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Language attrition in first-generation Dutch migrants in Ontario, Canada

1. Introduction

A popular scientific Dutch magazine (*Quest* special 2008) recently addressed the following question: “if – from this moment on – I would never speak or hear Dutch again, how long would it take for me to forget it?” This is an intriguing question; can you ever lose your mother tongue? It is the language with which you grew up, the language you think, dream and count in. At the same time, it is difficult to test this question, because - although it may be possible never to speak Dutch again - growing international mobility has made it almost impossible never to hear the language again.

Nonetheless, linguists have asked themselves the same question, resulting in a growing body of research on the loss of language skills, referred to as language attrition. It is now generally accepted that language attrition research can contribute greatly to the broader field of linguistics, because it can provide a window on the mind; only when things ‘are not quite right’ are we granted a peek inside the language user’s mind (Corder, 1967). What we know from previous attrition research is that different parts of language are affected at different times: words, or vocabulary, are the first to go and areas such as the formation and inflection of words (morphology) and knowledge regarding the construction of grammatical sentences (broadly defined as syntax) are more resilient to loss (Köpke & Schmid, 2004: 1-43).

Despite these advances, the field of attrition is still characterized by more questions than answers, partly because of the multitude of factors involved. Language attrition does not occur in a vacuum; factors such as language attitude, motivation to maintain the language, but also age, educational level and gender may all play a role. The present study examines the language loss of one particular population, namely first-generation Dutch migrants in Anglophone Canada, in order to shed more light on the question of what attrition exactly is: In particular, it examines which features of linguistic knowledge disappear first and which at a later stage or never. In addition, the role that extralinguistic factors such as age and educational level play in this process is also examined.

2. Theoretical framework

2.1 Dutch migration to Canada

Dutch migration to Canada has a long history. The first settlers, mainly agricultural pioneers, found their way to Canada in the years between 1890 and 1914. From then onwards, and continuing until the present day, there has been a steady influx of Dutch emigrants to Canada. The migratory peak did not occur until the first decade following World War II, however, when as many as 170,000 émigrés tried their luck in Canada. (Klatter-Folmer & Kroon, 1997: 6).

The postwar peak was caused by an accumulation of factors, but almost all of these relate to the fact that the Netherlands had been badly hit during the war. Its land, transportation system and energy supplies were left devastated. A considerable number of young families left without housing, and farmers left without arable land, decided to move to Canada. Furthermore, the declaration of independence of the Dutch East Indies, which until 1949 had been a Dutch colony, resulted in many Dutch nationals being forced to move from Indonesia and many of them went directly to Canada (Elferink & Smits, 1997: 21-22). All these people were supported by governmental grants intended to reduce population densities in the Netherlands (*ibid.* 25-26).

The Dutch as a group were welcomed to Canada because of their relatively fast assimilation into the language and culture. Dutch immigrants have even been claimed to give up their ethnic identity, including language, faster than any other migrant group, so that the second or third generation generally does not speak Dutch any more (Schryer, 1998: 1). On the other hand, there is a considerable amount of 'silent ethnicity': many young people tend to find spouses of Dutch origin, and supermarkets in areas with many Dutch descendants typically provide Dutch specialty foods (Schryer, 1998: 2).

While Dutch émigrés scattered all over Canada, more than half of them settled in Southern Ontario, where the Dutch presence is still clearly felt today: Dutch surnames, grocery shops, societies, churches and, more recently, homes for the elderly all characterize the linguistic landscape.

2.2 *The language attrition of Dutch migrants in*

Canada: the regression hypothesis

Does the willingness to adopt the language of the new environment necessarily lead to a reduction of the first language, i.e. Dutch in this case? First of all, past research has shown that language attrition does not happen overnight: emigrants lose parts of their language only very gradually (Hansen, 1999). In addition to language loss taking place in a slow and piecemeal fashion, discrepancies between language users have also been reported: some language users seem to be much more susceptible to attrition than others. To fully understand the process of attrition, both the development of attrition (its consecutive steps or order) and the predictors that guide it need to be more thoroughly examined.

