L1 and L2 Acquisition of Dutch Adjectival Flexion{PRIVATE }

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I Introduction

It is claimed that one of the conspicuous differences between L1 and L2 acquisition is the development of inflection. This idea is one of the corner stones in theories of language contact (Thomason and Kaufman 1988, Van Coetsem 1988). Put briefly, the assumption is that L2 learners may indirectly corrupt the inflectional system of a language due to their inability to acquire this system as easily as L1 learners seem to do. If the output of the L2 learners spreads over the population and if it is the input for new generations of L1 learners loss of flexion will be the result.

There is quite some initial support for this hypothesis, based on pidginization and creolization, but also based on diachronic developments within the Germanic languages. Although loss of flexion (deflection) is a general tendency in these languages, it seems that this process went further in languages where considerable language contact took place (as is the case for English), than in languages that could develop much more in isolation. A language like Icelandic, for instance, has the richest flexion in the Germanic family, and is well-known for its relatively isolated history.

In spite of the initial support, the hypothesis is not tested in much detail. This is hardly a surprise if one realizes the evidence needed to do so. Not only would we need several types of historical evidence, we would also need to base ourselves on detailed knowledge of the acquisition of flexion. Cleary, such an enterprise exceeds the scope of a single paper. However, we will present some ingredients for this enterprise here by focussing on L1 and L2 acquisition of a relatively simple aspect of flexion, namely the system of Modern Dutch adjectives.

As we will show, the L1 and L2 acquisition of Dutch adjectival flexion are quite in accordance with the above hypothesis. L1 learners are able to make correct distinctions at a very early age. This does not imply that children do not make 'mistakes'. In fact, they overgeneralize what we will call 'the default' until around age 6. Whereas L1 learners show a rather uniform development with a perfect result, the pattern of L2 learners varies. Both the end result as well as the route learners seem to take differ in significant ways.

At first sight, one may think that this is due to the fact that the L2 learners have already acquired another flexional system, namely that of their L1. We will show, however, that it is more likely that age of acquisition is the crucial factor. We included a group of L2 learners which acquired Dutch during childhood and their results differ from both adult L2 learners as well as (monolingual) L1 acquirers in an interesting way.

The contrasts between the three groups of learners can hardly be attributed to transfer, but it is also not very plausible to link them directly to the accessibility or inaccessibility of UG, since the task of learning a language specific paradigm does not seem to be a matter of parameter setting. One option is that these contrasts are due to a strategy that is part of the learning module which allows learners to find out what is the default. Apparently, this strategy is not, or less readily available for adult learners. This, in turn, might have consequences for the way in which learners can exploit UG and postulate functional positions – that is, under the (rather standard) assumption that functional positions are related to inflexion.

This paper is organized as follows. We will start out with a description of the Dutch system of adjectival flexion (that is, the standard variant as spoken in The Netherlands) in section

II, where we will also consider two possible analyses of this system. In section III, we discuss the design of our experiment. In section IV and V the results will be presented of the L1 and the L2 subjects respectively, and in the latter group we will make a distinction between adult and child L2 learners. Next we will try to account for the differences between the three groups of learners in section VI. In the concluding remarks of section VII we will briefly return to the consequences for theories of language contact and acquisition.

II Dutch Adjectival flexion

In Dutch, as in the other West Germanic languages, a distinction has to be made between so-called predicative and attributive adjectives. Predicative adjectives do not have an (overt) affix. As far as we know, this generalization holds for all variants of Dutch, both diachronically and synchronically, and indeed for the West Germanic languages in general. Consequently, the uninflected form of the adjective *groen* 'green' is grammatical in (1), whereas the inflected form *groene* is not, although the latter form is possible in attributive positions, as we will see later on.

(1)   a.   De deur is groen/*groene
            the door is green
    b.   Zij vinden de deur groen/*groene
            they find the door green
    c.   Hij verft de deur groen/*groene
            he paints the door green

In all sentences in (1) there is a predicational relation between a DP and an adjective, namely *the door* and *green*. In (1a) the adjective is combined with a copular verb. In (1b) it is, at least under some analyses, the head of a small clause and in (1c) it is part of resultative construction. In all these cases there can be no affix in Modern Dutch, nor in earlier stages of Dutch, even though the flexional system of adjectives in earlier stages was quite rich.

      Note that if the adjective is used as an adverb in Dutch, as in (2), no affix will appear either. In this respect Dutch differs from English, where the suffix *-ly* should be added to the adjective in the equivalents of (2).

(2)   a.   Hij gedraagt zich vreemd/*vreemde
            he behaves himself strange
    b.   Wij zongen enthousiast/*enthouisaste
            we sang enthusiastic

In contrast to (1) and (2), a suffix *-e* (a schwa) has to be adjoined to an adjective if it is used attributively, that is, if it is part of a DP, as the examples in (3) show.[1]

(3)   a.   (hij ziet) de groene/*groen deur
            (*he sees*) *the green door*
    b.   (hij ziet) de groene/*groen deuren
            (*he sees*) *the green doors*

Both in the singular and in the plural the suffix is required. Note in passing that the adjective precedes the noun, just as in English (and in the other Germanic languages).

      Interestingly, the suffix *-e* does not appear in all attributive positions. In the examples in

(4) the adjective seems to be similar in form to the one used predicatively.

(4)   a.   (hij ziet) een groen/*groene veld
                (he sees) a green field
        b.   (hij ziet) een groen/*groene huis
                (he sees) a green house

A first hinge that the indefiniteness in (4) is responsible for this is wrong, since the suffix -*e* has to be present if the examples of (3) are used indefinitely, as shown in (5). Similarly, (6) shows that the suffix -*e* appears as well if the indefinite DPs of (4) are pluralized. Apparently, nor indefiniteness nor singularity trigger the absence of the schwa suffix.

(5)   a.   (hij ziet) een groene/*groen deur
                (he sees) a green door
        b.   (hij ziet) groene/*groen deuren
                (he sees) green doors

(6)   a.   (hij ziet) groene/*groen velden
                (he sees) a green field
        b.   (hij ziet) groene/*groen huis
                (he sees) a green house

This is not to say that indefiniteness and number do not play a role. In fact, they do, but only in a rather peculiar combination. The adjectival flexion turns out to be absent if the DP can be characterized as indefinite, singular and neutral. The first two characteristics can be observed directly, since no definite article is used and since no plural suffix is added to *veld* 'field' and *huis* 'house' in (4). That the two nouns are neutral, however, can only be observed if they are combined with a definite determiner. In Dutch the definite article is either *de* 'the', as in (3), or *het*. Both *veld* and *huis* take *het*, as (7) shows. These words are classified as 'neutral', whereas the nouns in (3) are of 'common gender'. In earlier stages of Dutch this category was split into feminine and masculine. In fact, this still holds for southern and eastern dialects, but the standard variety has a two gender system.

(7)   a.   het/*de veld
                the field
        b.   het/*de huis
                the house

The examples in (8) show that neutrality as such is not responsible for the absence of the overt adjectival flexion (as is the case for indefiniteness and singularity). If the definite article is used the adjective always takes the suffix -*e*, even if the noun is neutral:

(8)   a.   het groene/*groen veld
                the green field
        b.   het groene/*groen huis
                the green house

So, it is only the combination of the features neutrality, indefiniteness and singularity that triggers absence of -*e*.[2]

Straightforward as the opposition between presence or absence of the schwa might seem at first sight, it turns out that the system governing the adjectival flexion is rather complex. It immediately confronts us with the important question how adjectival flexion is organized. There are basically two possibilities. The first one is to argue that the absence of flexion in Dutch predicative adjectives is comparable to the absence of flexion in a subclass of the attributive adjectives. Schematically, this would boil down to something like (9).

