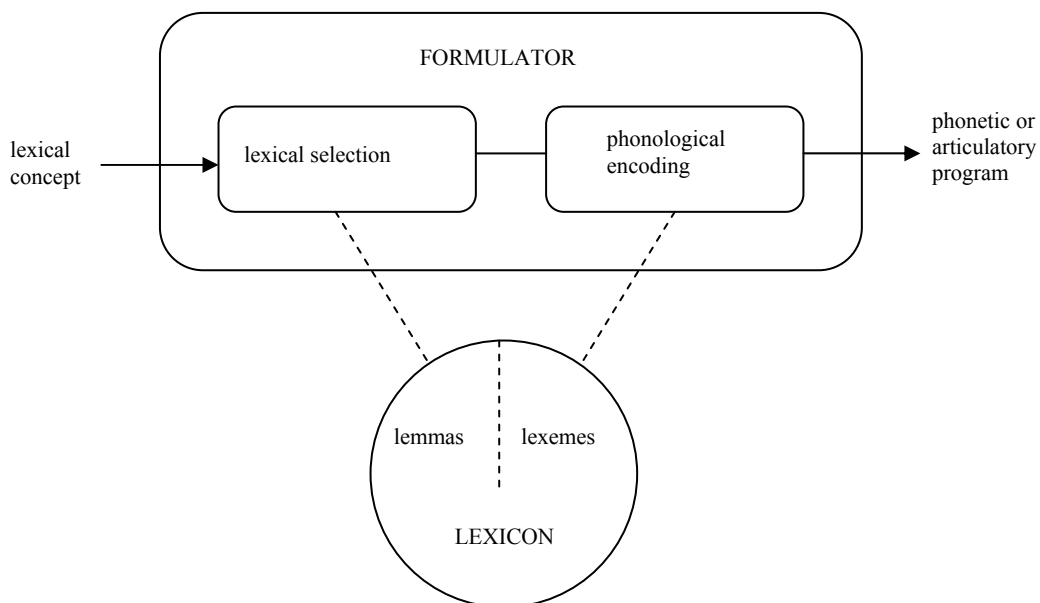


Figure 1.1 Stages of lexical access in speech production (based on Levelt, 1993:4)

This process of mapping progresses through successive operations in the interconnected brain regions which are responsible for lexical selection (see Figure 1.2). Regions of ‘lexical selection from concept’, ‘phonological code retrieval’, ‘phonetic encoding articulation’, ‘syllabification’ and ‘self monitoring’ are all found to be active at the time of lexical selection (Levelt et al., 1998).

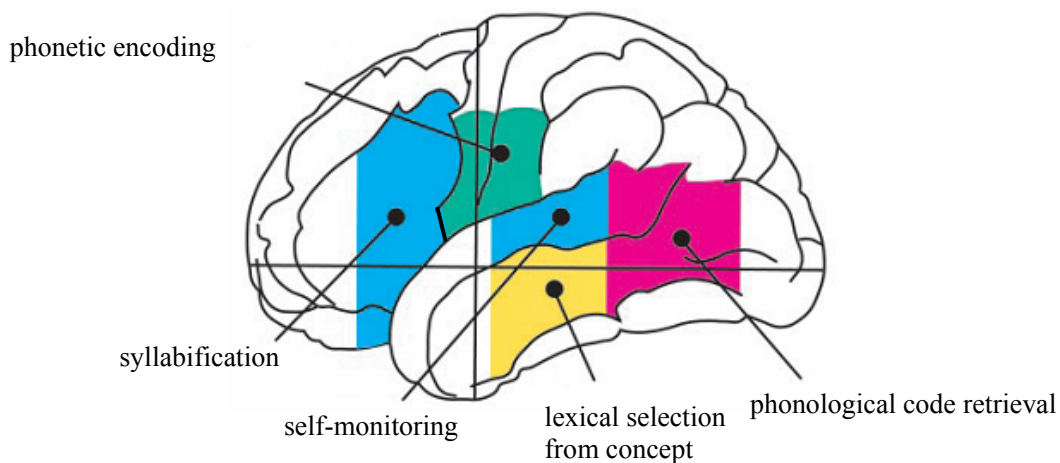


Figure 1.2 Lexical access: mapping between conceptual representation and phonological form (Levelt, 2001:13470, figure 9)

For instance, if a monolingual wants to say ‘chair’, ‘chain, table, anchor’ would be activated in the lexicon because of phonological, semantic and orthographic relations respectively (in addition to other overlapping elements). In a bilingual system, all related items would be activated simultaneously in both languages so the bilingual has to not only inhibit the non-target words but also the non-target language. In his adaptation of the Levelt’s speaking model, de Bot (2004:12) suggest that language choice is controlled through an external language node and it takes place very early during conceptualization. The language system has three components: conceptual features, syntactic procedures and form elements (sounds, syllables or gestures) and each of them has language-specific subsets. The intention to speak in a language is transmitted to both the system that generates lexical concepts and the external language node. In return, all relevant components in the target language are activated by the language node. This activates the other elements in the same language. This in turn triggers the elements in the non-target language that are shared with the target language. The language node gathers the information about the activation levels in both languages and transmits the information about the target word to be selected to the relevant components in both languages. Levels of activation depend on a number of factors such as frequency and recency of use, level of proficiency in languages, age of acquisition and so on.

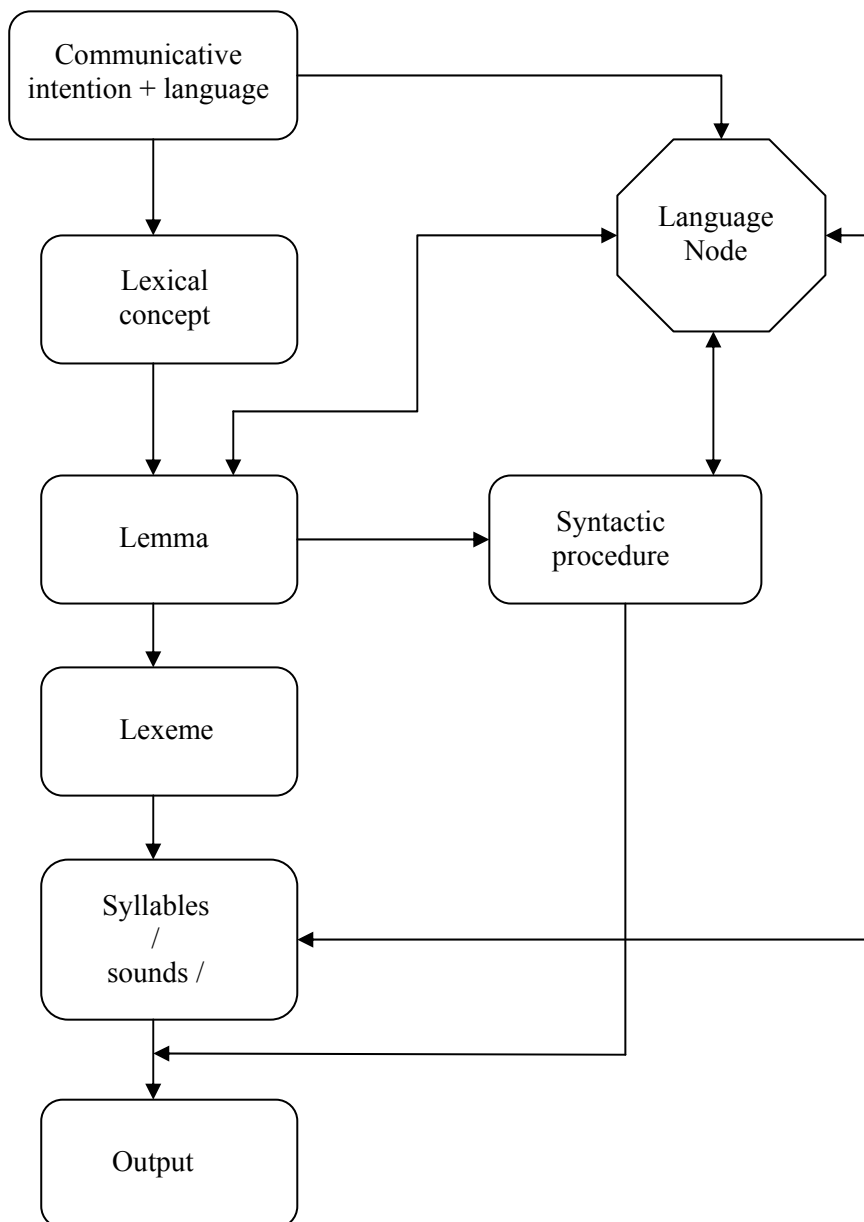


Figure 1.3 The multilingual processing model (de Bot, 2004:13, figure 2)

1.6 Activation Threshold Hypothesis

Among the factors that are thought to be influential in language production, frequency and recency of the activation is proposed as one of the most significant factors. The Activation Threshold Hypothesis (ATH) is a well-known framework that attempts to establish a relation between the use of a linguistic item and its availability to the speaker (Paradis, 1993, 2007). This is a psycholinguistic model which aims to explain the management of the two languages in the bilingual mind. When one language is selected more often, the other language is simultaneously inhibited (Green, 1986). The items in the language which is frequently activated will need less stimulation to be reactivated, which means they will be easily accessible while the items in the less used language will be more difficult to retrieve. In this framework, the difficulty of retrieving a target form is not considered as evidence for loss but an access problem to the knowledge which is still present in the language system. That is, nothing gets lost completely. It is possible for a person to

recognize and understand a word but not to be able to produce it. Therefore, it is a natural consequence of the presence of more than one language. Since a bilingual's time is inevitably divided between two languages, this works as a disguised frequency effect (see Mägiste, 1979; Ransdell & Fischler, 1987).

Long term disuse has different implications for the components of the language system depending on whether they are maintained by the implicit (procedural) or explicit (declarative) memory (Paradis, 2004). Areas of linguistic knowledge that are assumed to reside in implicit memory comprise phonology, morphosyntax, semantics, rules and procedures about the language. All of these, once they are internalized, are applied automatically. Therefore, frequency of use is not a primary issue for their accessibility and they are more resistant to attrition. The lexicon, on the other hand, is subserved by declarative memory and consciously acquired, controlled and retrieved. Items in the lexicon are called upon more or less frequently and are therefore accessed more or less easily. Therefore, the earliest symptoms of attrition are detected in the lexicon (Paradis, 2009).

Attrition researchers have frequently called upon the ATH in order to explain their findings. For instance, accessibility of syntax in the L1 Turkish and L1 English was found to be associated with frequency of language use (Gürel, 2004; 2007). Turkish-English bilinguals who lived in North America and rarely used their L1 preferred the English binding pattern over the Turkish overt pronoun *o* (incorrectly). Their performance in the use of the null pronoun and the overt pronominal *kendisi* was intact which Gürel attributed to the fact that there are no equivalent forms of these features in English. Since there is no competition, the activation threshold of these items does not increase. English-Turkish bilinguals living in Turkey did not have any attrition in their L1 grammar because they all had English-speaking jobs and used English extensively (unlike Turkish-English bilinguals) on a daily basis.

Another study is interesting in that it offers partial support for the ATH (Köpke, 2002). German speakers of French and English had problems in accessing the L1 lexicon, which seems to confirm the ATH; but it was not certain whether all lexical errors were due to interference from the L2 (e.g., the presence of an L1 item which has a lower threshold than an L2 item in subjects who hardly ever speak L1). The attriters did not differ from the control group significantly with respect to grammatical accuracy and the errors they made seemed to be related to the time pressure rather than processing difficulties. This reveals that the influence of frequency and recency of activation is not that strong on grammatical knowledge, which is in line with the ATH model.

One study set out to investigate the impact of L1 use among the speakers of German in Canada and the Netherlands (Schmid, 2007). In order to do that, language use environments were classified into three groups as the bilingual mode setting (in the family and with friends), the intermediate-mode setting (in social contexts like clubs, churches and at work) and the monolingual mode setting (with speakers in Germany) (based on Grosjean, 2011). Since activation level of L1 items would vary depending not only on how frequently L1 is used but also on the degree of inhibition of L2 that would characterize the language use

context, it was expected to see more attrition among speakers who use L1 more frequently in the bilingual mode than speakers who use language in the monolingual mode. Though an attrition effect (i.e., in lexical access, lexical diversity and fluency) was established, the impact of L1 use was limited and only the intermediate mode contexts played a role. One possible reason put forward is that language knowledge is so stabilized and after such a saturation point, frequent activation is not necessary (Neisser, 1984).

Our findings regarding L1 lexical knowledge of the community under investigation are presented and discussed within the ATH framework in chapter 5.

1.7 Factors that Impact L1 Attrition

It has been widely acknowledged that language development can best be studied with reference to the social and psychological circumstances in which it develops (de Bot, 2008; Herdina & Jessner, 2002). Determining the degree of impact of these forces and how they affect the balance between the languages has been a real challenge for researchers for several decades. Similar factors have been reported to impact L2 acquisition and these are discussed in Chapter 3, so the present section mainly focuses on the factors as they relate to the process of L1 attrition.

1.7.1 Language Use

Broadly speaking, the change in the L1 system is driven by extensive L2 exposure and restrictions in the L1 use and L1 contact (Schmid & Köpke, 2007). Since immigrants leave their L1 environments and find themselves surrounded by another language, it can intuitively be assumed that their L1 will suffer. While a number of researchers argued in favor of the role of language use for language maintenance (de Bot, 1998; de Bot et al., 1991, Herdina & Jessner, 2002; Köpke 1999; Laufer, 2003; Opitz, 2011) and in particular in domains outside home (Hulsen, 2000), a number of recent studies seriously questions the validity of the reported links between language use and attrition (e.g., Schmid, 2007; Schmid & Dusseldorp, 2010). As pointed out by some of the researchers themselves, a major problem might be the difficulty of determining actual language use based on the personal statements and/or self-reports of participants.

1.7.2 Age

Age at onset is the most debated issue both in L1 attrition and L2 acquisition. Age related differences have been mostly researched in relation to the Critical Period Hypothesis and age emerges as a strong predictor of attrition. It has been consistently reported that pre-puberty children's native language is affected at dramatic levels (see the overviews in Bylund 2009 & Montrul, 2008). As far as adult speakers are concerned, no age effect has been found (Köpke & Schmid, 2004) except in a recent study of English native speakers of German (Dostert, 2009). The speakers who arrived at older ages were found to be less fluent in their speech (as indicated by frequent use of reformulations in the picture description task) and performed poorly in the cloze test.

1.7.3 Education

It is often acknowledged that higher education provides a clear advantage for potential attriters because more educated people have a wider and more sophisticated collection of vocabulary and a more advanced knowledge of grammar. Also, they are likely to read and write more, and to be able to afford more frequent travels to their home town, which keeps their language system more entrenched. However, it is hard to trace the individual contribution of education because it is closely related to other factors that influence attrition (Köpke & Schmid, 2004: 21). For instance, more educated people are more experienced in formal tests and have better developed cognitive skills. That is probably the reason why education appeared to have different impacts on the different tasks administered. It was influential in a correction, an editing and a lexical task, but not in a comprehension task (Jaspaert & Kroon, 1989). More evidence comes from a relativisation, sentence generation, a grammatical judgment and verbal fluency task (Yağmur, 1997; Köpke, 1999) as opposed to a speaking task. The former group of tasks requires a higher level of thinking and the fact that more educated participants did them better does not necessarily mean that their L1 is more intact. They might be more able to deal with such tasks because of their education (Köpke & Schmid, 2004).

1.7.4 Length of Residence

Even after a prolonged stay in the immigration country, L1 system stays remarkably stable, in particular in the domains of morphology and syntax (e.g., de Bot & Clyne, 1994; de Bot et al., 1991; Hutz, 2004; Jaspaert & Kroon, 1992; Schmid, 2002; Schmid & Keijzer, 2009, Waas, 1996). For instance, the Dutch in Australia who were tested in 1970 and retested in 1987, had no further attrition over time (de Bot & Clyne, 1994). It is possible that there is a ceiling effect at around 10 years of residence after which language skills remain fairly stable. Two longitudinal case studies of German immigrants in the US indicated that the amount of attrition did not increase in proportion to the time since migration which was over 57 years ago. Also, the participants' L1 was remarkably stable in terms of morphological and syntactic structures (Jaspaert & Kroon, 1992; Hutz, 2004). What is more interesting is that longest residents of German in the Netherlands and Canada had the smallest attrition effects (Schmid & Köpke, 2009). The time factor was important only when there was limited contact with the L1 (Dutch bilinguals in France- de Bot et al., 1991).

1.7.5 Attitudes and Motivation

The relation between the attitudes towards both the home and the dominant culture and motivation to learn the host country language is one of the most discussed topics in immigrant contexts. Attitudes are often assumed to play a significant role in shaping language development through affecting language choice and frequency of language use by the individuals as stated by Herdina and Jessner (2002): "Individual motivation will show its effects on the amount of effort put into the acquisition and maintenance of a specific language system and therefore on positive or negative growth" (p.138).

Attitudes develop along instrumental and sentimental (or integrative) motivations. Instrumental reasons usually consist of educational and professional aspirations and upward social mobility. Sentimental

motivations can be identified through the extent and the nature of the social network, the language and culture preferred, intensity of the wish to preserve native language, marriage patterns and so on.

In order to determine the impact of attitudes on language maintenance, some researchers worked within the Theory of Ethnolinguistic Vitality (de Bot et al., 1999; Extra & Yağmur, 1994; Hulsen, 2000; Yağmur, 1997). Ethnolinguistic Vitality is “what makes a group likely to behave as a distinctive and active collective entity in inter-group situations” (Giles et al., 1977: 308). It is predicted that low-vitality groups are likely to go through linguistic assimilation while high vitality groups are highly motivated to maintain their language and identity in multilingual settings. Turkish people, on the whole, have a strong sense of belonging to their ethnic group and Turkish is of great significance to them as a means of communication in the group. It has also a symbolic and sentimental value for them. Their motivation to use and preserve Turkish is further enhanced by the in-group prestige of the language. Turkish migrant communities in the Netherlands, Germany, France and to some extent Australia have continued to speak Turkish and Turkish maintained its presence in particular in the family in every day communication (Yağmur, 2004, Yağmur & Akıncı, 2003).⁶

1.8 Aspects of Turkish (L1) Investigated in the Present Study

In order to find out whether the L1 knowledge of Turkish-Dutch bilinguals differed from that of monolingual speakers of Turkish, we decided on comparisons of their ability to access the lexicon, variety and sophistication of the words in their lexicon, speaking fluency and use of complex embeddings.

1.8.1 Lexical Accessibility

In their daily speech, some of our participants reported that they have difficulties in remembering the names of places, people or objects due to disuse for a long time. This is because their language system has slowed down and is not able to find the right words in time for real-time speech production (Levelt, 1986). The most commonly used techniques to test word finding and language processing difficulties are picture naming/matching tasks and hesitation analyses. Picture naming and matching tests measure the number of items recalled by the speaker and the speaker’s reaction time (the time between the onset of the picture cue on the screen and the initiation of the speakers’ response). In the first stage, upon the person’s identification of the picture, the appropriate non-verbal representation in the memory is activated. In the second stage, a number of verbal representations (that compete to be selected) are activated by that, and finally, a response is chosen from among these representations and the answer is generated. The processes in the picture matching task are similar to those in the picture naming except that the speaker does not produce a vocal output.

The words in these tests belong to three categories of frequency: high, medium and low. Generally, the retrieval of high frequency words (easy, more common items such as ‘cat’, ‘pen’) is faster and low frequency words (more sophisticated or rare such as ‘screwdriver’, ‘thimble’) are retrieved more effortfully (see Ivanova & Costa, 2008; Jescheniak & Levelt, 1994). As Andersen (1982) hypothesized, bilinguals use and

⁶ The most powerful reason is assumed to be high-rate of in-group marriages. When both partners come from Turkey, their children learn Turkish as their first language (Yağmur, 2004).

come in contact with only some of the vocabulary in their native language and they mostly use high-frequency words. This is why bilinguals might use coordinate terms, ‘dog’ for ‘wolf’ and super-ordinate terms like ‘clothing’ for ‘dress’ (Ammerlaan, 1996; Olstain & Barzilay, 1991). For monolingual speakers reaction times are typically about 600-1200 milliseconds (Bates et al., 2003; Levelt, 1989). Bilinguals are consistently found to be slower and/or less successful compared to their monolingual counterparts even in their dominant language (e.g., Ivanova & Costa, 2008).

One of the first studies that used a picture naming and matching task to investigate native language processing was conducted among Dutch-English bilinguals living in Australia (Ammerlaan, 1996). The speakers had lexical retrieval difficulties depending on their age of arrival and gender. Another study on L1 Dutch in an English context reported that the speakers who used L1 outside the family context less frequently were less successful in accessing the low frequency words than the monolingual baseline. The importance they attached to the Dutch language and ethnicity had some impact on their receptive skills as well (Hulsen, 2000).

1.8.2 Lexical Sophistication and Diversity

Words do not occur randomly in speech. Some are more common and used very frequently. Some are more advanced and likely to be used less often as illustrated below:

“There was a girl who was alone and hungry...” versus “A destitute and lonely young female...”
(Jarvis, 2006 cited in Schmid, 2011).

Lexical sophistication measure is a very useful technique to distinguish the speakers who use advanced (rare) words from the speakers who use basic (easy/frequent) words (Read, 2000). This is determined by the average frequency of the words that occur in a speech segment. A high frequency means that the words this speaker use are uttered by other speakers’ very often and that they are easy or basic words. A low frequency indicates that this speaker use different words from other speakers which are advanced and rare in the sense that these words occurred rarely in relevant corpora.

Lexical diversity refers to the variety or number of words in a speech segment. The general assumption is that low diversity indicates a limited number of words at the speaker’s disposal (Read, 2000). ‘Tokens’ or ‘lemmas’ refer to all the words in a particular text or a segment of speech and the total number of tokens determines the length of the data. ‘Types’ refer to the words that occur only once and determine the total number of different words that occurred in a language sample. A lemma includes all inflections of a word (e.g., study: studies, studied, studying). Lemmas are stems or the basis of the words. The process of determining the lemma of a word is called lemmatisation. In highly inflectional languages like Turkish, lemmatization has a special significance with respect to word frequency because several inflected forms of a lemma are possible. To illustrate, inflections on the lemma ‘eat’, ‘*yemek*’ addressing tense and person for only first, second and third person and past and simple present tense are as the following:

Yedim: I ate; *Yedin*: You ate; *Yedi*: She ate ; *Yerim*: I eat; *Yersin*: You eat; *Yer*: She eats

1.8.3 Fluency in Speech

Speaking fluency refers to the ability of the speaker to readily and automatically use words. While the speaker prepares a pre-verbal message prior to speaking, words and concepts needed to express the message are selected and retrieved through the stages of conceptual, formulatory or articulatory processing. During this process, the speaker needs to make some of the resolutions which are likely to cause delays or hesitations in the speech (Levelt, 1989). These are acknowledged to be functional and strategically used by the speaker because they help planning and enable the continuity and spontaneity of speech (Clark, 1994). Bilinguals may generally need more time to plan their upcoming speech and to resolve syntactic and lexical difficulties and therefore, their speech does not flow as smoothly as that of monolinguals (e.g., de Leeuw, 2007; Dostert, 2009; Opitz, 2011; Schmid & Fägersten 2010). Therefore, they tend to exhibit a larger incidence of disfluency. Disfluency phenomena consist of empty or filled pauses, self-corrections, repetitions, word finding difficulties, errors, lexical fillers, slowed down speech rate and so on.

Several studies reported that bilinguals were outperformed by the native controls on a number of fluency tasks revealing language processing difficulty and decreased automaticity in lexical retrieval. Schmid and Fagerstein (2010) found that German speakers in Canada and the Netherlands and the Dutch speakers living in Canada used more empty pauses, repetitions and self corrections than the monolingual controls. Dostert (2009) stated that native English speakers living in Germany had higher incidence of hesitations in all categories of disfluency except reformulations. The deterioration on the fluency can also be qualitative as in de Leeuw (2004) where phonetic features of hesitation markers were approximated towards the L2 norms.

1.8.4 Structural Complexity

Once stabilized, L1 grammar does not deteriorate easily. In particular when L2 exposure starts after the L1 has been fully established (i.e., after puberty), structural change in the grammar is not very likely. Syntactic attrition research, on the whole, could determine only minor divergences from the monolingual norms. Areas that are vulnerable to change are case morphology, gender-marking, adjective/noun convergence, indefinite articles, relative pronouns, allomorphic variation, verbal agreement, use of lexemes instead of bound morphemes to encode grammatical relations, word order, binding domain and perfective/imperfective aspectual distinction (Schmid, 2002).

A typical indication of syntactic attrition is a preference for structures that require less complex grammar rules and increasing number of mistakes in more difficult structures. As bilinguals avoid complex grammar, they may end up with a narrower repertoire of syntactic constructions and linguistic devices (Andersen, 1982; Satterfield, 2003). This is called 'simplification' or 'economy of communication' (Andersen, 1982). It is possible to place the Simplification view under a wider theoretical framework, which is the theory of Markedness. This theory proposes that languages have marked and unmarked features and these are represented in different ways in various components of language. Within the general interpretation of

markedness, basic forms and structures are considered unmarked. Forms that require more rules and occur less frequently and less typical are marked (for a discussion of the concept of markedness in grammar see chapter 4). In the syntactic domain, relative clauses can be considered ‘marked’ and simple sentences ‘unmarked’ because relative clause formation requires the knowledge of more complex rules. The Simplification view assumes that unmarked (less complex) forms will start to prevail over marked (more complex) forms which will eventually lead to the formation of a simple variety of the language (Seliger & Vago, 1991).

1.9 L2 Success of Migrants and its Perceived Relation to Integration

Variables involved in second language acquisition process are similar to the variables in L1 attrition and described in chapter 3 in detail. This section addresses only motivational attitudes towards the L2 community and their culture because this factor has a particular relevance to the community under investigation and the host country. This community’s level of Dutch proficiency and the degree of their integration into the Dutch society are perceived to be closely linked to one another. It is widely assumed that better Dutch language knowledge will bring the migrants closer to the Dutch society while use of mother tongue will impede their linguistic and cultural integration. One of the reflections of such assumptions at the policy level is that migrants are confronted with stricter language requirements and heavy demands to develop their Dutch proficiency. Moreover, since mother tongue is seen as a barrier to L2 learning and hence integration, the use of mother tongue is discouraged in all domains including the family.

In general, migrants of all origins, in most European countries, by all means have been surrounded by economic, social and political pressures to integrate both linguistically and culturally (e.g., Extra & Yağmur, 2004). If the Netherlands, once had not had a reputation for its multiculturalist and tolerant immigrant policies, the current policies would not perhaps attract that much attention. One of the most criticized policies is the enforced language integration process. Indeed, the role of language proficiency may not be as critical as it is assumed by the policy makers, or it may not be equally influential across all immigrant groups. For instance, in the U.S., many Northern European migrant groups who were white and Protestant lived through a smooth and relatively quick linguistic and cultural assimilation into the Anglo-Protestant American society. Learning English allowed access to the economic and social life and they were accepted in the society. However, some other groups from different racial, cultural and religious backgrounds (i.e., Latinos and Asians) were often denied equal access to economic and social life even after they learned English fluently. Many of them left their native language and cultural connections behind as well but the mainstream society did not take them in (Boyer, 2009; McDonald & Balgopal, 1998). There are also examples of immigrant groups who do not experience much clash between L1 maintenance and L2 acquisition or between integration and continuing to speak their mother tongue over generations and succeeds high levels of linguistic integration. To illustrate, even among the third generation of Mexican immigrants in the U.S., the rate of bilingualism is 50%. While their attachment to cultural heritage persisted over generations to a large extent, strength of their national American identity in general was in general similar to the American-born citizens. (Citrin et al., 2007).

In fact, historically speaking, the Netherlands, is no exception among nation states, all of which have considered linguistic uniformity and cultural homogeneity as one of the major underlying components of being a nation state. They used this to separate ‘we’ from ‘they’. When immigrant minority populations started to grow within their borders (as a result of economic and technological developments and increasing globalization), the expectation was that the immigrants were going to integrate into the mainstream society and that the cultural and linguistic differences between the minority groups and the receiving society will gradually diminish. Their responsibilities as the host countries (and the host societies) such as accommodating towards the migrants, opening a space for them or building intercultural relations did not usually come up as an issue. It is usually up to the individual state’s willingness to make the necessary resources available for its (prospective) citizens. It may either encourage and support cultural and linguistic diversity or ignore the needs and interests of the minorities. The usual scenario is that official language policies and economical and educational requirements facilitate the use of the majority language and there is an open reluctance towards diversity. Mostly due to instrumental reasons, motivation to use the native language decreases (as well the opportunities) and it becomes to be used less.

The role of host language proficiency has been confirmed in socio-cultural adjustment and economic integration of the migrants by a number of researchers (e.g., Ataca & Berry, 2002; Dustmann, 1994; Odé & Veenman, 2003; Uunk, 2003,). However, it has always been acknowledged that the association may have developed through multiple routes and that a causal relation is far from being clear.

1.10 Aspects of Dutch (L2) Investigated in the Present Study

In the present study a number of linguistic aspects were studied that are relevant to positioning the Turkish community in the Dutch society.

1.10.1 Foreign Accent

Rating of perceived accentedness is one of the commonly used techniques to assess language proficiency. Accent refers to correct articulation of the sounds. Deviations in the articulation lead to foreign accent. Second language learners often have difficulties in producing sounds that do not occur in their mother tongue (or in the languages they learned as a young child). Research on perceived foreign accent mostly focuses on the relation between age of onset of second language learning and success in native-like pronunciation. In the present study, however, we are not interested in how native-like our participants sound but the way they speak in general, so we did a global rating of accent. Native Dutch raters (all of them students of English at the University of Groningen) rated 15 second excerpts from their speech. They judged if each speaker could be classified as a native speaker or not and then decided how confident they were (certain, semi-certain or uncertain) in their judgment following the procedure suggested by de Leeuw et al. (2010). This resulted in a six- point Likert scale where 1 represents the judgment ‘certain of a native speaker status’ and 6 means ‘certain of a non-native status’. Control native speakers were recruited as well in order to establish a native-speaker norm.

1.10.2 Lexical Sophistication

Some words were used by the speakers more often (easy and frequent) and some words occurred more rarely (difficult and infrequent). Lexical sophistication distinguishes speakers who prefer to use simple words from speakers who use advanced words. The same procedure has been applied in the L2 measurement of lexical sophistication as in the L1. A complete list of words (that occurred in the complete corpus) is prepared within Computerized Language Analysis (CLAN) (MacWhinney, 2000) and the lemmatization of the list is carried out with the MOR routine offered in CLAN. Then, the list was checked manually by a native speaker of Dutch for inconsistencies in spelling to prevent an artificial increase in word types. Only nouns, lexical verbs and adjectives were included. In order to calculate the average frequency of lemmas, it was assessed how often a specific lemma had occurred in the entire corpus. Then, the average frequency of all of the lexical items which each speaker had used was calculated.

1.10.3 Unique Lexical Items

The presence of unique items is related to the frequency of the words. These are basically the words only a particular individual used. The assumption pertaining to the uniqueness is that the proportion of unique items would increase with proficiency.

1.10.4 Overall Proficiency

Overall proficiency was established based on a holistic impression (overall effect) of the spoken performance. Holistic judgment is rather a qualitative evaluation/approach that speaks for overall effectiveness of language performance rather than individual aspects of proficiency. None of the lexicon, grammar and so on is more weighted in the evaluation and an occasional tense mistake or wrong word usage does not lower the score. Three native Dutch raters assessed each recording on fluency, pronunciation, intonation, syntax and lexicon on a 5-point scale from very basic to native-like. In order to calculate the holistic score, ratings per individual were added up and averaged across the three raters.

1.11 Methodology⁷

The methodology of the present study is adapted from the Test Battery of Monika S. Schmid (www.let.rug.nl/languageattrition) which has also been used by a number of other researchers who work within the Attrition Network (Monika S. Schmid, E. de Leeuw, S. Dostert, C. Opitz, M. Cherciov; M. Keijzer). Working within a similar framework allows us more reliable comparisons among different groups of people and therefore a better understanding of the variability in bilingual development.

The data of the present study come from a sociolinguistic questionnaire, an elicited speech task, and picture naming and matching tasks.

⁷ The contents of the study were explained to all participants and they were asked to sign a participant consent form (see Appendix 7).

1.11.1 Sociolinguistic Questionnaire

This is basically a Turkish version of the questionnaire in this battery. Only minor modifications have been made according to the profile of the Turkish community in the Netherlands. It was conducted in Turkish. It consists of questions on:

- Personal background:

Date and place of birth, sex, highest level of education completed, employment situation and emigration length.

- Language contact:

- frequency of L1 use
- frequency of L1 use with partner, (grand)children, parents, siblings, relatives and friends (currently)
- frequency of L1 use with partner, (grand)children, parents, siblings, relatives and friends (in the past)
- frequency of language use for professional purposes
- frequency of language use at shops, at other Turkish community institutions and the mosque
- frequency and reasons of visits to L1 country and the duration of the visits
- native language of partner
- native language of friends
- amount of contact with friends/family in country of origin (via e-mail, telephone)
- language with family in country of origin
- passive exposure to L1 via television, radio, newspaper and books

- Attitude:

- importance of maintaining L1
- importance of intergenerational L1 maintenance
- importance of L1 as medium of contact with friends/family in country of origin
- language preference
- cultural preference
- feelings of homesickness
- feeling uncomfortable because their L1 has changed
- regret coming to the Netherlands
- intention to return home country
- attitudes towards speakers of the L2 country
- attitudes towards foreign language learning in general

The full version of the questionnaire in both English and Turkish can be found on Appendix 1 and 2.

1.11.2 Free Speech

Spoken data are elicited by means of two interviews, one in Turkish (conducted by the researcher, who at the time of the data collection spoke no Dutch) and one in Dutch (conducted by a native Dutch student assistant with no knowledge of Turkish), which mostly took place at the homes of the participants. The interviews

lasted for about 20-60 minutes and were recorded in order to be transcribed later on. The interviews developed in the form of an informal and friendly chat. Participants usually had a lot to talk about their life in the Netherlands, their likes and dislikes about living here, the time when they first arrived here, their social relations, hobbies such as sports and cooking, their vacations in Turkey, child raising practices and educational opportunities here.

1.11.3 Picture Naming and Matching Tasks

Picture naming and matching tests were used to identify how automatic and accurate the participants were in retrieving lexical items (Levelt, 2001). We used a standardized set of 156 pictures of high, medium and low frequency from Snodgrass and Vanderwart (1980) as stimuli. We controlled for culture appropriateness, cognate status, and semantic and phonological relatedness between consecutive items. For these tasks, an HP laptop computer, a serial response box, a microphone and a recorder were used. Picture naming test was administered in both Turkish and Dutch, and matching task in only Dutch. In the picture naming task, the participants were asked to tell the name of the picture they have seen on a computer screen as quickly as they could. In the matching task, the participants had to decide if the picture on the screen matched the word they heard by pressing the yes or no button as quickly as they could (auditory and visual stimuli were presented at the same time). In both tasks, they had maximum 3000 milliseconds to respond. If they take long time to answer, this is interpreted as they are having retrieval problems. Both Turkish and Dutch versions were administered to the participants with at least 2 months in between the sessions. More details of these tasks are provided in the following chapters. The lists of pictures in Turkish and Dutch, and the picture-word matching list are provided in Appendix 3, 4 and 5.

The organization of the rest of this dissertation is as the following: Chapter 2 is an investigation of L1 lexical accessibility among first generation Turkish and Moroccan immigrants in relation to their language use and attitudes. Chapter 3 explores the factors that play a role in development of L2 proficiency among Turkish speakers. Chapter 4 and 5 investigate processing difficulties and a potential structural change in the L1 Turkish, respectively. The dissertation concludes with a summary of the major findings and a discussion of the implications.⁸

⁸ Since the studies reported in chapters 2, 3, 4 and 5 were written as separate papers to be submitted to journals, some information in particular the parts describing the methodology and the social background of the participants is inevitably overlapping.

Chapter 2. Multilingualism and Attrition: Moroccan and Turkish Immigrants in the Netherlands^{1,2}

2.1. Introduction

The study in progress that will be introduced in this paper explores development in the first and second languages among first generation Moroccan and Turkish immigrants in the Netherlands. More specifically, we investigate how the bilingual proficiency of Moroccan and Turkish immigrants in the Netherlands changes and grows over time as a result of the interdependent effects of social, psychological and linguistic factors. The two target communities were chosen as they represent the largest groups of non-European migrants in the Netherlands. Within the European context, their first languages carry a relatively low prestige, and both groups are frequently criticized for their perceived unwillingness to integrate fully into the host society, a limited proficiency in L2 Dutch often being perceived as one of the main obstacles in this respect.

Proficiency in the language of the host society is one of the most highly visible tokens of individual integration, and all across Western countries more and more strict rules and regulations are being put into place in order to enforce L2 acquisition. To what extent becoming competent in L2 guarantees the embracement of the culture and the values of the host community, however, may be questionable. Linguistic integration may be more difficult for some minority groups because of various social, attitudinal and demographic reasons. Given the complexity of the factors involved, this study will attempt to unravel the impact and interdependency of linguistic, social and psychological factors that affect immigrants' language development. In the first instance, our analysis will focus on the populations' first languages.

Based on the linguistic practice and social patterns of both the Moroccan and Turkish communities, the study will investigate in what way the frequency of use of the L1 as well as attachments to L1 culture in our populations are predictors of L1 maintenance. Demographic, social and sociolinguistic aspects are also investigated in an attempt to gain insight into the development of L1 attrition and L2 proficiency. The study will explore the impact of the size of the migrant communities, marriage patterns, adherence to cultural traditions and ethnic affiliation, as well as L1 vs. L2 use in informal and in professional settings. With respect to attitudinal factors, it will be asked to what extent an instrumental vs. integrational motivation towards acquiring the L2 and maintaining the L1 can impact on proficiency levels.

¹ This is an adapted version of an article that has been published: Yılmaz, G., de Bot, K. & Schmid, M.S. (2009). Multilingualism and attrition: Moroccan and Turkish immigrants in the Netherlands. In A. Backus, M. Keijer, I. Bedder & B. Weltens (Eds.), *Artikelen van de Zesde Anéla-conferentie*. (pp. 183-191). Delft: Eburon.

² 'Turkish immigrants in the Netherlands' part of the larger NWO project Language, Multilingualism and Integration started together with the investigation of 'Moroccan immigrants in the Netherlands' as a joint work. However, since the person responsible from the Moroccan part of the project had to leave due to personal reasons, the following three chapters report on Turkish participants only.

It can be predicted that the size of the community will correlate positively with the degree of L1 maintenance and negatively with overall L2 proficiency. On the other hand, the relatively low prestige of the L1 could decrease the migrants' motivation to use it and to pass it on to the next generation. The members of the communities under investigation are well aware of the low prestige of their L1 as well as the lack of professional opportunities that require proficiency in those languages. However, across these communities, a strong attachment to L1 can be found, while L2 Dutch is valued chiefly for instrumental and professional reasons (Dagevos & Gijsbert, 2007) Therefore, our prediction is that, prestige levels notwithstanding, the migrant communities under observation may regard it as important to maintain their L1 and pass it on to future generations due to their strong ethnic affiliations.

2.2 The Sociopolitical Context

In the nineteenth and early twentieth centuries, increasing industrialization and globalization led to mass migrations towards Western and Northern Europe from non-EU and some Mediterranean countries. Along with other industrialized countries of Europe, the Netherlands has been a popular target for many migrant groups and became an 'immigration' country. This started with a wave of immigrants from the former Dutch East Indies (now Indonesia), Surinam, Aruba and the Dutch Antilles. There has also been an influx of asylum seekers from Africa, Asia and Europe. The third group of migrants were the unskilled laborers Dutch companies recruited from southern Europe, Turkey, Morocco and other countries (Extra & Verhoeven, 1993). Later on, as their families joined these workers in the Netherlands, a social pattern of migration emerged and now the Turkish and Moroccan communities constitute the two largest ethnic minorities in the Netherlands. According to the figures from the central governmental statistical agency CBS for 2006, 364.333 Turkish and 323.239 Moroccan immigrants live in the Netherlands, representing 2.2% and 1.9% of the Dutch population, respectively.³

The large influx of these and other migrant populations has contributed to the linguistically and culturally diverse composition of Dutch society over the past years. Initially, they were largely ignored by society: The commonly held expectations were that the workers were temporary settlers and would leave the country when the demand for their labor decreased, or that they would gradually blend in with the host society, if they preferred to stay. However, contrary to these expectations, in the 1970s it became clear that wholesale assimilation was not taking place, while guest workers started to settle permanently with their families. With economical decline, inter-ethnic tensions developed, revealing the necessity to develop integration policies. Therefore, from 1983 onwards, ethnic minorities policies were instituted in The Netherlands. Initially, these were aimed at promoting immigrants' participation in social and economic life, attempting to ensure good inter-ethnic relations and equal opportunities for everybody, while as far as possible preventing discrimination. These policies comprised measures designed to decrease unemployment and provide low cost social housing.

³ More updated figures based on CBS 2012 are provided in chapter 3.

Education in migrant languages received financial support, and great emphasis was placed on enabling minorities to develop their own culture (Dagevos, 2001; Snel et al., 2004).

After these policies had been put into practice, however, policy makers became disappointed with the low levels of integration and socioeconomic development by the immigrant groups. The dissatisfaction was especially expressed regarding the labor market and education, where non-Western migrants were less successful than the rest of the population. The lack of success was blamed on 'too liberal' policies, leading to the conviction that strategies should be directed towards integration rather than to the promotion of multiculturalism. This resulted in a shift of immigration policy from 1989 onwards. The main goals were set to promote equal participation of immigrants in the socio-economic sphere, in housing, education and labor, and to facilitate the initial integration of newcomers by providing civic integration courses. In 1998 the SAMEN Act was introduced with the idea of social and economic equality, aimed at promoting multicultural employment policies and eliminating discrimination in the work place (EUMC Annual Report, 2001).