Predictions about the order of attrition have long been made, but it was not until the Russian linguist Roman Jakobson and his regression hypothesis (1941) that these predictions were formulated as testable hypotheses. The basic tenet of the regression hypothesis is that language loss is the mirror image of language acquisition. In other words, features that are acquired late in childhood also tend to be lost early. To give an example, Dutch-speaking children take relatively long to master the passive voice, particularly the passive of a certain type of verb. Verbs that require both an agent and an undergoer, also known as transitive verbs (e.g. *de moeder wast haar kind* – 'the mother washes her child'), can invariably be passivized in Dutch (*het kind wordt gewassen* – 'the child is being washed') and are therefore not usually problematic for learners. However, Dutch is rather unique in also allowing verbs that only require an agent (intransitive verbs) to be put in the passive voice. This process typically results in the Dutch *er*

(‘there’) construction: *er wordt gedanst* – ‘people are dancing over there’. However, this is only possible for verbs that have a natural endpoint (are telic) and are clearly controlled by an agent (Keijzer, 2007: 116-117). Thus, whereas *er wordt gedanst* is acceptable, the similar **er wordt gegroeid* is not. That this is tricky is evidenced by the fact that Dutch-speaking children of 5 still perform highly variably when it comes to passives and children as old as 9 still produce errors (Schaerlaekens, 1977: 176). As passives are thus clearly acquired late by Dutch-speaking children, the regression hypothesis would predict that it will also be lost relatively quickly in attrition.

In addition to the order of attrition, research has also been done in terms of the non-linguistic factors that may explain why some people lose their language faster than others, so-called predictor variables. The most important potential predictors for language attrition that have been mentioned in previous studies include age, level of education and length of residence. In terms of age, it has been found that attrition is much more profound in children who are taken to another language environment than in adults who move abroad (Köpke & Schmid, 2004: 9-10), although a critical age limit has been less well-defined. As a general rule of thumb, it can be said that the younger the child, the more attrition is likely to occur (*ibid.* 10). Furthermore, past studies have found some evidence to suggest that level of education plays a role in attrition as well; higher-educated migrants are typically better at first language maintenance than lower-educated subjects. However, the precise role of education needs to be researched more thoroughly before conclusions can be drawn (*ibid.* 10-11). Finally, it

seems plausible that the longer a person has been away from the first language environment, the more attrition he or she is likely to display, but here also, the predictive power of length of residence is not quite so straightforward. Some studies have found attrition effects after as little as five years while others did not find any effects in people who had been away for more than ten years. It has consequently been suggested that length of residence only has an effect on those subjects who hardly come into contact with their mother tongue any more (*ibid.* 11-12).

3. Methodology

3.1 Subjects

This study focuses on first-generation Dutch immigrants only, and more specifically those in the greater London area in Ontario. These subjects were contacted through Dutch organizations, such as churches, consulates and Dutch-Canadian clubs. In order to be included, subjects had to meet certain criteria. For example, they could not be language professionals (translators or language teachers). Furthermore, subjects should have been at least 15 upon emigration. Had they been younger it would have become difficult to distinguish attrition from incomplete acquisition. Finally, subjects had to have been in Canada for at least 20 years, as we know that attrition sets in only gradually. The resulting population sample was more or less evenly balanced in terms of extralinguistic variables: it consisted of 21 males and 24 females who had a mean age of 66.4 (age range 41 to 79) and who had lived in Canada for a mean number of 43.5 years (varying from 21 to 57 years). They came from all across the Netherlands and represented a variety

of educational backgrounds, ranging from primary school to university. All subjects said that they used English as a means of everyday communication. In addition, 44.4% of subjects indicated that they used Dutch on a regular basis as well (a few times a week to daily). The other 55.6% of participants said that their use of Dutch was confined to a few times a month or year.

The language use and performance of these Dutch-Canadians was compared to that of a group of subjects in the Netherlands. In some cases, these controls were siblings of the Dutch-Canadian subjects. In all cases, the control subjects were comparable to the participants in Canada in terms of age, gender, educational level and region where they had grown up (the latter to account for dialectal variance). Finally, to test the predictions made by the regression hypothesis, a third group of subjects was examined: Dutch-speaking children in their early teens (mean age 13.9). It would not be enough to test the regression hypothesis based on the literature on child Dutch, which usually stops at the age of 5 or 6. We know that language attrition is a gradual process and we also know that, unlike in children where the development of language and cognition go hand-in-hand, the emigrants in this study were not cognitively impaired. It is therefore much more likely that attriters show parallels with young teenagers who are on the brink of first language mastery.