(9) Analysis 1: Flexion on Dutch Adjectives

If attributive, and not indefinite, singular, neutral	Otherwise
-e	-

Under this view, the suffix -*e* is to be considered as a special case, whereas the absence of flexion is the default. Absence of flexion on predicative adjectives is equivalent to absence of flexion on attributive ones.

Alternatively, we could argue that the two types of adjectives with no overt flexion, predicatives and the subset of attributives, should be kept apart. This would give rise to something along the lines of (10).

(10) Analysis 2: Flexion on Dutch Adjectives

Attributive		Predicative
If indefinite, singular, neutral	Otherwise	-
-	-e	

In (10), a basic distinction is made between attributive and predicative adjectives. Predicatives do not take flexion, whereas a suffix -*e* is the default for the attributives. Absence of flexion is the special case for attributive adjectives in (10).

It is not easy to make a choice between the two analyses. At first sight, (9) looks more simple where it generalizes over the absence of flexion. However, it does so by making use of a rather complicated description of the special case. In (10), on the other hand, the overall structure of the paradigm might seem more complicated, while the description of the special case seems more straightforward. In the literature one can find analyses on both sides (although not in the terminology of (9) and (10)). Blom (1994) and Kester (1996), for instance, suggest an account along the lines of (9). Kester's analysis is more explicit. She argues that it is not a coincidence that the combination of indefiniteness, singularity and neutrality leads to the absence of flexion. According to her these features precisely define the default, and the default is the form without flexion. Van Marle (1995) and Broekhuis (1999), on the other hand, follow (10). Van Marle suggests that in attributives it is the inflected form that is the default; the absence of flexion is a special case for attributives.

Interestingly, both analyses make rather different predictions for acquisition. The task of a learner is to discover what is the default and what is the special case. In an analysis along the lines of (9), learners are expected to overgeneralize absence of flexion in attributives if they found out that absence of flexion is the default. They will not only leave out the schwa in predicative positions, but also in the 'wrong' attributive positions. They will stop doing so once

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they find out what is the special case. In (10), on the other hand, the schwa ending is the default in attributive positions and the learner has to discover in what attributive circumstances flexion is absent. Therefore learners are expected to overgeneralize the schwa ending in attributives. Let us see how we can test what actually happens.

III Testing knowledge of adjectival flexion

Although corpora of both L1 and L2 learners are available, it is not difficult to see that these will not give us enough evidence. They can show whether or not learners add a suffix to predicative adjectives, and they will most likely also contain examples of attributive adjectives. However, the fine-grained information we need in order to test how learners deal with features like <±definite> and <±neutral> on attributive adjectives will almost certainly be absent. For instance, if we find that learners say something like *een groene huis* 'a green+SUFFIX house', this does not necessarily imply that they overgeneralize the schwa. If learners consider *huis* 'house' as <–neutral> an adjective should indeed have a schwa ending if it is used in combination with an indefinite article. Obviously, the classification of *huis* as <–neutral> is wrong compared to standard Dutch, but this mistake is of different kind. If learners classify *huis* as <+neutral> and if they still add a suffix if the noun is used in an indefinite context, we have an indication that the rules governing the adjectival flexion are not acquired.

In order to get the necessary evidence we therefore developed an elicited production task. The test contains three parts. In the first part, which contains 38 items, adjectives play no role. Our aim is to find out how subjects deal with the features <±definite> and <±neutral> independently from adjectival flexion. The question is whether they really know that Dutch has an indefinite determiner *een* 'a' and two definite determiners, namely <–neutral> *de* and <+neutral> *het*. Subjects are shown a drawing, of a monkey for instance, and are asked to complete a sentence like (11a); and the expected answer is (11b), with the indefinite article (R = researcher, S = Subject).

(11) a. R: Dit is ....
              this is ....
      b. S: een aap
              a monkey

In a similar way definite articles are tested. For instance, subjects are shown a picture of a box containing a letter, while the instructor introduces the situation by explaining that the box contains his letter. The first sentence of this dialogue is as in (12a). In answering a question like (12b), the subject's correct answer is (12c), where a <–neutral> determiner is used.

(12) a. R: Dit is een doos
              This is a box
      b.   Waar is mijn brief?
              where is my letter?
      c. S: in de doos
              in the box

Another example, testing a <+neutral> article, is given in (13), where the subject is shown a picture of a boy in a house. In a correct answer a subject will use the neutral (definite) article *het*. Note that the gender distinction will also be visible if a subject uses a demonstrative instead of an

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article. In this case subjects might say *dat huis* 'that house' or *dit huis* 'this house' in a situation like (12) or *die doos* 'that box' or *deze doos* 'this box' in (13).

(13)   a.   R: Dit is een huis
                          this is a house
        b.   Waar is de jongen?
                          where is the boy
        c.   S: in het huis
                          in the house

The goal of the first part of the test is twofold. First of all we want to know if the subjects are able to use indefinite determiners and the two definite ones. In addition, the test allows us to observe how the subjects classify the gender of the nouns we use in the test. This is essential for the second part of the test where we determine what type of overgeneralizations are made.

This second part is concerned with combinations of nouns with attributive adjectives. As for the nouns, a distinction is made in five categories, as illustrated in (14).

(14)   Nouns tested

Features	Example
+definite, +singular, –neutral	de bloem 'the flower'
+definite, +singular, +neutral	het huis 'the house'
+definite, –singular, –neutral	de dozen 'boxes'
–definite, +singular, –neutral	een auto 'a car'
–definite, +singular, +neutral	een raam 'a window'

Recall that only the last group of nouns (–definite, +singular, +neutral) allows an attributive adjective without a schwa ending. In order to keep the chances for the two types of overgeneralization (-e and -Ø) about equal the first four groups are represented in the test by as nearly as many items (namely 12) as the last group (namely 13).

In order to elicit attributive adjectives, subjects are confronted with pictures of red, yellow, green, big or small exemplars of the objects the nouns refer to and they are asked to choose for one of these. So, for instance, the instructor introduces a situation where Ernie sees several flowers and is walking to a red flower. Then question (15a) will be asked. The correct answer is (15b).

(15)   a.   R: Waar gaat Ernie naar toe?
                          Where is Ernie going to?
        b.   S: naar de rode bloem
                          to the red flower

Similarly, a situation is introduced where Ernie is standing near a chimney with a small clock and a big one. The dialogue is as in (16), where the subject has to complete a sentence. The correct answer is as in (16d).

(16) a. R: Er zijn twee klokken
              there are two clocks
      b.   Wat is het verschil?
              what is the difference
      c.   Dit is ....
              this is ...
      d. S: een grote klok
              a big clock

Suppose a subject utters *de rood bloem* instead of *de rode bloem* in (15b). We will count this as an overgeneralization of -Ø. In case of *een groot klok* instead of *een grote klok* in (16d) the situation is less straightforward though. If the subject used *de klok* in the first part of the test, we conclude that *klok* is considered to be <–neutral>, and hence we will count *een groot klok* as an overgeneralization of -Ø. If, however, the subject used *het klok* in the first part of the test, we may infer that *klok* is assumed to be <+neutral> and consequently *groot* in *een groot klok* is the correct form and should not be counted as an overgeneralization of -Ø. In a similar vein (and as already indicated above), using *een grote huis* instead of the correct Dutch form *een groot huis* can only be considered as an overgeneralization of -*e* if the subject assumes that *huis* is indeed <+neutral>, i.e. if the subject uses *het huis* instead of *de huis*. In other words, in combination with the first test, the second part allows us to observe what overgeneralizations are made in attributives (if they appear at all).