Still, the poor performance of minorities at the introduction programs which were made compulsory in 1998 and consist of linguistic and cultural training, remained a source of dissatisfaction for the Dutch government. As the successful integration of the existing migrant population was perceived to remain a source of difficulty, the Dutch government turned towards discouraging newcomers and introduced the Aliens Act in 2000 with stricter limitations on marital migration and family reunification. More constraints were added in 2003, such as increasing the age of marriage from 18 to 21, a minimum wage requirement, and a ban on double citizenship.

As in other European societies, the initial dissatisfaction at migrants' perceived unwillingness to integrate rapidly gave rise to widespread anti-multicultural feelings. The Dutch became convinced that the liberal integration policies of the 1980s had failed, and furthermore began to perceive the multicultural society as a threat to Dutch cultural identity. As a consequence, the Netherlands became the first country in Europe to argue that the process of integration should begin while migrants were still in their country of origin. The Dutch Integration Abroad Act (2006) was also taken as model by the British, German, French and Danish governments. The Act requires that foreign nationals from non-western countries who wish to migrate to the Netherlands for marriage or to join family members must pass a compulsory civic integration test before entering the country. In fact, the Dutch government explicitly stated that the act was intended to deter applicants from Morocco and Turkey (Joppke, 2007). There is thus a very clear development from initial 'tolerance' policies towards migrants to a startling level of restrictiveness: Since the 1990s, Dutch policy towards immigrants of non-Western origin has become one of the toughest in Europe (Bader, 2005), and the Moroccan and Turkish communities are the ones most strongly affected.

While these changes in policy were heatedly and controversially debated, the development is indicative of a wide-spread attitude in Dutch society regarding migrants in general, and the Moroccan and Turkish communities in particular. The change in policy was motivated by a deep concern about loss of national identity advocated in particular by populist and conservative politicians such as Pim Fortuyn, Rita Verdonk and Geert Wilders. Right-wing contributions to the public debate have furthered the creation of a vision of radical Islam as a threat to Dutch democracy. This development has arguably not only impeded integration ideals but further contributed to the climate of mutual distrust between Moroccan and Turkish communities on the one hand and Dutch society on the other (Dagevos & Gijsbert, 2007). In fact, the Moroccan and Turkish communities in The Netherlands generally practice moderate versions of Islam and appreciate the Dutch political and legal system. Therefore, the adoption of strict measures, in conjunction with populist rhetoric, lead to an increase in negative sentiments towards Dutch society, widening the ethnic gulf (Guiraudon et al., 2005; Penninx, 2005).

2.3 Moroccan and Turkish Communities in the Netherlands

In general, the communities under observation here are distinguished from the host society by a relatively lower level of education and income, a higher unemployment rate and poorer housing conditions (CBS, 2007; Dagevos & Gijsbert, 2007). The relative lack of economic success is usually ascribed to a low education level, a limited knowledge of the Dutch language as well as discrimination in the work place, while the housing conditions are largely a consequence of the fact that migrants were not eligible for social housing until the 1980s (Tesser et al., 1996). These factors make the migrant groups more dependent on governmental and social support (Dagevos & Gijsbert, 2007).

The members of these communities are often criticized for leading traditional ways of life with respect to culture, religion and language. The communities are largely endogamous due to the high value placed on cultural and religious outlook (Hooghiemstra, 2001). Dutch language proficiency is often low and first language maintenance is high among first generation immigrants. While they have relatively few contacts with Dutch society, Moroccans are known to be more open to Dutch language and culture and are better learners of Dutch language compared to Turks. At the same time, Moroccans are also more loyal than Turks to their original culture and consider the connection between religion and language as two interdependent elements of their identity (Dagevos & Gijsbert, 2007).

With regards to their attitudes towards Dutch culture in general, Moroccans and Turks appreciate the legal and political system, human rights, life standards and educational opportunities. On the other hand, they prefer not to engage too closely with their Dutch neighbours and colleagues, nor to live according to the norms of Dutch society (Pels, 2000; Arends-Toth & van de Vijver, 2008; van den Broek & Keuzenkamp, 2008). They in general consider the Netherlands as their permanent residence and hometowns as holiday locations, while preserving strong ties with home (Boeschoten et al., 1993; Bos & Fritschy, 2006; Dođruöz & Backus, 2007).

Both communities regard it as very important to maintain their mother tongue along with their identity and culture (Dagevos & Gijssbert, 2007). Moroccan parents try their best to maintain and preserve it as a medium of communication at home with their children. The native language of this group and its transmission to further generations gains particular importance as it is closely related to Standard Arabic, which is the language of religion and of the Holy Koran (Ennaji, 2005). Among the Turkish community, L1 maintenance is also considered important, since the language is regarded as an indispensable part of identity, but most Turkish parents also value Dutch highly for predominantly instrumental reasons for their children. Only some of them are known to exhibit the same concern regarding their own Dutch language skills.

2.4 First Language Attrition

The term first language (L1) attrition refers to a gradual deterioration of L1 skills as the result of a limitation in use and input of that language due to a change in linguistic environment. Even among migrants who, like the groups under observation here, tend to maintain a social environment where the predominant language is their L1, considerable long-term exposure to the L2, e.g. in the workplace, may eventually affect the L1. All of the speakers observed in this study are to some extent bilingual in their L1 and Dutch (among the Moroccan group, there is also a high degree of multilingualism in other languages such as Berber and French), although proficiency in that language is highly variable. Some speakers are unable to fulfill more than their immediate needs in daily communication and at work, while others have outstanding proficiency in Dutch. The reduction in L1 proficiency can be expected to be influenced by a combination of factors, such as length of residence, attitudes towards both L1 and L2, and possibly level of proficiency in Dutch.

Language attrition has been shown to differentially affect various linguistic levels. While the grammatical system of mature speakers is generally considered fairly stable, and emerging optionality is confined to a limited number of contexts (see Schmid, 2009), lexical accessibility is often considered one of the more vulnerable aspects of linguistic knowledge (Schmid & Köpke, 2009).

2.5 Study

The present study investigates lexical access to L1 items among Moroccans and Turks in the Netherlands. Its aim is to explore the complex interaction of various linguistic and sociolinguistic factors with an aim of predicting the extent of maintenance/loss of L1 Moroccan Arabic (MA) and Turkish (TR) and development of L2 Dutch.

2.5.1 Participants

The informants for this study are first generation MA and TR immigrants (n= 35, n=40, respectively). All of them have lived in The Netherlands for upwards of 10 years to ensure sufficient contact with L2. A minimum

age at emigration of 14 was set to exclude the possibility of incomplete acquisition, while a maximum age of 65 was set to avoid aging effects. Participant characteristics per group are summarized in Table 2.1.

Table 2.1 Participant characteristics

		Age	Age at emigration	Length of residence
MA	Mean	46.63	24.06	22.57
	St.Dev.	11.13	3.88	10.35
	Range	30-65	18-32	10-43
TR	Mean	43.18	20.83	21.8
	St.Dev.	8.22	5.83	8.03
	Range	28-61	14-42	10-35

2.5.2 Research Design

The research design for this study is based on the test battery developed by Schmid (2005) and consists of:

- a sociolinguistic questionnaire consisting of 67 items on personal and linguistic background, L1 and L2 use, social networks and linguistic and cultural affiliation. Furthermore a number of items were included to elicit information about participants' attitude and motivation towards their L1, their L2 and language learning in general (adapted from Gardner, 1985). These data were elicited in the hope of arriving at a better understanding of the complex interplay between all these factors on the one hand and first language maintenance and/or attrition and second language learning on the other.
- a timed picture naming task in MA, TR and Dutch derived from the standardized picture set provided by Snodgrass & Vanderwart (1980). The task included 26 high, 26 medium and 26 low frequency items, all items were checked for cognate status of MA and TR on the one hand and Dutch on the other (no cognates were included), cultural appropriateness and visual complexity. The task was administered with E-prime using a serial response box and voice key to measure response times.
- the elicitation of free speech in MA, TR and Dutch by means of a semi-structured interview based on the sociolinguistic questionnaire. The analysis of these data will serve to provide a measure of proficiency in both L1 and L2 of the experimental groups.

The present paper describes work in progress on this study, for which the data collection is still ongoing at the time of writing. The elicitation of L1 data from the MA and TR groups in The Netherlands has been completed, as has the collection of the control group data. The elicitation of L2 data from the bilingual groups in The Netherlands is due to start. The present paper will focus on self-report data on L1 use and attitudes elicited from the MA and TR groups in The Netherlands and on an analysis of the L1 picture naming task from those same groups.

2.5.3 Results

The self-report data on L1 use from both groups (see table 2.2) reveals a predominance of that language within the family and in social life for both communities. Among the Turks, the use of the L1 within the family is more pronounced ($p = .01$). However, at work, almost everybody uses L2 most of the time due to the lack of professional opportunities to use their L1. With respect to the attitudes towards the target society and culture, there seems to be a stronger affiliation with the culture of origin in the Turkish group, while the Moroccans appear to value both cultures equally ($p < .001$). The picture is reversed in the responses to our enquiry of how important the participants felt it to pass their L1 on to their children: while both groups appear to place some importance on this, this tendency appears to be more strongly pronounced among the Moroccans (this difference, however, is not significant).

Table 2.2 Self-reports on L1 use and attitude by the migrant groups under investigation (1 = ‘only L1’, 0 = ‘only L2’)

		L1 use			Attitude	
		Family	Social	Work	Importance of L1 for Preferred culture children	
MA	Mean	0.75	0.7	0.14	0.51	0.6
	St.Dev.	0.19	0.2	0.31	0.17	0.16
TR	Mean	0.86	0.75	0.16	0.67	0.52
	St.Dev.	0.15	0.26	0.27	0.19	0.21
Group comparison:	t (73) = -2.656	t (73) = -.988	t (73) = .178	t (73) = -3.964	t (67) = 1.690	
independent T-Tests	p = .010	p = .326	p = .859	p < 001	p = .096	

In order to gain an impression on whether these self-reports are in accordance with the general perception that these particular migrant groups have a tendency to engage predominantly with other members of their own community in their family and social lives, these self-reports were compared with findings from an earlier study on German migrants in The Netherlands (GENL) and in Anglophone Canada (GECA) (Schmid, 2007). In comparison with these groups, the Turks and Moroccans investigated here appear indeed to use their L1 substantially more in informal situations (with family, socially), while the Germans display a more equal distribution between L1 and L2. However, in the workplace, the balance of languages appears more equal (see table 2.3). Similarly, all migrant groups express a preference for the L1 culture and regard passing the L1 on to their children as equally important.

Table 2.3 Self-reports by German migrants in NL and Canada (Schmid, 2007) (1 = ‘only L1’, 0 = ‘only L2’)

		<u>L1 use</u>			<u>Attitude</u>	
		Family	Social	Work	Preferred culture	Importance L1 for children
GECA	Mean	0.37	0.4	0.23	0.36	0.51
(n = 53)	St.Dev.	0.32	0.3	0.34	0.23	0.2
GENL	Mean	0.41	0.38	0.25	0.42	0.42
(n = 53)	St.Dev.	0.38	0.27	0.32	0.19	0.26

These impressions were confirmed by means of pairwise T-Tests of the data (see table 2.4): with respect to L1 use within the family and socially, the MA and TR groups were different from both L1 German groups ($p < .001$), while professional L1 use did not differ across the groups. The preference for the L1 culture among the MA and TR groups was also stronger than that of the Germans, while the groups in general appeared to place similar importance on the transmission of their L1 to the subsequent generations, with only a slight difference between the Moroccans on the one hand and the Germans on the other.

Table 2.4 Comparison of self-report data between MA, TR and German L1 groups (independent T-Tests)

	MA vs. GECA	MA vs. GENL	TR vs. GECA	TR vs. GENL	GECA vs. GENL
Language family	t (86) = 6.306 p < .001	t (85) = 4.879 p < .001	t (91) = 8.894 p < .001	t (90) = 7.006 p < .001	t (103) = -.582 p = .562
Language social	t (86) = 3.363 p = .001	t (86) = 4.044 p < .001	t (91) = 4.165 p < .001	t (91) = 4.852 p < .001	t (104) = .242 p = .809
Language work	t (86) = -1.158 p = .250	t (86) = -1.550 p = .125	t (91) = -1.473 p = .144	t (91) = -1.928 p = .057	t (104) = -.365 p = .716
Preferred culture	t (86) = 3.305 p = .001	t (86) = 2.147 p = .035	t (91) = 7.004 p < .001	t (91) = 6.295 p < .001	t (104) = -1.605 p = .112
Importance L1 for children	t (74) = 2.031 p = .046	t (70) = 3.361 p = .001	t (85) = .266 p = .791	t (81) = 1.959 p = .054	t (88) = 1.837 p = .070

It therefore appears that the Turks and Moroccans in the Netherlands do indeed use their L1 in informal settings more often than migrant groups in different linguistic, social and socio-economic settings. This might act to prevent or slow down L1 attrition for these speakers and enable them to preserve features such as lexical accessibility at a higher level than has been found for other groups of attriters. It was therefore investigated whether reaction times on a picture naming task were in any way correlated with the amount of L1 use that the individual speakers reported.

2.5.4 Picture Naming Task

The responses from the PNT included 25% invalid responses (either because the item named was not the correct one, or because the voice key did not accurately pick up the responses). The mean valid response times on the picture naming tasks are summed up in table 2.5. Performance did not differ between the two groups, except for low frequency items, on which the Turks' average response time was somewhat slower.

Table 2.5 Picture Naming Task - Response times and percentage invalid responses per group

	Group				T-Test	
	MA		TR		t (73)	p
	Mean	Stdev	Mean	St.Dev.		
Response high freq.	1009.86	184.96	989.14	167.4	0.509	0.612
Response med. freq.	1103.25	206.45	1107.45	177.02	-0.095	0.925
Response low freq.	1215.45	227.73	1325.05	189.55	-2.274	0.026
Response time total	1099.12	186.86	1120.84	160.64	-0.541	0.59
Invalid responses (%)	27.44	16.43	23.01	7.72	1.522	0.132

In order to determine whether performance on the PNT could be predicted by means of any of the language use and attitudinal variables, a linear regression analysis was carried out. The findings from this analysis are summed up in table 2.6.

Table 2.6 Predicting performance on PNT on the basis of L1 use/attitudes: Linear Regression

	Total response		High freq. items		Medium freq. items		Low freq. items		Invalid responses	
	β	Sign.	β	Sign.	β	Sign.	β	Sign.	β	Sign.
Length of residence	0.273	0.02	0.388	<.001	0.285	0.013			0.361	0.001
L1 at work	-0.243	0.03	-0.391	<.001						
L1 social										
Preferred culture										
	$R^2 = .131$ F (2,74) = 5.443 p = .006		$R^2 = .205$ F (2,74) = 9.266 p < .001		$R^2 = .081$ F (1,73) = 6.448 p = .013		-		$R^2 = .131$ F (1, 74) = 10.957 p = .001	

These results reveal that length of residence seems to be a good predictor for all variables except low frequency item response time. While this is a finding which may seem intuitively convincing, a caveat has to be pronounced: in investigations which are situated in a migrant setting, length of residence invariably correlates with age. In the present sample, the Pearson correlation between the two factors is .812 (p < .001). It is therefore impossible to say at present whether the finding presented here is indeed the outcome of a longer period of

residence in a Dutch-speaking country, or a general age effect. The control group data which are currently being analysed may be able to shed more light on this question.

Apart from this factor, the only significant predictor found in this analysis is the use of L1 at work, which appears to facilitate overall response time and response time on high frequency items. There are no other significant predictors.

2.6 Discussion

The present paper describes work in progress, so the conclusions to be drawn from the data analysis at this point may have to be amended once the free speech data, the participants' performance on the L2 tests, and the control group data have been analyzed. Nevertheless, the preliminary analysis throws up two intriguing possibilities.

Firstly, it is possible that no attrition has taken place at all in the two populations under investigation. This possibility is indicated by the fact that the only consistent predictor of RTs in the PNT was length of residence. As was pointed out above, length of residence correlates strongly with age among the population investigated here, so that the slower response times of the participants who had resided longest in an L2 context may simply be a general aging effect. The analysis of the control group data may shed some light on this question. The only other predictor of RTs found in the regression analysis was the use of L1 at work. Here it has to be remarked that only a small number of informants actually reported using their L1 in this context, so that it is possible that the relationship between those factors may be coincidental. It is therefore necessary to compare the RTs of the migrant speakers against the findings from the control group in order to determine whether any attrition has taken place.

If, however, that can be shown to be the case, then the findings presented here is that where lexical accessibility is concerned, attrition may be largely unrelated to L1 use in everyday settings or to language attitudes, as none of these variables emerged as a significant predictor in the regression analysis. Again, this hypothesis will have to be substantiated on the basis of further analyses, including free spoken data in L1 and L2, and a comparison between the experimental and the control groups. Interesting insights may also emerge from the comparison between the migrant speakers' levels of proficiency in L1 and L2.

In the remainder of this dissertation, the focus will be on Turkish.

Chapter 3. Second Language Development in a Migrant Context: First Generation Turks in the Netherlands¹

Abstract

This study explores the extent to which L1 (first language) versus L2 (second language) use and emotional attachments to native versus majority language and culture influence the proficiency in the L2 Dutch among the Turkish-Dutch bilinguals. The community under investigation is of particular significance because it represents the largest non-Western ethnic group in the Netherlands and it has often been discussed in the context of the group members' ethnic and linguistic attachments as opposed to their perceived unwillingness to adopt the cultural norms and values of Dutch society. What makes this immigration setting interesting is that the shift from tolerance to startling levels of restrictiveness in policies of cultural and linguistic integration has nowhere been as fast as in the Netherlands, where successful L2 acquisition is now regarded as the primary indicator of integration.

This article provides a critical analysis of the sociopolitical context in the Netherlands and the L2 development of the first generation Turkish migrants in relation to asymmetrical socio-political relations between the two communities. Overall, the findings indicate close connections between language use patterns, age and education on the one hand and L2 development on the other. However, cultural and linguistic orientations did not play a significant role in L2 success.

¹ This chapter has been submitted to the International Journal of the Sociology of Language with Monika S. Schmid as a co-author.

3.1 Introduction

As a consequence of continuous industrialization and increasing globalization in the nineteenth and early twentieth centuries, socio-politically or economically motivated mobility by migration escalated and cultural and linguistic diversity became a worldwide reality. In particular, migration to Western Europe from non-EU and some Mediterranean countries saw a sharp increase in the second half of the twentieth century (Extra & Vallen, 1997). Economically motivated migration was initially expected to be short-lived; with the labor migrants returning to their home countries after their contracts had ended. However, as they stayed for long periods, their families joined them and this led to the formation of larger groups of immigrants. Growing numbers of immigrant populations started to be perceived as a challenge to national identity and social cohesion while also triggering concerns about the economic well-being of the receiving society (Semyonov et al., 2006; Sides & Citrin, 2007; Sniderman et al., 2004). Eventually, European states began to closely monitor how and to what extent immigrant groups were involved in economic and socio-cultural life (e.g., Netherlands Survey of Integration of Minority Groups and Survey of Integration of New Groups) and to implement diverse forms of integration policies (Bijl & Verweij, 2012).

In this context successful acquisition of the host country language and integration into the host society have come to be regarded as two sides of the same coin across Europe (Extra et al., 2009; Stevens, 1992). Likewise, the use of the home country language and the maintenance of strong ties with the ethnic culture is considered a sign of resistance to integrate (Bijl & Verweij, 2012; Chiswick & Miller, 2001; Portes & Rumbaut, 2001). After the turn of the millennium, language education programs became one of the priorities in integration policies. Increasing numbers of European states introduced obligatory or optional language training programs for both new and settled migrants in order to equip them with what was considered a basic knowledge of language, society, history, culture and institutions. Stricter integration requirements with respect to demonstrating familiarity with these areas of knowledge were introduced for people applying for residence or work permits or citizenship in countries such as the Netherlands, Denmark, Germany, France, Austria, Luxembourg and the UK (Joppke, 2007; Kostakopoulou, 2010).

To what extent becoming competent in the L2 guarantees the embracing of the culture and the values of the host community and acceptance by host society, however, is questionable (see Collin & Karsenti, 2012; Crawford, 1995; Espinosa & Massey, 1997; Nesdale, 2002; Skronabek, 2009). Some minority groups might have more tenacity with respect to identification with their homeland and own cultures while they reach a sufficient as opposed to only a functional level of L2 proficiency even after decades of residence in their host countries ,e.g., Hungarians in Australia, Clyne 1991; Turks in Western Europe, Wright and Kurtoğlu-Hooton, 2006; Yağmur, 2004). What is more, even individuals with high levels of language proficiency and/or good professional skills may not necessarily experience full cultural integration. This so-called ‘integration paradox’ (Tolsma et al., 2012) is expressed as follows:

“while a person may become a functional bilingual either by necessity or choice, as an adult she or he becomes a bicultural bilingual by choice only.” (Pavlenko & Lantolf, 2000:163)

Migrant populations in general are aware of the consequences of a poor command of the local language (i.e., socio-cultural and professional exclusion) and they usually do attempt to master the language. A recent example demonstrating this is the 2011 UK census, which revealed high levels of self-estimated proficiency among migrants with less than 5% rating their English skills as poor or very poor (Jivraj, 2013). The eventual level of proficiency which an individual migrant reaches depends on differences in abilities and personalities (e.g., language aptitude, motivation), demographic characteristics (e.g., amount of schooling, age at arrival in the host country and duration of stay) and a number of external factors (e.g., social distance to the local community, opportunities to interact with the mainstream population, degree of residential isolation and financial concerns) (Chiswick & Miller, 2001; Dörnyei & Skehan, 2003; Hyltenstam & Abrahamsson, 2003; Pavlenko, 2000; Schuman, 1986).

The present study investigates the impact of external factors on lexical and global L2 Dutch language skills among Turkish immigrants who arrived in the Netherlands as adults. We assess predictors pertaining to social life, cultural orientation, adherence to the traditional values and ethnic identity, as well as L1 and L2 use in informal and professional settings and demographic factors. Where this population is concerned, linguistic and cultural attachments as opposed to identification with the Dutch language and culture have been a major source of concern, even more so than for other substantial minority groups (i.e., Moroccans, Surinamese and Antilles) (e.g., Dagevos & Gijsberts, 2007). Public criticisms of this perceived ‘chauvinism’ abound, for example in response to demands by some Turkish groups to reinstate the mother-tongue education programs in primary schools which were summarily abolished in 2004. It is doubtful however, whether the widely-held stereotype of the Turkish population as refusing to engage with Dutch language and culture is accurate. In fact, first generation migrants have increasingly progressed in Dutch proficiency (especially after the late 1990s) while the second generation has become more involved in economic and social life (Andriessen et al., 2007; Gijsberts & Dagevos, 2009). These developments notwithstanding, the perceived image of the community remains one of a largely separatist minority.

3.2 Sociopolitical Context in the Netherlands

Along with other industrialized countries within Europe, the Netherlands has been a popular destination for many migrant groups and has become an ‘immigration’ country since the 1960s (Lucassen & Penninx, 1997). The largest migrant population initially originated from the former Dutch East Indies (now Indonesia), Suriname, Aruba and the Dutch Antilles. There has also been an influx of asylum seekers from Africa, Asia and Europe. The third group of migrants was mostly comprised of the semi- and unskilled laborers Dutch companies recruited from a number of countries (i.e., Turkey, Morocco, Greece, Portugal, Italy, Spain, Yugoslavia and Tunisia) (Extra & Verhoeven, 1993). Currently, the number of residents with non-Western origins lies around 2 million, corresponding to some 12 per cent of the total Dutch population of 16.8 million (CBS, 2012).

In the initial periods, migrants’ contribution to the linguistically and culturally diverse composition of Dutch society was considered an asset and migrant populations were warmly welcomed by the host society. The

commonly held expectations were that they were temporary settlers and would leave the country when the demand for their labor decreased. Therefore, integration was not considered to be an issue. On the contrary, migrants were encouraged to preserve the culture of their origin in order to facilitate their return and to avoid subsequent adaptation problems. However, contrary to these expectations, in the late 1970s it became clear that guest workers were starting to settle permanently with their families. As the migrant population became quite sizable it was no longer possible to overlook their presence in the country (Vermeulen & Penninx, 2000).

In particular with economic decline, inter-ethnic and religious tensions developed, revealing the necessity to develop policies for national security concerns. Therefore, from the 1980s onwards the Dutch government started to institute multi-culturalist policies, collectively known as the Ethnic Minorities Policy, which aimed at integration of the immigrants while at the same time preserving their ethnic identities. The intention was to promote immigrants' participation in social and economic life, to ensure good inter-ethnic relations and equal opportunities for everybody in education, housing, employment and health. These policies comprised measures designed to fight against unemployment and discrimination, encourage political participation and provide low cost social housing. Education in migrant languages received financial support, and great emphasis was placed on enabling minorities to develop their own culture through public funding of their organizations (Avci, 2006; Penninx, 2005; Vermeulen & Penninx, 2000).

Towards the end of the 1980s and the beginning of the 1990s, these policies were called into question due to migrants' low levels of education and participation in the labor market. Lack of success was blamed on 'too liberal' policies, leading to the conviction that future strategies should be directed only towards integration rather than to the promotion of multiculturalism. The main goals were set as promoting equal participation of immigrants in the socio-economic sphere and education and facilitating the initial integration of newcomers by providing civic integration courses. Upon recognizing that the migrants' lack of integration was primarily due to their insufficient familiarity with the Dutch language, society, social life and institutions, a program of mandatory language and culture courses for recently arrived immigrants was introduced, consisting of 600 hours of Dutch language instruction and civic education. This 'Integration Act', was launched in 1998. Another initiative was the introduction of the Act for the Stimulation of Labour in order to eliminate discrimination in the work place and therefore to avoid the formation of disadvantaged minority groups and foster social and economic equality (EUMC, 2002; Houtzager & Rodrigues, 2002).

These efforts indeed brought about a dramatic decrease in levels of unemployment and social benefit dependency among migrants, visible progress in housing conditions and educational attainments (in particular among the second generations), a decrease in the percentage of marital migrants and a noticeable improvement in the command of the Dutch language (Gijsberts & Dagevos, 2010). However, the migrants still could not catch up with the native population and meet the high expectations of the policy makers. Their levels of performance in the compulsory linguistic/cultural introduction programs remained as a source of dissatisfaction for the Dutch government. Additionally, decreasing levels of interethnic contacts during the

1990s due to residential and school segregation and migrants' higher social welfare benefit reliance compared to that of indigenous Dutch citizens were among the issues the Dutch government had to deal with (Gijsberts & Dagevos, 2010; Sniderman & Hagendoorn, 2007).

In 2000, the Dutch government turned towards discouraging newcomers (targeting Turks and Moroccans) and introduced the Aliens Act with stricter limitations on marital migration and family reunification. More constraints were added in 2004, such as increasing the minimum age of marriage from 18 to 21 for marital migrants and their spouses, increasing the minimum wage requirement for anyone who wished to have a dependent join them to 120 per cent of the official minimum wage (de Boom et al., 2007), and placing restrictions on dual nationality (Vink, 2007). In 2006, the Netherlands became the first country in Europe to argue that the process of integration should begin while migrants were still in their country of origin. With that idea in mind, the Dutch Civic Integration Abroad Act was passed². Additionally in 2007, for non-EU immigrants who were already living in the Netherlands, stricter requirements were introduced in order to become Dutch citizens. They were required to attend obligatory language and civic integration courses during the first five years of their settlement in the Netherlands. Failure meant losing social benefits and residency rights and not receiving reimbursement for the cost of the courses (Entzinger, 2006).

Despite these measures, a sizable proportion of immigrants did not participate in the courses and many of the ones who did show no significant progress in their language ability (Klaver & Odé, 2007). The current language command of the immigrant population is reported to be below the level required by the labor market or vocational education (Gelderloos & van Koert, 2010). This can partly be attributed to the fact that the courses could not fully address the needs of migrant populations which were profoundly heterogeneous in terms of linguistic, cultural and educational backgrounds (see Vertovec, 2006). The other equally important oversight was not involving the native society in this process (see Kluzer et al., 2011). This was echoed by some participants of the present study who expressed the difficulty to socialize with the local people and practice their newly learnt language skills because of their inhospitable attitudes towards foreigners (for more detail see below).

Since the 1990s, Dutch policy towards immigrants of non-Western origin has become one of the toughest within Europe, and the Turkish community is one of the most strongly affected groups (ECRI, 2008; HRW, 2008). The Dutch became convinced that the liberal integration policies of the 1980s had failed, and began to perceive the multicultural society as a threat to national interests and to the very existence of the Dutch nation (Gijsberts & Dagevos, 2010; Sniderman & Hagendoorn, 2007). The change in policy was motivated by a concern about loss of national identity and cultural values advocated in particular by populist and conservative politicians. Right-wing contributions to the already existing public discontent have furthered the

² The Act requires that foreign nationals from non-Western countries who wish to migrate to the Netherlands for marriage or to join family members must pass a compulsory civic integration test before entering the country. In 2011, the Supreme Court of the Netherlands ruled that Turkish nationals are exempt from these civic integration requirements, as the act is considered inconsistent with the Association Agreement of 1963 between Turkey and the European Union.

creation of a vision of immigrants as outsiders and of Islam as a threat to Dutch democracy (Bijl & Verveij, 2012).

At the public level, the wide-spread attitude towards migrants in general and the Turkish community in particular was thus not very welcoming (ECRI, 2008; HRW, 2008). For instance, a recent investigation revealed that some 40 per cent of the indigenous Dutch population thought that there were too many people of non-Dutch origin living in the Netherlands (Gijsberts & Dagevos, 2009). Feeling threatened by the continuous growth of non-Western immigrants, they developed stronger separatist orientations (Entzinger, 2006; Kunovich, 2004). Many prefer not to live in multiethnic neighborhoods (Schaake et al., 2010; Zorlu & Latten, 2007), and even among those who initially did not object to multiculturalism, the prevailing expectation is that migrants should adapt/assimilate into the Dutch society as soon as possible (Arends-Tóth & van de Vijver, 2003; Gijsberts & Dagevos, 2010; Schalk-Soekar & van de Vijver, 2008). These sentiments in general are exacerbated because of migrants' perceived unwillingness to integrate rapidly.

As far as the Turkish community is concerned, an additional factor may have augmented the dissociation between the communities: the increasingly secular trend among the Dutch society, coupled with a disapproval of religions in general and Islam in particular (Knippenberg, 2009). The pervasive stereotypes about Islam and the fact that Turks are commonly identified with other Muslim groups profoundly affected the Turk image (Smets & Kreuk, 2008), despite the fact that a sizeable proportion of Turks are not practicing Muslims, and that migrants of Turkish origin in the Netherlands have been reported to be moving towards less religiosity and more liberal views (Dagevos & Gijsberts, 2007; Phalet & ter Wall, 2004). It has also been reported that their ethnic and religious identity does not impede their identification with the Dutch society (Verkuyten & Yıldız, 2007). Nevertheless, lack of respect and assimilative orientations on the part of the Dutch society inevitably distance them from the Dutch mainstream society (Maliapaard & Gijsberts, 2012; Verkuyten & Yıldız, 2007).

Another often-expressed concern is the widespread belief among the Dutch community that Turkish people exploit the welfare system in the Netherlands. The often expressed sentiment is that it is not fair to enjoy the benefits of a country without becoming a part of it (Sniderman et al., 2004; Sniderman & Hagendoorn, 2007). It is true that the proportion of individuals who rely on social welfare system is larger in the migrant community than in the native Dutch population, but most of these individuals come from among the first generation whose health deteriorated or who were forced to retire early due to harsh working conditions and long working hours (Zorlu, 2011). In fact, the rate of unemployment among the Turkish population has fallen gradually to 10 per cent and in 2009 it was reported to be the lowest among other non-Western populations (in comparison with Moroccans 12.3%, Antilleans 11.5%, Surinamese 10.7%, native Dutch 3.8%, Gijsberts & Dagevos 2009). Turkish migrants (both first and second generation) progressively started to become involved in other domains of working life (e.g., economics, politics, sports, science, health and so on) and they have made very substantial contributions to the Dutch economy as both employees and entrepreneurs (Daily News, Hürriyet 2010 and 2013).

As for the minorities' attitudes, the increasingly tightening regulations and demands for integration, in conjunction with sentiments voiced widely by both society in general and populist politicians led to an increase in unfavorable sentiments towards the host culture, widening the ethnic gulf. This has arguably not only impeded integration ideals but further contributed to a climate of mutual distrust between migrant and indigenous communities, in particular where Muslims are concerned (Dagevos & Gijsbert, 2007; Karina et al., 2008). Feeling excluded, members of various minority populations united even more, and this led to a considerable decline in the amount of social contacts with Dutch society and increasing levels of ethnic identification (Dagevos et al., 2003). Eventually, it became apparent that the initial joy and serenity of living together has become a historical episode. One of our participants' anecdote illustrates the shift from an initially warm reception at his arrival around 20 years ago to the contemporary uneasiness in view of the presence of foreigners in the Netherlands:

- (1) "I do not have close Dutch friends. Are you asking why? When I first came, Dutch people approached me in a friendly way. Some expressed their gratitude because workers from abroad came. We were respected and valued then; but now all I hear from them is 'When are you going back home?'" (All translations are ours.)

Turks mostly feel that they are not accepted and that their culture is not recognized, while the Dutch feel that Turks are making very little effort to integrate. To illustrate, one of our participants stressed the shallowness of conversations with other Dutch mothers who bring their children to the sport center despite frequent encounters:

- (2) "Every time we meet, we just have a superficial conversation, something like a typical chitchat. We could not go further than that and I could not make any friends there. So I turned to other Turkish or migrant parents."

Another participant explained how he gave up on a friendship with his former Dutch language teacher. Despite several invitations, the teacher never returned his visits and he felt that his friendship was not appreciated:

- (3) "I even went to visit him after he had moved to outskirts of the city. He has always been hospitable indeed but I never understood why he has never come to my house. Sometimes, it is hard to understand the Dutch, but it is annoying to feel that they don't find you good enough."

While some research results showed that more contact between the indigenous Dutch society and the other ethnic groups helped the development of positive perceptions between peoples (Gijsberts & Dagevos, 2004), as far as the Turkish community is concerned, an increase in daily interaction has unfortunately served to emphasize the societal differences rather than creating mutual understanding or harmonious interethnic

relations as one would expect (see Brouwer & Boros, 2010). For instance, the husband of one of our participants who worked mainly with indigenous colleagues confirmed this view as follows:

- (4) “The more competent you become in Dutch and the more frequently you interact with them, the better you come to realize how apart the cultures are and how you are perceived as a foreigner.”

In the professional domain, Turks have often felt that they have to work harder than their Dutch colleagues in order to prove themselves, overcome stereotypes and combat (un)conscious discrimination in the workplace (e.g., Andriessen et al., 2007; Andriessen et al., 2012). Strangely enough, the ones with higher educational and technical skills feel considerably less accepted and safe compared to other non-Western immigrant colleagues (Gijsberts & Dagevos, 2004; see Tolsma et al., 2012). One of the university graduate participants stated bitterly:

- (5) “The Dutch would not have a problem with you if you are a low-wage or a blue-collar worker but when you, an outsider, have a better status, for instance become their supervisor or manager, then they will give you a hard time both about work-related matters and in social life.”

Feelings of exclusion are further expressed by another participant who believed that her contributions in the parents’ committee at her child’s school were not recognized and respected:

- (6) “No matter what you do and how hard you work with the best of intentions, your efforts are mostly ignored by the Dutch parents. I find this very upsetting.”

In the meantime, a number of initiatives have been launched since the 1990s by the Dutch government, local authorities and voluntary organizations to combat social exclusion of disadvantaged groups and prejudiced attitudes among the society (van Hal, 2002). One of them is the Language Internship Instrument for Integration project by the Verwey-Jonker Institute, established in 2002 and aimed at facilitating integration processes by providing language support to immigrants and encouraging their social participation (see van Hal, 2002 for other examples). Another remarkable development within these initiatives was the attempt to remove very commonly used discriminatory terminology from the Dutch language (e.g., ‘allochtoon’ and ‘autochtoon’³) in order to reinforce equality within society (i.e., Justice Minister Ernst Hirsch Ballin’s statement on February 25, 2008, Crossroads Magazine, NIS News). It was not easy to find academic articles or government publications about the subsequent decisions taken by the government and the apparent scarcity of such publications is hard to explain, given that the phenomenon is so prominent in the public

³ These terms which had been first formalized by the government in 1970s and then used by a number of academic researchers emphasize the racial and ethnic hierarchies (Essed & Trienekens, 2008). The word ‘autochtoon’ refers to someone whose parents were both born in the Netherlands (usually ethnic Dutch) while ‘allochtoon’ refers to all who do not meet this criterion (usually migrants and their descendants). A further distinction within the latter category is made by distinguishing between first and second generations, and between those whose parents have European origins and those with parents of non-European origins (CBS, 2013).

debate. Therefore, we cannot report how these nation-wide initiatives have been put into action and whether they are being (successfully) implemented at the public level.

Along with several studies that report negative attitudes of the Dutch people towards the immigrant communities, some recent wide-scale surveys depict a more unprejudiced and tolerant profile of the Dutch society in general and of highly educated groups in particular. More members of the Dutch society are supporting multiculturalism than before (Gijsberts & Lubbers, 2010). That is, they respect the ethnic groups and regard them as valuable components of a pluralist Dutch society. A number of anecdotes from some of our participants confirm these tendencies. Some recalled their memories with the private Dutch tutors who tried to assist them wholeheartedly despite having no prior teaching experience. One of our female participants stressed how she had built an intimate connection with her mentor as the following:

- (7) “After some time, I started looking forward to her weekly visits. I would prepare some snacks, cake and tea. We would talk about our life, kids, husbands and everything while I was learning to speak Dutch at the same time. We still meet from time to time.”

Another participant who wears a headscarf worked as a teacher. She was the only Turk at her school and she was accepted warmly by all her colleagues. She was thankful for the tolerant atmosphere here in the Netherlands:

- (8) “I would have been exposed to more disapproval in Turkey because of the way I dress, but here nobody turns and stares at me. I feel very comfortable and I feel at home.

Yet another female participant asserted not only the open-mindedness of the Dutch people but also praised their hospitable approach towards her religion:

- (9) “People complain about discrimination here but I have never experienced any. The colleagues are always friendly and talk to me although I am not highly educated and not very fluent in Dutch. And my manager has been incredibly kind; she even reserved a space in the office for my daily prayers.”

Here is an example which contrasts the presumptions about two communities’ keeping their distance, and Turkish families leading inward focused life. This participant is a member of one of the few Turkish families in an area mostly populated by native Dutch residents. She genuinely feels happy to be a part of that district and very comfortable with her neighbors:

- (10) “Our relationships here with the neighbors are extremely good. For instance, in the summer we don’t lock the doors and we go into each other’s houses without making prior appointments. We share everything. Our children play together like brothers and sisters. So, I do not see any difference from a Turkish neighborhood.”

Another case also illustrates that Turks and Dutch residents sharing the same neighborhood do not live like total strangers encapsulated in their own homes but take care of one another:

- (11) “When I got hospitalized and had an operation, my two neighbors (native Dutch) waited by my side, took care of my children, did the grocery shopping for me, and cleaned my house before I got back home. How can I not be grateful to them?”

The above examples reveal a distinctive picture of daily interethnic contacts at the individual level. These trends, no matter how limited, may be indicative of changing mutual perceptions. It is possible that the low levels of interaction between the members of the two communities are simply due to lack of effort rather than a conscious strategy to stay apart (Smets & Kreuk, 2008). For instance, increasing numbers of Turks have started to move into multiethnic neighborhoods. They are willing to interact with their Dutch neighbors and to have closer relations with them and they do not consider language an obstacle for the development of social relations. While, they prefer not to give up their mother tongue and culture⁴, they mostly live according to the norms and the traditions of the Dutch society in public sphere (Smets & Kreuk, 2008). The Dutch neighbors have some reservations because of cultural and religious differences and are concerned about language problem but many of them sincerely intend to make overtures for making friends with Turks (Hagendoorn & Sniderman, 2001; Smets & Kreuk, 2008; see Portes & Rumbaut, 2001).

3.3 The Turkish Community in the Netherlands

The formation of the Turkish community in the Netherlands started with bilateral recruitment arrangements between the Turkish and the Dutch governments in the 1960s and early 1970s. Sizeable groups of Turkish workers arrived to meet the labor shortage in the booming Dutch economy. They primarily came because of the economic recession and unemployment in Turkey and were intending to return, having accumulated some wealth in a few years. However, their families joined them after a short while. Later, this was followed by chain migration of relatives and acquaintances and Turkish immigrants started to settle for longer periods of stay (Akgündüz, 2007). They were a heterogeneous group including unskilled, semi-skilled and also a small group of skilled laborers with relatively low levels of schooling⁵ (e.g., farmers, construction workers, technicians, mechanics and craftsmen) that came from both rural regions and big cities (Akgündüz, 2007; Böcker, 2000). The Turkish community has currently become the largest non-Dutch ethnic group in the Netherlands. Around 400.000 Turkish immigrants live in the Netherlands, representing about 2.3 per cent of the Dutch population (CBS, 2010)⁶.

⁴ Unlike the first generation immigrants, there is a visible tendency towards Dutch monolingualism and Dutch culture adoption among the in-between and second generations.

⁵ During the interviews, one participant informed us that upon their arrival, a number of migrant workers were not able to prove their expertise with diplomas because they were trained through a master-apprentice system without formal education. They therefore were categorized according to the highest diploma they had. Some others did not declare their actual educational level in order not to risk losing a chance of employment and were enlisted accordingly.

⁶ The size of the Turkish community is likely to be much bigger because the third generation Turkish population is not included in the government statistics as Turks because of birth country and nationality based statistics (Extra, 2005).