3.2 Materials

This study examines two language areas in particular: the building blocks of words (morphology) and the construction of sentences (syntax). The first includes phenomena such as the use of *-s* in Dutch

meisje – meisje-s ('girl – girls') to indicate the difference between the singular and the plural, but also tense distinctions, as in *ik werk – ik werk-te* ('I work – I worked'). Syntax, on the other hand, includes notions such as passives, where not only the form of the verb changes, but also the word order (see 2.2 above). Another example of syntax is the typical word order in Dutch sentences, where the verb occupies the second position in main clauses (*Jan was ziek – 'Jan was ill'*), but occurs sentence-finally in subordinate clauses (*Jan kwam niet, omdat hij ziek was – 'Jan did not come, because he was ill'*). As can be seen from the English glosses, English verbs invariably follow the subject, in both main and subordinate clauses. Morphology and syntax of Dutch were selected, because they tend to show a gradual, stepwise acquisition in children, which can easily be compared to the gradual process of attrition.

All subjects were asked to complete a number of language tasks, some of which were designed to tap directly into the focus areas of morphology and syntax. For instance, subjects were given a sentence and were asked whether they thought it was well-formed or not, or they were given a word to inflect, say from the singular to the plural or from the present to the past tense. Less specifically, subjects' overall Dutch- and English- language proficiency was also tested by means of a cloze procedure. In this particular test, subjects were given five small texts in which parts of words had been deleted. They were then asked to complete the gaps. This cloze procedure, known as the C-test, gaps both content and grammatical words and can thus test both vocabulary and grammar. In other words, the test can be used to measure

overall language proficiency (see Keijzer, 2007: 163-167). To counterbalance the data obtained on the basis of the perhaps slightly artificial language tasks, participants were asked to retell part of a film, so that free speech was elicited from them. To learn more about each subject's background and language use, finally, a so-called sociolinguistic questionnaire was administered (see *ibid.* 157-181 for a full description of all these measures).

4. Results

4.1 *The amount and order of language attrition*

The overall language proficiency measure, the C-test, itself was a good indication of the subtlety of language loss that is displayed by emigrants. Table 1 presents the mean scores on the C-test. The test contained 100 items and, as can be seen, the attriters on average still correctly supplied the ending of 61.07% of the gapped items. This was lower than the mean of the control group in the Netherlands (statistically significant at $p < .001$), but higher than the mean score produced by the Dutch children still acquiring the language (significant at $p < .005$).

Despite a relative resilience to loss of Dutch, the English proficiency of the Dutch-Canadians was found to be better than their Dutch (mean score English C-test 68.16 – SD 16.08, $p < .001$). Moreover, the outcomes on the Dutch and English C-test showed a strong positive correlation ($r = .799$), which means that it was not simply a trade-off situation where subjects who had lost large parts of their Dutch were automatically better in English. On the contrary, subjects who obtained good overall scores on the Dutch C-test also tended to have a good command of English. A similar picture was found looking at the free speech collected as part of the film retelling task: the control group in the Netherlands produced the highest score in lexical diversity (the variety of words used), doing better than the Dutch-Canadians. On the other hand, the émigrés still proved to be better at retelling the plot of a film in Dutch than children, who showed the lowest lexical diversity. However, the latter two groups did show similarities in the manner of retelling, mostly opting for simple *en toen* (“and then”) constructions, leading to a relatively monotonous narrative where all events are simply juxtaposed. The controls mostly selected a complex way of retelling the plot, using subordinate clauses such as *omdat dit gebeurde, ging hij weg* (“because this happened, he went away”).

Table 1: Mean scores on the Dutch C-test ($N = 116$)

	1: attriters ($n=45$)	2: controls ($n=39$)	3: acquirers ($n=32$)	mean
mean score (max = 100)	61.07	86.95	45.25	64.42
SD	18.39	8.65	17.14	14.73

Closer analysis of the results for morphology and syntax revealed more parallels between the attriters and the acquirers. In general, both groups tended to go for rule generalization while ignoring exceptions. For example, in forming the past tense of verbs both the children and emigrants mostly treated all verbs as weak while regularizing strong forms, producing – for instance- **help-te* rather than the correct *hielp* ('helped') or **trek-te* for *trok* ('pulled'). Similarly, in forming, for instance, the diminutive form, Dutch-Canadians typically selected the most frequent way to indicate the diminutive and applied it all contexts, even those where another diminutive suffix should have been used: **raam-tje* for *raam-pje* ('small window'). This is exactly what the Dutch children did as well.