   The last part of the test is concerned with predicative adjectives. Recall that Dutch shows no suffix on adjectives in predicative position. The predicative adjectives are elicited as follows. Subjects are confronted with several pictures, for instance one of a yellow box containing a letter and one of a green box which is empty. The subject has to complete the sentence as illustrated in the dialogue in (17).

(17) a. R: Waar is de brief?
              where is the letter
      b.   De doos met de brief is ....
              the box with the letter is ...
      c. S: geel
              yellow

In this example there is a relation between *de doos* 'the box' and the adjective. If subjects think that this relation is expressed morphologically, they might say *gele* instead of *geel* as in (17c). After all, in attributive position the schwa ending has to be present (*de gele doos*/**de geel doos*). If the schwa is used, we could consider this as an overgeneralization. Note, however, that this is only correct if the learner really knows that *gele* is the inflected form of *geel*. If *gele* is (wrongly) analysed as an underived adjective, using *gele* in (17c) does not imply that the learner inflects the predicative adjective. So here we need the second part of the test, since the results in this part will tell us whether or not *geel* is used as well.

   In fact, the second part of the test is also dependent on the third part. If learners use *gele* invariably in attributive adjectives, this does not necessarily imply that they overgeneralize the schwa ending, since *gele* could be considered as an underived adjective. However, if *geel* is used in predicative position, we have an indication that indeed the schwa ending has an inflectional character.

   In order to find out what features might play a role if subjects overgeneralize the schwa

in predicative adjectives, nouns of each of the categories of table 12 are included in the test. The total number of items in this part is 18.

As indicated, the three tests together should give us information on the type of overgeneralizations learners make and thereby we might find support for one of the two analyses sketched in section II. We will now first turn to the results of the L1 learners.

IV L1 Acquisition of Adjectival Flexion

We tested 20 monolingual Dutch children between age 3 and 7; in each age group there are 4 children. Although earlier stages of acquisition may of course be relevant as well, we experienced that our test was not suited for children younger than age 3. We will turn to some additional material for still younger learners in section VI. We did not test children older than age 7 for the reason that a pilot study suggested that children more or less know the adjectival flexion at that age. As will become clear, this is confirmed by the present results.

An overview of all the overgeneralizations the L1 learners made is presented in (18). As can be seen, the subjects produced a total of 520 contexts in which no suffix may appear on the attributive adjective according to the standard language. In 37% of these cases the L1 learners nevertheless used a schwa. The reverse, overgeneralization of -Ø in attributives, does not happen often (5%). Interestingly, this does not seem to be due to some general tendency that L1 learners simply prefer a schwa on adjectives, since they hardly ever use a schwa in predicative position (0,3%).

(18)   L1 overgeneralizations, overview

Obligatory contexts attr. -e	Overgeneralizations of –Ø	Obligatory contexts attr. –Ø	Overgeneralizations of -e	Obligatory contexts pred. -Ø	Overgeneralizations of -e
300	5%	520	37%	360	0,3%

Clearly, overgeneralization of *-e* in attributive position seems to be the general tendency. In order to find out in more detail what is going on, however, we have to correlate these results with the results of the others tests. After all, (18) does not tell us whether the overgeneralizations of *-e* are caused by the system of adjectival flexion the children are acquiring or, alternatively, by the fact that they tend to classify words as <–neutral>, i.e. as taking the determiner *de*. Since attributive adjectives have a schwa ending if the noun is <–neutral> this could be the cause of the abundant usage of *-e* as well. In addition, the results in (18) do not tell us anything about a possible development in the pattern of overgeneralizations.

Let us therefore turn to table (19), where both types of information are included. In this table we keep track of the gender the children assigned to the nouns in the test as follows. The percentage on the right of a slash (/) tells us how many overgeneralizations children make if we take into account their (wrong) gender classification. If children do not make mistakes in gender classification, or if this does not have any effect in the number of overgeneralizations only one percentage is given. So, children at age 3 overgeneralize a schwa ending in attributives in 61% of the test items (as indicated on the left hand side of the slash). In 24% of the test items (the right hand side of the slash) they classified the relevant head noun as <+neutral>. This subset of the overgeneralizations seems to be caused by the fact that the learners did not acquire the standard

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Dutch flexional rules for adjectives yet.

In other words, we can see in (19) that there are two different factors behind the schwa overgeneralizations. First, children tend to classify words as <–neutral>. They might say *de huis* 'the house' instead of *het huis*. This tendency, which seems to suggest that <–neutral> is the default in Dutch, has been observed before, for instance by Don et al. 1994. As noted above, classification as <–neutral> implies that a schwa ending has to be added to an attributive adjective if the Dutch.

The second factor, however, is that children tend to add a suffix to the adjective, saying things like *een grote huis* 'a big+SUFFIX house', even if they classify a word correctly as <+neutral>. We can see that both factors are at work between age 3 and age 5. The older children more or less have acquired the standard Dutch gender classification and system of adjectival flexion.

(19)   L1 overgeneralizations per age (not corrected/corrected for wrong gender classifications)

	Ø in attributives (60 items per group)	*e* in attributives (104 items per group)	*e* in predicatives (72 items per group)
age 3	10% / 7%	61% / 24%	1%
age 4	5% / 3%	71% / 30%	0%
age 5	5%	45% / 26%	0%
age 6	5%	4%	0%
age 7	2%	3%	0%

The table in (20) gives an impression of the relative weight of the two factors mentioned. For instance, at age 3 in 38 cases of the 104 items the <+neutral> gender of the nouns in the test was classified as <–neutral>. Of the 66 items that were already acquired as <+neutral> children nevertheless used a schwa on the adjective in 25 cases (if, of course, the DP is indefinite). On the whole, we may conclude that it takes quite some time and trouble to acquire the Dutch rule of -Ø endings in attributive adjectives with indefinite neutral nouns.

(20) Overgeneralizations of schwa endings in L1 acquisition

	Gender	Adjectival flexion
age 3	37% (38 of 104)	38% (25 of 66)
age 4	41% (43 of 104)	50% (31 of 61)
age 5	19% (20 of 104)	32% (27 of 84)
age 6	0	4% (4 of 104)
age 7	0	3% (3 of 104)

Let us consider more precisely how this rule of -Ø endings is acquired. As already noted above, children hardly make mistakes in predicative positions. In attributive adjectives, however, we find some overgeneralizations. In (18) we noted a total of 5%. The table in (21), which is

corrected for (wrong) gender classifications by the children, shows how the overgeneralizations are distributed.

(21) L1 overgeneralizations of Ø in attributives

Features	Ø overgeneralizations	Number of contexts
singular, definite & –neutral	2%	120
singular, definite & +neutral	2%	60
singular, indefinite & –neutral	8%	120

A child has to discover that the combination of singularity, indefiniteness and neutrality triggers the -Ø ending in standard Dutch. As can be seen in (21), DPs containing a definite marker do not seem to be problematic. In these cases the adjective is inflected and the -Ø ending is hardly overgeneralized. Overgeneralizations of -Ø happens in case of indefinite DPs. A child might occasionally say *een geel auto* 'a yellow car' instead of *een gele auto* even if they know that *auto* is <–neutral>. Apparently, presence of indefiniteness is considered here as sufficient. What makes the Dutch rule of -Ø endings difficult is that it applies on <+neutral> nouns where gender is not overtly visible on the determiner. In these cases the overt determiner is indefinite. The results in (21) are, then, in accordance with our conclusion that in attributive adjectives the schwa ending is the default, whereas the -Ø ending is a special case.