As far as their perception by the mainstream society is concerned, Turks are assumed to treat their mother tongue as a core marker of ethnic identity (e.g., Extra et al., 2004) and value it highly despite its low prestige and economic utility (Durgunoğlu & Verhoeven, 1998; Yağmur & Akıncı, 2003). They predominantly prefer to use the L1 with family members and friends and have a high motivation to pass it on to the next generation. They are known to have stronger familial, ethnic and linguistic affiliations compared to other immigrant groups in the Netherlands (Ersanilli, 2010; Yılmaz & Schmid, 2012). They maintain close ties with their fellow immigrants and live in the proximity to their relatives and acquaintances (Vervoort et al., 2010; Smets & Kreuk, 2008).⁷ They also preserve relations with their hometowns with the availability of widespread immigrant organizations, community networks (via Turkish shops, grocery stores, mosques and so on) and mass media (e.g., Turkish satellites) and the affordability of communication and travel (Backus, 2004). Despite recently increasing exogamy, spouses are still predominantly chosen from the same ethnic background. All of these factors contribute to the preservation of family ties and the retention of cultural and linguistic heritage as well as religious integrity among the Turkish community (Dagevos et al., 2003; Gijssberts, 2004; Hooghiemstra, 2003). The Dutch government and public often interpreted these as evidence for their unwillingness to integrate fully into the Dutch society.

The problem with such stereotypical notions is that they fail to acknowledge the diversity within the migrant community.⁸ They are mostly based on small scale studies and do not capture within-group variation among the Turkish community (at the socio-cultural, economical and political level). Not all Turks are the same with respect to their language skills/use and lifestyle (Backus, 2004). As members of the community gradually start working in diverse areas of economy and join the middle class, they come into closer contact with the Dutch people. They lead a more balanced life and are better adjusted into the Dutch society. In general, there is an increasing awareness among the community as to the importance of language skills (Dagevos et al., 2003). On the other hand, some individuals have large ethnic networks and prefer to live in concentrated neighborhoods. For some families a basic level of Turkish is enough for their children as they give priority to the acquisition of Dutch and speak mostly Dutch at home; but others speak Turkish predominantly.

There is a widespread belief in the Netherlands (and elsewhere in Europe) that immigrants of Turkish origin, in particular the first generation, have a relatively poor command of the majority language. Among the major non-Western migrant communities in the Netherlands, they are reported to have the most language-related

⁷ While it is generally assumed that migrants choose to live close to their countrymen and hence settle in the nearby neighborhoods, they in fact have limited options due to a strictly controlled housing market and unfavorable socioeconomic conditions (Schaake et al., 2010).

⁸ We do not intend to undermine the findings of these studies because this is unavoidable in investigations that look into general tendencies.

problems.⁹ Much of the information about their language proficiency is based on evidence from surveys conducted by the Netherlands Institute for Social Research (SCP). The SCP collects data on a large scale basis and language proficiency is based on participants' self-assessments.¹⁰ Within these researches, no actual linguistic data (written or spoken) are analyzed empirically, nor is there a detailed investigation of nonlinguistic variables that influence L2 development. A number of small scale studies have investigated the L2 skills of adult Turkish migrants in Western Europe (e.g., in the Netherlands: Broeder et al., 1984; de Jong et al., 2013; Ersanilli, 2010; Extra & van Hout, 1993; Hulstijn & Bosser, 1992; Klatter-Folmer & van Avermaet, 1997; van Tubergen, 2010; van Tubergen & Kalmijn, 2009; in Germany: Dustmann, 1994; Ersanilli, 2010; in Belgium: van Tubergen & Wierenga, 2011; in France: Yağmur & Akıncı, 2003). They, too mostly relied on interviews or questionnaires usually conducted in the L1 of the participants where they are asked to evaluate their L2 competence.

In the early years of mass migration, Turkish immigrants had neither Dutch language knowledge nor any foreign language education upon their arrival but this did not matter since they were usually employed in low wage jobs (e.g., restaurants and production lines of factories) which required minimum language skills (Akgündüz, 2007). They did not have optimal conditions for learning Dutch (e.g., unfavorable conditions both at home and in the workplace, low availability of language training programs, few opportunities for L2 use). For instance, one of the participants in the present study recounted how upon his arrival, aged 19, he had been placed in a primary school to learn Dutch. Later on, he decided to study on his own. The partners of the migrant workers were mostly housewives who had limited or no professional skills and thus had no need to learn more than basic Dutch language skills since they mainly interacted with family, relatives and other Turkish friends (Smets & Kreuk, 2008).

In conclusion, it may be said that the Turkish community's connectedness to the Dutch society, culture and language has not grown as strongly as desired by the Dutch population and government. First generation migrants mostly seem to have working levels of Dutch and often do not perceive a need to improve their language as long as they are able to earn a living with whatever language skills they have. They value Dutch for instrumental purposes and they advise newcomer Turkish immigrants to make learning Dutch their first priority. A trend towards such a development can be seen among the younger immigrants with children among our participants who usually make great efforts to improve their Dutch in order to be good examples for their children and to improve their professional opportunities. As for their life in the Netherlands, they consider themselves as a part of the society and the Netherlands their home. They are quite positive about living together with the Dutch people and highly appreciate the economical benefits, political rights and

⁹ To what extent Turks can be compared with Suriname and Antillean migrants is questionable because these two communities are former Dutch colonies and were already familiar with the Dutch language and society before coming to the Netherlands (van Tubergen & Kalmijn, 2005).

¹⁰ The reliability of self-reported assessments on language proficiency has been questioned, and it has been reported that these reports might cause misclassifications of individuals into incorrect proficiency levels (de Coulon & Wolff, 2007).

freedom in the Netherlands (Gijsberts & Schmeets, 2008). They are open to closer interethnic relations (Yilmaz & Schmid, 2012) and do not regard religious differences as a problem that dissociates them from the mainstream society (Verkuyten, 2007). However, they certainly do not prefer to live according to the norms of Dutch society in the family domain and in their primary network (Backus, 2004; Boeschoeten et al., 1993; van den Broek & Keuzenkamp, 2009).

3.4 What Underlies L2 proficiency in a Migrant Context

A good command of the host language plays a crucial role for the social and economic inclusion of migrants. However, not every immigrant is successful or fortunate enough to have the circumstances that would allow her or him to become fully proficient in the host language. Several decades of research into determinants of L2 acquisition involving various language pairings, linguistic structures, modalities, age ranges and measurements has confirmed the dynamic integration of overlapping interactions between several factors such as input, native language, motivation, age, personality and so on (e.g., de Bot, 2008; de Bot et al., 2007; Herdina & Jessner, 2002).

Researchers who emphasize the importance of input assume that L2 learning is heavily determined by the quantity and continuity of exposure and active language use (e.g., Bongaerts et al., 1997; Bongaerts, 1999; Ellis, 2002; Long, 1996; Swain, 1985). Therefore, social interactions with the native population and workplace socializations are of profound importance (e.g., Espenshade & Calhoun, 1993; Pavlenko, 2000; Pavlenko & Lantolf, 2000). Several migrant studies confirmed this association as well (e.g., Birdsong & Molis, 2001; Chiswick et al., 2004; Dustmann, 1994; Flege & Liu, 2001; Flege et al., 1999; Stevens, 1999; van Tubergen & Wierenga, 2011).

The preinstantiated L1 knowledge can be both conducive (positive transfer) and detrimental (negative transfer) to L2 acquisition. However, it is widely suggested that both languages affect and interact with one another (e.g., Cook, 2002; de Bot et al., 2005, 2007; Hulstijn & Bossers, 1992) and that L2 learners benefit from their existing language skills, concepts and strategies while learning another language (e.g., Cummins, 1981; Dustmann, 1994; Jiang, 2004; O'Malley & Chamot, 1990). For instance, structural similarity between languages has been found to facilitate acquisition (Beenstock et al., 2001; Carliner, 2000; Chiswick & Miller, 2001, but Clyne, 1991). This suggests that the often repeated demand by politicians that migrants should switch to the host language even in private interactions in order to integrate more quickly and easily does not correspond to the actual reality of the language learner. While it is probably true that speaking and engaging in the L2 will facilitate acquisition, it has never been demonstrated that retaining use of the L1 in some spheres of life will hinder it.

Motivation is one of the most well-established factors in the language learning process (e.g., Dörnyei & Ushioda, 2009; Gardner, 1985; Gardner & Lambert, 1972; Krashen, 1981; Schuman, 1986). When a learner has positive attitudes towards a language, identifies with the L2 culture and wants to become a part of the L2 society, she or he is very likely to be successful at learning the language (integrative motivation). To

illustrate from the Dutch context, the black Surinamese and Muslim Turks and Moroccans, who are perceived as outsiders and usually pressurized to assimilate (Lucassen, 2005), feel more distanced from the mainstream society due to being thus alienated. Consequently, this seriously curtails their motivation to blend with the Dutch society and hence learn the Dutch language (van Tubergen & Kalmijn, 2005). In addition to the integrative motivation, the presence of utilitarian objectives such as economic or educational opportunities and social status (instrumental motivation) is also related to high levels of achievement.

A factor closely related to the degree of motivation is the perceived social and cultural distance between the immigrant and the host community (e.g., Clyne, 1991; Schuman, 1986). While shared heritage and culture between migrant and local communities promotes linguistic and social integration, differences (e.g., socio-economic background, physical appearance, religion) minimize social interactions and heighten negative sentiments between the communities (Sniderman et al., 2004). Another motivationally grounded predictor of L2 achievement is the degree of adherence to the own ethnic culture and a perceived threat to ethnic identity. This has been evidenced by the significant (negative) correlation between L2 proficiency and home culture attachment among English learners of Chinese in Canada and Hebrew and Russian learners of English in Israel (Noels et al., 1996; Ellinger, 2000, respectively).

A further factor that is assumed to impact L2 competence is the age at which learners are immersed in the L2 environment. The widespread opinion is that early exposure is to the advantage of the learner (e.g., Birdsong & Molis, 2001; Muñoz, 2006; see Hytlenstam & Abrahamsson, 2003 for an overview), in particular with respect to phonology (see Piske et al., 2001 for review). However, to this date most age-related studies have focused on the distinctions between child/adolescent learners on the one hand and adult learners on the other (Singleton & Ryan, 2004) and ultimate L2 attainment (see Birdsong, 2005). As far as studies which compared younger and older adults, the majority of the findings suggest that age differences do not cause drastic challenges or benefits for the learner. For instance, one of the first studies observed no age-related differences among learners aged 17 or older (Johnson & Newport, 1989). Some other studies reported the cut-off point as 15 or 20 (see Birdsong, 2005). In studies which initially did observe age effects these diminished after controlling for level of education and amount of language use (e.g., Flege et al., 1999) and language exposure and motivation (e.g., Bongaerts, 1999). The impact of age also seemed to be weaker for late learners who acquired a typologically similar L2 (learners of English with European language origins versus Asian language origins (Birdsong & Molis, 2001; Flege, 1999; Jia et al., 2002)). On the other hand, there are a number of studies which report a consistent decline in performance with increasing age of arrival for late learners (i.e. after puberty) (Bialystok & Miller, 1999; Birdsong, 1992). It is argued that the effects are more visible on tasks that pertain to processing speed or working and episodic memory capacity, since these abilities deteriorate with cognitive aging (see the overview in Birdsong, 2006). Besides biological/cognitive propositions, it is noteworthy to underline the relevance of age with respect to choices made in life because they in turn provide various language learning opportunities through socialization in both private and professional life (Stevens, 1999).

In a similar vein, level of education plays a significant role in shaping migrants' lives and hence it is thought to have a strong impact on language learning outcomes. For instance, individuals with more schooling are better equipped with studying and learning skills which facilitate the language learning process. Similarly, the professional and social networks they become involved with are usually favorable environments to further improve their language skills, and their employment opportunities typically demand higher proficiency levels in the dominant language than lower skilled occupations. Indeed, highly educated immigrants have consistently been found to be more efficient language learners (e.g., Chiswick & Miller, 2001; Clyne, 1991; Dustmann, 1994; Espenshade & Fu, 1997; Shields & Price, 2002; van Tubergen, 2010; van Tubergen & Kalmijn, 2009).

Another commonly addressed factor associated with a good command of the host language is the duration of stay in the country of immigration (e.g., Chiswick & Miller, 2001; Dustmann, 1994; Shields & Price, 2002; van Tubergen & Wierenga, 2011). However, the problem with this assumption is that living in the host country for several years does not guarantee a proportional growth in language exposure. It is also probable that 10 years is a threshold after which the time factor is no longer significant (van Tubergen, 2010). Instead, the likelihood of return migration or uncertainty about future settlements and long term investments has been acknowledged to play a more prominent role than the length of stay (Chiswick & Miller, 2001; Espenshade & Fu, 1997; van Tubergen & Kalmijn, 2009).

Finally, we should state that personality features are influential in L2 learning success, too. Some individuals (e.g., sociable, self-confident, ambitious and strong-willed individuals) would excel at learning foreign languages more rapidly and attain a higher level of competence (Dörnyei, 2009: see Ozanska-Ponikwia & Dewaele, 2012). However, such individual differences are beyond the scope of the present study.

3.5 The Study

The aim of the present study is to assess the impact of the background variables predicting Dutch language proficiency among first generation Turkish migrants who have spent a considerable portion of their lives in the Netherlands. We are interested in what facilitates or hinders their L2 acquisition. Therefore, we investigated how strongly both linguistic and non-linguistic factors concerning their experiences as adult migrants and demographic characteristics can predict their Dutch language development. The following research questions are addressed:

1. Are the degree of L1 and L2 use and exposure related to the proficiency in the L2?
2. Are motivation and linguistic and cultural attitudes related to proficiency in the L2?
3. Are age of arrival, length of residence and level of education related to proficiency in the L2?

3.5.1 Participants

Forty-five Turkish-Dutch bilingual informants participated in this study. They consisted of migrants in the Netherlands who had learnt Turkish as their mother tongue. They had varying levels of Dutch proficiency and actively used both languages in their daily lives in a variety of domains. All bilingual participants

migrated to the Netherlands after the age of 15 and spent at least 10 years there. Out of 45 participants 16 had completed primary school, 8 secondary school, 14 high school or vocational school and 7 are university graduates. The scale from 1 to 4 represents primary, secondary, high school and university respectively. The Dutch controls matched them on age, gender and education.¹¹ Participant information is summarized in Table 3.1.

Table 3.1. Personal background variables

	Mean	St.Dev.	Range
Age	43.2	7.78	28-61
Age of arrival	20.39	5.1	15-42
Length of residence	22.15	7.87	10-35
Education	2.69	1.37	1-4
No. of women	29		
No. of men	16		

Among the participants in the present study more than half had attended Dutch language courses and some were still taking lessons at the time of the data collection. There was a great deal of variation in the amount of language training they have had, ranging from a couple of months to two years. What is common to almost everyone is that they could not attend the courses regularly due to other commitments and that the training was frequently interrupted. Our participants thus mostly learnt Dutch at the workplace through social contacts with Dutch colleagues. Over the years, their proficiency in Dutch has progressed at various rates and there is considerable variation among their language abilities.

3.5.2 Procedure

Our data comprised reaction time measures from a picture naming (lexical) and picture matching (lexical-sound mapping) task (both in Dutch) and elicited free speech (in Dutch) (based on Schmid, 2011). Sociolinguistic and personal background information was collected through a semi-structured interview (administered in Turkish to the L2 learners and in Dutch to the controls).

3.5.2.1 Sociolinguistic and personal background information

The personal background interview consisted of semi-structured autobiographical interviews conducted in the L1, comprising sixty-seven questions on speakers' L1 and L2 use patterns, linguistic and cultural preferences and social networks. Among other things the participants were asked to indicate what language they usually speak with their spouses, partners, siblings, (grand)children, parents, relatives, friends and

¹¹ Since compulsory education in the Netherlands covers the secondary school, it was not possible to find perfect matches for our primary school group; so we had to take in whoever has the least amount of schooling.

acquaintances and to quantify the amount of use of each language in various contexts (i.e., family, social settings, workplace). They were also asked how important it was for them that their children learnt and maintained their L1, how often they corrected their children's L1 and whether they sent them to Saturday schools¹² to learn Turkish, how they would feel if their children could not speak Turkish and whether they would regret it if their own Turkish deteriorated. A further set of questions related to their cultural orientations and attitudes toward their home and host countries. For instance, they were asked with which culture and language they felt more at home and more comfortable, which language they preferred to speak, whether they felt themselves to be more Turkish or more Dutch, whether they had more Turkish or Dutch friends, whether they regretted coming to the Netherlands and whether they felt homesick and would like to go back to their hometowns if it was possible. For all of these questions, participants were asked to choose a value from a 5 point-scale. For instance, for the amount of L1 and L2 use, they were asked to choose among: 0 = never L1 and all the time L2; 0.25 = seldom L1 and mainly L2; 0.50 = half the time L1 and half the time L2; 0.75 = mainly L1 and seldom L2; 1 = only L1 and never L2.

In order to reduce the large number of background variables elicited by the sociolinguistic questionnaire, we created two compound variables consisting of a number of factors that were then averaged for each migrant (following the procedure suggested by Schmid & Dusseldorp, 2010). The first pertained to interactive L1 use in all situations. This comprised predictors relating (where applicable) to the use of the L1 (now and previously) with the partner (4 items), with children (4 items), with friends (3 items), with parents and siblings (4 items) and during visits to Turkey (1 item). A reliability analysis established the internal consistency of this scale with a Cronbach Alpha of .890. The second variable pertained to cultural affiliation and comprised 4 items relating to the preferred language and culture as well as the importance of maintaining the L1 and passing it on to the next generation. Reliability for this scale was somewhat lower than for the L1 use variable, but still strong at .637. Other predictors included in the present study were the frequency of use of the L2 for professional purposes, age at emigration, length of residence and education. Table 3.2 shows the distribution of these predictors across our population. To illustrate the interpretation of the table, the participants tend to use L1 79 % of their time and L2 21 % of their time in their overall social interactions. They tend to value and identify more (70%) with their own culture compared to host society culture (30%).

Table 3.2. Predictor variables

	Mean	St.Dev.	Range
Interactive L1 use	0.79	0.14	0.37-0.99
L1 use for professional purposes	0.2	0.27	0.25-1.00
L2 use for professional purposes	0.75	0.29	0.00-1.00
Cultural affiliation	0.7	0.14	0.31-0.88

¹² These are also called community or supplementary schools that provide immigrant children with classes to learn their mother-tongue language and about their home country's culture and history.

3.5.2.2 Picture naming (lexical) task in the L2

The naming task assessed participants' speed and accuracy in accessing lexical representations (Glaser, 1992; Levelt, 2001). Participants were presented with a set of experimental stimuli of 78 pictures of high, medium and low frequency selected from the standardized set originally developed by Snodgrass and Vanderwart (1980). The frequency ratings were based on the familiarity index in Snodgrass and Vanderwart. The pictures were in the form of black drawings on a white background. All items were checked for cultural appropriateness, and culture specific items were excluded (e.g., baseball bat). No cognate items across Turkish and Dutch were included. No semantically or phonologically related items followed one another (i.e., 'cow' was not followed by 'goat' and *glas* 'glass' was not followed by *jas* 'coat'. The stimuli were presented in four pseudorandomized orders, which were counterbalanced among the participants. An HP laptop computer with E-Prime software and a serial response box with voice key controlled the presentation of the stimuli and the collection of response times.

The participant's response was measured in milliseconds (ms), and the participants had a maximum of 3000 ms to respond. The moment from the onset of the stimulus till the onset of the word was registered as the 'reaction time'. The experimenter (a native speaker of Dutch) noted the responses on a sheet during the experiment (which was recorded to allow later checking). Following Bates et al. (2003), a response was coded as valid if it was the target name and had a valid reaction time. In both analyses reaction times shorter than 250 ms and those which deviated more than two standard deviations from the mean were excluded. All other responses were categorized as invalid, including incorrect responses or correct responses with invalid reaction times (i.e., false starts, hesitations, coughs), responses which were not loud enough to trigger the voice key as well as correct responses which were not within 3000 ms and trials where there was no response at all.

3.5.2.3 Picture matching (lexical-sound mapping) task in the L2

The matching task assessed lexical development at the receptive level. This required the recognition of another set of 78 pictures of high, medium and low frequency again from the same list (no stimuli were repeated across the two tasks). The pictures were presented simultaneously with a recording of a word and the participants had to decide whether the picture they saw on the screen and the word they heard matched by pressing a yes/no button on the response box as quickly as possible.¹³ Similar to the naming task, the participant's response was measured in ms, and the participants had a maximum of 3000 ms to respond.

The usual interpretation of the reaction time is that slow responses (high ms) reflect difficulty of the task and rapid responses (low ms) indicate simplicity of the task for the participants.

¹³ Participants pressed a green (yes) button if they agreed, and a red (no) button if they disagreed. In order to avoid a potential impact of right- or left-handedness, right-handed individuals had the 'yes' button on the right and the 'no' button on the left of the response box. For left-handed individuals, the 'yes' button was placed on the left and the 'no' button on the right.

3.5.2.4. Free speech in the L2

Free speech in Dutch was elicited by means of a conversation of 20-30 minutes around topics of daily life, trips to the home country and experiences as migrants. This interview took place several months after the first encounter with our participants, when the Turkish data had been collected. The interviewer (a native speaker of Dutch with no knowledge of Turkish) tried to ensure a spontaneous informal conversation by encouraging a natural exchange and helping the participants focus on the topic of the conversation. All interviews were transcribed according to CHAT conventions (see <http://childes.psy.cmu.edu>). The free speech data were investigated for foreign accent, lexical frequency and overall Dutch proficiency.

- Foreign accent:

In order to assess the speakers' pronunciation, native raters listened to speech segments lasting approximately 15 seconds. In order to achieve a wide spread of different kinds and degrees of accentedness, the ratings for this study were collected together with ratings of L2 learners of Dutch from a different L1 background (Moroccan Arabic), of long-term attriters of Dutch in an Anglophone setting (from the study described by Keijzer, 2010) and of native Dutch speakers who had lived in the Netherlands all their lives (the latter were drawn from the control group of Keijzer as well as from the control group for the present study). This resulted in a total of 149 speakers (45 L2 speakers of Dutch with Turkish L1, 14 Dutch speakers with Moroccan Arabic L1, 43 Dutch attriters, 47 Dutch controls). The ratings were collected in eight individual sessions, in each of which 24 speakers had to be rated by between 19 and 54 native Dutch raters (all of them students of English at the University of Groningen, the different sizes of the rater populations are due to the fact that the experiment was conducted in different seminar groups).

The raters did not receive any information about the purpose of the study or the background of the participants. For each speech sample they first judged if the speaker could be classified as a native speaker or not and then indicated how confident they were in their judgment on a three-point scale (certain, semi-certain, uncertain), following the procedure suggested by de Leeuw et al. (2010). This resulted in a six-point Likert scale where 1 represents the judgment 'certain of a native speaker status' and 6 means 'certain of a non-native status'.

Three Dutch native speakers and one speaker from each of the bilingual populations were included in each individual rating session in order to establish reliability across the rater populations. This proved to be the case: the average ratings for the six speakers in the eight sessions achieved a Cronbach α of .996, indicating that the ratings were highly reliable across rater populations.

- Overall proficiency:

A holistic score was established for each speaker by three native Dutch raters. They judged the recordings on five subscales: fluency, pronunciation, intonation, syntax and lexicon separately for each speaker. They rated each subscale on a 5-point scale from very basic to native-like. All subscale ratings per individual were added up producing a total combined score potentially ranging from 5 (very poor on all 5 subscales) to 35

(native-like across all subscales). Interrater reliability for this combined score was $\alpha = .940$. The total scores were then averaged across the three raters to produce an average total rating per individual.

- Lexical frequency:

A general assumption about lexical diversity is that basic (easy) words occur more often (highly frequent) while advanced (difficult) words occur relatively less often (infrequent), and that the use of advanced words signals high lexical proficiency (e.g., Read, 2000). Since highly frequent items such as function words, can easily distort the picture of lexical diversity, our analysis focused only on nouns, lexical verbs, and adjectives. A complete list of these content words as they occurred in the corpus of interviews collected from both the Dutch native controls and the Turkish L2 speakers was created within Computerized Language Analysis (CLAN) (MacWhinney, 2000). Lemmatization of the list, as achieved with the MOR routine offered in CLAN for Dutch, was checked manually by a native speaker of Dutch. The list was also checked for inconsistencies in spelling to prevent an artificial increase in word types. For every word that each speaker used, it was assessed how often this word had occurred in the entire corpus, which allowed us to calculate the average frequency of all of the lexical items which each speaker had used. In addition, we assessed the proportion of unique lexical items in the repertoire of each speaker (that is, the items which only this person had used) on the assumption that these were indicative of a comparatively sophisticated vocabulary (this procedure was suggested by Paul Meara, pc). The semi-structured nature of the interviews allowed the interviewers to keep the interviews consistent, and the conversations developed into different subjects only very occasionally.

3.6 Results

3.6.1 Comparison between L2ers and Controls

For all of the proficiency measures introduced above, it was first assessed whether there was a difference in overall performance between our L2 population and the age- and education-matched Dutch native controls.

Table 3.3. Comparison of Dutch proficiency between our participants and the Dutch native controls (independent T-Tests)

		<u>Turkish-Dutch bilinguals</u>			<u>Dutch controls</u>			
		Mean	St.Dev.	Range	Mean	St.Dev.	Range	t (82)
Picture naming task	Reaction time	1292	146	1000-1600	895	121	620-1198	14.387
	inacc. responses (%)	37.9	14.1	10.3-75.6	4.1	4.2	0.0-19.2	8.408
Picture-word matching task	Reaction time	1160	237	722-1873	816	91.5	667-993	5.677
	inacc. responses (%)	8.6	7.5	0.0-32.1	1.7	1.7	0.0-6.4	18.177
Free speech	Perc. foreign accent	5.4	1.1	1.7-6.0	1.4	0.6	1.0-3.7	18.177
	Av. freq. lexical items	245	28.9	174-302	215	19.2	171-260	-10.988
	Unique items (%)	3.2	1.6	1.1-8.3	7.2	1.7	3.8-10.7	13.505
	Holistic proficiency	14.9	4.4	8.7-27.7				5.682

As these results show, the two populations are consistently different on all tasks, with the natives reliably outperforming the L2ers ($p < .001$ for all measures). However, it is also evident that there is considerable variability within the L2 population, and that on each task, there are a number of L2 participants who fall within the native range. We can therefore assume that the population investigated here does indeed cover a wide range of proficiency levels, from individuals who are clearly perceived to be non-native, have rather low levels of lexical diversity and are comparatively slow and inaccurate on the naming task up to and including highly advanced speakers whose proficiency levels at the very least approach near-native levels. This variability makes our population suitable for the subsequent investigations of the impact of external factors on proficiency levels.

3.6.2 Correlations with External Variables

As a next step, we attempted to find patterns of correspondence between the L2 participants' scores on the individual tasks and their background information. In other words, we wanted to establish which external factors would assist or hold back linguistic features such as lexical access (as measured by reaction times and accuracy on the naming and matching task), perceived foreign accent, holistic proficiency and lexical sophistication in free speech. In order to gain a first global picture, we therefore correlated these scores with the predictor variables summarized in Tables 3.1 and 3.2 above. The results from these correlations are summarized below.

3.6.2.1 Correlations between extra-linguistic factors and L2 picture naming and matching tasks

The first set of correlation analyses investigates the connections between socio-linguistic predictors and the ability to recall and recognize words in the L2 in response to a visual and auditory cue. This helps us to understand how automatic the participants are in word production and recognition. The analyses revealed that the amount of interactive L1 use correlated positively with average reaction time on the naming and on the matching test as well as with the proportion of accurate responses on both tasks (see Table 3.4 below for the full details of the analysis). That is, the more interaction the participants had with their family members and friends in their mother tongue, the slower they are in producing the L2 words and the more delayed and inaccurate their word recognition ability was. This implies a smaller and/or less efficiently managed vocabulary.

Professional use of the L2 was negatively associated with average reaction time on the naming test, indicating that L2 use at the workplace goes hand in hand with more automatic recall of L2 words. Age of arrival (AoA) was linked to the proportion of accurate responses on the naming test, while on the matching test it was associated with both reaction time and accuracy. The older the participants were when they arrived in the Netherlands, the fewer correct responses they could produce (recall that the minimum age of arrival was fifteen). An older age of arrival also seems to be associated with more constraints in word recognition, implying that it is more effortful to recall the words in the L2. Level of education was found to correlate negatively with average reaction time and proportion of inaccurate responses on the naming task.

The more highly educated a person was the more rapidly she or he responded and the more correct answers she gave. Amount of L1 use at work, preferred culture and length of residence (LOR) in the Netherlands turned out to be unrelated to both productive and receptive vocabulary knowledge on the controlled task

However, for all these analyses, the correlation coefficients are weak to moderate (.31 to .43), signaling that these effects, while consistent, are not very strong.

Table 3.4. Correlations between extra-linguistic factors and picture naming and matching tasks

		Inter.L1Use	WorkL1	WorkL2	PrefCul	AoA	LOR	Edu
<i>Picture naming task</i>								
Reaction time	Pearson Cor.	0.315*	0.142	-0.362*	0.132	0.198	-0.115	-0.214
	Sig. (2-tailed)	0.035	0.394	0.024	0.386	0.192	0.452	0.157
	N	45	45	39	45	45	45	45
Accuracy	Pearson Cor.	0.289	0.189	-0.209	0.235	0.425*	-0.141	-0.116
	Sig. (2-tailed)	0.055	0.257	0.202	0.120	0.004	0.354	0.450
	N	45	38	39	45	45	45	45
<i>Picture matching task</i>								
Reaction time	Pearson Cor.	0.412**	0.001	-0.187	0.290	0.432**	-0.152	-0.324*
	Sig. (2-tailed)	0.005	0.997	0.253	0.054	0.003	0.320	0.300
	N	45	38	39	45	45	45	45
Accuracy	Pearson Cor.	0.409**	0.003	-0.184	0.288	0.432**	-0.154	-0.319*
	Sig. (2-tailed)	0.005	0.987	0.262	0.055	0.033	0.314	0.033
	N	45	38	39	45	45	45	45

*/shaded light grey: Correlation is significant at $p < 0.05$ (2-tailed)

**/shaded dark grey: Correlation is significant at $P < 0.01$ (2-tailed)

3.6.2.2 Correlations between extra-linguistic factors and perceived L2 proficiency in free speech

The second set of analyses is concerned with the relations between socio-linguistic variables and the overall performance of the participants in spontaneous speech, as measured by global foreign accent ratings, holistic proficiency ratings and measures of lexical diversity. There was a robust correlation between interactive L1 use and foreign accent, average frequency and overall Dutch proficiency. In other words, the more frequent social and familial L1 conversations the participants have, the less they tend to sound native-like, the less advanced vocabulary they use and the less advanced their language skills are perceived to be in general. Professional L2 use significantly correlates with knowledge of advanced lexical items and global mastery of L2 skills. Social and work-related L2 interactions seem to enhance the sophistication of lexical knowledge and overall language competence. Cultural preference impacts overall competence in Dutch: the more a person is affiliated with the Dutch culture the more successful she or he scores on the global proficiency rating. Duration of stay is related to the complexity of the vocabulary, in that participants who have resided in the Netherlands longer tend to use more elaborate words. Level of education is associated with accent,

advanced lexicon and general L2 competence in that highly educated participants sound more native-like, produce more sophisticated words and score higher results overall (see Table 3.5 for a summary).

Again, however, the correlation coefficients are in the same range as was found above (consistently below .5), indicating a weak to moderate effect.

Table 3.5. Correlations between extra-linguistic factors and perceived L2 proficiency

		Inter.L1Use	WorkL1	WorkL2	PrefCul	AoA	LOR	Edu
Foreign accent	Pearson Cor.	0.379*	0.036	-0.278	0.275	0.088	-0.092	-0.324*
	Sig. (2-tailed)	0.011	0.830	0.092	0.071	0.568	0.552	0.033
	N	44	38	38	44	44	44	44
Average Frequency	Pearson Cor.	0.302*	0.232	-0.317*	0.100	0.096	-0.294*	-0.295*
	Sig. (2-tailed)	0.044	0.162	0.050	0.515	0.531	0.050	0.049
	N	45	38	39	45	45	45	45
Overall Dutch Proficiency	Pearson Cor.	-0.476**	-0.015	0.363*	-0.379*	-0.248	0.080	0.318*
	Sig. (2-tailed)	0.001	0.928	0.023	0.010	0.101	0.602	0.033
	N	45	38	39	45	45	45	45

*/shaded light grey: Correlation is significant at $p < 0.05$ (2-tailed)

**/shaded dark grey: Correlation is significant at $P < 0.01$ (2-tailed).

Overall, our findings so far indicate significant moderate correlations between L2 Dutch proficiency of the Turkish migrant group on the one hand and their L1¹⁴ and L2 use patterns, education and age of exposure on the other. However, cultural and attitudinal orientations do not seem to play a key role in L2 development.

3.6.3 Discriminant Analysis (DA)

The correlation analyses reported above give a somewhat scattered and inconsistent picture of the impact of external factors on success in L2 acquisition for our population, and for those relationships that we did detect the effect sizes are weak to moderate. It should be acknowledged, however, that correlation analyses are an extremely limited tool in the context of an investigation that has to consider such a large set of both predictor and outcome variables. While they do allow to explore the bivariate relationship of interval variables, they are not able to detect any interactions or combined effects that might be present in the data beyond the one that they test specifically. Furthermore, in order to limit alpha inflation, it was necessary here to combine a complex set of predictors into a very limited number of averaged factors, which again may not do justice to the data at hand.

¹⁴ Turkish is hardly ever used in professional domains in the Netherlands. The only contexts the participants spoke Turkish were interactions with other Turkish colleagues who work at the same company.

In order to be able to evaluate the interplay of the predictors and their impact on overall proficiency more thoroughly, we therefore conducted a Discriminant Analysis (DA). As explained by Huberty and Olejnik (2006: Ch.1), this statistical method evolved out of efforts to translate multivariate intergroup distance to “a linear composite of variables derived for the purpose of two-group classification” (p. 4) and was later extended to multiple groups. It was initially mainly used in the biological and medical sciences, but soon spread to other areas of scientific investigation. DA acknowledges the fact that scientific research typically deals with multivariate data sets which have to be analyzed and treated simultaneously. Predictive DA is applicable in cases where a set of outcome variables take the role of predictors and there is one single grouping variable (Huberty & Olejnik, 2006:5). The DA calculates linear combinations of predictors for each of the groups in order to arrive at the best model assigning each individual case that is entered into the model to the correct category.

In order to be able to divide our sample into a limited number of proficiency groups, a holistic proficiency measure was first calculated, based on the eight outcome variables described above. All eight variables were first standardized so that the participant(s) in the Turkish group who had attained the best score of the cohort (fastest RT, lowest percentage of inaccurate responses, lowest FAR, highest holistic proficiency rating, lowest average word frequency and highest proportion of unique lexical items) received the value 1 and the one(s) with the lowest score received a 0. Subsequently, these standardized variables were averaged together to create a combined holistic proficiency score for each speaker. This new index had a mean of .48 (Stdev .16) and, as can be seen in the histogram in Figure 1, was normally distributed across the population.

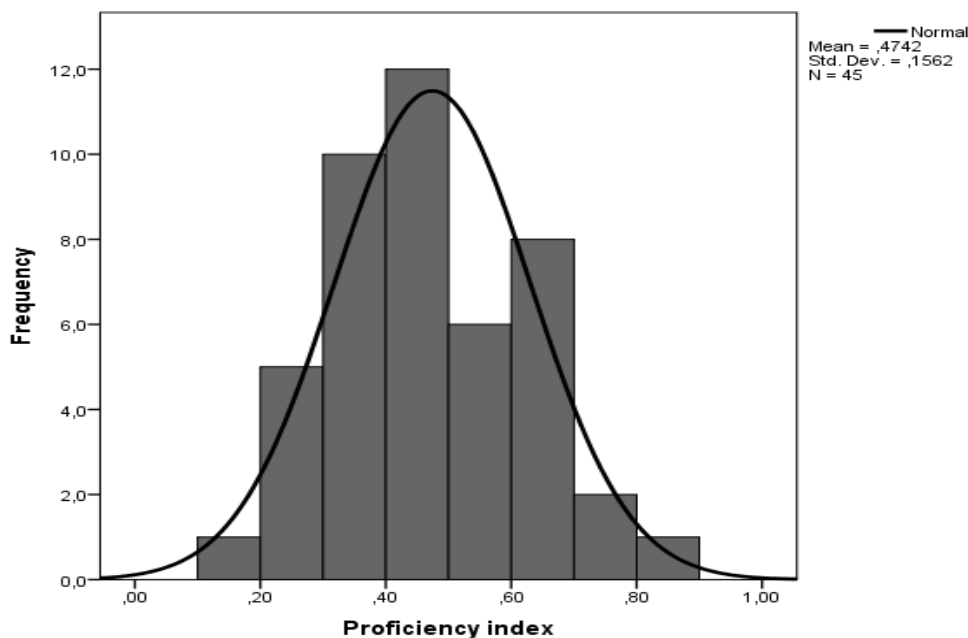


Figure 3.1 Distribution of scores on the general proficiency index

This new proficiency index was then used to divide the entire sample into three equal groups, representing 15 speakers with relatively low, intermediate, and high proficiency, respectively. An overview of the distribution of the proficiency scores across these groups is presented in Table 3.6.

Table 3.6. Scores on the global proficiency index by proficiency group

Proficiency group	Mean	St.Dev.	Range
Low (n=15)	0.31	0.06	.18-.40
Intermediate (n=15)	0.46	0.04	.40-.54
High (n=15)	0.65	0.09	.55-.88

With these newly created proficiency levels as our grouping variable, we conducted the DA. We used the following personal background, language use and attitudinal variables, collected by the sociolinguistic questionnaire, as dependent variables:

Personal background variables:

- length of residence (years)
- age at emigration (years)
- educational level (see above)

Language use variables (all of these were collected on a five-point Likert scale, where 1=(almost) exclusive use of Turkish and 0=(almost) exclusive use of Dutch):

- use of L1 within the family (average of eight questions)
- use of L1 with friends (average of three questions)
- use of L1 with parents and siblings (average of five questions)
- use of L1 in clubs or churches (average of three questions)
- use of L2 for professional purposes (one question)

Attitudinal variables:

- affiliation with L1 (average of four questions pertaining to the importance of maintaining Turkish and passing it to the next generation)
- preferred culture (one question)
- preferred language (one question)
- enjoyment of learning foreign languages (one question)

All of these predictors were entered into the model, we followed the procedure described by Schmid and Jarvis (submitted), setting the DA method to stepwise (only one variable is selected at a time in accordance with the contribution it makes to the strength of the model) and using the default Wilks' Lambda F values of 3.84 for entry and 2.71 for removal, so that only variables that make a significant contribution to the strength of the model would be selected, and that they would subsequently be removed if they no longer made such a contribution. The results were cross-validated.

The findings from the DA showed that the combined predictive power of the model described above is rather low: only 53.7% of all participants were assigned to the correct proficiency level. In particular the intermediate level was apparently difficult to assess, as no speaker was predicted to fall into this category. Thirty-two speakers were predicted to fall into the lowest proficiency level and 13 into the highest, but a comparison of these two new populations revealed a substantial overlap between these groups on the proficiency index on which the original classification was based: the participants assigned to the lower group had a mean proficiency index of .42, with a range of .18-.67, and the ‘high proficiency’ group ranged from .35 to .88, with a mean of .61. The results from the cross-validated categorization are presented in Table 3.7.

Table 3.7. Cross-validated categorization from Discriminant Analysis

		<u>Predicted</u>		
		Low	Intermediate	High
<u>Original</u>	Low	14	0	1
	Intermediate	13	0	2
	High	5	0	10

What was even more startling, however, was that of all the predictors entered into the model, the only one that was chosen was the question that pertained to the preferred language of the speaker. All other variables regarding personal background, language use or attitudes and affiliation were excluded from the model, as they did not contribute significantly to the results.

3.7 Discussion

The purpose of the present study was to determine the factors influencing the first generation Turkish immigrants’ overall proficiency in L2 Dutch. The findings appear to suggest an interaction of factors determining the level of success that a speaker has in this process which may be linked more to individual and personal characteristics and less to the factors that are usually invoked by governments and politicians, such as L2 use in the home or (un)willingness to integrate.

The first set of analyses reported above, consisting of correlation analyses linking individual predictor and outcome variables, determined that professional L2 use apparently enhanced overall proficiency, while L1 use with friends and family was negatively correlated with L2 performance. Among the demographic variables, age of arrival in the Netherlands and level of education emerged as influential predictors. However, in the second set of analyses, it turned out that only half the speakers were correctly predicted to fall into the appropriate proficiency band, and that the only significant factor in this context was the language that they preferred using, while none of the other variables contributed to the variation in learning outcomes.

First, we will attempt to interpret the results from the individual correlation analyses. As was mentioned in the previous section, correlational analyses are not able to control for interactional relations and combined effects where a large set of outcome and predictor variables are concerned. To start with the socio-

demographic factors, age of arrival and the level of education both of which seemed to correlate with L2 proficiency, are indeed closely interconnected. Their impact can be attributed more to the circumstances (that came with education and age of arrival). For instance, individuals who migrated at around the age of 15-20 were usually brought by their parents through family reunification, so they had their parents' financial and social support. This allowed many of them to focus more on learning Dutch and to continue their education. Higher school degrees might have led to better employment opportunities, which in return provided more opportunities to improve language skills. For older arrivals, i.e., the parents, it was mostly the economical priorities that curtailed language development rather than a cognitive/biological decline in their ability to learn languages (as proposed by for instance Bialystok & Miller, 1999). It is also probable that motivations and attitudes develop in different directions among younger and older groups. For older arrivals the motive to stay in the host country is primarily economic (unless they had to flee from their home countries due to political reasons or warfare, which was not the case in the present study) and they usually intend to go back. This may make them less willing to make investments in language and make their eventual success more susceptible to personal factors such as willingness to communicate, enjoyment of and aptitude for language learning. Younger immigrants in general tend to be more flexible and open to novel experiences, which makes it easier for them to learn languages. Language use at the workplace impacts on the learning process positively; however, it depends on the type of working environment and/or profession. One of our participants who reported that he often spoke Dutch at work, was leveled in the low ability group. This may be because of the quality of input he got from his colleagues who spoke a mixture of Groningse and standard Dutch. Another participant who ran his own business and continuously interacted with customers also had poor command of Dutch, which may be because his interactions consist of similar topics and most of his customers were non-native speakers of Dutch.