In judging syntactic constructions, too, exceptions to the rule appeared to be difficult for attriters and acquirers alike. For instance, when asked to judge whether the passive clause **omdat het elftal veel gegroeid was* ('because the team had progressed greatly') was correct, the majority of Dutch-Canadians and Dutch teenagers indicated that it was. It is not. Although impersonal passives like this are allowed in Dutch, this particular instance is not, for reasons explained in 2.2 (i.e. the verb *groeien*, 'to grow', is not telic). The control subjects appeared to be much more aware of this exception to the general rule and overwhelmingly judged the sentence as incorrect.

What can be concluded from all of this is that what is learned last in children, namely the exceptions to the rule, is lost earliest in emigrants. However, this does not result in a situation where subjects become

communicatively impaired in Dutch: they can retell a story and are even better than the average Dutch teenager in overall language proficiency. In other words, language attrition is subtle, but does follow a clear path of development. Most importantly, this outcome verifies the regression hypothesis.

4.2 *The role of extralinguistic variables*

Although general tendencies in outcomes have already been discussed, there was also substantial variation among subjects: some Dutch-Canadians seemed to have lost more of their mother tongue than others and some were better at English than others (see also 4.1 above). It turned out that this could hardly be explained on the basis of the variables age or gender. In addition, it was not true that subjects who had been in Canada longer automatically performed worse than subjects whose stay in Canada had been shorter. The only factor that could explain (part of) the findings was educational level. Those subjects who had either a college or university degree had a better command of Dutch than subjects with a lower educational background (measured as the score on the C-test). Moreover, those same higher-educated participants also proved to have a higher level of English proficiency (again measured by means of the English C-test). It could be postulated that subjects with a higher educational background possess greater language aptitude.

5. Discussion and conclusion

The verification of the regression hypothesis, or the idea that the order of attrition is the reverse of acquisition, confirms the notion that language is stored in layers in the brain. The metaphor of

an onion has sometimes been invoked (e.g. Dalby, 2002), where the core of the language system is in place from an early age on and is resilient to linguistic changes, such as those caused by emigration. The inner layers are very much connected to the core, but the closer one gets to the topmost layers, the more fragmentary the information becomes. Linguistic knowledge that is stored in the outer layers is acquired late and typically involves such phenomena as exceptions to a general rule.

The results of this study seem to suggest that the outermost layers of linguistic knowledge can be consolidated by education, as higher-educated subjects showed the best language maintenance. The reason why education is such a strong predictor of attrition in Dutch emigrants in Canada is less clear. It seems unlikely that IQ plays a role. Rather, it is more plausible that higher-educated subjects – both in their studies and in their professional lives – have encountered more and more varied texts and spoken interactions, and this in turn may have triggered a higher level of linguistic awareness. What can be seen as a critical mass of exposure to the language may have been reached, causing a better retention rate than in those subjects with less education. Similarly, higher-educated subjects tend to lead professional lives in Canada where they have to produce texts and give presentations in English, leading to a better overall English proficiency. All this may have been reflected in the test outcomes.

The outcomes of this study have both social and research implications. Starting on a social level, language attrition tends to be a misunderstood phenomenon. Signs of mother tongue erosion are often met by disbelief on the part of family and

friends. By showing that attrition follows a clear developmental path not unlike that of language acquisition (though in reverse), the phenomenon may be increasingly seen as a genuine linguistic process. On a research level, this study is one of the first to have shown that there are clear parallels between language acquisition and language attrition, and thus that two different language change processes can result in similar outcomes. That means that the constraints underlying both systems are similar. The nature of these constraints seems to be related to competition, where only part of the entire language system is available. In the case of Dutch children, the cognitive system has simply not matured enough, resulting in limited language processing abilities. For attriters, on the other hand, the competition stems from a second language that needs to be accommodated. It would be interesting for future studies to include even more language systems in flux, such as multilingualism, diachronic language changes and Creole varieties. By providing such a window on the mind, it would be possible to arrive at a more holistic picture of what human language exactly is.

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