To sum up, the children we tested use indefinite and definite determiners adequately. In predicative position they use an uninflected adjective and hardly ever an adjective with a schwa. In contrast, the *-e* ending is overgeneralized in attributive position, where the -Ø ending is the special case. Partly the *-e* overgeneralizations in attributive positions result from the fact that learners assume <+neutral> to be <–neutral>. However, the system underlying the adjectival flexion seems to be an even stronger factor behind the overgeneralizations. Around age 6 the rule of -Ø endings on attributive positions is more or less acquired completely.

IV L2 Acquisition of Adjectival Flexion

We tested 20 L2 learners of Dutch. All subjects live in The Netherlands; they all received explicit training in Dutch, but their language background, the length of their stay, the length of the language training, and their overall proficiency varies from person to person. An overview of some relevant information is presented in the appendices. Just like the L1 subjects, all L2 subjects were able to make the proper distinctions between definite and indefinite determiners. Of the 20 subjects 14 started to learn Dutch well after childhood (cf. appendix I). We will call them adult L2 learners and discuss their results first. In the second part of this section we will turn to the six child L2 learners (cf. appendix II).

The table in (22) gives an overview of the type of overgeneralizations made by the adult L2 learners.

(22)   Adult L2 overgeneralizations, overview

Obligatory contexts attr. –e	Overgeneralizations of -Ø	Obligatory contexts attr. -Ø	Overgeneralizations of -e	Obligatory contexts pred. -Ø	Overgeneralizations of -e
210	36%	364	67%	252	2%

If we compare these results with the overview of L1 overgeneralizations in (18) there is one striking similarity. Just like the L1 learners, the adult L2 learners do not seem to have a lot of problems with the predicative adjectives. They seem to know that the adjective does not have a suffix in this context and the number of overgeneralizations of -*e* is negligible. The most striking difference with the L1 learners, however, is that the adult L2 learners overgeneralize the -Ø ending substantially in attributive position. They do so in 36% of the contexts that require a suffix, where the children scored no more than 5%. That the adult L2 learners overgeneralize -Ø does not imply, however, that they do not overgeneralize -*e* as well. Like the children, they abundantly use -*e* in attributive position.

The fact that L2 learners do not (or hardly) overgeneralize a schwa in predicative position is clear enough. However, as for the overgeneralizations in two directions in attributive position, it is possible that the table in (22) is misleading. After all, it might be the case that different L2 learners take different routes, and therefore we should be cautious not to generalize over these results too easily. For instance, some learners might prefer the schwa consistently, whereas others might overgeneralize the -Ø ending. In addition, we have to take into account that (some) overgeneralizations are caused by wrong gender classifications, just as was the case for the L1 learners.

In (23) we therefore present the results for all 14 subjects individually. If necessary, the results are corrected for mistakes in gender classifications, as in (19): on the left hand side of a slash the total percentage of overgeneralizations is given, on the right-hand side the percentage corrected for (wrong) gender classifications. As can be seen in (23), there are indeed remarkable differences between learners in patterns of overgeneralizations. Corrected for gender mistakes, subject A, for example, overgeneralizes consistently -Ø, while H prefers -*e*. Others (like C, G, J) overgeneralize both possibilities more or less equally. L1 background, length of stay in The Netherlands, length of training in Dutch do not seem to be decisive factors in this respect. Take for instance H, I, J, who are comparable in several ways (cf. appendix I): they nearly have the same age, they have the same L1, and a similar training in Dutch. Nevertheless, they each have a rather different pattern of overgeneralizations.

(23)   Adult L2 overgeneralizations per subject (not corrected/corrected for gender mistakes)

Subject	Ø in attributives (15 items per subject)	*e* in attributives (26 items per subject)	*e* in predicatives (18 items per subject)
A	73%	8% / 0%	0%
B	13%	85% / 23%	0%
C	20%	89% / 27%	11%
D	33%	92% / 15%	0%
E	40%	73% / 27%	6%
F	80%	15% / 8%	0%
G	60%	73% / 73%	0%
H	6%	92% / 92%	0%
I	20%	92% / 92%	0%
J	20%	38% / 23%	0%
K	20%	96% / 50%	0%
L	13%	46% / 23%	11%
M	46% / 33%	96% / 23%	0%
N	60%	46% / 15%	0%

We may also conclude from (23) (comparing the second and the third column) that there is a tendency to classify <+neutral> nouns as <–neutral>, just as we found for the children. The table in (24) gives an impression of the relative strength of the two factors involved in schwa overgeneralizations. The wrong gender classification plays a substantial role, but the system of adjectival flexion even more so. In about half of the cases where gender was assigned correctly (namely as <+neutral>), the schwa ending was added in indefinite contexts.

(24) Overgeneralizations of schwa endings in adult L2 acquisition

Gender	Adjectival flexion
32% (117 out of 364)	51% (128 out of 247)

As for the Ø overgeneralizations in L1 acquisition, recall that we could reduce this to one particular factor: children seem to have some difficulty with the combination of <–definite>, <+singular> and <–neutral>. The first two features can be observed directly, but the latter only indirectly, since gender is not visible on indefinite articles in Dutch. Children may (sometimes) assume that the DP being indefinite and singular is sufficient for application of the -Ø ending in attributives, whereas the correct generalization is that <–definite> and <+singular> have to be combined with neutrality. Interpreted in this way, the overgeneralizations show that the –Ø ending is a special case and that the schwa ending is indeed the default in attributives in L1 acquisition. As can be seen in (25), the -Ø overgeneralizations in L2 acquisition show a

completely different pattern. There is no indication here that the L2 acquirers are somehow discovering the special rule of -Ø endings in Dutch attributives.

(25)   Adult L2 overgeneralizations of -Ø in attributives

Features	-Ø overgeneralizations	Number of contexts
Definite & -neutral	42%	84
Definite & +neutral	42%	42
Indefinite & -neutral	26%	84

In other words, this pattern confirms that there are two types of substantial overgeneralizations in adult L2 acquisition. In all attributive positions one may find -Ø endings as well as -e endings. This is in contrast to the predicative position, where adult L2 acquirers in general do not make use of an overt affix on adjectives. So, where we observe a contrast between L1 and adult L2 acquisition of attributive flexion, learners behave rather similarly in predicative adjectives.

        The question is what factor explains the contrast between the L1 and adult L2 learners. One option is that transfer plays a role in the acquisition process of the adult L2 learners. However, we saw that adult L2 learners with a similar background may overgeneralize rather differently. If transfer is the crucial factor it is at best rather indirectly so. Another option is that acquisition of flexion is age dependent. If this is indeed the case, we expect that child L2 acquisition will yield results that differ from the ones presented so far in this section. In order to check this, we also tested 6 subjects who acquired Dutch as a second language, but who started with this process during childhood, that is around age 4, when they went to school. Information per subject is given in appendix I (subjects O to T). The table in (26) gives an overview of the type of overgeneralizations these L2 learners make.