The following cases illustrate how person specific circumstances and/or interactions between the variables lead to unpredicted outcomes. One concerns a speaker in the lower proficiency group. He was nineteen years old at arrival and is a high school graduate. However, age and education advantage does not seem to have reflected on his L2 proficiency; he is one of the least successful language learners of this group. He started working immediately upon arrival and did not have a chance to attend language courses. Though he has been working since then, his initial inadequate language skills persisted to a large extent and confined him to work positions that did not require high levels of Dutch knowledge. There are some other individuals like him in this group, whose L2 did not seem to have developed in a way one would expect from young and educated arrivals. On the other hand, some individuals who only completed primary education turned out to be among the best learners. For instance, two of such participants are currently housewives who have not worked except short duration/temporary employments. One of them migrated to the Netherlands upon marrying and she attended language courses, though on and off. Her main motivation was to help her children's home/schoolwork. The other successful speaker had a brief work experience (less than 2 years) in her late teens and she reported that period as a turning point for her language development. From then onwards, since she enjoyed interacting with people, she gradually became more proficient over the years. In the middle proficiency group, two high school graduates had the poorest performance while two speakers with primary

school education outperformed all the rest of the individuals in their category. What is more, our interviews revealed that all of them spoke Dutch at their workplaces equally frequently; but apparently this did not contribute to language development of the two low achieving individuals. One of the two low-achievers is the oldest among four siblings in her family. Upon coming to the Netherlands to live with their father, she might have assumed the role of a caregiver/housekeeper at home because their mother could join them many years later. Even though she completed second half of high school in the Netherlands, which must have provided a good language foundation for her, she probably could not maintain or build upon it because of the circumstances she was in. The other high-achiever in this group is another marriage migrant who is a primary school graduate. She stated that she had been lucky to have a buddy, a native Dutch speaking person who volunteered to teach her Dutch and help her make a smooth transition into her new life.

The picture emerged from the DA with respect to the impact of external variables is quite different from that of correlational analyses and the fact that the DA controls for the combined effects of variables by excluding the weak predictors throws some doubt on the correlational results. Among all demographic, linguistic and attitudinal factors (including the ones which were significant according to the Pearson correlations: language use, education and age), only preferred language emerged as a strong predictor. Arguably, this factor is more a covert measure of proficiency than of any personal or background characteristics, as 'preferred language' will usually refer to the language people find easy to speak. For participants who are not very competent in Dutch, it is easier to speak Turkish, while better or advanced speakers probably feel equally comfortable with both languages.

What is even more striking is the fact that neither analysis detected a significant association between attitudinal factors and L2 proficiency, contrary to the widespread opinion held by the Dutch government and society. Our findings suggest that first generation Turkish migrants' Dutch develops irrespective of their attachment to and use of their mother tongue. Whether they feel closer to the Turkish or the Dutch culture and people and whether or not they would like to endorse the values and the norms of the Dutch society do not influence their proficiency in Dutch, either. Recall that L1 use was found to be negatively correlated with Dutch proficiency. This might be interpreted as validating policies imposing Dutch use on immigrants in all domains, and to imply that banning the mother tongue language in public domains including schools (as has sometimes been called for by some of the more radical politicians) may indeed promote Dutch proficiency. Such an interpretation/understanding, however, ignores the social reality of Turkish migrants. In the family context, where both partners are of usually Turkish origin, it is quite normal to speak their mother tongue with partners and children. Outside the home, native Dutch people, be it friends, colleagues or neighbors, comprise a relatively small proportion of their contacts and their close friends usually come from the same background. Therefore, interactions outside the family are mostly in Turkish, too. The use of Turkish thus seems like a natural reflection of their life style rather than a deliberate intention to avoid opportunities of daily interactions in Dutch or with the Dutch natives or a resistance to integrate into the Dutch society because of strong nationalistic pride (as was, for example, implied by Paul Lieben in his blog on the website of the Dutch news journal *Elsevier* on Feb. 25th, 2013).

It is also uncertain to what extent the hypothetical use of Dutch with other native Turkish speakers, such as in the home and in social encounters with friends of Turkish origin, would indeed help to improve their proficiency. First, such daily interactions do not usually call for an advanced level of language. Second, massive exposure to “non-native input” may even reinforce language errors (see Ellis, 2005; Flege & Lui, 1991; Muñoz & Singleton, 2007). Therefore, whether policies that encourage or enforce more (or primary) use of Dutch would help to improve their Dutch proficiency is rather questionable.

In sum, while more L2 use, younger age at arrival and more schooling seem to be advantageous for becoming a competent L2 speaker relative to other factors, it is apparent that there is a lot going on in people’s lives in addition to and/or related to these. However, there is no evidence for a strong link between (lack of) L2 development and resistance to or integration into the Dutch society. The only factor whose association with language proficiency has been clearly established is the preferred language – which, as was pointed out above, is probably more a covert proficiency measure than an indication of language habits.

3.8 Conclusion

Stereotypical images of Turkish labor migrants of 1960s and 1970s with limited command of Dutch language (which currently have little connection with their daily lives) have persisted into the present time among the public and even a number of researchers. It was the aim of the present study to identify the social forces that predict their second language outcomes. In order to do this, we interviewed first generation speakers to learn about their own conceptions about language learning, life experiences and relations with the host society. It turned out that they resemble other migrant groups across the globe (see Berry & Sam, 1997; Esser, 2008; Shohamy, 2006): On the whole, they have functional fluency in the environmental language and the number of high achievers in the second language is relatively small. They tend to live by their own culture and traditions in a foreign and sometimes unfriendly environment. They do adopt aspects of the host country culture to various degrees but not at the cost of losing their own.

Our observations revealed that on the whole, first generation immigrants are able to fully function in social and professional domains. Even though they have grammar mistakes, fossilized structures or a non-native accent in their speech, they hardly ever have communication problems. They are not deeply involved in improving their language skills. The foremost reason is that they do not have an economical, social or personal reason/motivation. Regarding their socio-cultural orientation, a large proportion of the participants seemed to hesitate between the two cultures. While they continued to value their ethnic roots and mother tongue, they were not sure if they fit into the contemporary Turkish culture after having lived abroad for so long. They were also not certain if they belonged to the Dutch society partly because of a general perception that the Dutch society is growing inhospitable towards foreigners but mostly because of obstacles and restrictive policies about residency rights, naturalization, family reunification and dual nationality (see de Hart, 2003; Ersanilli & Koopmans, 2010). Though, not every one has these concerns, such policy measures generate an atmosphere of insecurity. This is probably reinforced further by compulsory Dutch language and

culture training programs and disrespect for their mother tongue¹⁵, leading to increased feelings of seclusion among the members of the community.

It is interesting to note that the origins of the seclusion/separation between the Turkish community and the Dutch society can be traced to socio-political dynamics within the Dutch society during the migration flows in 1960s and 1970s. Arrival of these migrants coincided with the period of pillarisation of the Dutch society. Newly arriving immigrant groups, the Turks being one of them, preferred to stay within their own circles in this society which was already split up into four subcultures (Catholic, Protestant, Socialist, and Liberal). While pillarisation has lost strength over decades and there are no sharp political or religious divisions within the contemporary Dutch society, even the Dutch people themselves have many different conceptualizations of what constitutes the Dutch culture. The 'Dutch culture' is immensely rich and varied in itself. For example, the definition/perception of the Dutch culture of someone from Zeelander (south-west) would be different from that of a Frisian (north-west). Likewise, someone from the island of Texel (north-west) would differ from someone who comes from the city of Maastricht (south-east). Given the inherent diversity within the native Dutch society, expecting the migrants to integrating into the Dutch culture is perhaps not a realistic expectation. However, it is always possible to facilitate the process of integration by creating opportunities for migrants to socialize and interact with the host society and by actively involving the members of the host society themselves and institutions (e.g., local residents, employers, schools, social and governmental institutions). Such encounters would promote intercultural communication between the members of the migrant and the host community and foster mutual respect and understanding.

One of the implications of the present study relates to the widespread belief in the Netherlands (and elsewhere in Europe) that the rate with which immigrants integrate is closely related to their level of proficiency in the L2 and the use of L1. Current integration policies prefer to ignore the presence of immigrant groups. Migrant languages are devalued with terms such as 'non-territorial' or 'non-indigenous, and seen as obstacles to integration. Their speakers are often perceived as individuals with language deficit in the host country language. Migrant languages are further devalued by being excluded from educational policies. The aim is two-fold: to increase proficiency levels of the parents and to focus children's attention on second language only (so that the mother tongue will not interfere with their L2 acquisition and/or they will not fall back their native speaker classmates at school). This perspective in fact sadly overlooks the critical role of mother tongue. Mother tongue serves a strong foundation for successful development of a second language. It is the primary means of expressing emotions and ideas and is essential for personality development. It is through mother tongue cultural values/traditions are transmitted to future generations. (Cummins, 2000, 2003; Fuligni et al., 2008; Phinney et al., 2001; Saville-Troike, 1978). Besides,

¹⁵ When Turkish was taught at schools, it never had a status like English or German (along with other minority languages). Lessons were provided outside the curriculum and students did not earn any credits for their study. Later lessons were scheduled outside the school time until 2004 when the policy was abolished.

bi(multi)lingual individuals have great potential to contribute to socioeconomic development of their society in many ways such as intellectual, cultural, economic and artistic. In order to maintain the continuity of multilingual societies, institutional support is highly critical (Giles et al., 1977). In order to be functional outside the home domain and compete with other languages, migrant languages should be incorporated into economic social life. Since mother tongue starts in the family, L1 use in particular with children should be encouraged and minority languages should be taught within the school curriculum (Fishman, 1991).

Indeed, the merits of multilingualism have been recognized by the European Commission long ago (see European Commission 1995, 2005, 2007; e.g., Mercator and Language Rich Europe projects, Oslo Recommendations on the Linguistic Rights of National Minorities of February) and most European states have launched policies to promote the multilingual competence of their citizens (i.e., Whitebook for Trilingualism, which stands for mother tongue plus two foreign languages). However, the contradiction is that migrant languages are bypassed within this policy because the mother tongue is usually the official language of the state involved and the foreign languages are mostly the prestigious languages such as English or German or national languages of neighboring European states but never the mother tongue of the next door immigrant neighbor (Extra, 2005).

We believe that taking into account the knowledge of the social dynamics of migrant communities is of great importance in formulating and/or interpreting policies of integration and multilingualism and a lot more research is necessary to provide bases for designing policies that would facilitate migrants' L2 development and prevent their social and economic exclusion. This study may be a good reference point for anyone who would like to see a critical analysis of the sociopolitical context in the Netherlands and the portrayal of the first generation Turkish migrants' language development and life. We hope the present study will remind the importance of the mother tongue among the community members as a means of communication and encourage a reconsideration of perceptions about native languages as obstacles to L2 learning and a sign of disloyalty to the host country.

Chapter 4. Complex Embeddings in Free Speech Production among Late Turkish-Dutch Bilinguals¹

Abstract

This study investigates potential changes or simplifications in the L1 grammar of late Turkish-Dutch bilinguals in a migrant setting and examines the non-linguistic factors that might have played a role in this process. In our analyses, the bilingual group's production of embedded sentences in spontaneous speech was compared to that of a monolingual reference group. Based on previous frameworks, complex embeddings were ranked according to their morphological complexity, and it was investigated to what extent a change in preferential patterns (if any) could be explained by linguistic and socio-cultural preferences and demographic characteristics of the bilingual group. Statistical analyses revealed a slight tendency to underuse the most complex types of embeddings by the bilingual group, while their performance did not differ from the monolingual group for any of the other embedding types. Where a difference in performance was observed, the level of education turned out to be the only parameter that influenced the outcome, while language use patterns, age of immigration, length of residence or cultural orientations did not have any impact.

¹ This is an adapted version of an article that has been published: Yılmaz, G. & Schmid, M. S. (2011). Complex embeddings in free speech production among late Turkish-Dutch bilinguals. *Language, Interaction and Acquisition*, 2(2). 251-275.

4.1 Attrition of L1 Morphosyntax among Adult Bilinguals

It is widely assumed that the acquisition and use of an additional language impacts in complex ways on pre-existing language knowledge, leading to a reorganization of the languages in the mind (Cook, 2003; de Bot, 2007; Herdina & Jessner, 2002). While the precise nature of this reorganization and its linguistic and psycholinguistic determinants have not been completely explored, it has often been claimed that bilinguals' knowledge of their first language (L1) differs from that of monolinguals (Cook, 2002; Pavlenko, 2000; Schmid, 2010). Even adults with mature L1 grammars, without necessarily having achieved advanced levels of L2 proficiency, are potentially open to effects from the L2 in various domains of their L1 knowledge, one of the repercussions being structural change to the grammar (Dussias, 2004; Pavlenko, 2000).

One approach to change in the L1 under conditions of language contact involves the concept of simplification or reduction (e.g., Dussias, 2004; Gürel, 2004; Hutz, 2004; Jarvis, 2003; Pavlenko, 2010; Ribbert & Kuiken, 2010). In this context, it is often assumed that under conditions of cross-linguistic influence, morphologically marked distinctions in the L1 may not be completely respected, costly syntactic operations may be avoided and complex forms may be processed with difficulty. The prediction is thus that bilingual speakers in general and attriters in particular will come to disprefer those operations where grammatical relations are encoded through inflection, suffixation and other synthetic processes, and opt for those alternatives offered by the language where such relations rely on analytical processes, such as encoding by free morphemes (prepositions, pronouns) or word order. This prediction was first formulated by Andersen (1982:99):

“In situations conducive to language attrition [...] the number and variety of syntactic transformations would decline gradually in favour of a small number of more widely productive devices.”

Attriters have thus often been expected to develop a preference for less diverse and less complex means of expression, eventually leading to the emergence of a more unmarked² (less complex) variety of the L1 (e.g., Seliger & Vago, 1991) through processes encompassing "what elsewhere is called generalization, simplification, regularization, naturalness, intralinguistic effects, conceptual/cognitive/innate strategies, and the like" (Seliger & Vago, 1991:10).

These predictive assumptions, however, have rarely been verified to any substantial degree among attriting populations, whose morphosyntactic categories are usually affected only slightly if at all. Only tentative suggestions have been made pertaining to the vulnerability of some features of L1 syntax such as case (Schmitt, 2010; Tsimpli, 2007), gender (Polinsky, 2008), verbal morphology (Montrul, 2002), relative clauses (Yağmur, 2004), binding domain and pronominal systems (Gürel, 2002), distribution of overt and null pronouns (Tsimpli et al., 2004), parsing processes (Dussias & Sagarra, 2007), and sound discrimination (Celata & Cancila, 2010). Symptoms of morphosyntactic attrition have, on the whole, been very hard to

² For a discussion of the term 'markedness' and its use in the present study see below.

identify, and the findings among the experimental populations often diverged only slightly, or not at all, from the nonattriter norms.

These findings suggest that the grammars of mature native speakers are not particularly vulnerable to what Seliger and Vago (1991) describe as *internally induced* attrition processes: stable L1 grammars (that is, knowledge systems that developed in predominantly monolingual environments until the learner had reached puberty) are rarely, if ever, affected dramatically by those mechanisms of simplification that would have the effect of changing or reducing the overall system available to the speaker. Based on these findings, the focus of investigation was often placed on the impact of characteristics of the L2. It was assumed that bilinguals might come to prefer those options of L1 grammar that are also licensed by the L2 and disprefer those that are encoded only in L1. This, then, would imply not so much a change in the underlying options available to the speaker, but in the distributional patterns of the available structures in language use.

For example, Backus (2004) quotes the example of Turkish compound NPs indicating possession. Formally, such NPs require the genitive/possessive marker on both pronoun and noun: *ben-im ev-im* (I-GEN house-POSS). As a pro-drop language, Turkish does not require the pronoun to be present. When it is present, however, the possessive marker on the noun can be omitted in informal speech. This then leads to a structure that is superficially similar to possessives in Germanic languages: *ben-im ev* (I-GEN house), and Backus suggests that bilingual Turks may be developing a preference for such structures which are supported in both of their languages over the fully marked ones licensed only by L1 (Backus, 2004:714f.).

A similarly subtle rearrangement of preferential patterns in bilingual speakers is described by Gürel (2002) and Gürel and Yılmaz (2011) with respect to the interpretation of Turkish pronouns. Turkish has two overt pronouns, *o* and *kendisi*, which in certain contexts differ with respect to their anaphoric properties (for a detailed account see Gürel & Yılmaz, 2011), while Germanic languages such as Dutch and English have only one such pronoun. Gürel finds that for the bilinguals the restriction in the interpretation of the overt pronoun is relaxed in the case of *o* (for this pronoun the bilinguals' interpretation allows a 'bound & disjoint' reading where monolinguals only allow a disjoint reading). In the case of *kendisi* as well as the null pronoun, on the other hand, a bound-only interpretation is allowed in addition to the logophoric (bound & disjoint).

The extent to which slight and subtle distinctions between monolinguals and bilinguals, such as the ones identified by Backus (2004), Gürel (2002) and Gürel and Yılmaz (2011) are indications of a true restructuring of the underlying system is very much in doubt. In two recent studies, Doğruöz and Backus (2007, 2009) suggest that the preponderance of structures that are (partly) licensed by the L2, or show surface similarities to L2 structures, in the Turkish of heritage speakers in the Netherlands, is not an indication of a restructuring of the underlying system. Using the example of VO structures (which Turkish, as an underlyingly OV language, allows in certain contexts but which are the norm in Dutch, cf. Doğruöz & Backus, 2007), they show that adult Turkish heritage speakers in the Netherlands use a substantial proportion

of OV constructions that would be considered unconventional in Turkish in the contexts in which they occur. However, many of these constructions are used in expressions that could be considered lexical chunks in Dutch (for example in the case of *do*-support). They therefore argue that VO word order in these contexts is semi-lexicalized, and not an indication of a changing grammatical preference in Turkish. Dođruöz and Backus (2007, 2009) allow for the possibility that the initial stages of language contact, as seen here in the first generation of bilinguals who have grown up in the L2 environment, may be the seed for the development of a contact variety which will at some future stage fully integrate these grammatical options, but argue that at present they are confined to individual chunks.

In order to determine to what degree internal processes of simplification contribute to the L1 attrition process (as originally argued by Andersen, 1982; Seliger & Vago, 1991, and others) and to the increasing preference for structures licensed by both of a bilingual's language systems, it would be of interest to investigate a grammatical phenomenon that exists in a variety of forms of different complexity in the L1, but which has only one expression in the L2 that is structurally different from all options offered by the L1. Such a phenomenon can be found in Turkish complex embeddings. Turkish has a number of different possibilities to encode embeddings which vary with respect to their morphosyntactic complexity. None of these have a structural equivalent in Dutch that might trigger convergence in the sense suggested by Dođruöz and Backus (2007, 2009).

4.2 Complex Embeddings in Turkish

The focus of the present study is on the production of complex embeddings in Turkish. Turkish is a language that makes extensive use of complementation and relativization patterns. The acquisition of forms of relative clauses and verb complement constructions has been reported to take place comparatively late among Turkish children (Aksu-Koç, 1988). Late-learned structures have often been assumed to be relatively difficult to process and potentially vulnerable to L1 attrition, even if their acquisition has been completed well before the onset of bilingualism (Slobin, 1977, 1986; see also Keijzer, 2007 on the relation between sequence of acquisition and attrition). Full mastery of complex embeddings has also been reported to be problematic among young second generation Turkish-German bilinguals (Treffers-Daller et al., 2007) who use fewer and less complex embeddings and more non-target-like incomplete structures compared to the monolingual baseline.

There is only one study that explicitly looked at Turkish embeddings among native Turkish speakers who became bilingual after puberty, namely Yađmur's (1997) investigation of Turkish relative clauses among Turkish-English bilinguals in Australia. This study does report some degree of deterioration among the bilingual group. However, these findings should be interpreted with caution due to the nature of the relativization task employed by this study. Yađmur's task involved manipulation of language production in a way that is not typical of normal language use: participants were auditorily presented with scrambled words

and phrases and asked to rearrange them into coherent sentences. Therefore, these findings may not be representative of these speakers' ability to use embeddings in natural speech.

4.2.1 Complex Embedding in Turkish

Turkish is an agglutinative language, and complex embedding thus relies on agglutinative agreement morphology on subjects and nominalised verbs. Embedding is realized through the addition of nominalizing suffixes to the verb stem (and a postposition in postpositional clauses), obligatory inflections following those suffixes, and case marking (i.e., genitive) on the embedded subject (see below for more details and examples). Turkish offers different options, which differ with respect to the complexity of the morphological requirements for each type of embedding as well as in their order of acquisition.

The gradient of complexity apparent in the different embedding types has previously been discussed and classified in terms of morphological 'markedness' (Özsoy & Erguvanlı-Taylan, 1989).³ It should be noted here that 'markedness' is among the most diverse and divergent terms used in linguistics, with different interpretations according to the framework within which it is applied (e.g., typological, contrastive, generative etc., see e.g., Janda, 1995). The present paper does not wish to engage in this debate, and therefore adopts both the terminology and the classification of embeddings proposed by previous studies. In these approaches, the number of grammatical rules underlying each embedding type (i.e., forms that differ from the canonical non-embedded structure) has been used as the measuring stick for degree of 'markedness'. Various authors have attempted to provide such a taxonomy of the types of subordination used to construct embedded sentences in Turkish (Göksel & Kerslake, 2005; Özsoy, 1999; Özsoy & Erguvanlı-Taylan, 1989). Based on these analyses, the suggested ranking of subordinate clauses according to their 'markedness' is: (1) least marked: gerunds, (2) less marked: participles, (3) marked: nominalizations and (4) most marked: postpositional clauses. The following sections will discuss each type in detail and attempt to provide a rationale for the 'markedness' ranking.

4.2.1.1 Least marked: gerunds

Gerunds are formed through the addition of the gerundive suffix at the end of the verb stem. Depending on the type of the gerundive subject, subject-verb agreement is sometimes required on the verb stem (2) where the third person singular agreement marker *-in* is required following the gerundive suffix *-DIK*:

(1)	<i>Canberk</i>	<i>gün-ler-i-ni</i>	<i>genellikle</i>	<i>[spor yap-</i>	<i>geçir-ir.</i>
				<i>ARAK]</i>	
	Canberk	day-Pl-3sgPoss-	usually	sports do-Ger	pass-Aor-
		Acc-			3sg

³ An anonymous reviewer pointed out that a more appropriate term for this framework might be 'morphological complexity'. We share the reviewer's unease with the term 'markedness', but we adopt it from earlier studies, as this is how it was used to describe the phenomenon under investigation in its original context.

(‘Canberk usually spends his days doing sports.’)

- (2) *Canberk [spor yap TIĞ-in-da] kendi-ni mutlu hissed-er.*
Canberk Sports do-Ger- 3sgPoss-Loc self-Acc happy feel-Aor-3sg
(‘Canberk feels happy when he does sports.’)

4.2.1.2 Less marked: participles

The participle suffixes *-(y)An* and *-DIK/-(y)ACAK* function as the relative pronouns 'who', 'which', 'that', 'whom', 'whose', 'where', etc. and they introduce relative clauses. They are considered to be more marked than gerunds as they require more rules with respect to the suffixes which they assign to different participles and the presence of subject-verb agreement.

When the relativized constituent is the embedded *subject*, the verb is marked with the *-(y)An* participle suffix and this is generally referred to as the ‘subject participle’:

- (3) *[spor yap-AN] kişi-ler ...*
sports do-Part individual-Pl
(‘the individuals who do sports...’)

If some constituent other than the subject is to be relativized, *-DIK*, or *-(y)ACAK* is attached to the embedded verb, and this is generally referred to as the ‘object participle’. Unlike the *-(y)An* condition, the verb is also marked with the possessive suffix. The verb agrees with the subject of the relative clause and the subject takes the genitive suffix *-In*. Both suffixes *-DIK / -(y)ACAK* have the same structural features but *-(y)ACAK* refers to future situations while *-DIK* is used for nonfuture situations as illustrated in examples (4) and (5), respectively⁴:

- (4) *Canberk'-in beş yıl sonra [yap-ACAĞ-I spor] futbol.*
Canberk-Gen five year after do-Part-3sgPoss sports football.
(‘The sports Canberk will do in five years time is football.’)
- (5) *Canberk'-in şimdi [yap-TIĞ-I spor] kürek.*
Canberk-Gen now do-Part-3sgPoss sports rowing.
(‘The sports that Canberk does now is rowing.’)

⁴Details on various types of relative clause constructions are beyond the scope of this paper but it should be noted here that different types have not been distinguished for our analyses. Object, subject, headless relative clauses, relative clauses with embedded noun clauses and with the auxiliary *ol-* (e.g., ‘*spor yapmış olan kız*’ – ‘the girl who had done sports’), truncated relative clauses (where *olan* is omitted as in ‘*spor yapacak (olan) çocuklar*’ – ‘the children who will do sports’) are all counted as one occurrence of relative clause.

4.2.1.3 Marked: nominalizations

Nominalization can occur in three forms. The first type, constructed with the verbal infinitive suffix *-MAK*, is not marked for person or number agreement because the subject of the main clause and the embedded clause are identical:

- (6) *Spor yap -MAK o -nu dinlendir -iyor.*
 Sports do -Inf he -Acc make rest -Prog-3sg
 ('Doing sports make him feel rested.')

However, nominalizations with *-mA* and *-DIK* (and also *-(y)ACAk* which is the future form of *-DIK*) are both marked by the accusative case and possessive suffixes in order to agree with the subject in terms of number and person. In examples (7) and (8), the embedded subjects are marked with the genitive suffix *-nIn* in order to agree with the predicate *yapmasını* ('do-Nom-3sgPoss-Acc') and *yaptığını* ('do-Nom-3sgPoss-Acc') in number and person as the matrix subject and the embedded subject do not refer to the same person. Otherwise, there is no genitive on the subject as in example 9.

- (7) *Anne-si o- okul zaman-ı bu kadar çok spor yap-MA-sı-nı iste-m-iyor.*
nun
 Mother- he- school time- this much a sports do-Nom- want-Neg-
 3sgPoss Gen poss lot 3sgPoss-Acc Prog-3sg
 ('His mother doesn't want him to do this much sports during school time.')
- (8) *Anne-si o-nun hafta-da altı gün antreman yap-TIĞ-ı-nı bil-iyor.*
 Mother- he- week- six day training do-Nom-3sgPoss- know-Prog-
 3sgPoss Gen Loc Acc 1sg
 ('His mother knows that he does training six days a week.')
- (9) *Canberk hafta-da altı gün antreman yap-TIĞ-ı-nı anne-si-ne söyle-m-iyor.*
 Canberk week- six day training do-Nom-3sgPoss- mother-3poss- tell-Neg-Prog-
 Loc Acc Dat 3sg
 ('Canberk doesn't tell his mother that he does training six days a week.')

4.2.1.4 Most marked: postpositional clauses

Postpositional clauses are similar to nominalizations but there is an additional rule with respect to agreement morphology that makes this category the most marked: while the overt subject in the nominalized clause always takes the genitive case, those of the postpositional clauses take either the nominative or the genitive suffix. In (10) for instance, the subject *Canberk* takes the nominative suffix, while in (11), the subject *Canberk'in* is marked with the genitive. Second, agreement on the nominalized verb depends on the postposition. For instance, while the postposition *için* assigns the possessive suffix on *olduğu* (ol-Nom-3sgPoss), the postposition *dolayı* occurs with the ablative case following the possessive suffix in *yapmasından* (do-Nom-3sgPoss-Abl):

(10) *Canberk disiplinli ol-DUĞ-u için antrenör-ü memnun.*
 Canberk disciplined be-Nom-3sgPoss because trainer-3sgPoss pleased
 ('Because Canberk is disciplined, his trainer is pleased.')

(11) *Anne-si Canberk'in çok spor yap-MA-sın- dolayı biraz endişelen-iyor.*
 Mother- Canberk- a sports do-Nom- because a little get worried-
 3sgPoss Gen lot 3sgPoss-Abl bit Prog-3sg
 ('Because Canberk does a lot of sports, his mother gets a little bit worried.')

To summarize, previous investigations have attempted to rank the different structures available to Turkish speakers to form embeddings on the basis of complexity or 'markedness', where markedness has been determined on the basis of the number of obligatory inflectional morphemes following the nominalization suffix on the verb stem and (non)occurrence of an overt genitive case marker on the embedded subject (Göksel & Kerslake, 2005; Özsoy, 1999; Özsoy & Erguvanlı-Taylan, 1989). The following is the order of these constructions from the least complex/marked (which should then be presumed to be the 'easiest', as it requires the least morphological/inflectional processes) to the most complex/marked (the most 'difficult', relying on the most complex inflectional processes):

1. gerunds
2. participles
3. nominalizations
4. postpositional clauses

The syntactic forms of these structures thus rely strongly on inflectional processes. This is in contrast to embedding in Dutch, which makes no use of inflection and instead employs word order to indicate subordination. L1 acquisition of these forms by Turkish children, in general, is reported to occur relatively late, which also suggests that they may potentially be vulnerable in situations of language contact (see also Keijzer, 2007).

4.3 Turkish in the Netherlands: The Impact of External Factors

The Turkish community under investigation here is among the biggest non-western groups of immigrants in the Netherlands. This group is usually described to hold strong ethnic and linguistic affiliations, to practice predominant L1 use and to have limited L2 proficiency relative to both other minority groups in the Netherlands as well as Turkish migrants in other European countries (e.g., Ersanilli, 2010). However, to date there have been no systematic or large scale studies of language attitudes, bilingual proficiency or L1 attrition/maintenance within the Turkish migrant community. A number of studies have noted a tendency to use more transparent or analytic linguistic forms among Turkish-Dutch bilingual immigrants in general (e.g., Huls & van de Mond, 1992; Schaufeli, 1996; for an overview of studies and phenomena see Backus, 2004), indicating that Turkish-Dutch bilingual speakers may sometimes prefer structures or interpretations of phenomena that exist in both their languages over those that are only present in L1 (see above).

In the context of language attrition, extralinguistic variables concerned with the migration experience and personal background factors play an important role. Although past research has attempted to unravel the role of external factors from sociolinguistic and psycholinguistic perspectives, it is still unclear how these variables affect the outcomes of attrition or interact with one another and impact on the process of attrition among adult bilinguals with long-term residence (upwards of a decade) in an L2 environment. For instance, extended non-use or very minimal L1 contact has surprisingly limited effects on language attrition even in studies that reported deterioration (e.g., Cook, 2003; Gürel, 2002) and syntactic processing skills have been found to be very well-preserved regardless of the amount of L1 contact (e.g., Schmid, 2007; Schmid & Dusseldorp, 2010). Some factors, such as education, are particularly controversial: a high level of education has been reported either to be conducive to the maintenance of L1 (Clyne, 1972; Jaspaert & Kroon, 1989; Yağmur, 1997), or to have no influence on degree of attrition (Köpke, 1999). Similarly, affective and attitudinal variables turned out not to have any impact on the outcomes of attrition (e.g., Hulsen, 2000; Waas, 1996; Yağmur, 1997) except in one study (Schmid, 2002).

The limited explanatory power of external factors and sometimes inconsistent results across studies are most probably due to the fact that each context of attrition is unique and that therefore detailed investigations of different groups in different contexts are necessary, encompassing as much linguistic and sociolinguistic data as possible. The present study aims to incorporate socio-demographic factors such as language use patterns and preferences, social networks, ethnic affiliations and attitudes towards the host culture and language. In order to determine to what extent such factors can indeed influence the development of preferential patterns favouring simpler structures, these background variables will be assessed against the analysis of syntactic complexity in unguided language production.

4.4 The Study

The purpose of the present study was to explore the potential change or simplification in the L1 Turkish grammar in an L2 Dutch environment and to identify the external factors that might possibly have an impact on this process. More specifically, the following questions were addressed:

1. Do bilingual Turks use less subordinate clauses in general than monolinguals?
2. Do they exhibit a higher preference for unmarked subordination types over marked ones?
3. Can we identify any of the factors determining change in their L1 (if any) based on length of residence, language use, education or attitudes?

4.4.1 Participants

The bilingual group investigated here consisted of 52 first generation Turkish migrants who had learnt Turkish as their L1. All participants migrated to the Netherlands after the age of 15 and had spent at least ten years in the Netherlands. These minimum age and length of residence criteria were intended to ensure that the speakers had a fully developed L1 system at the time of migration, and that bilingual exposure had continued for a sufficient period of time for the L1 to be affected (for age of onset of attrition, see Bylund,

2009 and an overview in Köpke & Schmid, 2004; for an overview of length of residence effects see Schmid , 2011. A maximum of 65 years of age was set in order to eliminate any effects of aging on language performance.

Participants’ linguistic habits and language attitudes were assessed by means of the sociolinguistic questionnaire developed for language attrition research (Schmid, 2011, see also <http://www.let.rug.nl/languageattrition>). This instrument comprises a number of Likert-scale questions on the frequency of use of both L1 and L2 in a variety of settings, as well as on attitudes towards L1 and L2 culture etc. For the purpose of the present study, the variable ‘Overall L1 use’ was calculated, which comprised the average response to all questions on frequency of L1 use (within the family, with friends in the country of migration and back home, for inner speech, passive exposure through media, etc.). The range of this variable was from 1 (daily use of L1 in all contexts) to 0 (no use at all of L1 in any context), with a maximum total score of .96 and a minimum of .33 (mean .76, stdev .15). Cultural affiliation was assessed on the basis of the average responses to a series of questions on the participant’s preferred culture, again with a possible range from 1 (unambiguous preference of home culture) to 0 (unambiguous preference of host culture), and the scores on this variable ranged from .80 to .10 (mean .45, stdev .17). These results show that the participants on the whole use the L1 more in their daily lives than the L2, but are fairly balanced with respect to their cultural attitudes.

The reference group in Turkey consisted of monolingual speakers of Turkish who were matched with the experimental group on age, gender, birthplace and level of education on a one-to-one basis (see Table 4.1). About one third of the participants in each group had five years of schooling after primary education (n = 16), and around half of them had a high school or university degree (n = 25). The remainder had secondary education (8 years after primary schooling, n = 11).

Table 4.1 Participant characteristics

		Age	Age at emigration	Length of residence
Bilingual Group (n=52)	Mean	43.94	21.59	22.57
	St.Dev.	10.16	3.88	10.35
	Range	30-62	15-42	10-41
Control group (n=52)	Mean	42.35		
	St.Dev.	9.43		
	Range	29-61		

4.4.2 Procedure

The data were collected by means of a semi-structured autobiographical interview (conducted in the L1), through which extensive background data on L1 and L2 use, linguistic and cultural preference and social

networks were collected. Additionally, free speech was elicited through a conversation around topics of daily life, trips to home country and experiences as migrants (for a description of these instruments see Schmid, 2011). Each participant was interviewed once, and the interview typically lasted about 20-30 minutes. All interviews were recorded and transcribed according to CHAT conventions (MacWhinney, 2000), and utterances were determined according to the criteria set out by Berman and Slobin (1994), Foster et al., (2000) and Hunt (1970). There were a total of 85,196 words and 16,378 utterances in the bilingual data, and 95,822 words and 18,752 utterances in the control data. Each type of subordinate clause was identified and counted separately in the data of both groups.

Due to the highly informal and interactive nature of the conversations, there were frequent instances of back channelling, elliptical utterances and formulaic expressions. Therefore, deciding on units of analysis required great caution. The *T-Unit*, which is defined as one main clause and whatever clauses, phrases and words are attached to it or embedded within it, was used as a starting point (Hunt, 1970). In addition, a set of criteria was employed in order to determine exclusion/inclusion of certain utterances (Foster et al., 2000; Hunt, 1970; Treffers-Daller et al., 2007). For instance, constructions that were introduced by clitics such as *da* and *ki* were considered as separate, as were sentences that included coordinating conjunctions such as *diye* ('so that'), *gibi* ('like'), *ve* ('and'), *ama* ('but'), *hem... hem...* ('both ... and ...'), *ne... ne...* ('neither... nor...'):

(12) / randevu aldım *da* / gittim oraya /
 "I went there having made an appointment"

(13) / *ne* İstanbul'a gittim / *ne* İzmir'e gittim /
 "I neither went to İstanbul nor İzmir"

Conditional sentences of all types were counted as one unit. Utterances consisting of greetings, formulaic expressions such as *I mean, you know* as well as one-word utterances such as *yes, no, thanks* were excluded from the count, as were unfinished sentences. In order to minimize the effect of priming by the interviewer, utterances which had primed incidences of subordination, as in the answer of participant A in example (14), were excluded from the analysis. If the answers were restructured or paraphrased as in the answer of participant B, they were then included:

(14) Interviewer: *Yabancı dil öğren -MEK ne kadar önemli?*
 Foreign language learn -Inf how important
 ('How important is it to learn foreign languages?')

A: *Dil öğren -mek çok önemli.*
 language learn -Inf very important
 ('It is extremely important to learn languages')

B: *Dil öğren -ME -yi çok önemli bul -uyor -um.*
 Language learn -Nom -Acc very important find -Prog -1sg
 ('I find it extremely important to learn languages.')

4.5 Results

4.5.1 Quantitative Results

Only correctly constructed embeddings were included in the analysis. As the amount of speech elicited from the participants varied, the relative frequency of each type of embedded clause was calculated in relation to the number of utterances produced by each participant. The mean numbers of each type of embedding per one hundred utterances produced by both groups are reported in Table 4.2. It is evident here that the bilingual group had almost exactly the same amount of gerund and participle constructions as the monolinguals in their spontaneous speech (4.99 and 4.70 versus 5.00 and 5.70, respectively). The amount of subordination in all other types of embedded constructions seemed to be lower in the bilingual data. However, independent t-tests on all types of embedding revealed a significant difference only in the scores of postpositional clauses for bilinguals vs. controls ($t(46) = 2.79, p < .001$).

Table 4.2 Relative frequency of subordinate clauses with respect to number of utterances produced per group

	Group				T-Test	
	Bilinguals		Controls		t (46)x	p
	Mean	St.Dev.	Mean	St.Dev.		
Gerund	4.99	2.42	5.00	2.12	-0.03	0.97
Participle	4.70	2.85	4.70	2.90	0	1.00
-mAK	3.01	2.41	3.53	1.89	-1.22	0.22
-DIK	0.66	0.60	0.75	0.73	-0.69	0.49
-mA	1.12	1.23	1.08	1.18	0.18	0.86
Postpositional	3.83	2.57	5.29	2.75	-2.79	<.001*
Utterances produced	314.96	9.97	361.00	9.71	3.28	0

With respect to the markedness framework proposed in previous studies, the least marked gerunds were indeed the most frequent category in both bilingual and control group data (4.99 and 5.00), followed by less marked participles (4.70 and 4.70). Nominalizations, which constitute the marked category, occurred less often than the previous two. Among the three types of nominalizations, *-mAK* appeared as the most frequent (3.01 and 3.53) one. The *-DIK* and *-mA* nominalizations seemed to be the two least frequent constructions among both groups (0.66 and 1.12 among the bilinguals; 0.75 and 1.08 among the controls). Therefore, the markedness hypothesis outlined above seems to be supported by the distribution of gerunds, participles and nominalizations. However, the frequency of occurrence of postpositional clauses is at odds with what one would predict from this framework across both groups. Bilinguals had more instances of postpositional clauses than nominalizations, and the controls used them even more often than the otherwise most frequent gerunds. The ratios in Table 4.2 indicate that the bilingual group did not shift their preference in favour of

less marked types of subordination, as the overall distribution does not appear to differ from that of the monolinguals as depicted in Figure 4.1.

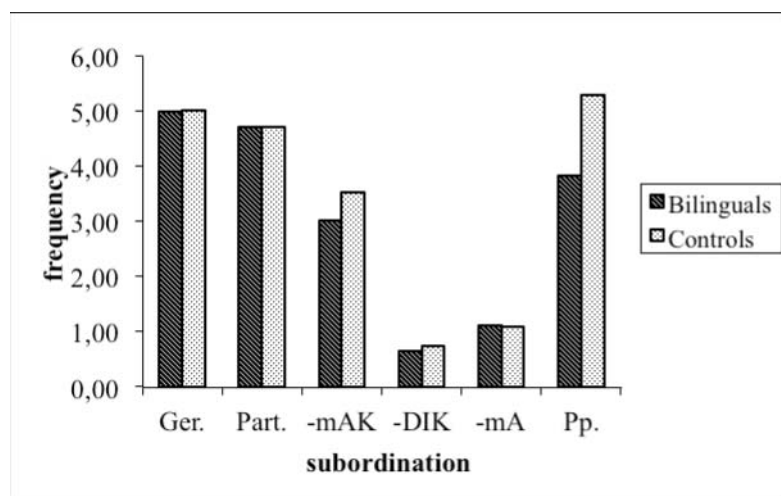


Figure 4.1 Relative frequency of subordinate clauses with respect to number of utterances produced

In order to determine the impact of extralinguistic factors on the use of relative constructions among the bilinguals, a multiple linear regression was carried out on the bilingual data ($R^2=.16$, $F(1,51) = 1.180$, $p = .230$). The results showed that among the predictive factors, only education was related to the use of postpositional clauses ($p < .05$). A similar analysis for the controls revealed that level of education had no effect on embeddings for these speakers. There was no interaction between any of the measures of language use, preferred culture, length of residence, and age, on the one hand, and the level of syntactic complexity in the spoken data, on the other (see table 4.3). It was further determined that the use of postpositional clauses did not correlate with L2 proficiency, as established by native speaker ratings ($r = .095$, $p = .535$).

Table 4.3 Multiple linear regression analysis, sociolinguistic factors

	β	p
Language use	0.150	.421
Length of residence	-.112	.699
Preferred culture	-.075	.533
Age	-.204	.307
Level of education	.329	.025

4.5.2 Qualitative Results

An analysis of non target-like embedded constructions reveals that the bilingual group had slightly more difficulty in correctly applying relativization rules (131 errors vs. 66 errors in the monolingual data) and more participants amongst them made such errors (44 vs. 30 participants in the control group) (see Table 4.4). Nevertheless, when evaluated against the total amount of utterances produced by each group, the amount of non-target-like embedded constructions turned out to be relatively minor, with 0.8 and 0.4 per 100 utterances in the bilingual and monolingual data, respectively (see Table 4.5).

Table 4.4 Distribution of absolute number of nontargetlike constructions and total number of utterances

	Bilinguals	Controls
Total no. of utterances	16,378	18,752
Participants with nontargetlike constructions	44	30
Total no. of nontargetlike constructions	131	66

While the small amount of errors across both groups as well as per speaker did not allow us to carry out any statistical analyses, a closer look at the distribution of errors across each type of subordination reveals overall similarities, despite minor differences across both groups. Both bilinguals and monolinguals had the most errors in the category of participles (0.31% and 0.13 % respectively). This was followed by the errors in *-mA* nominalizations among the bilinguals (0.22% versus 0.06 % among the controls). In the rest of the embedding types, the occurrence of errors were below 1% among both groups, while being slightly higher among the bilinguals (see Table 4.5).

Table 4.5 Distribution of subordination errors across groups, absolute number and percentage in relation to total number of utterances

	Group			
	<u>Bilinguals</u>		<u>Controls</u>	
	Abs.no	%	Abs.no	%
Gerund	6	0.04	4	0.02
Participle	51	0.31	25	0.13
-mAK	12	0.07	10	0.05
-DIK	14	0.09	4	0.02
-mA	36	0.22	12	0.06
Postpositional	12	0.07	11	0.06
Total	131	0.80	66	0.35

In a similar vein, the nature of the errors was very similar in both groups. Problem areas mostly concerned the occurrence of the genitive suffix on the embedded subject, which was sometimes omitted in an obligatory context (15) where it should be ‘*sevgi-nin*’ (love-Gen) or overused, as in the example (16) where it should be ‘*insan-lar*’ (person-Pl):

- (15) **Sevgi/Sevgi-nin hepsi-nden önemli ol-duğ-un-u anla-dı-m.*
 *Love/Love-Gen all-Abl important be-Nom-3sgPoss-Acc understand-Past-1sg
 (‘I understood that love was the most important of all.’)
- (16) *Bu *insan-lar-ın/insan-lar dört dörtlük ol-ma-dı-ğ-I için...*
 This *person-Pl-Gen/person-Pl perfect be-Neg-Nom-3sgPoss because
 (‘Because these people are not perfect...’)

There were also errors concerning the omission of obligatory inflectional morphemes following the nominalization suffix on the verb stem. For instance, some speakers failed to provide the correct person, number or case agreement. In example (17), person agreement is missing on the verb. The correct form should be ‘*git-tik-lerin-de*’ (go-Nom-3PIPoss -Loc):

(17)	<i>En</i>	<i>akraba-lar-ı-</i>	<i>yanına</i>	<i>*git-tiğ-in-de/git-tik-ler-</i>	<i>kendileri-</i>	<i>ifade ed-ebil-</i>
	<i>azından</i>	<i>nın</i>		<i>in-de</i>	<i>ni</i>	<i>sinler.</i>
	At least	relative-Pl-	near-	*go-Nom-3sgPoss-	selves-	express-Able-
		3sgPoss-Gen	Dat	Loc/go-Nom-3PIPoss-	Acc	3pl
				Loc		

(‘At least when they go to visit their relatives, they should be able to express themselves.’)

There were occasional substitution errors where speakers incorrectly used a type of subordination in the context of another type, e.g., *-mA* instead of *-mAK* nominalization as in (18). The correct form should be ‘*büyüt-mek*’ (raise-Nom):

(18)	<i>Aslında</i>	<i>çocuk</i>	<i>*büyüt-me-niz/büyüt-mek</i>	<i>çok</i>	<i>sıkıntılı</i>	<i>bir</i>	<i>şey.</i>
	In fact	kid	*raise-Nom-2sgPoss/raise-Nom	very	troublesome	a	thing’
							(‘In fact, raising kids is a very troublesome thing’)

Finally, some incomplete sentences or self retractions as well as various hesitation markers occurred where speakers attempted an embedded sentence:

(19)	<i>Bura-ya</i>	<i>gel-en</i>	<i>herkes...</i>	<i>uh</i>	<i>demek</i>	<i>iste-diğ-im</i>	<i>ben</i>	<i>ura-</i>	<i>gel-dig-im-de...</i>
								<i>ya</i>	
	Here-	come-	everyone	uh	to tell	want-Part-	I	here-	come-Ger-
	Dat	Part				1sgPoss		Dat	1sgPoss-Loc
									(‘Everyone who has come here... uh I mean when I came here...’)

4.5.3 Summary of the Results

In general, the bilingual group made use of subordinate clauses as often as controls, with the exception of the most marked form (i.e., postpositional clauses). Therefore, the findings presented here cannot be taken as evidence of simplification of the underlying L1 grammar. Interestingly, and contrary to what would be expected on the basis of the markedness hierarchy proposed above, both bilinguals and monolinguals produced a high number of instances of postpositional clauses, which bilinguals used more often than nominalizations. In the control group, postpositional clauses were the most frequent overall. Qualitatively speaking, no substantial divergence from the target grammar was found for the bilinguals, as the nature and the distribution of errors was similar to that of controls. Among the variables investigated, only education had an impact (limited to postpositional clauses only), while linguistic and cultural affiliations, length of stay or age did not play any role.

4.6 Discussion

The present study investigated complex embeddings in L1 Turkish in the context of L1 attrition among late Turkish-Dutch bilinguals. The aim was to determine whether this grammatical phenomenon, which can be expressed by means of a number of variants which differ in morphological complexity, might be affected by a process of *internally induced* simplification. It was therefore examined to which extent Turkish attriters in a Dutch environment make use of each of these types of embedding in a corpus of naturalistic speech, and whether or not their preferences differ from those of monolingual Turks in Turkey.

The results suggest that the L1 grammatical system underlying complex embedding, once fully acquired, remains stable even after several decades in an L2 environment, as evidenced by the absence of major changes in distributional preferences or drastic increases in error rates. The present study found only one area affected, namely postpositional clauses, which were assumed to be the most marked category of embeddings. However, it should be pointed out that, although bilinguals did not use postpositional clauses with the same frequency as monolinguals, both groups nevertheless made very frequent use of this structure. The bilingual population can thus certainly not be said to have ‘lost’ this option.

The finding that the least marked gerunds occurred as the most frequent embedding type, followed by the participles (less marked) and then nominalizations in the spoken data of both groups is in line with the expectations of the markedness framework adopted in our study. However, the fact that the postpositions turned out to be extremely frequent across the board is at odds with the ranking principle of markedness. In a previous study which had taken this view as a starting point, postpositional clauses were also found to be the third most frequent structure after the gerunds and *-mAK* nominalizations among second generation young bilinguals (Treffers-Daller et al., 2007). The framework of markedness therefore cannot account for the frequency of occurrence of postpositional clauses as compared to other less marked structures, and may need to be re-evaluated in that respect. It is possible that postpositional clauses are particularly functional in communication, and despite their complex grammar this may contribute to their frequent usage.

The second aim of the study was to look into the effects of sociolinguistic parameters on changes in distributional preference of these variants of embedding. Among the most intriguing findings is perhaps the irrelevance of the amount of L1 use and of the affective variables such as attitudes towards culture and language with respect to the L1 performance of bilinguals. Given the fact that the population under investigation, Turkish migrants in the Netherlands, is known for its attachment to the home language and culture (de Bot & Weltens, 1997; Ersanilli, 2010; Yağmur, 2004), it seems hard to explain the lack of relation between language use patterns and attitudes on the one hand, and observed stability of L1 syntax in a migrant context on the other. This finding ties in well with the previously reported lack of correlation between ethnolinguistic vitality perceptions, language use and language shift/maintenance patterns for Turkish migrants in an Australian context (Yağmur, 1997; Yağmur et al., 1999). Although the community investigated in Yağmur’s study differed substantially from the one investigated here, in that a shift towards

more English use and a relatively weak emotional attachment to Turkish were observed in that population, there was no predictive value of these factors on the language outcome. It thus appears that proficiency in the L1 may develop independently of attitudes and cultural orientations.

It is possible that this lack of correspondence may in part be due to the difficulty of measuring language use patterns in a reliable way, in particular since such measures always have to rely on self reports as stressed by Köpke and Schmid (2004). It is equally difficult to measure attitudes objectively (Schmid, 2011). Even though we believe that our participants answered the interviewer who shared the same linguistic and cultural background, with sincerity, attitudes are hard to uncover, not only because they are subject to substantial change over time, but also due to the fact that they may be ambivalent within one single individual. One of the participants expresses her conflicting attitudes very vividly and poignantly:

“I would now say I am very happy to have come to live in the Netherlands; but if you ask me the same question next week or a year from now I might say I terribly regret it. I am afraid it is hard to give a definitive answer because very often I tend to oscillate between these two extremes.”

These difficulties of measurement and interpretation notwithstanding, the present study does seem to suggest that, irrespective of external factors such as the amount of L1 use and feelings of affiliation and identity, there are no dramatic differences between the bilingual and the monolingual participants investigated here in the use of complex aspects of L1 grammar. The only statistically significant difference that was found was the underuse of the most complex type of embeddings among the lower-educated bilinguals. Since no corresponding underuse of this structure was found among the lower-educated controls it seems unlikely that their bilingual peers merely maintained a distributional pattern of these structures which they had exhibited even prior to their migration. There is also no reason to assume that more highly educated speakers were exposed more frequently to the most complex structures and consequently became more resistant to their loss. Possibly other aspects of a higher degree of education, such as more literacy, may be conducive to the stabilization of knowledge of the more complex aspects of language, as was suggested in other previous studies (e.g., Clyne, 1972; Jaspaert & Kroon, 1989; Waas, 1996; Yağmur, 1997). Where the less complex categories of embedding were concerned, bilinguals performed similarly to monolinguals, regardless of their educational level. Recall that the data presented here were collected by means of the elicitation of naturalistic speech, so that participants could rely on their natural language habits as L1 speakers of Turkish. Their participation in the interview did not require any higher level metalinguistic skills (such as those required by other tasks, e.g., grammaticality judgment, sentence generation, editing). Nevertheless, the role of education seems to merit further exploration.

One possibility that might account for the high levels of stability of Turkish might be related to the fact that Turkish and Dutch are typologically distant. It has been suggested that the closer languages are and the more structures they share, the more interference is to be expected (Green, 1986) and hence the more attrition (Köpke, 2007:13). Likewise the more typological differences there are between languages in contact, the

more likely it is that the minority language will be maintained (Kipp et al., 1995). Thus, the fact that Turkish is an agglutinative language might have had a positive influence on the stability of the language in the bilingual group, since subordination in Turkish is very much a matter of inflection, while Dutch embedding relies on word order. Therefore, an investigation of Turkish in contact with a typologically more similar language may yield interesting results.

4.7 Concluding Remarks

One of the major implications of the present study is that the adult L1 grammar is very resistant to change. That is, once the L1 has stabilized, it becomes relatively immune to effects from a second language at the structural level, and development is also impervious to extralinguistic factors such as amount of use or attitude, even after years of coexistence with an L2 in an L2 environment. The level of education seems to be the only exception but even this factor played a minor role.

We hope this study will contribute to the debate on whether or not there is (inevitably) a reorganization and change in the L1 due to the presence of an L2 in language contact situations among mature speakers. It may be interesting to re-evaluate some of the findings which were made in the context of incomplete acquisition of Turkish (e.g., Treffers-Daller et al., 2007) in the light of the results presented here, given the observation made in some prior studies about the emergence of a new variety of Turkish in Europe with second and third generation migrants (e.g., Backus, 2004). The findings of this study imply that not much of this change can be ascribed to the first generation.

Chapter 5. L1 Accessibility among Turkish-Dutch Bilinguals¹

Abstract

This study investigates whether lexical knowledge in the first language (L1) of late Turkish-Dutch bilinguals becomes less accessible for the production of fluent speech and in controlled experimental tasks as a result of extended stay in the Netherlands. It is also considered to what degree extra-linguistic factors can account for this phenomenon. Data are collected from the first generation Turkish migrants (n=52) and from a monolingual reference group in Turkey (n=52) via a lexical naming task, a free speech task and a sociolinguistic background questionnaire. The results show that the bilingual group is indistinguishable from the monolinguals on the experimental task. However, in the free speech task, they not only are significantly more disfluent than the monolinguals but also make significantly less use of diverse, in particular low-frequency, vocabulary. Overall, the results signal that bilinguals were outperformed by the monolinguals in spontaneous language production but not on a controlled task. We interpret this finding to indicate a decrease of automaticity in the access to linguistic knowledge which impedes the rapid integration of information from all linguistic levels. Further analyses with respect to the relations between the L1 change and nonlinguistic factors are discussed within the Activation Threshold Hypothesis (ATH).

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5.1. Introduction

Recent research into bilingualism has contributed to the understanding of the interaction of languages in the bilingual mind and of first language attrition (see the overviews in Köpke & Schmid, 2004; Kroll & De Groot, 2005). It has been widely suggested that the acquisition and use of an additional language impacts in complex ways on pre-existing language knowledge, leading to creation of a unitary system and a change in the way languages are processed (Cook, 2003; de Bot, 2007; Herdina & Jessner, 2002; Pavlenko, 2009; van Hell & Dijkstra, 2002). While the precise nature of this phenomenon and its linguistic and psycholinguistic determinants have not been completely explored, there is a large body of converging evidence that bilinguals' knowledge, processing and use of their first language (L1) differ from that of monolinguals in a number of ways (Cook, 2002; Dijkstra & van Heuven, 2002; Grosjean, 2001; Pavlenko, 2004; Schmid, 2010).

As far as adult native speakers are concerned, the effect of L2 on L1 mostly manifests itself as reduced control over L1 skills and access difficulties (Köpke, 2004). While monolinguals can deploy all their language related resources to the production and processing of one language, this task is more complex for bilinguals who have to manage the activation and inhibition of two systems. This impacts on the ease of language processing and speed of retrieval, resulting in interferences from the language that is not being used. Cross-language activation has been extensively documented in particular at the level of the lexicon (for a review, see Dijkstra, 2005). Adult bilinguals have repeatedly been found to be slower in retrieving words and to generate fewer words in verbal fluency tasks than their monolingual peers (see also Bialystok, 2009). They were also found to be slower in tasks that required them to name items in their dominant language (Gollan et al., 2005; Ivanova & Costa, 2008).

This phenomenon has been extensively investigated among long term migrant populations. These are typically people who come to live in an L2 environment as adults with fully developed L1s and reside in L2 settings for a considerable period of time. On the surface, their language performance may not be distinguishable from that of monolingual speakers of their L1 in daily conversations unless they insert words or phrases from the L2 or have a noticeable foreign accent in their speech. However, controlled experimental procedures and in-depth analyses of free speech are able to reveal some subtle differences between bilingual immigrants and monolingual control populations. Particular symptoms in language performance, such as an increase of disfluency phenomena (Schmid & Beers Fägersten, 2010) imply that bilinguals have less control over their language system and manifest language processing difficulties. However, among post-puberty attriters, attrition phenomena have consistently been found to be rather limited (Köpke & Schmid, 2004).

The most vulnerable and quickly affected area is often assumed to be lexical access and fluency. Many adult bilinguals living in L2 environments make use of less rich vocabulary (de Bot & Clyne, 1994; Laufer, 2003; Schmid, 2011), employ more hesitations and pauses (Köpke, 1999; Schmid & Beers Fägersten, 2010), exhibit word finding difficulties (Schmid & Köpke, 2009; Yağmur, 1997), have difficulty in quickly

retrieving words (Boyd, 1993; de Bot, 1996; Köpke, 2002), borrow lexical items from the L2 (Pavlenko, 2004) and use L2-like collocations and idioms (Jarvis, 2003; Laufer, 2003) during online speech. Similarly, in controlled experimental tasks such as lexical naming/matching and verbal fluency tasks, their performance has been found to be slower and less accurate (Ammerlaan, 1996; Hulsen, 2000; Yağmur, 1997).

The present study aims to explore whether or not adult bilinguals are at a disadvantage in accessing their native language knowledge as a result of living in an L2 environment for an extended period of time. The group under investigation has learnt L2 as adults after migrating to the Netherlands. We assume that differences between our migrant population and monolingual controls will be due to reduced accessibility to L1 knowledge which is, however, still represented in memory as opposed to having been entirely 'forgotten' (for a discussion of the role of memory in attrition see Ecke, 2004). However, in keeping with terminological conventions, we will refer to this process as L1 attrition. It should be stressed that this term carries no assumption regarding permanence of the bilingual phenomena observed.

5.2 Language Processing, Fluency and Lexical Access

Speaking is a complex process that requires coordination among all levels of language knowledge. According to most models of speech production (e.g., Dell, 1986; Caramazza, 1997; Levelt, 1989) it consists of three main stages: Conceptualization, formulation and retrieval. When the speaker has an intention to speak, she first needs to conceptualize or plan her message, and then to formulate her message in the appropriate syntactic structure. The structuralized message is then passed on to the articulatory system where it is phonologically encoded and retrieved so that the message can result in spoken output. This process progresses through successive operations in the interconnected brain regions that are responsible and are activated simultaneously for speech production (Levelt, 1989; Levelt et al., 1998).

Automaticity is an important component of this process. Spontaneous speech is produced without much effort in the L1; yet disfluencies occur at all stages of speech production: during conceptualization, planning, formulation, or articulation of the speech plan. Disfluencies affect around 5-10% of all words and one third of all utterances in spontaneous speech (Shriberg, 2001:153). Discontinuities in speech provide valuable information on the mechanisms underlying spoken production, such as how planning occurs and is executed, what planning difficulties are experienced, and how deviations from the intended plans are managed (Dell, 1986; Levelt, 1989). They are accepted as an integral part of speech and assumed to serve a variety of functions to ensure and better achieve the continuity of normal speech. For instance, when a word is difficult to access (e.g., because it is a low frequency word), it is more likely to be preceded by a filler sound (Levelt, 1983; Schnadt & Corley, 2006). The filled pause has been reported to be the most frequent type of interruption in fluent speech (Bortfeld et al., 2001).² It is also possible for speakers to fail at the formulation of the correct structure in time or convey an unintended meaning which is then corrected or repaired by the

² The filled pause appears to have a complex set of functions that go beyond the indication of lexical access problems, including semantic ones, to the extent that it has been considered a lexical word (Clark & Fox Tree, 2002). A full discussion is beyond the scope of the present paper.

monitoring systems (Levelt, 1983). In such circumstances, the speaker gains extra time by using pauses, repetitions of words or phrases, abandoned utterances, reformulations or repairs, all of which cause discontinuity in the flow of the speech.

The lexicon lies at the heart of language processing. In order to speak, the first thing a speaker needs to do is to retrieve the target lexical elements from the lexicon, a process which takes place at the rate of 2-3 words per second (Levelt et al., 1999:4). The lexicon is a complex database consisting of entries for each word, each entry including information about the word's pronunciation, multiple meanings, grammatical class, and syntactic constraints, orthography, collocations, lexical and conceptual associations, frequency of occurrence and degree of formality (Nation, 1990). Lexical retrieval entails knowing all this information about a word as well as the ability to quickly retrieve it from memory.

As far as bilinguals are concerned, automaticity of retrieval is not merely complicated by the fact that they have a greater pool of items in their lexicon to handle; they also are faced with the challenge of managing their lexicon to be able to make appropriate language choices. Many studies agree that corresponding items from different languages are activated to some degree regardless of the language that is being used. They present evidence from cross-language picture-word interference, lexical decision and priming experiments where phonologically, orthographically or semantically related alternatives (as opposed to unrelated words) delay production in the target language (e.g., Caramazza, 1997; de Bot, 2004; Dell, 1986; Dijkstra & van Heuven, 2002, Levelt et al., 1999; van Hell & Dijkstra, 2002). In addition, evidence from brain imaging research indicates that lexical-semantic aspects of the processing of all languages known to an individual make use of the same areas of cerebral cortex, suggesting very close mental connections between lexical operations relating to the languages (Franceschini et al., 2003).

Based on these findings, it has been proposed that conceptual representations spread activation to the lexical representations in all languages, and that these links within phonetic and orthographic features, word forms, lemmas and concepts are managed by a complex mechanism of activation, inhibition and control involved with multiple semantic or syntactic possibilities across both languages (see overviews of de Bot, 2004; Francis, 2005; Green, 1998; Kroll & Sunderman, 2003; Paradis, 1997). This joint activation of both languages requires a mechanism which resolves crosslinguistic competition. According to various psycholinguistic models of bilingual processing (Costa, 2005; de Bot, 1992; Dijkstra & van Heuven, 2002; Green, 1986; Grosjean, 1997; Poulisse & Bongaerts, 1994) language production is non-selective and processing among bilinguals requires more resources in order to speak in one language and suppress the non-target language.

5.3 ATH and L1 Attrition

The ease or effort involved in retrieving a word stored in the mental lexicon is thought to be determined by its activation threshold (e.g., de Bot, 2004; Dijkstra & van Heuven, 2002; Green, 1998; Paradis, 1997).

According to Paradis (1993, 2004), it is mainly the frequency of use and recency of activation that determines the activation threshold. Items that are more frequently activated have low activation thresholds and need less stimulation to be reactivated than items that are less frequently activated. In other words, frequently recalled items become more accessible and they are easy to activate while infrequently used items are more difficult to access and need more neural impulses to be reactivated. Activation of the target item not only depends on its own activation level but the activation levels of other competing items which need to be inhibited (Green, 1986).

Previous findings on the limitations of L1 attrition effects make a complete loss of the native language or severe impairment in native language skills (once stabilized before the acquisition of an L2) seem extremely unlikely. Attrition in late bilinguals can be defined as a kind of forgetting within a psycholinguistics framework and equals reduced retrievability of language knowledge (Paradis, 2007). The ATH seems like a very promising theory in order to explain L1 problems experienced by bilingual adults because it assumes that L1 knowledge is not lost but becomes more difficult to access. Migrants are immersed in an environment where daily life is primarily governed by the L2 in the domain of public services, economic, social, cultural life and education. The use of L1 inevitably becomes restricted to fewer domains (often mainly to the context of home and family) and speech events with fewer interlocutors. Within the framework of the ATH, when items from the L2 are selected, items in the L1 are simultaneously inhibited. This means that the activation threshold of the items in the less often used L1 is raised. Depending on the patterns of use, different linguistic items within the L1 system will eventually require various degrees of stimulation in order to become activated and insufficient practice or stimulation will lead to language attrition (Paradis, 1997). Therefore, the most important predictive factor for language attrition within this framework stands out as language use (Paradis, 2004, 2007).

Another essential factor related to language attrition is the role of motivation. Paradis (2007:128) equates the predictive value of motivation in successful second language acquisition with its impact on the rate of attrition. A positive emotional attitude towards one's native language and culture will lower the activation threshold enabling easy access and therefore be conducive to the maintenance of the native language. In an immigrant context, if the motivation to learn an L2 is largely instrumental, that is, if the migrant desires to learn it predominantly in order to be able to function in the host society, instead of having a desire to become a part of that society and adopt its values and culture, this too enhances their native language performance and encourages maintenance. On the other hand, if individuals would like to have access to the social life and culture and to become a part of the target language community (i.e. integrative motivation), then this is likely to affect L1 development in the opposite direction. Therefore, the type and the degree of motivation towards both languages would be expected to impact the usage of languages and the degree of L1 attrition.

Among the previously suggested external factors that potentially impact on attrition are amount of use and contact with the language (de Bot et al., 1991; Köpke, 1999; Soesman, 1997) and emotional and attitudinal

factors (Ben-Rafael & Schmid, 2007; Schmid, 2002), in accordance with the predictions made by the ATH. However, more recent investigations (Dostert, 2009; Keijzer, 2007; Schmid, 2007; Schmid & Dusseldorp, 2010; Varga, 2012) consistently point out that L1 use does not explain fluency or lexical diversity in free speech and cultural/emotional preferences do not predict the language performance, either (Hulsen, 2000; Yağmur, 1997; Waas, 1996). In short, which external or psychosocial factors contribute to this process is still a mystery (see Köpke & Schmid, 2004 for an overview of non-linguistic factors and Schmid & Dusseldorp, 2010 for a detailed multivariate analysis of these factors' predictive role).

5.4 The Study

The present study investigates L1 performance in a migrant context within the psycholinguistic framework of ATH laid out above. Since bilingual migrants inevitably have to divide their speaking time between their two languages, they can not use their native language as frequently as they used to prior to migration and they are expected to experience retrieval difficulties and gradually become less fluent in their speech. More specifically, the study intends to find out whether or not late Turkish-Dutch bilinguals experience difficulties concerning lexical access in their native language as a result of prolonged stay in the L2 environment. The key constructs of language performance addressed here are word retrieval ability, vocabulary richness and sophistication, and disfluency. What is also within the scope of this study is the sociolinguistic factors (i.e. language use patterns, ethnic affiliations and attitudes towards the host culture) that might possibly impact how the L1 develops in a migrant setting. The following questions were addressed:

1. Do late bilingual Turks have a disadvantage in accessing their L1 lexicon compared to monolinguals in spontaneous speech?
2. Do late bilingual Turks have a less diverse L1 lexicon compared to monolinguals in spontaneous speech?
3. Do late bilingual Turks tend to use more common or basic L1 lexical items compared to monolinguals in spontaneous speech?
4. Do late bilingual Turks exhibit a higher proportion of L1 disfluency phenomena in their spontaneous speech compared to monolinguals?
5. Can nonlinguistic factors (i.e., language use, attitudes, cultural preference) explain the change (if any) in spoken language performance among the late bilinguals?

The population under investigation here (n=52) belongs to the first generation Turkish community in the Netherlands, which is among the biggest non-western groups of migrants in this country. Although immigrant Turkish in Europe is a relatively well-researched language, investigations mainly centre around native and bilingual language development of the second or intermediary generations with a focus on language dominance across generations (Huls & van de Mond, 1992), contact-induced change (Doğruöz & Backus, 2007, 2009) and code-switching patterns (see the overview in Backus, 2004; Gürel & Yılmaz, 2011). Where L1 attrition among late bilinguals has been researched, it was through controlled tests such as verbal fluency, relativization (Yağmur, 1997) and grammaticality judgement tasks (Gürel, 2002). Some

examples of the investigation of adult first generation Turkish migrants' spontaneous speech are presented in Backus (1992) and (2004), Aarssen et al. (2006), Boeschoten (2010) and Yılmaz (2011).

Members of this community are usually described as holding strong ethnic and linguistic affiliations as asserted by Boeschoeten et al. (1993:111) "...Turks have most clearly established themselves as a recognizable cultural and linguistic factor in the country..." This is echoed in the statements from our participants, who reported that they primarily use L1 in the family and are sensitive regarding preserving the mother tongue as a medium of communication at home with their children. Their social life is mostly governed by L1 contacts, too. Presence of many Turkish organizations possibly ensures continuous L1 contact, as well. It is very likely that endogamous marriage patterns among the Turkish community increase the proportion of familial use of L1 as a natural consequence. Frequent and long holidays in the hometown, improved communication technologies, presence of Turkish organizations and easy access to L1 media possibly help them further to preserve their ties with home and their motivation to use the L1 as reported in Backus (2005). On the other hand, utility of L1 outside these domains and professional L1 use was rather limited. However, this does not prevent the L1 from carrying a high prestige among the community members.

With respect to their attitudes towards their culture and the culture of the host society, Turks seemed to be much more comfortable with the Turkish culture than with the Dutch one. The participants reported that they had spent time within their own communities and preferred not to interact very closely with their Dutch neighbours and colleagues. It is also possible that dissenting attitudes within some segments of the Dutch society may contribute to the social segregation of the migrants. For instance, one of the participants expressed his concerns about deliberate attempts of discrimination as the following:

- (1) "I don't appreciate the fact that my Dutch next door neighbour has been ignoring my presence here as a family living in a decent neighbourhood along with many other Dutch families."

While the broad picture is own culture and own language oriented, such generalization would not be completely fair to all members of the community since there are increasing numbers of migrants who feel close to Dutch society culturally and linguistically. For instance, the number of mixed marriages is on the increase and Dutch brides and grooms are warmly welcomed in Turkish families. While homesickness is a general characteristic, they mostly prefer to stay in the Netherlands because they consider it as their home. Some participants reported that they did not feel that they belonged to the Turkish culture because it had changed a great deal since they migrated. There are increasing initiatives to improve L2 skills in order to increase chances of employment as well as better mixing with the Dutch society. For instance, the Turkish organizations in the Netherlands create communication opportunities between the Turks and the Dutch through sports and cultural activities.

In sum, while maintaining the mother tongue and culture is noticeably important as a symbol of identity for this population, the recent trends towards developing closer intercultural and interethnic relations despite the differences between the two cultures is clearly visible.

5.5 Methodology

5.5.1 Participants

One hundred and four informants participated in this study. They consisted of Turkish-Dutch bilingual migrants in the Netherlands who had learnt Turkish as their mother tongue (n = 52) and their control counterparts in Turkey (n = 52). They had varying levels of Dutch proficiency and actively used both languages in their daily lives in a variety of domains. All bilingual participants migrated to the Netherlands after the age of 15 and spent at least 10 years in the Netherlands. In setting the minimum age and length of residence criteria, we wanted to make sure that they had a fully developed L1 system at the time of migration (Bylund, 2009; Köpke & Schmid, 2004; Schmid, 2011), and we decided that 10 years of stay in the L2 environment would be enough for the L1 to be affected (Beganović, 2006; Hutz, 2004; Köpke & Schmid, 2004; Schmid, 2011). A maximum of 65 years of age was set in order to eliminate any impact of aging on language performance (Goral, 2004). The reference group in Turkey consisted of monolingual speakers of Turkish who were matched with the experimental group on age, gender, birthplace and level of education on a one-to-one basis. To illustrate, for a thirty-seven year old high school graduate female participant from the city of Kayseri, a high school graduate female control who was between thirty-two and forty-two (allowing a plus-minus five year tolerance) in Kayseri was tested (see Table 5.1 for groups characteristics).

Table 5.1 Participant characteristics

		Age	Age at emigration	Length of residence
Bilinguals (n=52)	Mean	43.94	21.59	22.57
	St.Dev.	10.16	3.88	10.35
	Range	30-62	15-42	10-41
Monolinguals (n=52)	Mean	42.35		
	St.Dev.	9.43		
	Range	29-61		

5.5.2 Procedure

Our data comprised of sociolinguistic interviews, elicited free speech (based on Schmid, 2011) and reaction time (RT) measures from a lexical naming task. Each participant was tested individually at their homes or in an office. All steps of the data collection sessions were recorded.

5.5.2.1 Sociolinguistic and personal background information

The personal background interview consisted of semi-structured autobiographical interviews, comprising (among other things) of various questions on speakers' L1 and L2 use patterns, linguistic and cultural preferences and social networks. Specifically, the participants were asked to indicate what language they usually speak with their spouses, partners, siblings, (grand)children, parents, relatives, friends and acquaintances and to quantify the amount of use in each language in various contexts (i.e., family, social, workplace). They were also asked how important it was for them that their children learnt and maintained their L1, how often they corrected their children's L1 and whether they sent them to Saturday schools. They were further asked about their cultural orientations and attitudes toward their home and host countries. For instance, they were asked with which culture and language they felt more at home and more comfortable, whether they regret coming to the Netherlands and whether they felt homesick and would like to go back to their hometowns if possible. For all of these questions, participants were asked to choose a value from a 5 point-scale. For instance, for the amount of L1 and L2 use, they were asked to choose among: 0 = never L1 and all the time L2; 0.25 = seldom L1 and mainly L2; 0.50 = half the time L1 and half the time L2; 0.75 = mainly L1 and seldom L2; 1 = only L1 and never L2.

In order to reduce the large number of background variables elicited by the sociolinguistic questionnaire, we created two compound variables consisting of a number of factors that were then averaged for each migrant (following the procedure suggested by Schmid & Dusseldorp, 2010). The first pertained to interactive L1 use in all situations. This contained predictors relating (where applicable) to the use of the L1 with the partner now and previously (4 items), with children now and previously (4 items), with friends (3 items), with parents and siblings (4 items) and during visits to Turkey (1 item). A reliability analysis established the internal consistency of this scale with a Cronbach Alpha of .890. The second variable pertained to cultural affiliation and comprised 4 items relating to the preferred language and culture as well as the importance of maintaining the L1 and passing it on to the next generation. Reliability for this scale was lower than for the L1 use variable, but still good at .637. A last predictor to be included in the present study was the frequency of use of the L1 for professional purposes. This factor has previously been shown to be important for maintaining the L1 (e.g., Schmid, 2007). Table 5.2 shows the distribution of these predictors across the bilingual population. The participants tend to use L1 0.79 of their time and L2 0.21 of their time. They tend to value and identify more (70%) with their own culture compared to host society culture (30%). They tend to make use of much less L1 (20%) than L2 (80%) at their work places.

Table 5.2 Predictor variables

	Mean	St.Dev.	Min	Max
Interactive L1 use	0.79	0.14	0.37	0.99
Cultural affiliation	0.70	0.14	0.31	0.88
L1 use for professional purposes	0.20	0.27	0.00	1.00

5.5.2.2 Free speech

Free speech was elicited by means of a conversation around topics of daily life, trips to the home country and experiences as migrants. The interviewer tried to ensure a spontaneous informal conversation by encouraging a natural exchange and helping the participants focus on the topic of the conversation. The sessions typically lasted about 20-30 minutes. All interviews were transcribed according to CHAT conventions (see <http://childes.psy.cmu.edu>). Hesitation phenomena were classified into four types: filled pauses, retractions or self-corrections, repetitions of discourse and false starts, all of which were coded according to the CHILDES standards as exemplified below. For each speech sample, individual categories of hesitation phenomena were counted and subsequently recalculated per 1,000 words. Here is a brief explanation with examples of different classes of disfluency:

Filled pauses or voiced pauses are signalled by vocalizations which do not contribute to lexical information but disrupt the flow of speech. They may take slightly different forms such as *ah*, *uh*, *eh*, *um* or *mm*. They are coded under the category of filled pause with the marker @fp regardless of the phonological variant.

- (2) ikinci aah@fp sene için hazırlık ıh@fp dersanelerine gittim.
I attended the preparatory uh@fp courses for the second uh@fp year.

Retractions are reformulations where the speaker self-corrects the content, the structure or misarticulation in order to maintain syntactic and semantic coherence of an utterance she has just produced. Different types of repair strategies include error repairs, word or phrase insertions, substitutions and deletions. In example (2), an error repair has been illustrated:

- (3) <istedikleri çocuklardan> [/] eeh@fp çocukları istedikleri gibi yetiştirememişlerdir.
<the things they wanted from the kids> [/] uh@fp they couldn't raise the kids the way they wanted.

Repetitions consist of the echoing of a previously uttered word or multiple words or phrases in the discourse as in (3) without any alteration in the form that had been produced.

- (4) <iki sene sonra> [/] zaten iki sene sonra ellibeş ders aldım üniversiteden.
<after two years> [/] already after two years, I took fifty-five lessons at the university.

False starts are retractions that occur at the beginning of an utterance where an unintended word or part of a word has been produced and corrected immediately.

- (5) ço öbür Türk çocukları...
&chi other Turkish children...

It should be noted that other disfluency phenomena such as lexical fillers (phrases or words that have weak or no semantic content such as *yani*, *işte*, which can roughly be translated as “I mean”, “you know” or “well” in English) or prolongations (vowel speech sounds at word-final positions that are stretched out for longer than a normally paced speech) are not investigated here. No systematic analysis of the silent pauses was performed on this data due to time constraints.

In order to measure lexical proficiency, both the variety of the vocabulary used in the speech samples (lexical diversity) and the level of sophistication (frequency) of the words that were used by each speaker were measured.³ After excluding names and other proper nouns, a complete list of the words that occurred in the corpus was created within Computerized Language Analysis (CLAN) (MacWhinney, 2000). Content words (open class items, i.e. nouns, verbs, adjectives, adverbs) and function words (i.e. pronouns, prepositions, conjunctions, intensifiers, numbers, question words and pragmatic vocalizations) were manually identified in the total corpus of 85,196 words. There were 1,965 function words and 83,231 content words. Since function words typically recur frequently for structural reasons, all function words were excluded from the lexical diversity analysis. Homophones (phonetically identical words with different meanings) were traced back to the context in which they appeared and were counted as separate items. Then, each of the content words was lemmatized manually to eliminate inflectional variation. In the process of lemmatization, items that shared the same lemma but had various inflectional morphology (i.e. tense, case, number, person etc.) were counted as the same item, and items that were derived from other words were counted separately. To illustrate, the words *kitap* (book), *kitaplar* (book-Pl), *kitapta* (book-Loc) and *kitabım* (book-1SgPos) were all coded under the lemma *kitap* (book) while *kitapçı* (the man who sells books) was coded as a separate lemma. This led to a total number of 4,772 content lemmas in the corpus.

Very commonly used lexical diversity measures are based on the ratio of different words (types) to the total number of words (tokens), known as the Type-Token Ratio (TTR). A generally acceptable variant of the TTR measure is the so-called Guiraud Index (GI) created by dividing the number of word types by the square root of the number of word tokens (Guiraud, 1960; MacWhinney, 2000). A high index means that the speaker has a wide range of words at her disposal and a low index means a limited number of different words. A lemmatized version of the transcripts was created and the GI was then calculated on the basis of these texts.

In order to distinguish a speaker who predominantly uses basic, high frequency words from a speaker who is able to use more advanced words, word frequency was calculated. The general assumption is that basic words would occur more often while advanced words would occur relatively less frequently; hence the lower the frequency of a word, the more advanced or difficult that particular word is. Conversely, the higher the frequency of the word, the easier the word is (e.g., Read, 2000). However, at this moment there is no reliable spoken or written language corpus-based frequency list for Turkish. As our corpus represents a total number

of 85,196 words, used by more than 100 native speakers of Turkish on similar topics, we decided to use this corpus as the basis for establishing word frequencies. For every lemma that each speaker used, it was assessed how often this word had occurred in the entire corpus. This allowed us to calculate the average frequency of content lemmas which each speaker used.

It is relevant to note here that the purpose of the semi structured interview is to allow the participants to speak as naturally as possible. All participants were asked the same questions and encouraged to speak as much as they wanted to ensure the spontaneity of conversation, which sometimes led the conversation to move into different directions and topics. In order to control for that, the percentage of unique items (items that occurred only once in the entire corpus and only used by a particular person) was calculated for each person. The low level of mean percentages among both monolinguals and bilinguals indicated that the corpus included a very small number of discourse or person specific items (2.47% and 1.25% for the controls and the attriters, respectively).

5.5.2.3 Picture (lexical) naming task

In addition to the free speech samples described above, participants' speed and accuracy on a lexical naming task was assessed as a measure of their lexical retrieval ability (Glaser, 1992; Levelt, 2001; Levelt et al., 1999). Participants were presented with a set of experimental stimuli of 156 pictures of high (HF), medium (MF) and low frequency (LF) selected from the standardised set originally developed by Snodgrass and Vanderwart (1980). Due to the lack of a standard word frequency measure in Turkish, the frequency ratings were based on the familiarity index in Snodgrass and Vanderwart (1980). All items were checked for cultural appropriateness, and culture specific items were excluded. No cognate items across Turkish and Dutch were included. No semantically or phonologically related items followed one another (i.e., 'cow' not followed by 'goat' or *kuş* ('bird) not followed by *kuyu* ('well')). The stimuli were presented in four randomized orders, which were counterbalanced among the participants. An HP laptop computer and serial response box with voice key controlled the presentation of the stimuli and the collection of response times.

The participant's response was measured in milliseconds (ms), and the participants had a maximum of 3000 ms to respond. The moment from the onset of the stimulus till the onset of the word was registered as the RT. The experimenter noted the responses on a sheet during the experiment (which was taped to allow later checking). Following Bates et al. (2003), a response was coded as valid if it was the target name and had a valid RT (no false starts, hesitations, or coughs). All other responses were categorized as invalid, including incorrect responses or correct responses with invalid RTs (i.e., false starts, hesitations, coughs), responses which were not loud enough to trigger the voice key as well as correct responses which were not within 3000 ms and trials where there was no response at all. While the participants were instructed very clearly about how to do the task and a practice block was administered to allow them to get used to the task, the rate of

3 All transcriptions were checked for inconsistencies in spelling to prevent an artificial increase in word types.

invalid responses remained relatively high among both groups. This is partly due to the fact that not only incorrect responses were excluded but some correct answers that were preceded by hesitations or that were not detected by the microphone had to be excluded for the reliability of the results.

5.6 Results

A number of t-tests and correlations were carried out on the data in order to assess whether the immigrant population experiences any difficulties in accessing L1 knowledge. In order to see if there is a difference between the two groups, individual categories of hesitation in the spoken data were compared. Second, RT results from the lexical naming experiment are presented. Finally, correlations between the spoken performance and non-linguistic factors were investigated.

5.6.1 Lexical Diversity and Frequency

In order to determine whether or not there is a change in the level of richness and sophistication of spoken vocabulary of bilinguals, the lexical diversity measure GI and average frequency of content words (lemma) used in the total corpus were calculated and are summarized in Table 5.3. The analyses reveal that bilinguals make use of a significantly smaller vocabulary in their speech, signalling that their lexicon in free speech is not as rich or diverse as that of the monolinguals ($p < 0.001$). In their vocabulary choice, they tend to prefer more basic, easier lexical items (average frequency=725.43) than monolinguals (average frequency=661.52, $p < 0.001$). The usage of unique items is low across both groups but higher among the monolinguals (2.47 vs. 1.25 among bilinguals; $p < 0.001$).