(26)   Overgeneralizations child L2 acquisition (corrected/not corrected for gender mistakes)

Obligatory contexts attr. -e	Overgeneralizations of -Ø	Obligatory contexts attr. -Ø	Overgeneralizations of –e	Obligatory contexts pred. -Ø	Overgeneralizations of -e
90	2%	156	76% / 31%	108	0%

As the adult L2 learners and the L1 acquirers, the child L2 learners do not have problems with the adjective in predicative positions. They know that this adjective is not inflected overtly. Clearly, they do not have problems with the inflected adjective in attributive position either, since they do not overgeneralize -Ø in this position. In this respect, the child L2 learners differ drastically from the adult ones. A result of 2% -Ø overgeneralization is comparable to that of the final stage in a process of L1 acquisition. It is similar to the children of age 7 in table (19). So, we do see a striking difference between child and adult acquisition. Interestingly, however, the child L2 learners are not comparable to the L1 acquirers in all respects. Their results for -Ø overgeneralizations may be similar to the final stage in the L1 process, this is certainly not true for the -e overgeneralizations. Although the child L2 learners speak Dutch for over 10 years, they still overgeneralize the schwa in attributive position. As before, this is partly due to the tendency to classify <+neutral> words as <–neutral>. If we keep this into account still over a fourth of the test items is inflected incorrectly. The table in (27) gives an impression of the relative strength of

the two factors.

(27) Overgeneralizations of schwa endings in child L2 acquisition

Gender	Adjectival flexion
46% (71 out of 156)	56% (48 out of 85)

As in L1 acquisition, we may conclude that classifying a word as taking the determiner *de* 'the' is the default. Independently of this, however, schwa endings seem to be the default in attributive adjectives.

To sum up, child L2 learners show a pattern that is comparable to L1 learners in that they overgeneralize the schwa ending. Adult L2 learners, however, overgeneralize in two directions. Let us now try to interpret these results in some more detail.

V Interpreting the results

In order to be able to compare the groups of learners tested more easily, we summarize the most important findings in table (28). We split the group of L1 learners in two subgroups, where we assume that the learners of age 6 and 7 represent the final stage.

(28) Overview of overgeneralizations (not corrected/corrected for gender mistakes)

	-Ø in attributives	-*e* in attributives	-*e* in predicatives
L1 learners 6-7	3%	3% / 3%	0
L1 learners 3-5	7%	59% / 26%	0
Adult L2 learners	36% / 35%	67% / 35%	2%
Child L2 learners	2%	76% / 31%	0

In addition, table (29) summarizes how gender and adjectival flexion seem to be relevant for the overgeneralizations of schwa endings in attributive adjectives.

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(29)   Overgeneralizations of schwa endings

	Gender	Adjectival flexion
L1 learners 6-7	0%	3%
L1 learners 3-5	32%	39%
Adult L2 learners	32%	51%
Child L2 learners	46%	56%

In line with (28) and (29), the results of our experiments can be summarized as in (30). We will discuss each of these results respectively.

(30)   Results of experiments
      a.   All learners tend to classify <+neutral> words as <–neutral>.
      b.   All learners have no problems with predicative adjectives.
      c.   L1 learners overgeneralize *-e* in attributive adjectives in the first stages.
      d.   Adult L2 learners overgeneralize both -Ø and *-e* in attributive adjectives.
      e.   Child L2 learners overgeneralize *-e* in attributives, sometimes persistently.

In two respects L1 and L2 acquisition are comparable. All learners tend to classify <+neutral> words as <–neutral> and all learners do not seem to have difficulties with the Dutch predicative adjectives. As for (30a), it is true that most Dutch words are <–neutral>. According to Haeseryn et al. 1997 about 25% of the Dutch roots are <+neutral>. If this percentage is representative for the input the learners were confronted with, and if learners are indeed sensitive for frequency effects of this type, we have an explanation. For L1 learners in particular it is not unlikely, though, that the input contains a much higher amount of <+neutral> words. Obviously, it was not possible to take this into account in our experiment. We will leave this for further research.

      The fact that both L1 and L2 learners have no problems with predicative adjectives (cf. (30b)), can be interpreted as a preference of learners not to assume flexion unless they are forced to do so by the facts. Dutch predicative adjectives are not inflected, and therefore no inflection is assumed. This is in accordance with Pinker (1984), who argues that paradigmatic distinctions can only be acquired on the basis of formal differences between variants of the same word. In the absence of positive evidence of this type, inflectional distinctions cannot be learned. Apparently, the learner does not confuse the attributive adjectives with the predicative ones. Rather, it seems that priority is given to the syntactic context. The adjectives in DPs are considered to be of a different type than those which are (somehow) part of the VP.

      At first sight, one might suppose that this result is due to the fact that we were not able to observe the earliest stages in our experiments. After all, we could not test children younger than age 3. For L1 acquisition we therefore followed the development as observable in some CHILDES corpora (MacWhinney 1995). More in particular we used the corpora of Hein and Thomas (Elbers and Wijnen 1992) and Laura and Sarah (Van Kampen 1997), focussing on the earliest stages. We could not find any evidence that children overgeneralize an overtly inflected adjective in predicative position. There does not seem to be a stage in which children learning Dutch say something like (31).

(31)   *Het huis is groene
        The house is green+SUFFIX

Predicative adjectives are uninflected right from the start and children do not confuse them with attributive adjectives.

This reminds us of the way in which children acquire the verbal paradigm in a V2 language like Dutch. As has been argued in the literature extensively (see, for instance, Wijnen 1997), children acquiring Dutch at no observed stage confuse finite with infinitival verbs. From the beginning infinitival verbs typically appear in OV position, whereas finite verbs take the V2 position. We can observe this quite easily since infinitival verbs have a different morphological shape. The two following sets of sentences from Dutch child language illustrate how both form and position of finite and infinitival verb differ (from Wijnen 1997:185) (the verbs are italicised by us):

(32)   a.   die helemaal kapot *maken* (Niek 3;1.16)
              that-one entirely broken make
        b.   ook @ paard *stappen* (Peter 1;9.20)
              also schwa *horse walk*

(33)   a.   *komt* @ nog meer (Niek 2;11.10)
              comes schwa *still more*
        b.   *zit* @ vuilniswagen in (Peter 2;0.7)
              sit schwa *dustbin lorry in*

Of course, this is not to say that children immediately know all important inflectional properties of Dutch verbs. Within the group of finite verbs, for instance, several types of mistakes are made that need further study, but the category of infinitival verb seems to be as unproblematic as the category of predicative adjectives.

Interestingly, there is evidence that the first verbal form children use is in fact the infinitival form. As Wijnen 1997 shows, constructions like in (32) are used earlier than those in (33), and for some time constructions with an infinitival function as a kind of default alongside constructions with a finite verb (the so-called 'optional infinitive stage'). And, in fact, also for adult Dutch, it can be argued that the infinitival functions as a default, in the sense that it is the citation form, as shown in (34). It is also the infinitival form that shows up if the finite form is absent as in (35), which is possible in certain situations.

(34)   Hij praat over het werkwoord 'geven'
        he talks about the verb give

(35)   a.   Hij koopt een huis
              he buys a house
        b.   Hij een huis kopen
              he a house buy

So, as in the case of adjectives, the default is acquired extremely early by children, and here too we see that this form appears in a particular syntactic context.

There is also a remarkable difference. As we have seen, the default is the form without any flexion in the case of Dutch adjectives. This is not the case for Dutch verbs. In this language (regular) infinitivals have a suffix *-en*. If we replace the infinitival by a verbal root in (34) and

(35b) the result is ungrammatical:

(36) a. *Hij praat over het werkwoord 'geef'
he talks about the verb give
 b. *Hij een huis koop
he a house buy

We thus have to make a distinction between the default and the form without flexion. They may go together, but not necessarily, as will also become clear in the case of the Dutch attributive adjectives.