Table 5.3 Lexical diversity, frequency and unique items

	<u>Bilinguals</u>		<u>Monolinguals</u>		<u>T-Test</u>	
	Mean	Stdev	Mean	Stdev	t(102)	p
Guiraud	9.37	1.10	10.82	1.12	-6.67	< .001
Average frequency	725.43	88.91	661.51	82.95	3.79	< .001
Unique Item	1.25	0.79	2.47	1.10	-6.51	< .001

Table 5.4 presents a number of standard fluency measures that was carried out per 1,000 words in the spoken data: filled pauses, false starts, self-corrections or retractions, and repetitions. The comparisons between the two groups establish highly significant differences in all four categories. The bilingual group employs all of the hesitation phenomena significantly more often than the monolinguals.

Table 5.4 Categories of hesitation phenomena per 1,000 words

	<u>Bilinguals</u>		<u>Monolinguals</u>		<u>T-Test</u>		
	Mean	St.Dev.	Mean	St.Dev.	df	t	p
Filled pause	34.87	29.13	20.18	17.15	82.57	3.13	0.002
False start	15.05	7.13	10.24	5.33	94.48	3.89	<.001
Retraction	7.38	3.51	5.85	3.12	100.61	2.36	0.020
Repetition	3.30	2.75	1.63	1.54	80.04	3.81	<.001

At this point it is also interesting to note that the proportions of individual hesitation categories seem to have remained extremely stable upon becoming bilingual, as shown in Figure 5.1 and Table 5.5 below. The two groups' disfluency phenomena show parallel patterns of distribution. In both groups, more than half of all hesitation phenomena consist of filled pauses (58% and 53%) and false starts make up about one fourth of all hesitation (25% and 27%). Repetitions were the least frequently occurring category among both groups (10% and 2%) followed by retractions (12% and 15%).

Figure 5.1 Individual categories of hesitation phenomena

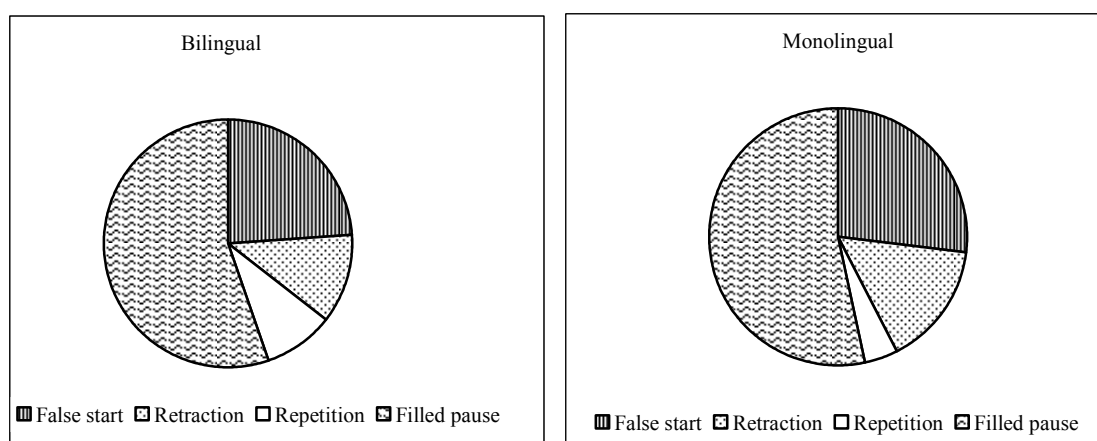


Table 5.5 Percentages of individual categories of hesitation phenomena per 1,000 words

	<u>Bilinguals</u>		<u>Monolinguals</u>	
	Abs.no.	%	Abs.no.	%
False start	15.05	24.84	10.24	27.01
Retraction	7.38	12.18	5.85	15.43
Repetition	3.30	9.46	1.64	4.33
Filled pause	34.87	57.54	20.18	53.23
Total	60.60	100	37.91	100

5.6.2 Lexical Accessibility

The second analysis concerns the performance of the bilingual and monolingual populations on the lexical naming task. In this analysis, only valid responses were included and RTs shorter than 250 ms and those which deviated more than two standard deviations from the mean were excluded, as we assumed that they might have been due to malfunctions of the microphone. Table 6 displays the mean RTs in ms for the HF, MF and LF items on the picture naming task. Objects with HF names were named faster than objects with LF names among both groups. The t-test results yield no significance between the two groups. It is evident from the figures in Table 5.6 that the bilingual group is almost equally fast as the monolinguals in recalling the lexical items of all frequency levels and this can be taken as a sign of their maintained automaticity in accessing the L1 lexicon.

Table 5.6 Picture naming tasks results: Response times (in ms) and percentage invalid responses

	Bilinguals		Monolinguals		T-Test	
	Mean	St.Dev.	Mean	St.Dev.	t(102)	p
High frequency items	1006.87	151.59	1002.51	129.07	0.16	0.88
Medium freq. items	1089.49	169.64	1082.23	158.84	0.23	0.82
Low frequency items	1327.56	194.91	1289.31	164.55	1.08	0.28
Total response time	1123.03	153.81	1110.05	135.93	0.46	0.65
Invalid responses (%)	16.60	4.58	18.73	8.92	-1.21	0.23

5.6.3 Correlations between Extra-linguistic Factors and Spoken Language Performance

The analyses indicate that the amount of interactive L1 use, L1 use at the workplace and preferred culture do not seem to be connected to changes relating to fluency in the L1 of migrants at all as measured by their usage of false starts, retractions, repetitions and filled pauses as seen in Table 5.7.

Table 5.7 Pearson correlations between extra-linguistic factors and spoken language performance

		InteractiveL1use	WorkL1	Pref.culture
Guiraud	Pearson Correlation	-0.19	0.00	-0.15
	Sig. (2-tailed)	0.18	0.99	0.29
	N	52	44	52
False start	Pearson Correlation	-0.09	-0.18	0.04
	Sig. (2-tailed)	0.55	0.24	0.76
	N	52	44	52
Retraction	Pearson Correlation	0.00	0.24	0.07
	Sig. (2-tailed)	0.99	0.11	0.62
	N	52	44	52
Repetition	Pearson Correlation	-0.81	-0.18	-0.01
	Sig. (2-tailed)	0.57	0.25	0.92
	N	52	44	52
Filled pause	Pearson Correlation	-0.19	-0.10	-0.06
	Sig. (2-tailed)	0.17	0.51	0.70
	N	52	44	52

Table 5.8 shows the correlations between extra-linguistic factors and the performance on the lexical naming task as measured by RT (HF, MF and LF words) and valid responses. L1 use at the workplace is related to RT on the LF lexical items ($p < 0.05$) and PNT accuracy ($p < 0.05$). The people who use L1 professionally more often tend to respond more quickly to infrequent or difficult items and have significantly more correct items on the lexical naming task. There are no other correlations between non-linguistic variables and L1 performance.

Table 5.8 Correlations between extra-linguistic factors and naming task

		InteractiveL1use	WorkL1	Pref.culture
Response time	Pearson Correlation	-0.07	-0.24	0.08
	Sig. (2-tailed)	0.63	0.12	0.58
	N	52	44	52
High freq. items	Pearson Correlation	-0.36	-0.16	0.07
	Sig. (2-tailed)	0.80	0.31	0.63
	N	52	44	52
Medium freq. items	Pearson Correlation	0.00	-0.21	0.18
	Sig. (2-tailed)	1.00	0.18	0.19
	N	52	44	52
Low freq. items	Pearson Correlation	-0.17	-0.30*	-0.02
	Sig. (2-tailed)	0.24	0.05	0.88
	N	52	44	52
PNTaccuracy	Pearson Correlation	-0.07	-0.30*	0.11
	Sig. (2-tailed)	0.64	0.05	0.43
	N	52	44	52

* Correlation is significant at the 0.05 level (2-tailed).

In summary, the results of the picture naming task showed that bilinguals are as good as monolinguals at recalling words when they were able to focus on the task. However, in spontaneous speech, their vocabulary choice turned out to be less diverse and sophisticated than monolinguals. In addition, their speech includes significantly more hesitation phenomena. Overall, the predictive value of extra linguistic factors turned out to be very limited as the figures in tables 5.7 and 5.8 show. The results of the present study do not give any indication of a relationship between L1 performance and attitudinal parameters.

5.7 Discussion

The purpose of this study was to explore if Turkish-Dutch bilinguals have any difficulty in first language lexical access. We wanted to assess whether they could maintain the same level of language ability in terms of fluency, lexical richness and sophistication over an extended stay in the L2 Dutch environment. One of the issues that frequently came up during the interviews with the Turkish participants living in the Netherlands was that they indicated experiencing problems remembering particular words. They said that their speech lost its productivity and creativity. They also reported that their speech did not flow as smoothly as it used to. On the one hand, they did not feel any difficulties in communication with monolinguals but they reported that they were somehow recognized as immigrants because of the way they spoke when they went to their hometowns (also reported in Boeschoten, 2000; the issue of a developing foreign accent in attriters has been addressed by de Leeuw et al., 2010 and Hopp & Schmid, 2011). It is possible that this perception is based to

some extent on features such as unconventional word combinations (most of the time loan translations) and/or deviant use of specific lexical items, alongside slight changes in pronunciation, intonation etc. Nevertheless, immigrant participants in this study had no difficulty talking to the researcher during the interview and they acted as fully competent speakers of Turkish. However, what was clearly evidenced by the analyses was that they had reduced control over their L1 in terms of their capacity to use language in real-time.⁴

Our data suggest that when attriters can focus their attention on retrieval of individual items from the L1 lexicon, they perform at the monolingual norms regardless of the level of difficulty (frequency) of the words. Therefore, as far as the lexical naming task is concerned, Turkish immigrants' language performance did not differ from their monolingual counterparts. The migrant group's overall performance in accessing L1 items seems to be immune to change despite the presence of the L2 and relatively decreased use of their L1 in the L2 environment contrary to what ATH would predict.

However in free speech, the results from the lexical diversity and frequency measures suggest that Turkish immigrants have a more restricted pool of vocabulary at their disposal for active use, which is not as rich and sophisticated as that of monolinguals. This might be due to the fact that the L1 is mainly used among the family members and in the social sphere for the bilinguals. Communication in these domains likely consists of more basic and common words and only a small part of vocabulary is mobilized in these domains. As can be expected within the ATH, it is mainly the more often activated parts of their lexicon that the immigrants tend to use in spontaneous speech and the availability of difficult and less frequently used items has decreased.

On-line speech is also found to be significantly more halting and insecure, indicated by more extensive hesitation and hedging strategies, signalling problems in on-line production. It is also interesting to note that the distribution of all the hesitation markers appears quite similar across both groups. For instance, filled pauses are observed to be the most common class among both groups as reported by previous research (e.g., Bortfeld et al., 2001), followed by false starts, retractions and repetitions. In other words, although oral production might have become more effortful for them, the bilinguals' performance resembles that of the monolinguals in the usage of hesitation phenomena. This finding indicates that both bilinguals' and monolinguals' speech are associated with a similar processing difficulty during planning and execution

⁴ An anonymous reviewer points out that the difference between our findings on controlled and free tasks may to some extent be due to the design of the priming experiments which favour a monolingual mode more than spontaneous interaction, and raises the question whether the bilingual speakers investigated here would also show the same impact of crosslinguistic interference if they had been placed in a monolingual setting in the interview. It was not possible for practical purposes to test the migrant participants while they were back in their home country, which would have placed them in such a setting. However, the set up of the experiment was completely monolingual: all tasks were administered in the L1 by the first author of this paper, who does not speak Dutch. While the naming task is a controlled experiment, the free speech and the questionnaire parts were very close to natural conversation.

(Dell, 1986; Levelt, 1989). This is in line with ATH, as there seems to be no severe impairment but an increase in the levels of disfluency. The possibility that some of the increases are due to other phenomena than access problems, for example the transfer of hesitation strategies from the L2 to the L2 (as was suggested by Schmid & Beers Fägersten, 2009) cannot be discounted, and the precise distribution of hesitation phenomena within the sentences may be an interesting objective for further study.

Further analyses of sociolinguistic factors did not show any systematic relationships between L1 change and these attrition phenomena. Among the factors that were expected to impact the L1 processing was L1 use and cultural attitudes. Unfortunately, such factors cannot be objectively and independently measured, and experimental designs have to rely on self-reports which always carry with them the possibility that they may be somewhat unreliable or not entirely accurate. In order to minimize this possibility, the responses were elicited within a longer, detailed conversation that allowed participants to reflect upon and consider their answers, not just fill in a questionnaire, and we are confident that they gave the best information that they could. It is somewhat surprising to discover that extensive social use of L1 (i.e. daily communication with family members and friends) does not seem to be related to fluency and lexical diversity. This might be due to the fact that daily conversations around limited topics encourage the use of basic words repeatedly and this does not contribute to language performance in the desired ways (i.e. fluent speech, rich and sophisticated lexicon). Likewise, L1 use at the workplace did not substantially impact on language performance. In this case, the reason might be that professional use of L1 is rather limited, with only four participants stating that they use Turkish in the workplace very frequently. These consist of shop owners or people who socialize with colleagues from the same L1. For those speakers, however, access to relatively infrequent (i.e. more difficult) words appears to have been easier, possibly because professional language use adds another semantic dimension from that of L1 use in the home. Overall, contrary to the assumptions of the ATH, lexical performance on both the speeded naming task and in free speech was not facilitated by frequent L1 use.

Another interesting finding which is in contrast to the predictions made by the ATH, is the lack of any relations between motivational factors and language performance. Members of the Turkish migrant community are usually described as holding strong ethnic and linguistic affiliations (Akıncı & Yağmur, 2003; Leezenberg, 1993:111). The interviews with participants for this study confirmed their attachment to their linguistic and cultural ties, too. However, participants with more positive attitudes towards the Turkish language and culture did not outperform those who felt more at home in the Dutch context on any of the language measures. This finding is in line with results from other recent attrition studies (Dostert, 2009; Schmid, 2007; Varga, 2012, among others) as well as Yağmur's (1997) study of Turkish in Australian context.

In summary, it appears that after an extended stay in an L2 environment, bilingual migrants can still approximate the performance of monolingual natives on a dedicated task, such as the Picture Naming Task

used in this study. In free speech, however, their lexical access appears to be somewhat impaired, as is evidenced in a higher proportion of hesitation markers and a less diverse productive vocabulary. In the absence of any substantial impact of factors pertaining to rehearsal or attitudes, this appears to be less an effect of the process that is commonly understood to underlie attrition (a decline associated with a lack of practice, i.e. a kind of ‘atrophy’) and more a simple bilingualism effect: when there is more information to choose from, it takes longer to find it.

5.8 Conclusion

The findings from this study suggest that L1 lexical representations can remain intact despite an extended stay in an L2 environment, but that the mechanisms involved in accessing and integrating this information in real-time can become somewhat compromised. The monolinguals investigated here had more fluent speech, suggesting a higher degree of automaticity in language production where retrieval proceeds smoothly and a wide range of different items are available for active use. For bilinguals speaking appears more effortful, suggesting that the two languages compete for memory and processing resources (Green, 1986; Seliger & Vago, 1991). Bilinguals can mobilize a smaller amount of vocabulary and have more frequent delays and repairs that disrupt the fluency of their speech. The findings of this study clearly indicate a change as a result of general processing mechanisms (e/g., activation, inhibition) and bilinguals may experience online processing problems, which can be called attrition at the performance level (Sharwood Smith, 1983). In this respect, the ATH still appears a promising explanation as to how late bilinguals’ control over their language system declines as a result of a complex inhibition and activation patterns. However, this framework can not account for the lack of a relationship between language use and attitudinal factors on the one hand and language performance change on the other. Moreover, it is difficult to interpret those changes as deterioration or attrition as they constitute an integral part of bilingual language development (e.g., Backus, 2004; Cook, 2003).

Chapter 6. Conclusion

This chapter summarizes the main findings of the four studies that are presented in this dissertation. It then discusses theoretical and practical/sociopolitical implications of the findings.

6.1 Summary

The first study (chapter 2) established that the mother tongue is clearly present among both first generation Turkish and Moroccan communities in the Netherlands while Turkish families preferred to use their mother tongue more often than the Moroccans. The Turkish group also tended to value their own culture more while the Moroccans did not have a clear preference. Despite these differences, L1 performance of both groups with respect to lexical accessibility was similar. While duration of residence in the Netherlands seemed to correlate with language outcomes in this study, in later stages of the investigation, comparisons with the monolingual speakers revealed that length of stay in fact was not related to language development.

The second study (chapter 3) highlighted general characteristics of the first generation Turkish migrants in relation to the degree of their success in Dutch language acquisition and provided a comprehensive overview of the socio-political context in the Netherlands. The results revealed moderate correlations which were widely dispersed. Early age at arrival in the Netherlands and professional language use were advantageous for learning Dutch and preferred language seemed to be a good indicator of proficiency level. On the other hand, participants' devotions to their mother tongue and ethnic culture or their attitudes towards the Dutch language and society did not emerge as significant factors in L2 proficiency.

The third study (chapter 4) demonstrated that the L1 grammar of Turkish-Dutch bilinguals remained quite stable even after a prolonged stay in the Netherlands. While the overall tendency was slightly in favor of using less complex structures, only postpositional phrases (among six categories in total) occurred significantly less frequently in the speech of the attriters than in that of the monolingual control. The only variable that contributed to the preservation of language complexity was education.

While grammar knowledge seemed to be preserved well, language processing was found to have slowed down, which was evidenced in reduced fluency, hesitations and word finding difficulties during on-line speech production (as reported in chapter 5). Bilinguals also did not use as diverse and sophisticated words as monolingual controls. However, they accessed words as quickly as monolinguals in the experimental tasks. None of the external factors had an influence on their performance except L1 use at work.

6.2 Discussion and Implications

The symptoms of L1 attrition detected in our investigation, while minimal, indicate some degree of vulnerability of fully developed adult L1 systems. The findings of our study demonstrated that the full-fledged and fully automatized use of a native language cannot be preserved completely when another language is learnt. Corroborating previous findings from psycholinguistic research, we found that bilinguals process their the native language in a slightly different way and that the effects of this change are more

visible in the lexical domain (i.e. decreased control over speech and difficulty in accessing words) while grammar knowledge seems to stay quite stable. The fact that bilinguals had less diverse and less complex words in their speech indicates a decrease in their lexical repertoire. However, their automaticity in the experimental tasks revealed that lexical representations of words were intact pointing to a well maintained lexical system. Additionally, in areas where bilinguals seemed less competent, their performance still mirrored the monolinguals. It was interesting to find out that speaking Turkish at the workplace helped them maintaining automaticity in recalling words because Turkish is not in fact used much at the work places, at least not for professional purposes since participants mostly work in Dutch companies and with Dutch speaking colleagues.

Regarding syntax, there was no major change in the ability to use complex embeddings. Not only was the difference between bilinguals and monolinguals minimal, but the distribution of more and less complex embeddings and the formation of non-targetlike structures were in general similar across the two groups of speakers. Therefore, it is not possible to speak of any sort of divergence from the monolingual norms or restructuring of L1 knowledge. The relation between using more embeddings (in one category) and level of education is somewhat expected because more schooling typically helps consolidate language knowledge. Highly educated individuals tend to have a higher awareness of the grammatical structures and read and write more, which helps them keep their language alive and stable. Interestingly, the category of postpositional phrases, most marked according to the markedness hierarchy, occurred quite frequently (the most frequent among monolinguals, third most frequent among bilinguals), implying that this may not be the most marked category as proposed by the Markedness Theory.

Generally speaking, studies on first language detected no far-reaching structural change or lexical deterioration in the L1 system despite an intensive and prolonged L2 environment. What appeared was a decrease in the speed of processing and on-line production because the bilinguals have to manage two linguistic systems. This can be considered a natural outcome of the expansion of the language system upon becoming bilingual and has to do with the control mechanism of the language system. It appeared that social, emotional, demographic or linguistic factors do not account for language performance corroborating quite a number of recent works. While it is possible that typological distance between the Turkish and Dutch might have assisted the preservation of Turkish, we can not be certain before investigating Turkish in a typologically similar language context. Recall that according to psycholinguistic theories of language attrition (e.g., the Activation Threshold Hypothesis) the primary source of attrition is the decrease in language use and motivational factors moderate the process of attrition. Given the prevailing role of the mother tongue in Turkish-Dutch bilinguals' life and their cultural attachment, it was striking to find out that neither the amount of language use nor emotional attachment to mother tongue and ethnic identity played a role in L1 maintenance. The Moroccan speakers were equally good in accessing their L1 knowledge despite their having departed from their cultural values more and holding more favorable attitudes towards the Dutch language and society in comparison to Turks. That is, their preference for Dutch language and culture over that of Moroccan did not trigger attrition. These findings demonstrate how dissociation between language

use and attitudes on the one hand and language attrition on the other is substantiated among both communities.

Our intention in the L1 studies was to find out how stable adult L1 was and how the processing of L1 changes in an L2 immersion setting. Our findings demonstrate that first generation members of the Turkish community have a remarkably stable and well-maintained language system. This leaves us with the conclusion that the primary language input the second generation receives from their parents is at monolingual standards. As for the value attached to Turkish, Turkish enjoys a relatively high cultural status and intergenerational language transmission is highly valued among the community and in particular the first generation speakers. Most parents disapproved of the abolition of mother tongue education in 2004. While the use of Turkish in the home would help pass the mother tongue on to future generations, its continuity depends on whether it is functional in social, economic and educational life and facilitates access to a better life. Many parents expressed their concerns about the rate with which the second and third generation are shifting towards Dutch. They reported that their (grand)children were dominant in Dutch and they preferred to speak Dutch with their siblings and Turkish friends. Apparently, even when the language skills of the parents are intact and they encourage their children to speak Turkish, these do not guarantee the preservation of a language over subsequent generations. We hope that the findings from our studies will render valuable insight for studies about how the L1 is acquired by the second generation/heritage speakers and how it develops or fails to develop among migrant families. These studies reveal once again the interactional complexity of linguistic and non-linguistic parameters that are at play in language development. We believe that further studies among different populations and in different contexts would be very useful for a better understanding of the underlying mechanisms of L1 change or maintenance.

The study that explored the factors contributing to the L2 development emphasized the interdependency of the socio-demographic, linguistic and psychological parameters in the language learning process in relation to the asymmetrical socio-political relations between the Turkish and the Dutch communities. It is possible that Turkish immigrants' insufficient command of language at the start discouraged communication in initial encounters with natives in particular when the public opinion towards migrants was not favourable and also restricted employment opportunities, hence diminishing chances of interethnic relations as well as improving language proficiency. When Turkish people first started to immigrate in 1960s and 1970s, neither their learning Dutch nor integration into the Dutch society was among the priorities the Dutch government (most probably due to the perception that they were temporary settlers). It seems that this initial assumption was a mistake and later attempts were not sufficient to make it up. More importantly, one-way integration ideals that comprised of expectations from the immigrants (such as full mastery of Dutch, quick integration and complete loyalty to the Dutch society) but minimum responsibility on the part of the Dutch society have been neither realistic nor fair.

One of the interesting findings was that first generation Turkish immigrants are able to function in social and professional life contrary to widespread claims that their language problems persist. Among our participants, there were some very good learners, some poor learners and a large group of average speakers. What distinguishes good learners from poor learners, however, was far from being completely clear. It was particularly hard to single out what individual variables facilitate L2 learning because the effects of the external factors seemed to have combined with one another and person specific circumstances and even led to unpredicted outcomes. In particular, assuming straightforward relations such as the one between L2 proficiency and cultural identification or mother tongue use turns out to be far too simplistic. The consequences of ignoring the importance of mother tongue and failing to support its maintenance can be irreversible. It is acknowledged that the shift to majority language takes about one to three generations. Through processes of schooling, socialization and employment, members of the third generation are likely to become monolingual in the host country language. This is wasting an invaluable resource: Bi(multi)lingualism would lead to numerous benefits both at the individual and societal level (e.g., cultural, social, economic, intellectual, and emotional). Canada, Singapore and Switzerland are only some of the multilingual countries which stand out with their economic prosperity, high educational standards and rich cultural and linguistic diversity (Dewaele et al., 2003). The dilemma of many European countries is their devotion to multilingualism and cultural diversity in their political rhetoric but unwillingness to support rights for the minority and immigrant groups within their borders and failure to put their so called political ideals into practice. Mother tongue is often associated with deficient L2 skills, poverty, under-achievement at school, marginalization and personality problems and immigrant languages are perceived as obstacles for societal harmony. It is believed that successful L2 acquisition is key to integration into the L2 society and culture. However, the relationship between successful language acquisition and cultural attitudes may not be straightforward. For instance, though few Scottish and Irish people speak Scottish Gaelic and Irish and they are mostly dominant in English (because of economic necessity), they hold on to their ethnic identities. Their highly proficient English skills do not co-occur with favourable attitudes towards the English people and culture, just in the same way their devotion to their historical roots did not guarantee the maintenance of their mother tongues (Hickey, 2009).

Our findings underline the significance of an in-depth investigation of many dimensions at both the individual and societal level (e.g., linguistic, social, emotional, political and demographic) in order to arrive at a better understanding of L2 development. It is important to realize that languages grow within and among individuals. Becoming bilingual also entails becoming interculturally competent but not necessarily internalizing the cultural system of the L2 society. The challenges in the process of linguistic and cultural integration would be eased to a great extent if the host society is willing to open up a space for the immigrant communities and gets involved in the process.

This dissertation brought together an investigation of L1 Turkish change (or maintenance) and L2 Dutch development in a migrant context. We hope to have presented detailed and critical analyses on bilingual language development and added new perspectives to the discussions on first generation Turkish

immigrants' language knowledge. As for a general implication, we think that our findings would be useful for the authorities and institutions that are willing to help the immigrant communities' to develop their L2 skills and preserve their mother tongue and teach it to their children. We hope in the future more efficient policies of multilingualism and integration would be formulated to facilitate bi(multi)lingual language development of migrant communities and to prevent their social and economic exclusion.

References

- Aarssen, J., Backus, A. & Heijden, H. van der (2006). Turkish in the Netherlands. In H. Boeschoten & L. Johanson (Eds.), *Turkic Languages in Contact* (pp. 220-240). Wiesbaden: Harrassowitz Verlag. (Turcologica, 61).
- Akgündüz, A. (2007). *Labor migration from Turkey to Western Europe, 1960-1974: A multidisciplinary analysis*. Amsterdam: Amsterdam University Press.
- Aksu-Koç, A. (1988). *The Acquisition of Modality*. Cambridge: Cambridge University Press.
- Aksu-Koç, A. (1994). Development of linguistic forms: Turkish. In R.A. Berman & D. Slobin (Eds.), *Relating Events in Narrative: A Cross-linguistic Developmental Study* (pp. 329-85). New Jersey: Lawrence Erlbaum Associates.
- Ammerlaan, A. A. (1996). *"You get a bit wobbly ...": Exploring bilingual lexical retrieval processes in the context of first language attrition*. Doctoral dissertation, Nijmegen University.
- Andersen, R.W. (1982). Determining the linguistic attributes of language attrition. In R.D. Lambert & B.F. Freed (Eds.), *The Loss of Language Skills* (pp. 83–117). Rowley: Newbury House.
- Andriessen, I., Dagevos, J., Nievers, E. & Boog, I. (2007). *Discrimination Monitor 2007: non-Western ethnic minorities on the Dutch labour market*, Den Haag: SCP.
- Andriessen, I., Nievers, E., Dagevos, J. & Faulk, L. (2012). Ethnic discrimination in the Dutch labor market: Its relationship with job characteristics and multiple group membership. *Work and Occupations*, 39(3), 237-69.
- Arends-Tóth, J. & van de Vijver, F. (2003). Multiculturalism and acculturation: views of Dutch and Turkish-Dutch. *European Journal of Social Psychology*, 33, 249–266.
- Arends-Toth, J. & van de Vijver, F. (2008). Family relationships among immigrants and majority members in the Netherlands: the role of acculturation. *Applied Psychology* 57(3), 466-487.
- Ataca, B. & Berry, J. W. (2002). Psychological, Socio-cultural, and Marital Adaptation of Turkish Immigrants. *International Journal of Psychology* 37, 13–26.
- Avcı, G. (2006). Comparing integration policies and outcomes: Turks in the Netherlands and Germany. *Turkish Studies*, 7(1), 67- 84.
- Bader, V. (2005). Dutch nightmare? The end of multiculturalism?, *Canadian Diversity* 4(1), 9–12.
- Backus, A. (1992). *Patterns of Language Mixing: A study in Turkish-Dutch Bilingualism*. Wiesbaden: Harrassowitz.
- Backus, A. (1996). *Two in one. Bilingual speech of Turkish immigrants in the Netherlands* (Studies in Multilingualism 1), Tilburg, Tilburg University Press.
- Backus, A. (2004). Turkish as an immigrant language. In T. K. Bhatia & W. C. Ritchie (Eds.), *The Handbook of Bilingualism* (pp. 689-724). Oxford: Blackwell.
- Backus, A. (2005). Code-switching and language change: one thing leads to another? *International Journal of Bilingualism*, 9, 307-340.
- Bates, E., D'Amico, S., Jacobsen, T., Székely, A., Andonova, E., Devescovi, A., Herron, D., Lu, C. C., Pechmann, T., Pléh, C., Wicha, N., Federmeier, K., Gerdjikova, I., Gutierrez, G., Hung, D., Hsu, J., Iyer,

- G., Kohnert, K., Mehotcheva, T., Orozco-Figueroa, A., Tzeng, A. & Tzeng, O. (2003). Timed picture naming in seven languages. *Psychonomic Bulletin & Review*, 10(2), 344-380.
- Beenstock, M., Chiswick, B. R. & Repetto, G. L. (2001). The effect of linguistic distance and country of origin on immigrant language skills: Application to Israel. *International Migration*, 39(3), 33–60.
- Beganović, J. (2006). *First language attrition and syntactic subjects: A study of Serbian, Croatian, and Bosnian intermediate and advanced speakers in Dutch*. Master's thesis, University of Edinburgh.
- Ben Rafael, M. & Schmid, M. S. (2007). Language attrition and ideology: two groups of immigrants in Israel. In B. Köpke, M. S. Schmid, M. Keijzer & S. Dostert (Eds.), *Language Attrition: Theoretical Perspectives* (pp. 205-226). Amsterdam: John Benjamins.
- Berman, R.A. & Slobin, D. (1994). *Relating events in narrative: A crosslinguistic developmental study*. New Jersey: Lawrence Erlbaum Associates.
- Berry, J. W. & Sam, D. L. (1997). Acculturation and adaptation. In J.W. Berry, M. H. Segall & Ç. Kağıtçıbaşı (Eds.), *Handbook of Crosscultural Psychology* (pp. 296-321). Boston: Allyn and Bacon.
- Bialystok, E. (2009). Bilingualism: The good, the bad and the indifferent. *Bilingualism: Language & Cognition*, 12, 3-11.
- Bialystok, E. & Miller, B. (1999). The problem of age in second language acquisition: Influences from language, structure, and task. *Bilingualism: Language & Cognition*, 2, (2), 127-145.
- Bijl R. & Verweij, A. (2012). Measuring and monitoring immigrant integration in Europe: facts and views. In R. Bijl & A. Verweij (Eds.), *Measuring and monitoring immigrant integration in Europe: Integration policies and monitoring efforts in 17 countries* (pp. 11-42). The Hague: The Netherlands Institute for Social Research.
- Birdsong, D. (1992). Ultimate attainment in second language acquisition. *Language*, 68 (4), 706–755.
- Birdsong, D. & Molis, M. (2001). On the evidence for maturational constraints in second language acquisition. *Journal of Memory & Language*, 44, 235-249.
- Birdsong, D. (2005). Interpreting age effects in second language acquisition. In J. F. Kroll & A. M. B. de Groot (Eds.), *Handbook of Bilingualism: Psycholinguistic Approaches* (pp. 109–127). New York: Oxford University Press.
- Birdsong, D. (2006). Age and second language acquisition and processing: A selective overview. *Language Learning*, 56, 9-49.
- Boeschoten, H. (2010). Convergence and divergence in migrant Turkish. In K. Mattheier (Ed.), *Dialect and migration in the changing Europe* (pp. 145-154). Frankfurt am Main: Peter Lang.
- Boeschoten, H. & Verhoeven, L. (1985). Integration niederländischer lexikalischer Elemente ins Türkische. *Linguistische Berichte*, 98, 437-464.
- Boeschoten, H., Dorleijn, M. & Leezenberg, M. (1993). Turkish, Kurdish and other languages from Turkey. In G.Extra & L. Verhoeven (Eds.), *Community languages in Europe* (pp. 109-142). Amsterdam: Swets and Zeitlinger.
- Bongaerts, T. (1999). Ultimate attainment in L2 pronunciation: The case of very advanced late L2 learners. In D. Birdsong (Ed.), *Second language acquisition and the critical period hypothesis* (pp. 133-159). New Jersey: Lawrence Erlbaum Associates.

- Bongaerts, T., van Summeren, C., Planken, B. & Schills, E. (1997). Age and ultimate attainment in the pronunciation of a foreign language. *Studies in Second Language Acquisition*, 19, 447–465.
- Bortfeld, H., Leon, D., Bloom, J. R., Schober, M. F. & Brennan, S. E. (2001). Disfluency rates in conversation: Effects of age, relationship, topic, role, and gender. *Language & Speech*, 44(2), 123-147.
- Bos, P. & Fritschy, W. (Eds.) (2006). *Morocco and the Netherlands: society, economy, culture*. Amsterdam: VU University Press.
- Boyd, S. (1993). Attrition or expansion? Changes in the lexicon of Finnish and American adult bilinguals in Sweden. In K. Hyltenstam & A. Viberg (Eds.), *Progression and regression in language* (pp. 386-411). Cambridge: Cambridge University Press.
- Boyer, S.P. (2009). *Learning from each other. The integration of immigrant and minority groups in the United States and Europe, center for American Progress, Washington* downloaded http://www.migration-boell.de/downloads/integration/CAP_immigrant_integration.pdf downloaded on 10.06.2013
- Böcker, A. (2000). Paving the way to a better future: Turks in the Netherlands. In H. V. R. Pennix (Ed.), *Immigration Integration. The Dutch Case* (pp. 153-177). Amsterdam: Het Spinhuis.
- Broeder, P., Extra, G. & van Hout, R. (1993). Richness and variety in the developing lexicon. In C. Perdue (Ed.), *Adult Language Acquisition: Cross-linguistic Perspectives Volume Field Methods* (pp. 144-164). Cambridge: Cambridge University Press.
- Broeder, P., Extra, G., van Hout, R. and Zerrouk, R. (1985). Spatial reference in L2 Dutch of Turkish and Moroccan adult learners. The initial stages. In Extra & Vallen (Eds.), *Ethnic Minorities and Dutch as a Second Language* (pp. 209-252). Dordrecht: Foris.
- Brouwer, M.A.R. & Boros, S. (2010). The influence of intergroup contact and ethnocultural empathy on employees' attitudes towards diversity. *Cognition, Brain, Behavior. An Interdisciplinary Journal*, 14 (3), 243-260.
- Bylund, E.S. (2009). Maturation constraints and first language attrition. *Language Learning*, 59(3), 687-715.
- Caramazza, A. (1997). How many levels of processing are there in lexical access? *Cognitive Neuropsychology*, 14, 177-208.
- Carliner, G. (2000). The language ability of U.S. Immigrants: Assimilation and cohort effects. *International Migration Review*, 34(1), 158-182.
- Celata C. & J. Cancila. (2010). Phonological attrition and perceptual decay: the consonant length feature in the Lucchese community of San Francisco (CA). *International Journal of Bilingualism*, 14(2), 1-25.
- Centraal Bureau voor de Statistiek (CBS). (2006). Bevolking naar herkomstgroepering en generatie, retrieved February 2, 2008 from www.cbs.nl.
- Centraal Bureau voor de Statistiek (CBS) (2007). Education deficiency means lower income for immigrant men, Web magazine, May 15, 2007, retrieved August 6, 2008 from <http://www.cbs.nl/en-GB/menu/themas/dossiers/allochtonen/publicaties/artikelen/archief/2007/2007-2155-wm.htm>
- Centraal Bureau voor de Statistiek (CBS). (2010). Statistical yearbook 2010. The Hague: Statistics Netherlands.

- Centraal Bureau voor de Statistiek (CBS). (2012). More immigrants from EU countries. Press release, 16 February 2012, 15:00. retrieved from <http://www.cbs.nl/en-GB/menu/themas/bevolking/publicaties/artikelen/archief/2012/2012-011-pb.htm>
- Centraal Bureau voor de Statistiek (CBS). (2013). <http://www.cbs.nl/nl-NL/menu/methoden/begrippen/default.htm?conceptid=88> accessed on 31 January 2013).
- Chang, C.B. (2012). Rapid and multifaceted effects of second-language learning on first-language speech production. *Journal of Phonetics*, 40(2), 249-268.
- Cherciov, M. (2012). *Between Attrition and Acquisition: the Dynamics between Two Languages in Adult Migrants*. Doctoral dissertation, University of Toronto .
- Chiswick, B.R. & Miller, P.W. (2001). A model of destination language acquisition: Application to male immigrants in Canada. *Demography* 38 (3), 391-409.
- Chiswick, B.R., Lee, Y.L. & Miller P.W. (2004). Immigrants, language skills: the Australian experience in a longitudinal survey. *International Migration Review*, 38(2), 611-654.
- Citrin, J., Lerman, A., Murakami, M. & Pearson, K. (2007). Testing Huntington: Is Hispanic Immigration a Threat to American Identity? *Journal: Perspectives on Politics*, 5(1), 31-48.
- Clahsen, H. & Muysken, P. (1986). The availability of universal grammar to adult and child learners - a study of the acquisition of German word order. *Second Language Research* 2(2), 93-119.
- Clark, H. H. (1994). Managing problems in speaking. *Speech Communication*, 15, 243-250.
- Clyne, M. (1972). *Perspectives on Language Contact: Based on a Study of German in Australia*. Melbourne: Hawthorn Press.
- Clyne, M. (1991). *Community Languages: The Australian Experience*. Cambridge: Cambridge University Press.
- Collin, S. & Karsenti, T. (2012). Facilitating linguistic integration of immigrants: An overview of ICT tools. *Issues in Informing Science and Information Technology*, 9, 243-251.
- Cook, V. (1991). The poverty-of-the-stimulus argument and multi-competence. *Second Language Research*, 7 (2), 103-117.
- Cook, V. (2002). Background to the L2 user. In V.Cook (Ed.), *Portraits of the L2 User*, 1-28, Clevedon: Multilingual Matters.
- Cook, V. (Ed.) (2003). *The Effect of L2 on L1*. Clevedon: Multilingual Matters.
- Costa, A. (2005). Lexical access in bilingual production. In J. F. Kroll & A. M. B. De Groot (Eds.), *Handbook of Bilingualism: Psycholinguistic Approaches* (pp. 308–25). New York: Oxford University Press.
- Crawford, J. (1995). *Bilingual Education: History, Politics, Theory and Practice*. Los Angeles: Crane.
- Cummins, J. (1981). *Bilingualism and Minority/Language* (Language and literacy series). Canada: Ontario Inst. for Studies.
- Cummins, J. (2000). *Language, power, and pedagogy: Bilingual children in the crossfire*. Clevedon: Multilingual Matters.

- Cummins, J. (2003). Bilingual education: Basic principles. In J-M. Daelewe, A. Housen, & L. Wei (Eds.), *Bilingualism: Beyond basic principles. Festschrift in honour of Hugo Baetens Beardsmore* (pp. 56-66). Clevedon: Multilingual Matters.
- Dagevos, J. (2001). *Rapportage minderheden 2001: Meer werk*. Den Haag: SCP.
- Dagevos, J. & Gijsberts, M. (2007), *Integration report 2007*. The Hague: SCP.
- Dagevos, J., Gijsberts, M. & van Praag, C. (2003). *Rapportage minderheden 2003, Onderwijs, arbeid en sociaal-culturele integratie*. Den Haag: Sociaal en Cultureel Planbureau.
- Daily News, Hürriyet (2013). Foreign investments by Turks reach \$25 billion in 10 years. Istanbul.
- Daily News, Hürriyet (2010). Turks seriously contribute to Dutch economy, minister says. The Hague.
- de Boom J., Zuijderwijk, L., Snel, E., Engbersen, E. & Weltevrede, A. (2007). *Migration and migration policies in the Netherlands. Dutch SOPEMI-Report*. Rotterdam: Rotterdam Institute of Social Policy Research (Risbo).
- de Bot, K. (1992). A bilingual production model: Levelt's speaking model adapted. *Applied Linguistics*, 13, 1-24.
- de Bot, K. (1996). Language loss. In H. Goebel, P. H. Nelde, Z. Stary & W. Wock (Eds.), *Contact linguistics* (pp.579-585). Berlin: De Gruyter.
- de Bot, K. (1998). The psycholinguistics of language loss. In G. Extra, L. Verhoeven (Eds.), *Bilingualism and Migration* (pp. 345-361). Berlin: Mouton de Gruyter.
- de Bot, K. (2004). The multilingual lexicon: Modeling selection and control. *International Journal of Multilingualism*, 1, 17-32.
- de Bot, K. (2007). Dynamic systems and attrition. In B. Köpke, M. S. Schmid, M. Keijzer & S. Dostert (Eds.), *Language Attrition. Theoretical Perspectives* (pp. 53-68). Amsterdam: John Benjamins.
- de Bot, K. (2008). Second language development as a dynamic process. *Modern Language Journal*, 92(2), 166-178.
- de Bot, K. & Schreuder, R. (1993). Word production and the bilingual lexicon. In R. Schreuder & B. Weltens (Eds.), *The Bilingual Lexicon* (pp. 191-214). Amsterdam: John Benjamins.
- de Bot, K. & Clyne, M. (1994). A 16-year longitudinal study of language attrition in Dutch immigrants in Australia. *Journal of Multilingual & Multicultural Development*, 15, 17-28.
- de Bot, K. & Weltens, B. (1997). Multilingualism in the Netherlands? In T. Bongaerts & K. de Bot (Eds.), *Perspectives on foreign-language policy. Studies in honour of Theo van Els* (pp. 143-156). Amsterdam: John Benjamins.
- de Bot, K., Gommans, P. & Rossing, C. (1991). L1 Loss in an L2 environment: Dutch immigrants in France. In H. W. Seliger & R. M. Vago (Eds.), *First Language Attrition* (pp. 87-98). Cambridge: Cambridge University Press.
- de Bot, K. Lowie, W. & Verspoor, M. (2005). *Second Language Acquisition. An Advanced Resource Book*. London: Routledge.
- de Bot, K. Verspoor, M. & Lowie, W. (2007). A dynamic systems theory approach to second language acquisition. *Bilingualism, Language & Cognition*. 10(1), 7-21.

- de Coulon, A. & Wolff, F.-C. (2007). Language proficiency of immigrants and misclassification. *Applied Economics Letters*, 14, 857–861.
- de Hart, B., Strik, T. & Pankratz, H. (2003). *Family reunification project. A barrier or facilitator of integration? The Netherlands Summary Report*, retrieved from <http://familyreunification.eu/wp-content/uploads/2013/03/Netherlands2.pdf>.
- de Jong, N.H., Groenhout, R., Schoonen, R. & Hulstijn, J.H. (2013). L2 fluency: Speaking style or proficiency? Correcting measures of second language fluency for first language behavior. *Applied Psycholinguistics*. Published online:
<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8859231>
- de Leeuw, E. (2004). *An Instrumental and Auditory Phonetic Comparison of Hesitation Markers in English, German and Dutch*. Unpublished MA dissertation, University of Trier.
- de Leeuw, E. (2007). Hesitation markers in English German and Dutch. *Journal of Germanic Linguistics*. 19 (2), 85-114.
- de Leeuw, E., Schmid, M. S. & Mennen, I. (2010). Perception of foreign accent in native speech. *Bilingualism: Language & Cognition*, 13(1), 33-40.
- Dell, G. S. (1986). A spreading activation theory of retrieval and sentence production. *Psychological Review*, 93, 283-321.
- Dewaele, J.-M. (2012). Personality traits as independent and dependent variables. In S. Mercer, S. Ryan & M. Williams (Eds.), *Psychology for Language Learning: Insights from Research, Theory and Practice* (pp. 42-58). Basingstoke: Palgrave Macmillan.
- Dewaele, J.-M., Housen, A., & Wei, L. (2003). Introduction and overview. Bilingualism: Beyond Basic Principles. In J.-M. Dewaele, A. Housen and L. Wei (Eds.), (pp.1-9). Clevedon: Multilingual Matters.
- Dijkstra, T. & van Heuven, W. J. B. (2002). The architecture of the bilingual word recognition: from identification to decision. *Bilingualism: Language & Cognition* 5(3), 175-197.
- Dijkstra, T. (2005). Bilingual visual word recognition and lexical access. In J. F. Kroll & A. M. B. de Groot (Eds.), *Handbook of Bilingualism: Psycholinguistic Approaches* (pp. 179–201). New York: Oxford University Press.
- Dinsbach, A. A., Feij, J. A. & Vries, R. E. (2007). The role of communication content in an ethnically diverse organization. *International Journal of Intercultural Relations*, 31, 725–745.
- Doğruöz, A. S. & Backus, A. (2007). Postverbal elements in immigrant Turkish: evidence of change? *International Journal of Bilingualism*, 11(2), 185- 220.
- Doğruöz, A. S. & Backus, A. (2009). Innovative constructions in Dutch Turkish: an assessment of ongoing contact-induced change. *Bilingualism: Language & Cognition*, 12(1), 41-63.
- Dostert, S. (2009). *Multilingualism, L1 attrition and the concept of 'native speaker'*. Doctoral dissertation, Heinrich-Heine Universität Düsseldorf.
- Dörnyei, Z. (2009). Individual differences: Interplay of learner characteristics and learning environment. *Language Learning*, 59 (Suppl. 1), 230-248.
- Dörnyei, Z. & Skehan, P. (2003). Individual differences in second language learning. In C. J. Doughty & M.H. Long (Eds.), *The Handbook of Second Language Acquisition* (pp. 589-630). MA: Blackwell.

- Dörnyei, Z. & E. Ushioda (Eds.) (2009). *Motivation, Language Identity and the L2 Self*. Bristol: Multilingual Matters.
- Durgunoğlu, A.Y. & Verhoeven, L. (1998). Epilogue: Multilingualism and literacy development across different cultures. In. A. Y. Durgunoglu & L. Verhoeven (Eds.), *Literacy Development in a Multilingual Context: Cross-Cultural Perspectives* (pp. 289-298). New Jersey: Lawrence Erlbaum Associates.
- Dussias, P.E. (2004). Parsing a first language like a second: The erosion of L1 parsing strategies in Spanish-English bilinguals. *International Journal of Bilingualism*, 8, 355-371.
- Dussias, P. E. & Sagarra, N. (2007). The effect of exposure on syntactic parsing in Spanish-English bilinguals. *Bilingualism: Language & Cognition*, 10, 101-116.
- Dustmann, C. (1994). Speaking fluency, writing fluency and earnings of migrants. *Journal of Population Economics*, 7 (2), 133-56.
- ECRI. (2008). *Third report on the Netherlands*. The European Commission against Racism and Intolerance. Retrieved from <http://www.refworld.org/docid/47b19c582.html> [accessed 23 April 2013]
- Ecke, P. (2004). Language attrition and theories of forgetting: A cross-disciplinary review. *International Journal of Bilingualism*, 8(3), 321-352.
- Ellinger, B. (2000). The Relationship between ethnolinguistic identity and English language achievement for native Russian speakers and native Hebrew speakers in Israel. *Journal of Multilingual and Multicultural Development*, 21(4), 292-307.
- Ellis, N. C. (2002). Frequency effects in language processing. A review with implications for theories of implicit and explicit language acquisition. *Studies in Second Language Acquisition*, 24(2) 143-188.
- Ellis, R. (2005). Principles of instructed language learning. *System*, 33(2), 209-224.
- Ennaji, M. (2005). *Multilingualism, Cultural Identity, and Education in Morocco*. New York: Springer.
- Entzinger, H. (2006). Changing the rules while the game is on: From multiculturalism to assimilation in the Netherlands In Y. M. Bodemann & G. Yurdakul, (Eds.), *Migration, Citizenship, Ethnos: Incorporation Regimes in Germany, Western Europe and North America* (pp. 121-144). New York: Palgrave MacMillan.
- Entzinger, H. & Biezeveld, R. (2003). Benchmarking in immigrant integration. Report written for the European Commission under contract No. DG JAI-A-2/2002/006. Rotterdam: European Research Centre on Migration and Ethnic Relations (ERCOMER).
- Ersanlı, E. (2010). Comparing integration. Host culture adoption and ethnic retention among Turkish immigrants and their descendents in France, Germany and the Netherlands. PhD Thesis, Amsterdam: Vrije Universiteit.
- Ersanlı, E. & Koopmans, R. (2010). Rewarding integration? Citizenship regulations and socio-cultural integration of immigrants in the Netherlands, France and Germany. *Journal of Ethnic & Migration Studies*, 36(5), 773–91.
- Espenshade, T.J. & Calhoun, C. A. (1993). An analysis of public opinion toward undocumented immigration. *Population Research & Policy Review*, 12(3), 189-224.

- Espenshade, T.J. & Fu, H. (1997). An analysis of English-language proficiency among US immigrants. *American Sociological Review*, 62(2), 288-305.
- Espinosa, K.E. & Massey, D.S. (1997). Determinants of English proficiency among Mexican migrants to the United States. *International Migration Review*, 31(1), 28-50.
- Essed, P. & Trienekens, S. (2008). Who wants to feel white? Race, Dutch culture and contested identities. *Ethnic & Racial Studies*, 31(1), 52-72.
- Esser, H. (2008). Language Acquisition and Age at Immigration: The Difficult Conditions for Bilingualism. In F. Kalter (Ed.), *Migration und Integration*, Kölner Zeitschrift für Soziologie und Sozialpsychologie, Special Issue 48, Wiesbaden 2008 (VS Verlag für Sozialwissenschaften), 202-229.
- EUMC (European Monitoring Center of Racism and Xenophobia) Annual Report (2001), Diversity and equality for Europe, retrieved from http://eumc.eu.int/eumc/material/pub/ar01/AR_2001-EN.pdf
- EUMC (European Monitoring Center of Racism and Xenophobia) Annual Report (2002). Diversity and equality for Europe, retrieved from http://fra.europa.eu/sites/default/files/fra_uploads/132-AR_2001-EN.pdf
- Extra, G. (2005). Immigrant minority languages in urban Europe. In D. Cunningham & A. Hatoss (Eds.), *An International Perspective on Language Policies, Practices and Proficiencies* (pp. 83-108). Australia: FIPLV.
- Extra, G. & van Hout, R. (1993). Spatial reference in adult language acquisition: A multiple case study on Turkish and Moroccan learners of Dutch. In B. Kettemann & W. Wieden (Eds.), *Current Issues in European Second Language Acquisition Research* (pp. 379-394). Tübingen: Gunter Narr Verlag.
- Extra, G. & Vallen, T. (1997). Migration and Multilingualism in Western Europe: A case study of the Netherlands. *Annual Review of Applied Linguistics*, 17, 151-169.
- Extra, G. & Verhoeven L. (1993). A bilingual perspective on Turkish and Moroccan children and adults in the Netherlands. In G. Extra & L. Verhoeven (Eds.), *Immigrant Languages in Europe* (pp. 67-100). Clevedon: Multilingual Matters.
- Extra, G. & Yağmur, K. (Eds.) (2004). *Urban Multilingualism in Europe: Immigrant Minority Languages at Home and School*. Clevedon: Multilingual Matters.
- Extra, G., Yağmur, K. & van der Avoird, T. (2004). Methodological considerations. In G. Extra & K. Yağmur (Eds.), *Urban Multilingualism in Europe: Immigrant Minority Languages at Home and School* (pp.109-132). Clevedon: Multilingual Matters.
- Extra, G., Spotti, M. & van Avermaet, P. (2009). Testing regimes for newcomers. In G. Extra, M. Spotti & P. van Avermaet (Eds.), *Language Testing, Migration and Citizenship: Cross-National Perspectives on Integration Regimes* (pp. 1-34). London: Continuum.
- Flege, J.E. (1999). Age of learning and second language speech. In D. Birdsong (Ed.), *Second Language Acquisition and the Critical Period Hypothesis* (pp. 101-131). New Jersey: Lawrence Erlbaum Associates.
- Flege J. E. & Liu, S. (2001). The effect of experience on adults' acquisition of a second language. *Studies in second Language Acquisition*, 23, 527-552.

- Flege, J. E., Yeni-Komshian, G. H. & Liu, S. (1999). Age constraints on second-language acquisition. *Journal of Memory & Language*, 41, 78-104.
- Foster, P., Tonkyn, A. & Wigglesworth, G. (2000). Measuring spoken language: A unit for all reasons. *Applied Linguistics*, 21, 354-375.
- Franceschini, R., Zappatore, D. & Nitsch, C. (2003). Lexicon in the brain: What neurobiology has to say about languages? In J. Cenoz, U. Jessner & B. Hufeisen (Eds.), *The Multilingual Lexicon* (pp. 153-166). Dordrecht: Kluwer.
- Francis, N. (2005). Research findings on early first language attrition: Implications for the discussion on critical periods in language acquisition. *Language Learning*, 55(3), 491-531.
- Fuligni, A. J., Kiang, L., Witkow, M. R. & Baldelomar, O. (2008). Stability and change in ethnic labeling among adolescents from Asian and Latin American immigrant families. *Child Development*, 79(4), 944-956.
- Gardner, R.C. (1985). *Social Psychology and Second Language learning. The Role of Attitudes and Motivation*. London: Edward Arnold.
- Gardner, R.C. & Lambert, W.E. (1972). *Attitudes and Motivation in Second Language Learning*. Rowley, MA: Newbury House.
- Gatbonton, E., Trofimovich, P., Magid, M. (2005). Learners' ethnic group affiliation and L2 pronunciation accuracy: A sociolinguistic investigation. *Tesol Quarterly*, 39(3), 489-511.
- Gelderloos, W. & van Koert, J. (2010). *Inburgeren en participeren. Verslag van vier kwalitatieve cases studies naar de effecten van inburgering op participatie, Projectnummer: 26292*. Den Haag: B&A groep.
- Gijsberts, M. (2004). *Ethnic minorities and integration: Outlook for the future*. The Hague: Social and Cultural Planning Office.
- Gijsberts, M. & Dagevos, J. (2004). Concentratie en wederzijdse beeldvorming tussen autochtonen en allochtonen. *Migrantenstudies*, 20(3) 145-168.
- Gijsberts, M. & Dagevos, J. (2009). *Jaarrapport integratie 2009*. Den Haag: Sociaal en Cultureel Planbureau.
- Gijsberts, M. & Dagevos, J. (2010). *At home in the Netherlands. Trends in integration of non-Western migrants*. The Hague: The Netherlands Institute for Social Research.
- Gijsberts, M. & Schmeets, H. (2008). Sociaal-culturele oriëntatie en maatschappelijke participatie [Social-cultural orientation and participation in society]. In *Jaarrapport Integratie 2008* (pp. 201-222). Den Haag: CBS.
- Gijsberts, M. & Lubbers, M. (2010). Mutual perceptions. In M. Gijsberts & J. Dagevos (Eds.), *Annual Report on Integration 2009, At home in the Netherlands? Trends in integration of non-Western Migrants* (pp. 265-296). The Hague: The Netherlands Institute for Social Research.
- Giles, H., Bourhis, R. Y. & Taylor, D. (1977). Towards a theory of language in ethnic group relations. In H. Giles (Ed.), *Language, Ethnicity and Intergroup Relations* (pp. 307-348). London: Academic Press.
- Glaser, W. R. (1992). Picture naming. *Cognition*, 42, 61-105.
- Gollan, T. H., Montoya, R. I. Fennema-Notestine, C. & Morris, S. K. (2005). Bilingualism affects picture naming but not picture classification. *Memory & Cognition*, 33(7), 1220-1234.
- Goral, M. (2004). First-language decline in healthy aging: Implications for attrition in bilingualism. *Journal*

of Neurolinguistics, 17(1), 31-52.

- Göksel, A. & Kerslake, C. (2005). *Turkish: A comprehensive grammar*. Routledge: Taylor and Francis Ltd.
- Green, D. (1986). Control, activation and resource: a framework and a model for the control of speech in bilinguals. *Brain & Language*, 27, 210-223.
- Green, D. (1998). Mental control of the bilingual lexico-semantic system. *Bilingualism: Language & Cognition*, 1, 67-81.
- Grosjean, F. (1989). Neurolinguistics, beware! The bilingual is not two monolinguals in one person. *Brain & Language*, 36, 3-15.
- Grosjean, F. (1997). Processing mixed language: Issues, findings, and models. In A. M. B. de Groot & J. F. Kroll (Eds.), *Tutorials in Bilingualism. Psycholinguistic Perspectives* (pp. 225-254). New Jersey: Lawrence Erlbaum Associates.
- Grosjean, F. (2001). The bilingual's language modes. In J. Nicol (Ed.), *One mind, Two Languages: Bilingual Language Processing* (pp. 1-22). Oxford: Blackwell.
- Guiraud, P. (1960). *Problèmes et méthodes de la statistique linguistique*. Dordrecht: D. Reidel.
- Guiraudon, V., Phalet, K. & ter Wal, J. (2005). Monitoring ethnic minorities in the Netherlands. *International Social Science Journal*, 57(183), 75-87.
- Gürel, A. (2002). *Linguistic Characteristics of Second Language Acquisition and First Language Attrition: Overt versus null pronouns*. Doctoral dissertation, McGill University, Montreal, Canada.
- Gürel, A. (2004). Selectivity in L2-induced L1 attrition: A psycholinguistic account. *Journal of Neurolinguistics*, 17(1), 53-78.
- Gürel, A. (2007). (Psycho)linguistic determinants of L1 attrition. In B. Köpcke, M.S. Schmid, M. Keijzer & S. Dostert (Eds.), *Language Attrition: Theoretical Perspectives* (pp. 99-119). Amsterdam. John Benjamins.
- Gürel, A. & Yılmaz, G. (2011). Restructuring in the L1 Turkish grammar: effects of L2 English and L2 Dutch. *Language, Interaction & Acquisition*, 2(2), 221-250.
- Hagendoorn, L. & Sniderman, P. (2001) Experimenting with a national sample: a Dutch survey of prejudice. *Patterns of Prejudice*, 35(4), 19-31.
- Herdina, P. & Jessner, U. (2002). *A Dynamic Model of Multilingualism: Perspectives of change in psycholinguistics*. Clevedon: Multilingual Matters.
- Hickey, R. (2009). Language use and attitudes in Ireland. A preliminary evaluation of survey results. In B. Ó. Catháin (Ed.), *Sochtheangeolaíocht na Gaeilge* (pp.62-89). Léachtaí Cholm Cille 39. retrieved from http://www.uni-due.de/~lan300/24_Language_Use_and_Attitudes_in_Ireland_%28Hickey%29.pdf
- Hooghiemstra, E. (2003). *Trouwen over de grens. Achtergronden van partnerkeuze van Turken en Marokkanen in Nederland*. Den Haag: Sociaal en Cultureel Planbureau.
- Hooghiemstra, E. (2001). Migrants, partner selection and integration: Crossing borders? Turks and Moroccans in Netherlands. *Journal of Comparative Family Studies*, 32(4), 609-626.
- Hopp, H. & Schmid, M. S. (2011). Perceived foreign accent in first language attrition and second language acquisition: The impact of age of acquisition and bilingualism. *Applied Psycholinguistics*, 34(2), 361-394.

- Houtzager, LL.M.D. & Rodrigues, P.R. (2002). Migrants, minorities and employment in the Netherlands. Exclusion, discrimination and anti-discrimination. *Raxen 3 Report to the European Monitoring Centre on Racism and Xenophobia (EUMC)*.
- HRW (2008). The Netherlands: Discrimination in the Name of Integration, Migrants' Rights under the Integration Abroad Act, *Human Rights Watch, Number 1*, retrieved from <http://www.hrw.org/sites/default/files/reports/netherlands0508.pdf>
- Huberty, C. J. & Olejnik, S. (2006). *Applied MANOVA and Discriminant Analysis*, Second Edition. Hoboken, New Jersey: John Wiley and Sons, Inc.
- Huls, E. & van de Mond, A. (1992). Some aspects of language attrition in Turkish families in the Netherlands. In W. Fase, K. Jaspaert & S. Kroon (Eds.), *Maintenance and Loss of Minority Languages* (pp. 99-116). Amsterdam: John Benjamins.
- Hulsen, M. (2000). *Language Loss and Language Processing: Three generations of Dutch migrants in New Zealand*. Doctoral dissertation, Nijmegen: Katholieke Universiteit.
- Hulstijn, J.H. & Bosser, B. (1992). Individual Differences in L2 Proficiency as a Function of L1 Proficiency. *European Journal of Cognitive Psychology* 4(4), 341-353.
- Hunt, K.W. (1970). Syntactic maturity in school children and adults. *Monographs of the Society for Research in Child Development, Serial no. 134*, 35(1).
- Hutz, M. (2004). Is there a natural process of decay? A longitudinal study of attrition. In M. S. Schmid, B. Köpcke, M. Keijzer & L. Weilemar (Eds.), *First Language Attrition: interdisciplinary perspectives on methodological issues* (pp. 189-206). Amsterdam: John Benjamins.
- Hyltenstam K. & Abrahamsson, N. (2003). Maturation constraints in SLA. In C. Doughty & M. Long (Eds.), *Handbook of Second Language Acquisition* (pp. 539-588). Malden, MA: Blackwell.
- Ivanova, I. & Costa, A. (2008). Does bilingualism hamper lexical access in speech production? *Acta Psychologica*, 127, 277-288.
- Janda, L. (1996). Unpacking markedness. In E. Casad (Ed.), *Cognitive Linguistics in the Redwoods: The Expansion of a New Paradigm in Linguistics* (pp. 207-233). Berlin: Mouton de Gruyter.
- Jansen, B. & Lalleman, J. (1980). Intereferentie en voordvolgerde. Het Nederlands van buitenlandse arbeiders (pp. 1-48). *De Verwerving van het Nederlands door Buitenlandse Arbeiders: Enkele Deel Studies*. Instituut voor Algemene Taalwetenschaap, Amsterdam 27.
- Jansen, B., Lalleman, J. & Muysken, P. (1981). The Alternation Hypothesis: Acquisition of Dutch word order by Turkish and Moroccan foreign workers. *Language Learning* 31(2), 315-336.
- Jarvis, S. (2003). Probing the effects of the L2 on the L1: A case study. In V. Cook (Ed.), *Effects of the Second Language on the First* (pp. 81-102). Clevedon: Multilingual Matters.
- Jarvis, S. (2006). Examining the properties of lexical diversity through quantitative and qualitative means. Paper presented at the 16th Sociolinguistics Symposium (SS16), Limerick, Ireland.
- Jescheniak, J. D. & Levelt, W. J. M. (1994). Word frequency effects in speech production: Retrieval of syntactic information and of phonological form. *Journal of Experimental Psychology: Language, Memory & Cognition*, 20, 824-843.

- Jia, G., Aaronson, D. & Wu, Y. (2002). Long-term language attainment of bilingual immigrants: Predictive variables and language group differences. *Applied Psycholinguistics*, 23(4), 599–621.
- Jiang, N. (2004). Semantic transfer and its implications for vocabulary teaching in a second language. *Modern Language Journal*, 88, 416-432.
- Jivraj, S. (2013). How can we count immigration and integration? *Briefing in the Dynamics of Diversity: Evidence from the 2011 Census*. Manchester: ESRC Centre on Dynamics of Ethnicity.
- Johanson, L. (1993). Code-copying in Immigrant Turkish. In Extra G. & Verhoeven L. (Eds.), *Immigrant Languages in Europe* (pp. 197-221). Clevedon: Multilingual Matters.
- Johnson, J. S. & Newport, E. L. (1989). Critical period effects in second language learning: The influence of maturational state on the acquisition of English as a second language. *Cognitive Psychology*, 21, 60–99.
- Joppke, C. (2007). Policy Brief: Do obligatory civic integration courses for immigrants in Western Europe further integration? October 8, *Focus Migration, Hamburg Institute of International Economics*, Hamburg, retrieved August, 8 2008 from http://www.hwwi.org/uploads/tx_wilpubdb/PB08_IntegrationCourses_02.pdf
- Jordens, P., de Bot, K., van Os, C. & Schumans, J. (1986). Regression in German case marking. In B. Weltens, K. de Bot & T. van Els (Eds.), *Language Attrition in Progress* (pp. 159 – 176). Dordrecht: Foris.
- Karina, K.V., Verkuyten, M., Weesie, J. & Poppe, E. (2008). Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology* 47, 667–685.
- Keijzer, M. (2007). *Last in First out? An investigation of the regression hypothesis in Dutch emigrants in Anglophone Canada*. Utrecht: LOT: Dissertation series no. 163.
- Keijzer, M. (2010). *First language acquisition and first language attrition: parallels and divergences*. Saarbrücken: Lap Lambert Academic Publishing.
- Kellerman, E. & Sharwood Smith, M. (Eds.) (1986). *Crosslinguistic Influence on Second Language Acquisition*. Oxford: Pergamon Press.
- Kipp, S., Clyne, M. & Pauwels, A. (1995). *Immigration and Australia's Language Resources*. Canberra: Australian Government Publishing Service.
- Klatter-Folmer, J. & van Avermaet, P. (1997). Language shift amongst Italians in Flanders and Turks in the Netherlands. Paper presented at the 1st International Symposium on Bilingualism, University of Vigo, 21-25 October.
- Klaver, J. & A. Odé (2007). *Inburgeren in Nederland. SCP Jaarrapport Integratie 2007*. Den Haag: SCP.
- Kluzer, S., Ferrari, A. & Centeno, C. (2011). Language learning by adult migrants: Policy challenges and ICT responses, Policy Report, Luxembourg: Publications Office of the European Union.
- Knippenberg, H. (2009). Secularization and the rise of immigrant religions: The case of the Netherlands. *Geographica*, 1(2), 63-82.
- Kornfilt, J. (1997). *Turkish Grammar*. London: Routledge.
- Kostakopoulpu, D. (2010). The anatomy of civic integration. *The Modern Law Review* 73(6), 933-958.
- Köpke, B. (1999). *L'attrition de la première langue chez le bilingue tardif: Implications pour l'étude psycholinguistique du bilinguisme*. Doctoral dissertation, Toulouse: Université de Toulouse-Le Mirail.

- Köpke, B. (2002). Activation thresholds and non-pathological first language attrition. In F. Fabbro (Ed.), *Advances in the Neurolinguistics of Bilingualism* (pp. 119-142). Udine: Forum.
- Köpke, B. (2004). Neurolinguistic aspects of attrition. *Journal of Neurolinguistics*, 17(1), 3–30.
- Köpke, B. (2007). Language attrition at the crossroads of brain, mind, and society. In B. Köpke, M. S. Schmid, M. Keijzer & S. Dostert (Eds.), *Language Attrition. Theoretical Perspectives* (pp. 9-38). Amsterdam: John Benjamins.
- Köpke, B. & Schmid, M. S. (2004). Language attrition: The next phase. In M.S. Schmid, B. Köpke, M. Keijzer, L. Weilemar (Eds.) *First Language Attrition: Interdisciplinary Perspectives on Methodological Issues* (pp. 1-43). Amsterdam: John Benjamins.
- Krashen, S.D. (1981). *Second Language Acquisition and Second Language Learning*. Oxford: Pergamon Press.
- Kroll, J. & Sunderman, G. (2003). Cognitive processes in second language learners and bilinguals: The development of lexical and conceptual representations. In C. Doughty & M. Long (Eds.), *The Handbook of Second Language Acquisition* (pp. 104-129). Oxford: Blackwell.
- Kroll J. F. & de Groot, A.M.B. (Eds.) (2005). *Handbook of Bilingualism: Psycholinguistic Approaches*. New York: Oxford University Press.
- Kunovich, R. M. (2004). Social structural position and prejudice: An exploration of cross-national differences in regression slopes. *Social Science Research*, 33, 20-44.
- Lado, R. (1957). *Linguistics Across Cultures: Applied Linguistics for Language Teachers*. Ann Arbor: University of Michigan Press.
- Laufer, B. (2003). The influence of L2 on L1 collocational knowledge and on L1 lexical diversity in free written expression. In V. Cook (Ed.), *Effects of the Second Language on the First* (pp. 19-31). Clevedon: Multilingual Matters.
- Levelt, W. J. M. (1983). Monitoring and self-repair in speech. *Cognition*, 14, 41-104.
- Levelt, W. J. M. (1989). *Speaking: From Intention to Articulation*. Cambridge, MA: MIT Press.
- Levelt, W. J. M. (Ed.) (1993). *Lexical Access in Speech Production*. Cambridge: Blackwell.
- Levelt, W. J. M. (2001). Spoken word production: A theory of lexical access. *Proceedings of the National Academy of Sciences*, 98, 13464-13471.
- Levelt, W. J. M., Praamstra, P., Meyer, A. S., Helenius, P. & Salmelin, R. (1998). An MEG study of picture naming. *Journal of Cognitive Neuroscience*, 10, 553-567.
- Levelt, W. J. M., Roelofs, A. & Meyer, A. S. (1999). A theory of lexical access in speech production. *Behavioral & Brain Sciences*, 22, 1-75.
- Lieben, P. (2013). Turkse les? Turks nationalisme kent geen grenzen. ('Turkish classes? Turkish nationalism has no limits'), <http://www.elsevier.nl/Nederland/blogs/2013/2/Turkse-les-Turks-nationalisme-kent-geen-grenzen-1183456W/>, accessed 28.5.2013.
- Long, M. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of Second Language Acquisition* (pp. 413-468). New York: Academic Press.

- Lucassen, J. & Penninx, R. (1997). *Newcomers, Immigrants and their Descendants in the Netherlands 1550-1995*. Amsterdam: Het Spinhuis.
- Lucassen, L. (2005). *The Immigrant Threat: The Integration of Old and New Migrants in Western Europe since 1850*. Urbana, IL: University of Illinois Press.
- Luijters, K., van der Zee, K. I. & Otten, S. (2008). Cultural diversity in organizations: Enhancing identification by valuing differences. *International Journal of Intercultural Relations*, 32(2), 154–163.
- MacIntyre, P. D., Dörnyei, Z., Cléments, R. & Noels, K.A. (1998). Conceptualising willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *The Modern Language Journal*, 82, 545-562.
- MacWhinney, B. (2000). *The CHILDES Project: Tools for Analyzing Talk*. New Jersey: Lawrence Erlbaum Associates. Third Edition. n° 1: The Format and Programs.
- Maliapaard, M. & Gijsberts, M. (2012). *Moslim in Nederland*. Den Haag: Sociaal en Cultureel Planbureau.
- McDonald, H. G. & Balgopal, P. R. (1998). Conflicts of American immigrants: assimilate or retain ethnic identity. *Migration World Magazine*, 26 (4), 14-22.
- Montrul, S. (2002). Incomplete acquisition and attrition of Spanish tense/aspect distinctions in adult bilinguals. *Bilingualism: Language & Cognition*, 5(1), 39-68.
- Montrul, S. (2004). Subject and object expression in Spanish heritage speakers: A case of morphosyntactic convergence. *Bilingualism: Language & Cognition* 7(2), 2004, 125–142.
- Montrul, S. (2008). *Incomplete Acquisition in Bilingualism*. Amsterdam: John Benjamins.
- Muñoz, C. (2006). The effects of age on foreign language learning: The BAF Project. In C. Muñoz (Ed.), *Age and the Rate of Foreign Language Learning* (pp. 1-40). Clevedon: Multilingual Matters.
- Nation, P. (1990). *Teaching and learning vocabulary*. New York: Newbury House.
- Nesdale, D. (2002). Acculturation attitudes and the ethnic and host-country identification of immigrants. *Journal of Applied Social Psychology*, 32(7), 1488-1507.
- Noels, K.A., Pon, G. & Clement, R. (1996). Language identity and adjustment. The role of linguistic self confidence in the acculturation process. *Journal of Language & Social Psychology* 15(3), 246–264
- Odé, A.M.W. & Veenman, J. (2003). The ethno-cultural and socio-economic position of ethnic minority groups in the Netherlands. In L. Hagendoorn, W. Vollebergh & J. Veenman (Eds.), *Integrating Immigrants in the Netherlands. Cultural versus Socio-Economic Integration* (pp. 173-192). England: Ashgate.
- Olshtain, E. & Barzilay, M. (1991). Lexical retrieval difficulties in adult language attrition. In H.W. Seliger & R.M. Vago (Eds.), *First Language Attrition* (pp. 139–151). Cambridge: Cambridge University Press.
- O' Malley, J.M. & Chamot, A.U. (1990). *Learning Strategies in Second Language Acquisition*. Cambridge: Cambridge University Press.
- Opitz, C. (2011). *First Language Attrition and Second Language Acquisition in a Second Language Environment*. Doctoral dissertation, University of Dublin.
- Ozańska-Ponikwia, K. & Dewaele, J.-M. (2012). Personality and L2 use: the advantage of being open-minded and self-confident in an immigrant context. *EUROSLA Yearbook* 12, 112-134.

- Özsoy, S. & Erguvanlı-Taylan, E. (1989). Belirtelik ve kavramı ve yabancı dil olarak Türkçe. In F. Ö. Ekmekçi & V. Ülkü (Eds.), *Dil Bilimi Uygulamaları* (pp. 187-203). Adana: Çukurova University.
- Özsoy, S. (1999). *Türkçe. Turkish*. Istanbul: Boğaziçi Üniversitesi Yayınları.
- Paradis, M. (1993). Linguistic, psycholinguistic, and neurolinguistic aspects of 'interference' in bilingual speakers: The activation threshold hypothesis. *International Journal of Psycholinguistics*, 9(2), 133-145.
- Paradis, M. (1997). The cognitive neuropsychology of bilingualism. In A. M. B. de Groot & J. F. Kroll (Eds.), *Tutorials in Bilingualism: Psycholinguistic Perspectives* (pp. 331-354). New Jersey: Lawrence Erlbaum Associates.
- Paradis, M. (2004). *A neurolinguistic Theory of Bilingualism*. Amsterdam: John Benjamins.
- Paradis, M. (2007). L1 attrition features predicted by a neurolinguistic theory of bilingualism. In B. Köpke, M. S. Schmid, M. Keijzer & S. Dostert (Eds.), *Language Attrition: Theoretical Perspectives* (pp. 121-134). Amsterdam: John Benjamins.
- Paradis, M. (2009). *Declarative and Procedural Determinants of Second Languages*. Amsterdam: John Benjamins.
- Paulston, C.B. (1994). *Linguistic Minorities in Multilingual Settings: Implications for Language Policies*. Amsterdam: John Benjamins.
- Pavlenko, A. (2000). Access to linguistic resources: Key variable in second language learning. *Estudios de Sociolingüística* 1(2), 85-105.
- Pavlenko, A. (2000). L2 influence on late L1 bilingualism. *Issues in Applied Linguistics*, 11(2), 175-205.
- Pavlenko, A. (2003). I feel clumsy speaking Russian: L2 influence on L1 narratives of Russian L2 users of English. In V. Cook (Ed.), *Effects of the Second Language on the First* (pp.32-61). Clevedon: Multilingual Matters.
- Pavlenko, A. (2004). Second language influence and first language attrition in adult bilingualism. In M. S. Schmid, B. Köpke, M. Keijzer & L. Weilemar (Eds.), *First Language Attrition: Interdisciplinary Perspectives on Methodological Issues* (pp. 47-59). Amsterdam: John Benjamins.
- Pavlenko, A. (Ed.) (2009). *The Bilingual Mental Lexicon: Interdisciplinary Approaches*. Clevedon: Multilingual Matters.
- Pavlenko, A. (2010). Verbs of motion in L1 Russian of Russian-English bilinguals. *Bilingualism: Language & Cognition*, 13(1), 49-62.
- Pavlenko, A. & Lantolf, J. P. (2000). Second language learning as participation and the (re)construction of selves. In J.P. Lantolf (Ed.), *Sociocultural Theory and Second Language Learning* (pp.155-177). Oxford: Oxford University Press.
- Pavlenko, A. & Jarvis, S. (2002). Bidirectional transfer. *Applied Linguistics*, 23, 190-214.
- Pels, T. (2000). Muslim families from Morocco in the Netherlands: gender dynamics and fathers' roles in a context of change. *Current Sociology* 48(4), 75-93.
- Penninx, R. (2005). Dutch integration policies after the Van Gogh murder, Institute for Migration and Ethnic Studies, Contribution to the Expert Panel on Social Integration of Immigrants: University of Amsterdam.
- Phalet, K. & ter Wal, J. (2004). *Muslim in Nederland*. Den Haag: Sociaal en Cultureel Planbureau.

- Phinney, J. S., Romero, I., Nava, M. & Huang, D. (2001). The role of language, parents and peers in ethnic identity among adolescents in immigrant families. *Journal of Youth & Adolescence*, 30, 135 – 153.
- Piske T., MacKay, I.R.A. & Flege, J.E. (2001). Factors affecting degree of foreign accent in an L2: A review. *Journal of Phonetics* 29, 191-215.
- Polinsky, M. (2008). Gender under incomplete acquisition: Heritage speakers' knowledge of noun categorization. *Heritage Language Journal*, 6(1), 40-71.
- Portes, A. & Rumbaut, R. G. (2001). *Legacies: The Story of the Immigrant Second Generation*. Berkeley: University of California Press.
- Poullisse, N. & Bongaerts, T. (1994). First language use in second language production. *Applied linguistics*, 15, 36-57.
- Py, Bernard. (1986). Native language attrition amongst migrant workers: Towards an extension of the concept of interlanguage. In E. Kellerman & M. Sharwood Smith (Eds.), *Crosslinguistic Influence in Second Language Acquisition* (pp. 163-172). New York: Pergamon Institute of English.
- Ransdell, S. E. & Fischler, I. (1987). Memory in a monolingual mode: When are bilinguals at a disadvantage? *Journal of Memory & Language*, 26(44), 392–405.
- Read, J. (2000). *Assessing Vocabulary*. Oxford: Oxford University Press.
- Ribbert, A. & Kuiken, F. (2010). L2-induced changes in the L1 of Germans living in the Netherlands. *Bilingualism: Language & Cognition*, 13(1), 41–48.
- Satterfield, T. (2003). Economy of interpretation: Patterns of pronoun selection in transitional bilinguals. In V. Cook (Ed.), *Effects of the L2 on L1*. Clevedon: Multilingual Matters.
- Saville-Troike, M. (1978). *A Guide to Culture in the Classroom*. Rosslyn, VA: National Clearinghouse for Bilingual Education.
- Schaake, K, Burgers, J. & Mulder, C.H. (2010). Ethnicity at the individual and neighborhood level as an explanation for moving out of the neighborhood. *Population Research & Policy Review*, 29(4), 593–608.
- Schalk-Soekar, S.R.G. & van de Vijver, F.J.R. (2008). The concept of multiculturalism: A study among Dutch majority members. *Journal of Applied Social Psychology*, 38(8), 2152–2178.
- Schaufeli, A. (1996). Word order patterns in contact: Turkish in the Netherlands. *Southwest Journal of Linguistics*, 15 (1-2), 153-169.
- Schmid, M.S. (2002). *First Language Attrition, Use and Maintenance: The Case of German Jews in Anglophone Countries*. Amsterdam: John Benjamins.
- Schmid, M. S. (2005). The language attrition test battery: A research manual, MS: University of Groningen.
- Schmid, M. S. (2006). Second language attrition. In K. Brown (Ed.), *The Encyclopedia of Language and Linguistics* 11 (pp. 74-81). Amsterdam: Elsevier.
- Schmid, M.S. (2007). The role of L1 use for L1 attrition. In B. Köpcke, M. S. Schmid, M. Keijzer & S. Dostert (Eds.), *Language Attrition. Theoretical Perspectives* (pp. 135-154). Amsterdam: John Benjamins.

- Schmid, M.S. (2009). Traffic both ways – same or different? On L1 attrition and L2 acquisition. In A. Backus, M. Keijzer, I. Vedder & B. Weltens (Ed.), *Artikelen van de Zesde Anéla-conferentie*. Delft: Eburon.
- Schmid, M.S. (2009). On L1 attrition and the linguistic system. In L. Roberts, D. Véronique, A. Nilsson & M. Tellier (Eds.), *Eurosla Yearbook 9*, 212-244. Amsterdam: John Benjamins.
- Schmid, M.S. (2010). Languages at play. *Bilingualism: Language & Cognition*, 13 (1), 1-7.
- Schmid, M.S. (2011). *Language Attrition*. Cambridge University Press (Key Topics in Sociolinguistics series).
- Schmid, M. S. & Köpke, B. (2007). Bilingualism and attrition. In M.S. Schmid, B. Köpke, M. Keijzer & S. Dostert (Eds.), *Language Attrition: Theoretical Perspectives* (pp. 1-8). Amsterdam: John Benjamins.
- Schmid, M.S. & Keijzer, M. (2009). First language attrition and reversion among older migrants. *International Journal of the Sociology of Language*, 200, 83-101.
- Schmid, M. S. & Köpke, B. (2009). L1 attrition and the mental lexicon. In A. Pavlenko (Ed.), *The Bilingual Mental Lexicon: Interdisciplinary Approaches* (pp. 209 – 238). Clevedon: Multilingual Matters.
- Schmid, M.S. & Dusseldorp, E. (2010). Quantitative analysis in a multivariate study of language attrition: The impact of extralinguistic factors. *Second Language Research*, 26 (1), 125-160.
- Schmid, M.S. & Fägersten, K.B. (2010). Disfluency markers in language attrition. *Language Learning*, 60(4), 753-791.
- Schmitt, E. (2004). No more reductions!-To the problem of evaluation of attrition data in FLA. In M. S. Schmid, B. Köpke, M. Keijzer & L. Weilemar (Eds.), *First Language Attrition: Interdisciplinary perspectives on methodological issues* (pp. 299-316). Amsterdam: John Benjamins.
- Schmitt, E. (2010). When boundaries are crossed: Evaluating language attrition data from two perspectives. *Bilingualism: Language & Cognition*, 13 (1), 63–72.
- Schnadt, M. J. & Corley, M. (2006). The influence of lexical, conceptual and planning based factors on disfluency production. *Proceedings of the twenty-eighth meeting of the Cognitive Science Society*, 8-13.
- Schuman, J.H. (1986). Research on the acculturation model for second language acquisition. *Journal of Multilingual & Multicultural Development*, 7 (5), 379-392.
- Seliger, H. W. (1991). Language attrition, reduced redundancy and creativity. In H.W. Seliger & R.M. Vago (Eds.), *First Language Attrition* (pp. 227-240). Cambridge: Cambridge University Press.
- Seliger, H. W. & Vago, R. M. (1991). *First Language Attrition*. Cambridge: Cambridge University Press.
- Semyonov, M., Raijman, R. & Gorodzeisky, A. (2006). The rise of antiforeigner sentiment in European societies 1988-2000. *American Sociological Review*, 71(3), 426-449.
- Sharwood Smith, M. A. (1983). On explaining language loss. In R. Felix & H. Wode (Eds.), *Language development at the crossroads* (pp. 49-59). Tübingen: Gunter Narr Verlag.
- Shields, M.A. & Price, S.W. (2002). The English language fluency and occupational success of ethnic minority immigrant men living in English metropolitan areas, *Journal of Population Economics*, 15(1), 137-160.
- Shohamy, E. (2006). *Language Policy Hidden Agenda and New Approaches*. London: Routledge.