As noted in (30c), children have slightly more problems with attributive adjectives. They tend to overgeneralize the suffix in the first stages. That is, they are able to make a distinction between predicative adjectives (no flexion) and attributive adjectives (with a suffix *-e*), but still some fine-tuning is required for the attributive flexion. Again this reminds us of the Dutch verbal paradigm, where in the earliest stages the distinction between finite and infinitival verbs is not problematic, and where the paradigm for finite verbs still has to be made complete.
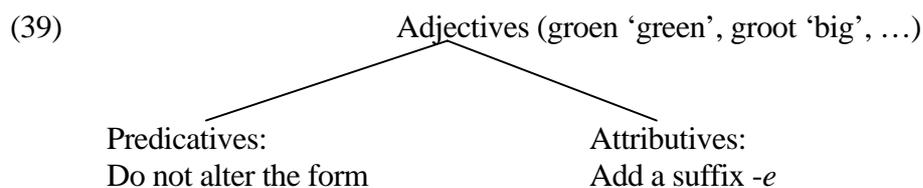
Put differently, children are quite good at finding out what the default is *within* the category of attributive adjectives. Being a default here, does not mean having no flexion – just as is the case for the Dutch infinitival verbs. In fact, it looks as if children consider the fact that Dutch attributive adjectives have flexion as a characteristic that sets them apart from predicative adjectives. They still have to find out that there is a special situation in which flexion is not overt on attributive adjectives, namely when the DP has the peculiar set of features <+singular>, <-definite>, <+neutral>.

Notice that this state of affairs is much more in line with analysis 2 in (10) than with analysis 1 in (9). In the latter all forms without overt flexion are considered as essentially the same. However, acquisition now shows that they have quite different properties. Facts like those in (37) are relatively easy, while those in (38) are not.

(37) a. Het huis is groen
the house is green
 b. Het boek is groot
the book is big

(38) a. een groen huis
a green house
 b. een groot boek
a big book

In accordance with analysis 2, we suggest that children find out very early that the predicative adjective is the form without flexion. In this sense it is the default with respect to attributive adjectives, which are analysed as having a suffix *-e*. This is expressed in (39).

(39)   Adjectives (groen 'green', groot 'big', …)

Predicatives: Attributives:
Do not alter the form   Add a suffix *-e*

The procedure in (39) gives a correct output in many cases, but it also makes the

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overgeneralizations that we found out to be characteristic for L1 acquisition: in examples as in (38), the adjective will become *groene* and *grote* if we apply (39). After having discovered (39), learners have to find out that in a subset of cases, namely if the DP is <+singular>, <-definite> and <+neutral>, flexion is not overt. Put differently, in the paradigm of attributive adjectives the schwa ending is the default and there is a special group that behaves differently. The analysis in (39) has to be expanded as in (40).[3]

(40)   Adjectives (groen 'green', groot 'big', …)

Predicatives: Attributives:
Do not alter the form

                    Add a suffix *-e*   Unless the DP is
                                                         <+singular>, <-definite>,
                                                         and <+neutral>
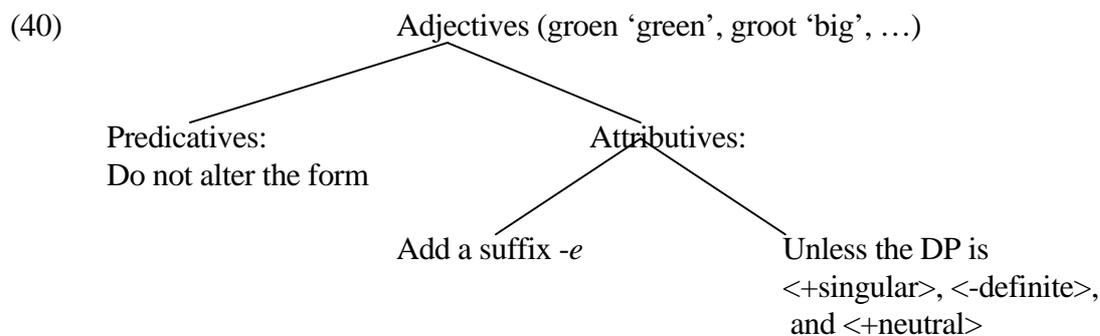
Although children make mistakes, notice that even the youngest children in our experiment seem to have some idea of the unless-clause. In the relevant situations they more often produced an adult-like construction than a construction with an overgeneralized -e on the attributive adjective. As has been observed by others (cf. Wexler 1998), children are extremely good at learning flexion.

        In fact, children are good in nearly all aspects of grammar. What makes their ability to master flexion so early surprising is that this aspect is completely language specific. Children seem to have acquired the OV order of Dutch even before they productively use constructions containing verbs. The same seems to be the case for the system of stress rules true. Word order and stress, however, can be reduced to parameters that are not language specific. Successful and early acquisition of these aspects is therefore predicted by the theory of principles and parameters, where children are assumed to set universally given parameters based on positive evidence in the language specific input. It is highly unlikely, however, that the flexional properties of Dutch verbs and adjectives can be straightforwardly reduced to some setting of a universal parameter. The number of parameters would have to increase dramatically if we were to allow this, making the theory of parameters vacuous, we believe.

        We would like to suggest, therefore, that some other strategy is responsible for children's early and successful acquisition of flexion. What we have in mind is a learning strategy that allows the child to make oppositions between marked and unmarked (i.e. default) forms, which the child may apply iteratively: within the group of marked forms an opposition is made again between a default and marked form, etc. The procedure is applied until all forms are analysed. The procedure is therefore data driven: if there are no form differences, no formal distinctions will be made. In this sense it follows that the form without flexion is the default: flexion will only be postulated if there is evidence for it.

        Turning now to (30d), our finding that adult L2 learners overgeneralize both -Ø and -*e* in attributive adjectives suggests that these learners do not successfully apply the strategy just proposed. The L1 learners all follow a similar development. The results of the children in each of the groups we tested are remarkably similar. In contrast, the adult learners confront us with rather diverse patterns. As noted in section IV, we are not able to relate this to transfer, although we do not want to claim that transfer does not play any role in the acquisition of flexion. If it plays a role, however, it does not seem strong enough to explain the conspicuous differences between the two types of learners we are facing here. What we

would like to propose, therefore, is that adult L2 learners, in contrast to the L1 learners, cannot make use of the learning strategy for flexion just introduced. That they are generally quite successful in finding out that predicative adjectives do not have flexion does not contradict this, but rather supports our idea. If learners have no idea how the flexional system works, they may be tempted to simply not use flexion altogether. This might explain both the results for predicative adjectives as well as the overgeneralizations of -Ø in attributive adjectives.

Recall that we could not find a system behind the -Ø overgeneralizations of the adult L2 learners. The L1 learners not only overgeneralize -Ø less often, we have shown that their overgeneralizations can be interpreted as an attempt to find out what the special case is. The children seem to think that the features <+singular> and <-definite> are sufficient. No such interpretation seems to be possible for the L2 learners. We therefore conclude that the explanation for their -Ø overgeneralizations should indeed be different.