- Shriberg, E. (2001). To 'errr' is human: Ecology and acoustics of speech disfluencies. *Journal of the International Phonetic Association*, 31, 153–169.
- Sides J. & Citrin J. (2007). European opinion about immigration. The roles of identities interests and information. *British Journal of Political Science*, 37(3), 477-504.
- Singleton, D. & Ryan, L. (2004). *Language Acquisition: The Age Factor*. Clevedon: Multilingual Matters Limited.
- Skaaden, H. (2005). First language attrition and linguistic creativity. *International Journal of Bilingualism*, 9(3-4), 435-452.
- Skrobanek, J. (2009). Perceived discrimination, ethnic identity and the (re)ethnicisation of youth with a Turkish ethnic background in Germany. *Journal of Ethnic & Migration Studies*, 35(4), 535-554.
- Slobin, D. (1977). Language change in childhood and in history. In J. Macnamara (Ed.), *Language Learning and Thought* (pp. 185-214). London: Academic Press.
- Slobin, D. (1986). The acquisition and use of relative clauses in Turkic and Indo-European languages. In D.I. Slobin & K. Zimmer (Eds.), *Studies in Turkish Linguistics* (pp. 273-294). Amsterdam: John Benjamins.
- Smets, P. & Kreuk, N. (2008). Together or separate in the neighbourhood? Contacts between natives and Turks in Amsterdam. *The Open Urban Studies Journal*, 1, 35-47.
- Snel, E., de Boom, J. & Engbersen, G. (2004). Migration and migration policies in the Netherlands, Dutch SOPEMI Report 2003, Rotterdam Institute of Social Policy Research (Risbo): Erasmus University Rotterdam.
- Sniderman, P. M, Hagendoorn, L. & Markus, P. (2004). Predisposing factors and situational triggers. Exclusionary reactions to immigrant minorities. *American Political Science Review*, 98(1), 35-49.
- Sniderman, P. M. & Hagendoorn, L. (2007). *When ways of life collide. Multiculturalism and its discontents in the Netherlands*. New Jersey: Princeton University Press.
- Snodgrass, J. G. & Vanderwart, M. (1980). A standardized set of 260 pictures: norms for name agreement, image agreement, familiarity and visual complexity. *Journal of Experimental Psychology: Human Learning & Memory* 6(2), 174-215.
- Soesman, A. (1997). An experimental study on native language attrition in Dutch adult immigrants in Israel. In J. Klatter-Folmer & S. Kroon (Eds.), *Dutch overseas: Studies in maintenance and loss of Dutch as an immigrant language* (pp. 181-194). Tilburg: Tilburg University Press.
- Stevens, G. (1992). The social and demographic context of language use in the United States. *American Sociological Review* 57(2), 171-185.
- Stevens, G. (1999). Age at immigration and second language proficiency among foreign-born adults. *Language in Society*, 28, 555–578.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. M. Gass & C. Madden (Eds.), *Input in Second Language Acquisition* (pp. 235-253). Rowley, MA: Newbury House.
- Tekinay, A. (1982). Deutsche Einflüsse im Türkischen von Arbeitsmigranten. *Deutsch Lernen*, 3, 72-79.

- Tesser, P.T.M., van Dugteren, F.A. & Merens, A. (1996). *Report on minorities 1996: population, employment, education, housing*. Rijswijk: SCP.
- Thomason, S.G. (2001). *Language Contact: An Introduction*. Edinburgh & Washington, DC: Edinburgh University Press & Georgetown University Press.
- Tolsma, J., Lubbers, M., & Gijsberts, M. (2012). Education and cultural integration among ethnic minorities and natives in The Netherlands: a test of the integration paradox. *Journal of Ethnic & Migration Studies* 38, 793–813.
- Tomić, M.O. (1992). Minority Language Maintenance and Learning as Instruments for Improving the Status of the Minority Group. In F. Willem, K. Jaspaert & S. Kroon (Eds.), *Maintenance and Loss of Minority Languages* (pp. 385-392). Amsterdam: John Benjamins.
- Treffers-Daller, J., Özsoy, A.S. & van Hout, R. (2007). (In)Complete acquisition of Turkish among Turkish-German Bilinguals in Germany and Turkey: An analysis of complex embeddings in narratives. *The International Journal of Bilingual Education & Bilingualism*, 10(3), 248-276.
- Tsimpli, I.M. (2007). First language attrition from a minimalist perspective: Interface vulnerability and processing effects. In B. Köpcke, M. S. Schmid, M. Keijzer & S. Dostert (Eds.), *Language attrition. Theoretical perspectives* (pp. 83-98). Amsterdam: John Benjamins.
- Tsimpli, I., Sorace, A., Heycock, C. & Filiaci, F. (2004). First language attrition and syntactic subjects: A study of Greek and Italian near-native speakers of English. *International Journal of Bilingualism*, 8(3), 257-277.
- Türker, E. (2000). *Turkish-Norwegian code-switching. Evidence from intermediate and second generation Turkish immigrants in Norway*. Doctoral dissertation, University of Oslo.
- Uunk, W. (2003). The cultural integration of immigrants in the Netherlands: A description and explanation of modern attitudes of Turks, Moroccans, Surinamese, Antilleans and the indigenous population. In L. Hagendoorn, J. Veenman & W. Vollebergh (Eds.), *Integrating Immigrants in the Netherlands: Cultural versus Socio-Economic Integration* (pp. 199–233). England: Ashgate.
- Vago, R.M. (1991). Paradigmatic regularity in first language attrition. In H. W. Seliger & R. M. Vago (Eds.), *First Language Attrition* (pp.241-252). Cambridge: Cambridge University Press.
- van den Broek, A. & Keuzenkamp, S. (Eds) (2009). *The daily life of urban ethnic minorities. Summaries of 16 SCP research projects in 2008*. The Hague: SCP.
- van Hal, T., Plempers, E. & Steenbergen, M. (2002). Combating social exclusion by voluntary work. Country report of the Netherlands. European voluntary action for an inclusive society. Volonteuropa 11th Workshop on Volunteer Action, October 2002, Lisbon.
- van Hell, J. G. & Dijkstra, T. (2002). Foreign language knowledge can influence native language performance in exclusively native contexts. *Psychonomic Bulletin & Review*, 9(4), 780-789.
- van Tubergen, F. & Kalmijn, M. (2005). Destination-language proficiency in cross-national perspective: A study of immigrant groups in nine western countries. *American Journal of Sociology*, 110(5), 1412-1457.
- van Tubergen, F. & Kalmijn, M. (2009). Language proficiency and usage among immigrants in the Netherlands: Incentives or opportunities? *European Sociological Review*, 25(2), 169-82.

- van Tubergen, F. (2010). Determinants of second language proficiency among refugees in the Netherlands. *Social Forces*, 89(2), 515-534.
- van Tubergen F. & Wierenga, M. (2011). Language acquisition of male immigrants in a multilingual destination: Turks and Moroccans in Belgium. *Journal of Ethnic & Migration Studies*, 37(7), 1039-1057.
- Varga, Z. (2012). *First Language Attrition and Maintenance among Hungarian Speakers in Denmark*. Doctoral dissertation, Aarhus Universitet.
- Ventureyra, V. & Pallier, C. (2004). In search of the lost language: The case of adopted Koreans in France. In M. S. Schmid, B. Köpcke, M. Keijzer & L. Weilemar (Eds.), *First Language Attrition: Interdisciplinary Perspectives on Methodological Issues* (pp. 207-221). Amsterdam: John Benjamins.
- Verkuyten, M. (2007). Religious group identification and inter-religious relations: A study among Turkish-Dutch Muslims. *Group Processes and Intergroup Relations*, 10(3), 341-357.
- Verkuyten, M. & Yıldız, A.A. (2007). National (dis)identification and ethnic and religious identity: A study among Turkish-Dutch Muslims. *Personality & Social Psychology Bulletin*, 33(10), 1448-1462.
- Vermeulen, H. & Pennix, R. (2000). Introduction. In H. Vermeulen & R. Pennix (Eds.), *Immigrant Integration: The Dutch Case* (pp. 1-35). Amsterdam: Het Spinhuis.
- Vertovec, S. (2006). The Emergence of super-diversity in Britain, ESRC Centre on Migration, *Policy and Society*, Working Paper No. 25, University of Oxford.
- Vervoort, M., Flap, H. & Dagevos, J. (2010). The ethnic composition of the neighbourhood and ethnic minorities' social contacts: Three unresolved issues. *European Sociological Review*, 27(5), 586-605.
- Vink, M.P. (2007). Dutch 'Multiculturalism' beyond the pillarisation myth. *Political Studies Review*, 5, 337-350.
- Waas, M. (1996). *Language Attrition Downunder*. Frankfurt: Peter Lang.
- Wright, S. & Kurtoglu-Hooton, N. (2006). Language maintenance: the case of a Turkish-speaking community in Birmingham. *International Journal of the Sociology of Language*, 181, 43-56.
- Yağmur, K. (1997). *First Language Attrition among Turkish Speakers in Sydney*. Tilburg: Tilburg University Press.
- Yağmur, K. (2004). Language maintenance patterns of Turkish immigrant communities in Australia and Western Europe: the impact of majority attitudes on ethnolinguistic vitality perceptions. *International Journal of the Sociology of Language*, 165, 121-142.
- Yağmur, K. de Bot, K. & Korzilius, H. (1999). Language attrition, language shift and ethnolinguistic vitality of Turkish in Australia. *Journal of Multilingual & Multicultural Development*, 20(1), 51-69.
- Yağmur K. & Akıncı, M.A. (2003). Language use, choice, maintenance, and ethnolinguistic vitality of Turkish speakers in France: Intergenerational differences. *International Journal of Sociology of Language*, 164, 107-128.
- Yılmaz, G., de Bot, K. & Schmid, M.S. (2009). Multilingualism and attrition: Moroccan and Turkish immigrants in the Netherlands. In A. Backus, M. Keijzer, I. Bedder & B. Weltens (Eds.), *Anéla Conferentie Artikelen* (pp. 183-191). Delft: Eburon.

- Yılmaz, G. (2011). Complex embeddings in free speech production among late Turkish-Dutch bilinguals. *Language, Interaction and Acquisition*, 2(2). 251-275.
- Yılmaz, G. & Schmid, M. S. (2012). L1 accessibility among Turkish-Dutch bilinguals. *Mental Lexicon* 7(3). 249–274.
- Yılmaz, G. & Monika S. S. (submitted). Second language development in a migrant context: First generation Turks in the Netherlands. *International Journal of Sociology of Language*.
- Zorlu, A. & Latten, J. (2007). Ethnic sorting in the Netherlands. *IZA Discussion Paper* No. 3155. Available at SSRN: <http://ssrn.com/abstract=1033375>
- Zorlu, A. (2011). Immigrant participation in welfare benefits in the Netherlands. *IZA Discussion Paper* No. 6128, Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor.

Appendix 1

Sociolinguistic Questionnaire

Date:.....

Place:.....

Name:.....

1) When were you born? 19.....

2) Gender male, female

3) Where were you born? Place.....Region.....

Country:.....

Birthplace of mother and father.....Country:.....

4) What is your nationality? TR, TR & NL, NL

5) What is the highest level of education you have completed?

primary school, secondary school level, higher education, namely:.....

no vocational training, apprenticeship, university, namely:.....

6) When did you come to the Netherlands (year)? 19.....

7) Why did you emigrate and why to the Netherlands in particular?

job, job of partner, partner, other, :.....

8) Apart from the Netherlands, have you ever lived in a country other than Turkey for a longer

period of time (that is, more than 6 months)? none, less than 1 year, 1 year

or more, (Place).....in (Country)

9) What language(s) did you acquire before starting school (in your family, from your parents)?

Turkish, Turkish and other....., other:.....

10) Did you attend Dutch Language courses in the Netherlands or before coming to the Netherlands? yes no
less than 1 month, less than 3 months, less than 6 months, less than 1 year,
more than 1 year

11) What language or languages did you learn professionally or at school?

.....

12) What language or languages did you learn outside of an educational environment (so outside of school or work)?

.....

13) Which other languages do you speak and at what level? How and where did you learn them?

Please rate your proficiency across four skills (Reading-R, Writing-W, Speaking-S, Listening-L)

Language A,..... 1 = very bad, 2 = bad, 3 = average, 4 = good, 5 = very good

R: W: S: L:.....How and where

Language B,..... 1 = very bad, 2 = bad, 3 = average, 4 = good, 5 = very good

R: W: S: L:.....How and where.....

Language C,..... 1 = very bad, 2 = bad, 3 = average, 4 = good, 5 = very good

R: W: S: L:.....How and where.....

14) a) Have you ever been back to Turkey since leaving for the Netherlands?

1=once in 10 years or never, 2=once every 5-10 years, 3=once every 3-5 years, 4=every 2 years,
5= 1-2 every year

b) How long did you stay each time you went there?

1=less than 2 weeks, 2=2-4 weeks, 3=4-6 weeks, 4=6 weeks-3 months, 5=more than 3 months

15) Do you ever go to mosque in the Netherlands?

1 = never, sometimes, regularly

16) If you have indicated you go to mosque, could you please indicate in which language the services are held? TR, NL, TR & NL, other.....

17) In general, how would you rate your Dutch language proficiency before you moved to the Netherlands? very bad, bad, sufficient, good, very good

18) In general, how would you rate your Dutch language proficiency at present?

very bad, bad, sufficient, good, very good

19) In general, how would you rate your Turkish language proficiency before you moved to the Netherlands? very bad, bad, sufficient, good, very good

20) In general, how would you rate your Turkish language proficiency at present?

very bad, bad, sufficient, good, very good

21) How often do you speak Turkish? rarely, a few times a year, monthly, weekly, daily

22) Do you consider it important to maintain your Turkish?

unimportant, relatively unimportant, not very important, important, very important

23) Do you consider it important that your children can speak and understand Turkish?

unimportant, relatively unimportant, not very important, important, very important

24) In general, do you have more Turkish or Dutch friends in the Netherlands?

only Dutch, more Dutch, equal, more Turkish, only Turkish

25) Do you feel more at home with Turkish or with Dutch culture?

only Dutch, more Dutch, equal, more Turkish, only Turkish

26) Do you feel more comfortable speaking Turkish or Dutch?

Dutch, Turkish, no difference

27) What is your current marital status?

married, divorced, widowed, with partner, single

28) With what language(s) was your (ex)partner brought up? TR, NL, other

29) If your (ex)partner was not born in the Netherlands, what were the reasons that he or she came to the Netherlands? job, job of partner, partner, other:.....

30) When you first came to the Netherlands what was the language you mostly used when talking to your (ex)partner?

only Dutch, more Dutch, equal, more Turkish, only Turkish, other or n.a.

31) What language(s) do you mostly use with your (ex)partner now?

32) If the language(s) differ in item 30 and 31, when did this change?

33) Do you have children? no, yes, number:

their names are

..... and they are.....years old and they

were raised in(country, city)

34) What language or languages do you mostly use when talking to your children?

only Dutch, more Dutch, equal, more Turkish, only Turkish, other:.....

35) What language or languages do your children mostly use when talking to you?

only Dutch, more Dutch, equal, more Turkish, only Turkish, other:.....

36) Do you have grandchildren? no, yes, number:

their names are
..... and they are.....years old.

37) What language or languages do you mostly use when talking to your grandchildren?

only Dutch, more Dutch, equal, more Turkish, only Turkish, other:....

38) What language or languages do your grandchildren mostly use when talking to you?

only Dutch, more Dutch, equal, more Turkish, only Turkish, other:.....

39) Do you encourage your children to speak Turkish? never, sometimes, often

40) Did your children ever follow Turkish heritage classes (Saturday classes for example)?

yes, no

41) Did /do you ever correct your children's Turkish?

never, seldom, sometimes, often, very often

42) If your children do not speak or understand Turkish, do you regret that?

not at all, no, don't care, a bit, very, n.a.

43) Are you in frequent contact with relatives and friends in Turkey?

never, seldom, sometimes, often, very often

44) Have you made many new friends in the Netherlands?

1 = none, 2 = few, 3 = some, 4 =many, 5 = very many

45) What is the mother tongue of the majority of these people? NL, TR, equal, other:....

46) Could you, in the following tables, please indicate to what extent you use Turkish (table 1)

and Dutch (table 2) in the domains provided? You may simply tick the box.

Table 1

I speak Turkish					
	all the time	frequently	sometimes	rarely	very rarely
With relatives a)parents b)uncle, aunt etc. c)children					
With friends					
At work					
In mosque					
In shops					
At clubs or organisations					

Table 2

I speak Dutch					
	all the time	frequently	sometimes	rarely	very rarely
With relatives a)parents b)uncle, aunt etc. c)children					
With friends					
At work					
In mosque					
In shops					
At clubs or organisations					

47) Do you ever get homesick in the sense of missing the Netherlands? no

yes, what I then miss most is/are

48) Do you ever listen to Turkish songs?

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always

49) Do you ever listen to Turkish radio programs?

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always

50) Do you ever read Turkish newspapers, books or magazines?

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always

51) Do you ever watch Turkish television programs?

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always

52) If you have indicated that you never listen to Turkish songs or radio programs, and that you don't watch Turkish television programs, could you indicate why you think that is?

.....

53) Do you think your Turkish language proficiency has changed since you moved to the

Netherlands? 1= it became a lot worse, 2 = it became worse, 3 = it did not change, 4 = it

became better, 5 = it became a lot better

54) Do you think you use more or less Turkish since you moved to the Netherlands?

yes, less, no, yes, more

55) To what extent do you feel uncomfortable when speaking Turkish with a Turkish person

who has never spent a considerable amount of time in a Dutch-speaking country?

1 = very uncomfortable, 2 = uncomfortable, 3 = neutral, 4 = comfortable, 5 = very

uncomfortable

56) If you ever do feel uncomfortable in such a situation, could you indicate whether this is also the case when you speak Turkish with someone who, like you, has lived in the Netherlands for a long time? yes, no

57) Do you see yourself as bilingual? How proficient are you at both languages?

Dutch 1 = very bad, 2 = bad, 3 = average, 4 = good, 5 = very good

Turkish 1 = very bad, 2 = bad, 3 = average, 4 = good, 5 = very good

58) Do you ever intend to move back to Turkey?

1= definitely not, 2 = no, 3 = not sure, 4 = yes, 5 = definitely yes

59) Reason.....
.....

60) Looking back, do you think you have made the right decision in moving to the Netherlands?

1 = definitely yes, 2 = yes, 3 = not sure, 4 = no, 5 = definitely no

61)What was the language you were speaking 2 hours before our meeting (or yesterday around this time)?

62) If I were visiting a foreign country, I wish I could speak the language of that country. (1 = definitely yes, 5 = definitely no)

1 2 3 4 5

63) I think learning foreign languages is important. 1 2 3 4 5

64) I wish I could learn many foreign languages. 1 2 3 4 5

65) I like to meet people who speak different languages and listen to them. 1 2 3 4 5

66) I think learning a foreign language is a pleasant experience and fun. 1 2 3 4 5

67) You have come to the end of this questionnaire. Is there anything you would like to add?

This can be anything from language-related comments to remarks about the questionnaire or
research itself

Thank you very much for your time and cooperation!

Appendix 2

Sosyolinguistik Görüşme

Tarih:.....

Yer:.....

İsim:.....

1) Hangi tarihte doğdunuz? 19.....

2) Cinsiyet bay, bayan

3) Nerede doğdunuz? Yer..... Bölge.....

Ülke:.....

Anne ve babanızın doğum yeri:.....

Ülke:.....

4) Milliyetiniz nedir? TR, TR & HOL, HOL

5) En son bitirdiğiniz okul hangisi?

ilkokul, orta okul, yüksek okul, açıklama:

mesleki eğitim almadım, çıraklık, üniversite, açıklama

6) Hollanda'ya ne zaman geldiniz (yıl)? 19.....

7) Neden göç ettiniz ve neden özellikle Hollanda'ya geldiniz?

iş, eşinin işi, eş/evlilik, diğerse belirtin:.....

8) Hollanda'dan başka, Türkiye dışında başka bir ülkede uzun bir süre yaşadınız mı (yani, 6 aydan fazla)? hiç, 1 yıldan az, 1 yıl veya daha çok

(Yer)..... (Ülke)

9) Okula başlamadan önce hangi dilleri öğrendiniz?

Türkçe, Türkçe ve diğ. diğerse belirtin:.....,

10) Hollanda'ya gelmeden önce veya Hollanda'da Hollandaca dil kurslarına gittiniz mi?

1aydan az, 3 aydan az, 6 aydan az , 1 yıldan az, 1 yıldan fazla

11) Okulda veya profesyonel olarak öğrendiğiniz hangi diller var?

.....

12) Eğitim ortamı dışında öğrendiğiniz hangi diller var(yani okul ve iş dışında)

13) Hangi dilleri hangi seviyede biliyorsunuz? Okuma:O Yazma:Y Konuşma:K Dinleme:D

Dil A,..... 1 = çok kötü, 2 = kötü, 3 = orta, 4 = iyi, 5 = çok iyi

O: Y: K: D: Nasıl ve nerede öğrendiniz?.....

Dil B,..... 1 = çok kötü, 2 = kötü, 3 = orta, 4 = iyi, 5 = çok iyi

O: Y: K: D: Nasıl ve nerede öğrendiniz?.....

Dil C,..... 1 = çok kötü, 2 = kötü, 3 = orta, 4 = iyi, 5 = çok iyi

O: Y: K: D: Nasıl ve nerede öğrendiniz?.....

14) a. Hollanda'ya geldiğinizden beri Türkiye'ye hiç gittiniz mi ve?

1 = hiç veya 10 yılda bir, 2 = 5-10 yılda bir, 3 = 3-5 yılda bir, 4 = her 2 yılda bir,

5 = yılda bir iki defa

b. Her gidişinizde ne kadar kaldınız?

1 = 2 haftadan az, 2 = 2-4 hafta, 3 = 4-6 hafta, 4 = 6 hafta ile 3 ay arasında, 5 = 3 aydan fazla

15) Hollanda'da camiye gider misiniz? 1 = hiç, bazen, düzenli olarak -46 tabloyla beraber.

16) Eğer camiye gidiyorsanız, camideki hizmetlerin/servislerin hangi dilde verildiğini belirtir misiniz? TR, HOL, TR & HOL, diğerse belirtin

17) Hollanda'ya gelmeden önce, genel olarak Hollandacanız sizce nasıldı?

çok kötü, kötü, yeterli, iyi, çok iyi

18) Sizce şu anda genel olarak Hollandacanız nasıl ?

çok kötü, kötü, yeterli, iyi, çok iyi

19) Hollanda'ya gelmeden önce genel olarak Türkçeniz nasıldı?

çok kötü, kötü, yeterli, iyi, çok iyi

20) Şu anda, genel olarak sizce Türkçeniz nasıl?

çok kötü, kötü, yeterli, iyi, çok iyi

21) Ne sıklıkta Türkçe konuşuyorsunuz?

nadiren, yılda birkaç kez, aylık bazda, haftalık bazda, gündelik bazda

22) Türkçenizi unutmamak, dilinizi korumak sizin için önemli mi?

önemsiz, pek önemli değil, biraz önemli, önemli, çok önemli

23) Çocuklarınızın Türkçe konuşması ve anlaması sizce önemli mi?

önemsiz, pek önemli değil, biraz önemli, önemli, çok önemli

24) Genel olarak daha çok Türk mü Hollandalı mı arkadaşlarınız var Hollanda'da?

sadece Hollandalı, daha çok Hollandalı, eşit, daha çok Türk sadece Türk

25) Türk kültürünü mü yoksa Hollanda kültürünü mü kendinize yakın hissediyorsunuz? (Nerede kendinizi daha çok evinizde hissediyorsunuz?)

sadece Hollanda kültürü, daha çok Hollanda kültürü, eşit, daha çok Türk kültürü, sadece Türk kültürü

26) Türkçe mi Hollandaca mı konuşurken kendinizi daha rahat hissediyorsunuz?

Türkçe, Hollandaca, fark yok

27) Şu andaki medeni durumunuz ne?

evli, boşanmış, dul, partneri var, bekar

28) Şu andaki eşiniz (veya eski eşiniz) hangi dil ile büyütüldü? (çocukken ailesinden öğrendiği ve konuştuğu dil)?

TR, HOL, diğerse belirtin:.....

29) Eđer (eski) eşiniz Hollanda’da doğmadıysa, hangi sebeplerden dolayı Hollanda’ya geldi?

iş, eşinin iş,i eş/partner, diğerse belirtin:.....

.....

30) Hollanda’ya ilk geldiğinizde (eski) eşinizle en çok konuştuğunuz dil hangisiydi?

sadece Hollandaca, daha çok Hollandaca, eşit, daha çok Türkçe, sadece Türkçe,

diğerse belirtin:.....

31) Şu anda (eski) eşinizle konuşurken en çok hangi dili kullanıyorsunuz?.....

32) 30. ve 31. sorulardaki diller farklı ise bunun ne zaman değıştığını belirtiniz.....

33) Çocuğunuz var mı? hayır, evet, sayısı:

ve isimleri:

..... ve yaşları.....ve büyüdüğü yer

..... (ülke, şehir)

34) Çocuklarınızla konuşurken en çok hangi dili(dilleri) kullanıyorsunuz?

sadece Hollandaca, daha çok Hollandaca, eşit, daha çok Türkçe, sadece Türkçe, diğerse belirtin.....

35) Çocuklarınız sizinle konuşurken en çok hangi dili (dilleri) kullanıyor?

sadece Hollandaca, daha çok Hollandaca, eşit, daha çok Türkçe, sadece Türkçe,

diğerse belirtin.....

36) Torunlarınız var mı? hayır, evet, sayısı:

ve isimleri

..... ve yaşları.....

37) Torunlarınızla konuşurken en çok hangi dili (dilleri) kullanıyorsunuz?

- sadece Hollandaca, daha çok Hollandaca, eşit, daha çok Türkçe, sadece Türkçe,
 diğerse belirtin.....

38) Torunlarınız sizinle konuşurken en çok hangi dili (dilleri) kullanıyor?

- sadece Hollandaca, daha çok Hollandaca, eşit, daha çok Türkçe, sadece Türkçe,
 diğerse belirtin.....

39) Çocuklarınızın Türkçe konuşması için onları teşvik ediyor musunuz? hiçbir zaman, bazen, sık sık

40) Çocuklarınız herhangi bir Türkçe dil kursuna/okuluna evam etti mi? (Cumartesi okulu gibi mesela) evet, hayır

41) Çocuklarınızın Türkçesini hiç düzelttiniz mi, düzeltir misiniz? hiçbir zaman, nadiren, bazen, sık sık, çok sık

42) Eğer çocuklarımız Türkçe konuşmazsa veya anlamazsa buna üzülür ve bundan pişmanlık duyar mısınız?

- hiç de değil, hayır, benim için farketmez, biraz, çok, n.a.

43) Türkiye'deki akraba ve arkadaşlarınızla sık sık kontak kurar mısınız?

- hiçbir zaman, nadiren, bazen, sık sık, çok sık

44) Hollanda'da pekçok yeni insanla arkadaş oldunuz mu?

1 = hiç, 2 = az, 3 = biraz, 4 =çok, 5 = pek çok

45) Bu insanların çoğunun ana dili nedir? HOL, TR, eşit, diğerse belirtin.....

46) Lütfen aşağıdaki tablolarda Türkçe'yi ve Hollandaca'yi verilen ortamlarda ne sıklıkta kullandığınızı belirtiniz.

Türkçeyi konuşma sıklığı					
	her zaman	sık	bazen	nadiren	çok nadiren
Anne babayla Amca dayı, teyze vs. gibi akrabalarla					
Arkadaşlarla					
İşyerinde					
Camide					
Dükkanlarda					
Klüplerde ve Organizasyonlarda Kurslarda					

Hollandacayı konuşma sıklığı					
	her zaman	sık	bazen	nadiren	çok nadiren
Anne babayla Amca dayı, teyze vs. gibi akrabalarla					
Arkadaşlarla					
İşyerinde					
Camide					
Dükkanlarda					
Klüplerde ve Organizasyonlarda Kurslarda					

47) Türkiye'yi evinizi, akraba ve arkadaşlarınızı, köyünüzü vb. aşırı derecede özleyiyor musunuz? hayır,

evet, en çok özlediğim şeyler

48) Hiç Türkçe şarkılar dinliyor musunuz?

1 =hiçbir zaman, 2 = nadiren, 3 = bazen, 4 = sık sık, 5 = her zaman

49) Hiç Türkçe radyo programları dinliyor musunuz ?

1 =hiçbir zaman, 2 = nadiren, 3 = bazen, 4 = sık sık, 5 = her zaman

50) Hiç Türkçe gazete, dergi ve kitap okur musunuz?

1 =hiçbir zaman, 2 = nadiren, 3 = bazen, 4 = sık sık, 5 = her zaman

51) Türk televizyon programlarını izliyor musunuz?

1 =hiçbir zaman, 2 = nadiren, 3 = bazen, 4 = sık sık, 5 = her zaman

52) Eğer Türkçe radyo, televizyon programlarını takip etmiyorsanız, müzik dinlemiyorsanız ve gazette dergi okumuyorsanız sizce bunun sebebi nedir?

.....

53) Hollanda'ya geldiğinizden beri sizce Türkçenizde bir değişim oldu mu? Neden? 1= çok kötüleşti, 2 = kötüleşti, 3 = değişmedi, 4 = daha iyi oldu, 5 = çok daha iyi oldu

54) Hollanda'ya geldiğinizden beri sizce daha çok mu yoksa daha az mı Türkçe kullanıyorsunuz? Neden? evet daha az, değişmedi, evet daha çok

55) Hollandaca konuşulan bir ülkede pek vakit geçirmemiş bir Türk ile konuşurken kendinizi ne derece rahatsız hissediyorsunuz?

1 = çok rahatsız, 2 = rahatsız, 3 = nötr, 4 = rahat, 5 = çok rahat

56) Eğer böyle bir durumda rahatsız hissediyorsanız, acaba bu rahatsızlık sizin gibi Hollanda'da uzun süre yaşamış bir Türk ile konuşurken de söz konusu mu sizin için?

evet, hayır

57) Kendinizi iki dilli olarak görüyor musunuz ? Her iki dildeki seviyenizi belirtiniz?

Hollandaca 1 = çok kötü, 2 = kötü, 3 = yeterli, 4 = iyi, 5 = çok iyi

Türkçe 1 = çok kötü, 2 = kötü, 3 = yeterli, 4 = iyi, 5 = çok iyi

58) Hiç ilerde bir gün Türkiye'ye geri dönmeye niyetiniz var mı?

1= kesinlikle hayır, 2 = hayır, 3 = emin değilim, 4 = evet, 5 = kesinlikle evet

59) Sebep.....

60) Geriye dönüp bakarsanız, Hollanda'ya gelmekle doğru karar verdiğinizi düşünüyor musunuz?

1 = kesinlikle evet, 2 = evet, 3 = emin değilim, 4 = hayır, 5 = kesinlikle hayır

61) Bu görüşmeden 2 saat önce veya dün bu saatlerde hangi dilde konuşuyordunuz?

62) Eğer yabancı bir ülkeyi ziyaret ediyorsa o ülkenin dilini konuşabilmeyi isterdim.

1 2 3 4 5

(1=kesinlikle hayır, 5=kesinlikle evet)

63) Yabancı dil öğrenmek önemli diye düşünüyorum. 1 2 3 4 5

64) Gerçekten pek çok yabancı dil öğrenmek isterdim. 1 2 3 4 5

65) Başka dilleri konuşan insanlarla tanışıp onları dinlemeyi severim. 1 2 3 4 5

66) Başka bir dil öğrenmenin hoş ve eğlenceli bir tecrübe olduğunu düşünüyorum. 1 2 3 4 5

67) Bu görüşmenin sonuna geldik. Eklemek istediğiniz başka ne gibi birşey var? Bu, dil konusunda yorumlarınız veya araştırma ve bu görüşme hakkında herşeyle ilgili bir yorum olabilir.

.....

Zaman ayırdığınız için ve projeye değerli katkılarınızdan dolayı çok teşekkür ederim!

Appendix 3

The list of pictures used in the picture naming task in Turkish

Picture No.	Picture	Turkish translation	Familiarity level
1	glass	bardak	3
2	pen	kalem	3
3	sock	çorap	3
4	ear	kulak	3
5	chair	sandalye	3
6	traffic light	trafik ışıkları	3
7	table	masa	3
8	dog	köpek	3
9	fork	çatal	3
10	toothbrush	diş fırçası	3
11	spoon	kaşık	3
12	tree	ağaç	3
13	knife	bıçak	3
14	arm	kol	3
15	cup	fincan	3
16	watermelon	karpuz	2
17	snake	yılan	1
18	pumpkin	balkabağı	2
19	ostrich	tavuskuşu	1
20	lock	kilit	2
21	windmill	yel değirmeni	1
22	beetle	böcek	1
23	strawberry	çilek	2
24	fish	balık	2
25	cannon	top, bombardıman silahı	1
26	onion	soğan	2
27	swan	kuğu	1
28	ladder	merdiven	2
29	lion	aslan	1
30	hanger	askı	3
31	peacock	devekuşu	1
32	boot	bot	2
33	tiger	kaplan	1
34	glove	eldiven	2
35	needle	iğne	2
36	pig	domuz	1
37	screwdriver	tornavida	2

38	owl	baykuş	1
39	hammer	çekiç	2
40	rooster	horoz	1
41	vest	yelek	2
42	axe	balta	1
43	turtle	kaplumbağa	1
44	stove	fırın, ocak	3
45	elephant	fil	1
46	pitcher	ibrik, su kabı	2
47	horse	at	2
48	ashtray	küllük, kültabağı	2
49	cow	inek	1
50	finger	parmak	3
51	bird	kuş	2
52	key	anahtar	3
53	skirt	etek	2
54	frog	kurbağa	1
55	iron	ütü	2
56	grasshopper	çekirge	1
57	thimble	yüksük	1
58	sun	güneş	3
59	bottle	şişe	2
60	monkey	maymun	1
61	umbrella	şemsiye	3
62	butterfly	kelebek	2
63	moon	ay	3
64	ant	karınca	1
65	saw	testere	2
66	mountain	dağ	1
67	glasses	gözlük	3
68	fence	çit	2
69	baby carriage	bebek arabası	1
70	garbage can	çöp kutusu	3
71	bicycle	bisiklet	2
72	paintbrush	suluboya fırçası	1
73	frying pan	tava	3
74	tie	kravat	2
75	sled	kızak	1
76	saltshaker	tuzluk	3
77	coat	palto, kaban	2
78	flag	bayrak	1

Appendix 4

The list of pictures used in the picture naming task in Dutch

Picture No.	Picture	Dutch translation	Familiarity level
1	glass	glas	3
2	pen	pen	3
3	sock	sok	3
4	ear	oor	3
5	chair	stoel	3
6	traffic light	stoplicht	3
7	table	tafel	3
8	dog	hond	3
9	fork	vork	3
10	toothbrush	tandenborstel	3
11	spoon	lepel	3
12	tree	boom	3
13	knife	mes	3
14	arm	arm	3
15	cup	kopje	3
16	watermelon	watermeloen	2
17	snake	slang	1
18	pumpkin	pompoen	2
19	ostrich	struisvogel	1
20	lock	slot	2
21	windmill	molen	1
22	beetle	kever	1
23	strawberry	aardbei	2
24	fish	vis	2
25	cannon	kanon	1
26	onion	ui	2
27	swan	zwaan	1
28	ladder	trap	2
29	lion	leeuw	1
30	hanger	(kleren)hanger	3
31	peacock	pauw	1
32	boot	laars	2
33	tiger	tijger	1
34	glove	handschoen	2
35	needle	naald	2
36	pig	varken	1
37	screwdriver	schroevendraaier	2

38	owl	uil	1
39	hammer	hamer	2
40	rooster	haan	1
41	vest	vest/gillet/hesje	2
42	axe	bijl	1
43	turtle	schildpad	1
44	stove	oven/gasfornuis	3
45	elephant	olifant	1
46	pitcher	kan	2
47	horse	paard	2
48	ashtray	asbak	2
49	cow	koe	1
50	finger	vinger	3
51	bird	vogel	2
52	key	sleutel	3
53	skirt	rok	2
54	frog	kikker	1
55	iron	strijkijzer	2
56	grasshopper	sprinkhaan	1
57	thimble	vingerhoed	1
58	sun	zon	3
59	bottle	fles	2
60	monkey	aap	1
61	umbrella	paraplu	3
62	butterfly	vlinder	2
63	moon	maan	3
64	ant	mier	1
65	saw	zaag	2
66	mountain	berg	1
67	glasses	bril	3
68	fence	hek	2
69	baby carriage	kinderwagen	1
70	garbage can	vuilnisbak	3
71	bicycle	fiets	2
72	paintbrush	penseel/kwast	1
73	frying pan	(koeken)pan	3
74	tie	(strop)das	2
75	sled	slee	1
76	saltshaker	zoutvaatje	3
77	coat	jas	2
78	flag	vlag	1

Appendix 5

The list of picture-sound pairs used in the picture matching task

Picture No.	Picture	Sound	English translation	Familiarity level
31	deer	hert	deer	3
32	broom	schakelaar	lightswitch	2
33	shirt	overhemd	shirt	1
34	rolling pin	zeehond	seal	3
36	potato	kruk	stool	2
35	watch	zaag	saw	1
38	wheel	wiel	wheel	3
37	ring	ring	ring	2
39	shoe	schoen	shoe	1
40	spider	wijn glas	wineglass	3
41	corn	garen	spool or thread	2
42	leg	schroef	screw	1
43	house	spinnen wiel	spinning wheel	1
44	carrot	wortel	carrot	2
45	refrigerator	koelkast	refrigerator	1
3	well	put	well	3
5	fly	pet	cap	2
6	crown	kroon	crown	3
1	cat	kat	cat	1
2	candle	kars	candle	2
4	leaf	ezel	donkey	1
8	anchor	clown	clown	3
9	hat	hoed	hat	2
7	clock	klok	clock	1
10	snail	trommel	drum	3
12	ball	bal	ball	2
11	bread	brood	bread	1
15	top	tol	top	3
13	lemon	haar	hair	2
14	pencil	potlood	pencil	1
60	eye	oog	eye	1
59	suitcase	strik	bow	2
58	wagon	stinkdier	skunk	3
57	hand	platen speler	record player	1
56	grapes	boterham	sandwich	2
55	kite	vlieger	kite	3
54	foot	voet	foot	1

53	dress	jurk	dress	2
51	whistle	teen	toe	3
52	book	wasbeer	racoon	1
49	eagle	schommel	swing	3
50	ruler	liniaal	ruler	2
48	bed	bed	bed	1
47	pear	nailfile	nailfile	2
46	chicken	moer	nut	3
30	pants	broek	pants	1
29	pliers	tang	pliers	2
28	basket	mand	basket	3
27	nose	rolschaats	rollerskate	1
25	cherry	kers	cherry	2
26	asparagus	asperge	asparagus	3
24	comb	zeepaardje	seahorse	1
22	star	borstel	brush	2
23	barrel	ton	barrel	3
19	lips	wolk	cloud	1
20	orange	want	mitten	2
21	bear	beer	bear	3
16	sweater	kreeft	lobster	1
18	fox	sla	lettuce	3
17	nail	spijker	nail	2
63	rabbit	konijn	rabbit	1
62	flower	schommel stoel	rocking chair	1
61	peach	pijl	arrow	3
65	button	selderij	celery	2
66	apple	deurknop	door knob	1
64	chain	envelop	envelope	3
69	scissors	schaar	scissors	2
68	kettle	ketel	kettle	2
67	clothespin	knijper	clothespin	3
72	truck	helm	helmet	1
71	watering can	gieter	watering can	3
70	airplane	vliegtuig	airplane	2
75	belt	rups	caterpillar	1
74	peanut	pinda	peanut	3
73	necklace	artisjok	artichoke	3
78	bowl	kom	bowl	1
77	doll	strijkplank	ironingboard	3
76	bee	honkball knuppel	baseball bat	3

Appendix 6

Participant Consent Form



University of Groningen

___/___/2010

Participant Consent Form

Research Project Title: Language, Multilingualism and Integration

Researcher: Gülsen Yılmaz

Supervisors: Prof. Dr. Monika Schmid, (m.schmid@rug.nl , Tel. 050-3632063) and Prof. Dr. Kees de Bot, (c.l.j.de.bot@rug.nl, Tel. 050-3637282).

Reason for the research: Turkish/Dutch language development among Turkish immigrants in the Netherlands.

Duration: 1 h 30 minutes

Description of the Procedure: 2 recorded sessions

- 1- Sociolinguistic interview
- 2- Picture naming/matching task

Confidentiality: Participants' identity will be held in the strictest confidentiality.

Voluntary: Your participation in this study is entirely voluntary; for which you will receive a symbolic gift of the value of 10 euros.

Authorization: I have read and fully understand the extent of the study and I voluntarily consent to participate in this study. All of my questions, if any, have been answered to my satisfaction.

signature of participant

date

signature of researcher

date

Checking this box confirms that you would like to receive a summary of the results by e-mail/mail.

E-mail: _____

Address: _____

Appendix 7
Katılımcı Bilgi Formu



University of Groningen

___/___/2010

Katılımcı Bilgi Formu

Projenin adı: Dil Gelişimi, Çok Dillilik ve Entegrasyon

Araştırmacı: Gülsen Yılmaz

Danışmanlar: Prof. Dr. Monika Schmid, (m.schmid@rug.nl , Tel. 050-3632063) and Prof. Dr. Kees de Bot, (c.l.j.de.bot@rug.nl, Tel. 050-3637282).

Araştırmanın Konusu: Hollanda’da yaşayan Türklerin Türkçe ve Hollandaca dil gelişimi.

Süre: 1 saat 30 dak.

İçerik: 2 kayıt seansı

- 1- Kişisel bilgiler ve dil kullanımı konusunda röportaj
- 2- Bilgisayarlı resim tanıma

Gizlilik: Katılımcıların kimliği ve edinilen bilgileri gizli tutulacaktır.

Gönüllülük: Katılımcılara €10 değerinde bir hediye verilecektir.

İzin: Çalışma hakkında bilgilendirildim ve kendi rızamla katılmayı kabul ediyorum.

Çalışmanın kısa özetinin kendinize gönderilmesini isterseniz işaretleyiniz.

E-posta: _____

Adres: _____