If the learning strategy is somehow age dependent, we predict that child L2 learners show a pattern that differs crucially from the adult L2 learners – and this is precisely what we found. As summarized in (30e), we observed that child L2 learners overgeneralize -e in attributives. They do not show the type of -Ø overgeneralizations that adult L2 learners show, but rather behave as L1 learners. Interestingly, however, the results of the child L2 learners are not similar to those of the L1 learners in all respects. While the L1 learners all reach a final stage in which the attributive adjectives in DPs characterized as <+singular>, <–definite> and <+neutral> do not have flexion, this does not turn out to be the case for the child L2 learners. While the L1 learners reach (40), the child L2 learners may not come further than (39).

Why would this be the case? A first possible explanation is that the child L2 learners are not confronted with enough positive evidence. It is obvious that learners need rather robust and quite a lot evidence before they can detect all the details of the special case. However, as can be seen in appendix II, the child L2 learners live in The Netherlands for well over 10 years. Nearly all of them were born there and went to a Dutch school. This does not make it very likely that they did not get as much evidence as the L1 learners at age 5. Another explanation therefore seems to us more probable, namely one that fits in to the idea that application of the learning strategy with respect to flexion is age dependent. We interpret the result of the child L2 learners as follows: when they started to learn Dutch they could still make use of the learning strategy in the same way as L1 learners of Dutch. However, before they could settle all details of Dutch adjectival flexion, they had no longer access to this strategy. The system they acquired fossilized and therefore the overgeneralizations of the -e endings persist.

To summarize, the differences and similarities between the three groups of learners can be explained rather straightforwardly if we assume that they can each exploit a strategy to acquire flexion in different ways. The adult L2 learners have no access to this strategy and therefore they tend to leave out flexion all together. For predicative adjectives this is in fact a good decision, but it leads to -Ø overgeneralizations in attributive adjectives. L1 learners have full access to the strategy and they are therefore remarkably early on the right track, even with respect to the special case in attributive adjectives. Child L2 learners, however, do not seem to make this last step and we attribute this to their relatively late start: they do not have access to the learning strategy anymore before they completed the acquisition of the adjectival paradigm.

VI Concluding Remarks

Our findings have several consequences for linguistic theories. In this final section we will briefly address those that we think are the most important.

First of all, the results support the idea that in language contact L2 acquisition may be a source for deflexion (cf. Thomason and Kaufman 1988, Van Coetsem 1988). We saw that adult L2 learners tend to leave out flexional endings when acquiring Dutch adjectives. Suppose that these learners indeed do not reach the target of the standard language and that the output of these learners spreads over the population. For two reasons we think that loss of flexion will be the consequence. There is an obvious direct consequence in that forms without flexion are spread and may be taken over by others, but we believe that there is also a more indirect consequence. We saw that there was remarkable variation in the results of the adult L2 learners. Some learners consistently overgeneralize -Ø, while others prefer -*e*, or make use of both options more or less equally. Even if the output of one adult L2 speaker is more or less systematic, it will probably not be possible to detect a system in the total results. Given the learning strategy for flexion proposed in section V, new learners confronted with this type of input will not hypothesize a flexional system and will therefore assume the default, i.e. no flexion.

Obviously we cannot discuss the merits of this view here in detail, but it it will help to illustrate our point if we consider one example. A language related to Dutch where the scenario just sketched may have been applicable is Negerhollands 'Negro Dutch', a language that came into existence at the Virgin Islands in the Caribbean in the seventeenth century. Slaves from Africa were confronted with Dutch. In this process (incomplete) L2 acquisition plays an important role, as argued by Van Rossem and Van der Voort 1996. If indeed adult L2 acquisition of Dutch is relevant here, we predict that adjectival flexion is not present anymore in Negerhollands. This turns out to be true. Attributive adjectives as well as predicative adjectives do not have an overt suffix, as the examples in (41) illustrate (all taken from Van Rossem and Van der Voort 1996, p. 232-241). Notice that the lexical elements in (41) are all directly related to Dutch; in the Dutch equivalents of (41b-d) a suffix -*e* is required.

(41) a. jij sa wees blii
          you will be glad
      b. di ander dack
          the other day
      c. en niu kerrek
          a new church
      d. blau diffie
          blew pigeon

Interestingly, the results of our experiments also imply that we have to be more precise if we claim that L2 acquisition plays a role in deflexion. We saw that adult L2 acquisition leads to results that are different from child L2 acquisition. In acquisition of Dutch adjectival flexion a characteristic of the latter is that learners overgeneralize -*e* in attributives persistently, as if they are not able to acquire the special case any longer. One might wonder whether there are cases of language contact where the role of child L2 acquisition can be checked. In fact, we do think that these exist, although, as before, we cannot go into much detail here.

One case in point is Surinamese Dutch. Creole speakers in Paramaribo, for instance, acquire Sranan as a L1. Alongside Sranan, however, Surinamese Dutch is acquired by this group as a second language at a fairly young age. Van Marle 1995 and De Kleine 1999 observe that indeed overgeneralizations of schwa occurs in Surinamese Dutch. The following examples are taken from De Kleine (1999: 192-193). Note that the schwa has to be absent in the adjectives of the standard Dutch equivalents.

(42) a. een grote probleem

> *a big problem*
>
> b.   een normale salaris
> *a normal salary*
>
> c.   een korte artikel
> *a short article*

Similar evidence comes from Iowa Dutch, a variant of Dutch spoken by a group of orthodox Dutch protestants that emigrated to Iowa in the nineteenth century. The development of their language is described and discussed in Smits 1996. The status of this language changed from generation to generation. At first it is the dominant L1 that has to compete with English, which gradually takes over the position of Dutch. In the terminology of this paper this is a situation in which Iowa Dutch is acquired by children as an L2. At this stage we can observe, as in Surinamese Dutch, that the *-e* is overgeneralized and that learners do not adequately acquire the special case, where adjectives in a <+singular>, <–definite>, <+neutral> DP have no overt ending.

To summarize, our findings do not only support ideas on the role of L2 acquisition in deflection, they also make it possible to formulate these ideas more precisely in that a distinction has to be made between adult and child L2 learners. This distinction in turn is supported by language contact phenomena.

Our findings are also relevant for the discussion on the accessibility of UG in L2 acquisition. Some linguists claim that parameters can be reset in L2 acquisition, while others defend that parameters are not accessible any more after the critical period (see for instance White 2000 and Meisel 2000 respectively). It is not our intention to review this debate, but note that our findings add another perspective to the discussion. We argued that acquisition of flexion should not be formulated in terms of parameter setting, since this would make the theory of parameters vacuous. Nevertheless, our results do support the idea that acquisition of flexion is age dependent. Children are particularly good at this, while flexion seems to cause many problems for adult learners. Also other studies point to this conclusion (see, for instance, Lardiere 1998a, 1998b, 2000, Parodi, Schwarz and Clahsen 1997, Prévost and White 2000). We suggested that only young learners can make use of a particular learning strategy to analyse flexion. The strategy allows the learners to make binary distinctions between default and marked forms and can be used iteratively. Note, by the way, that it does not follow from our case study whether it is the strategy to make distinctions between default and marked elements or rather the application of this procedure to inflexion that is age dependent. In both cases the result will be the same: inflexion causes serious problems for adult L2 learners.

The fact that acquisition of flexion is difficult for adult learners might have consequences beyond morphology, even if we assume that parameters are available in adult L2 acquisition. After all, if the setting of a syntactic parameter is dependent on the presence of flexion – a position that is not uncommon since parameters are in many recent proposals related or even restricted to functional positions – we may wonder how an adult learner will be able to arrive at a proper resetting. In other words, the present study might also lead to a reconsideration of the interface between syntax and morphology.

References

Aalberse, S. (2001), *Variatie in deflexie; een vergelijking van het deflexieproces van het adjectiefparadigma van drie Nederlandse dialecten.* Doctoraalscriptie, Universiteit Utrecht.

Besten, H. den (1989), 'From Khoekhoe Foreignertalk via Hottentot Dutch to Afrikaans: the Creation of a Novel Grammar'. In: M. Pütz & R. Dirven (red.), *Wheels within Wheels; Papers of the Duisburg Symposium on Pidgin and Creole Languages*, Frankfurt am Main, p. 207-249.

Bisschop, J. (1998), *Verschillen in verwerving; adjectivale flexie bij eerste en tweede taalverwervers van het Nederlands.* Doctoraalscriptie, Universiteit Utrecht.

Blom, Alied (1994), 'Het ondoorgrondelijk bijvoeglijk naamwoord', *Forum der Letteren* 35, p. 63-80.

Broekhuis, H. (1999), 'Adjectives and Adjective Phrases'. *Modern Grammar of Dutch Occasional Papers* 2.

Coetsem, Frans van (1988), *Loan phonology and the two transfer types in language contact*, Dordrecht: Foris.

Don, J., W. Zonneveld, F. Drijkoningen, M. Everaert, M. Trommelen & W. Zwanenburg (1994), *Inleiding in de generatieve morfologie.* Bussum: Coutinho.

Elbers, L. and F. Wijnen (1992), 'Effort, production skill and language learning'. In: C. Ferguson, L. Menn and C. Stoel-Gammon (eds.), *Phonological development: Models, research, implications*, Timonium, Maryland, York Press.

Haeseryn, W. et al. (eds.) (1997), *Algemene Nederlandse spraakkunst*, Groningen: Martinus Nijhoff.

Kampen, J. van (1997), *First steps in Wh-Movement*, Doctoral dissertation, Utrecht University.

Kester, E-P (1996), *The Nature of Adjectival Flexion.* Dissertatie, Universiteit Utrecht.

Kleine, C.M. de (1999), *A Morphosyntactic Analysis of Surinamese Dutch as Spoken by the Creole Population of Paramaribo, Suriname.* PhD. Dissertation, The City University of New York.

Lardiere, D. (1998a), 'Case and tense in the 'fossilized' steady state', *Second Language Research* 14: 1-26.

Lardiere, D. (1998b), 'Dissociating syntax from morphology in a divergent L2 end-state grammar.' *Second Language Research* 14: 359-75.

Lardiere, D. (2000), 'Mapping features to forms in second language acquisition.' In: J. Archibald (ed.), *Second Language Acquisition and Linguistic Theory*, Oxford: Blackwell, p. 102-29.

MacWhinney, B. (1995), *The CHILDES project: Tools for analyzing talk*, Hillsdale, New Jersey, Lawrence Erlbaum, Associates, Inc.

Marle, J. van (1995), 'On the Fate of Adjectival Declension in Overseas Dutch (with some Notes on the History of Dutch)'. In: H. Andersen (red.), *Historical Linguistics 1993; Selected Paper from the 11th International Conference on Historical Linguistics Los Angeles 16-20 August, 1993*, Amsterdam, p. 283-294.

Meisel, J. (2000), 'Revisiting Universal Grammar,' *D.E.L.T.A.* 16, p. 129-140.

Nijen Twilhaar, J. (1990), *Generatieve fonologie en de studie van Oostnederlandse dialecten.* Dissertatie, Universiteit Utrecht.

Parodi, T., B. Schwarz and H. Clahsen (1997), 'On the L2 Acquisition of the morphosyntax of German nominals'. *Essex Research Reports in Linguistics* 15: 1-43.

Pinker, Steven (1984), *Language learnability and language development*, Cambridge: Harvard

University Press.

Prévost, P. and L. White (2000), 'Accounting for morphological variation in second language acquisition: Truncation or missing inflection'. In: M.-A. Friedemann & L. Rizzi (eds.), *The Acquisition of Syntax: Studies in Comparative Developmental Linguistics*, Harlow, UK: Longman, p. 202-35.

Punt, L. (1998), *Adjectivale flexie en verwerving; de verschillen tussen eerste en tweede taalverwervers van het Nederlands.* Doctoraalscriptie, Universiteit Utrecht.

Rossem, C. van & H. van der Voort (red.) (1996), *Die Creol Taal; 250 Years of Negerhollands Texts.* Amsterdam.

Smits, S. (1996), *Desintegration of Inflection; the Case of Iowa Dutch.* Dissertatie, VU Amsterdam.

Taeldeman, J. (1980), 'Inflectional Aspects of Adjectives in the Dialects of Dutch-speaking Belgium'. In: W. Zonneveld, F. van Coetsem & O. Robinson (red.), *Studies in Dutch Phonology*, Den Haag, p. 223-245.

Thomason, Sarah and Terrence Kaufman (1988), *Language contact, creolization, and genetic linguistics*, Berkeley: University of California Press.

Weerman, F. (1993), 'The Diachronic Consequences of First and Second Language Acquisition: the Change from OV to VO', *Linguistics* 31, p. 903-931.

Wexler, K. (1998), 'Very Early Parameter Setting and the Unique Checking Constraint: A New Explanation of the Optional Infinitive Stage", *Lingua* 106, 23-44.

White, L. (2000), 'Second language acquisition: from initial to final state,' in: J. Archibald (ed.), *Second language acquisition and linguistic theory*, Oxford etc.: Blackwell, p. 102-129.

Wijnen, F. (1997), 'Functionele categorieën in taalverwerving en taalgebruik', *Nederlandse taalkunde* 2, p. 178-198.

Appendix I

Information adult L2 learners (as given by them)

{PRIVATE }Subject	Age	L1	in NL (in months)	Dutch training (in months)
A	30	French	18	9
B	25	Kurdisch	24	12
C	36	Kurdisch	24	12
D	61	Hindi	24	13
E	29	Berber	24	14
F	27	Thai	27	18
G	28	Chinese	32	18
H	17	Dari	32	18
I	17	Dari	32	18
J	17	Dari	32	27
K	18	Berber	32	32
L	27	Danish	6	5
M	29	Chinese	144	24
N	34	Turkish	216	12

Appendix II

Information child L2 learners (as given by them)

{PRIVATE }Subject	Age	L1	in NL (in years)
A	16	Berber	15
B	18	Berber	11[*]
C	16	Italian	16
D	16	Turkish	16
E	17	Chinese	16
F	16	Maroccan-Arabic	16

* Not from Age 9 to Age 16

Endnotes

[1] The observations illustrated in (1) and (2) hold for all variants of Dutch. As for the flexion on attributive adjectives there is some dialectal variation. See, for instance, Taeldeman (1980) and Nijen Twilhaar (1990). For some discussion see also Aalberse (2001). Recall that we are describing here the standard as spoken in The Netherlands. Needless to say that this standard is also the target language of the learners in our experiment.

[2] There are, in fact, other more or less exceptional situations in which the schwa is absent. For various reasons this is the case in examples like *de houten kist* 'a wooden box', *het stoffelijk overschot* 'the mortal remains', *de maatschappelijk werker* 'the social worker', *een groot zanger* 'a great singer' (the Dutch word for singer has common gender). For an overview of these situations see Broekhuis (1999). They play no role in this paper.

[3] Alternative formulations can be considered. For instance, we could say that in the final stage attributive adjectives share the property that they have a suffix (contrary to predicative adjectives), that the suffix *-e* is the default and that a null affix (-ø) is the special case. For the time being we consider this a notional variant of (40).