Deviance in early child bilingualism

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DEVIANCE IN EARLY CHILD BILINGUALISM

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1. Introduction

In the last decade an increasing number of studies has addressed the question of how to predict "where, when and how" deviant development is to be expected in the languages of bilingually raised children. Paradis & Genesee (1995) were among the first to argue that compared to monolingual acquisition, bilingual development could in principle show signs of delay, acceleration or transfer. Gawlitzek-Maiwald & Tracy (1996) talked about "bilingual bootstrapping" to indicate that a bilingual child could take short cuts, "temporarily using his/her expertise in one language to solve problems in the other language". Hulk & Mueller (2000,2001) made a very specific claim about the possibility of cross-linguistic influence in the emerging grammars of bilingual children: this was only to be expected with respect to phenomena at the interface between syntax and pragmatics, and under the condition of apparent overlap between the two languages in the very early stages of development. This claim generated a lot of research which all focussed more or less on the vulnerability of interfaces and the exact conditions under which such vulnerability could manifest itself not only in early child bilingualism, but also in adult L2 acquisition/attrition and monolingual L1 acquisition (Serratice et al. 2003, among others).

Recently, we also witness a growing interest for the role of the input in early child bilingualism, both quantitatively and qualitatively. Sorace (2005), for example, has suggested that differences in the input have an effect on the acquisition of interface phenomena and that we can expect threshold effects in this domain. In recent work, Hulk & Cornips (2006) claim to have found such threshold effects in bilingual Dutch children acquiring phenomena at the interface between lexicon and morpho-syntax. Their work shows quantitative and qualitative differences between bilingual and monolingual Dutch children with respect to gender acquisition of the definite determiner. Their subjects in that study are children born in ethnic communities in the Netherlands with a variety of language backgrounds, who appear to "fossilize" in a certain stage of

incomplete acquisition concerning the neuter gender of the definite determiner in Dutch.

In the present paper, we look at the acquisition of gender and the role of input in a different learner group, namely French-Dutch bilingual children from middle class families growing up in bilingual in the Netherlands. We consider both spontaneous, longitudinal production data from two very young girls growing up bilingually from birth, and experimental, cross-sectional production data by 28 slightly older bilingual children whose age of first exposure to Dutch is between birth and age 4. This paper presents an exploratory study which hopes to show that the acquisition of gender morphology in early child bilingualism is a challenging domain of research which raises new and important questions concerning possible explanations of deviant development in early child bilingualism.

In the first part of the paper we present some background information on the grammatical gender of the Dutch and French definite determiner and its acquisition, as reported in the recent literature. On the basis of these findings, we try to make some predictions for the acquisition of this phenomenon in the production data of the bilingual children under consideration. The second part of the paper is devoted to the presentation, analysis and discussion of these empirical data. The concluding remarks place this discussion in the broader context of possible deviance in early child bilingualism.

2. Background

2.1. Grammatical gender in Dutch

Dutch has a two-way gender system for nouns: non-neuter (common) and neuter. There are no morphological cues to determine the gender of a noun, except the diminutive suffix *–(t)je* which when added to a noun, overrules its lexical gender and gives it neuter grammatical gender. (Nominal) gender is morphologically visible on single, definite determiners (see table 1), but not on indefinite determiners. It is also visible in a number of other cases (demonstrative determiners, relative pronouns, adjective inflection under certain conditions), but here we only consider definite determiners.

Table 1: *the morphology of the determiner in Dutch*

	singular definite	singular indefinite	plural definite	singular diminutive
neuter noun *boek 'book'*	***het***	*een*	*de*	***het*** *boek**je***
non-neuter noun *tafel 'table'*	*de*	*een*	*de*	***het*** *tafel**tje***

Non-neuter nouns, taking *de* as singular, definite determiner, are twice as frequent as neuter nouns (van Berkum 1996). Since both neuter and non-neuter nouns take *de* as plural definite determiner, *de* will appear much more frequently in input to language learning children than *het*.[1]

Linguistically speaking, (nominal) grammatical gender in Dutch can be analyzed as an [un-interpretable] feature, whose default value is [non-neuter]. This gender feature has to combine with the [+singular] number feature and the [interpretable] [+ definite] feature in order to morphologically realize the specific value [neuter] on the definite determiner which then spells out as *het*. Since a detailed linguistic analysis of grammatical gender in Dutch is outside the scope of this article, we will not discuss the precise role of these features here.

2.2 Monolingual acquisition of gender in Dutch

For reasons of space, we abstract away here from the important literature on the acquisition of the DP in all its different aspects and we will just briefly consider some recent work on the acquisition of gender morphology in Dutch monolingual children. Van der Velde (2003, 2004) studied the acquisition of gender morphology in articles by Dutch monolingual children between 3 and 6 years old in a cross-sectional experiment. In an experimental elicitation task, children were expected to produce article + noun sequences in both isolated contexts and inside clauses. Her results show that these children tend to overgeneralize the non-neuter definite article *de*; that is, they used *de* where the neuter *het* is expected, until at least age 6. This corresponds to what earlier has been mentioned elsewhere in the literature, in a much more global way (De Houwer. and Gillis 1998) and to the experimental work in progress by

[1] Dutch also has a (im)personal pronoun *het*. We leave aside the question whether this is of any consequence for the acquisition of the neuter definite determiner *het.*

Polisenska (2005): Dutch children initially use the 'default' definite determiner *de* both with neuter and non-neuter singular nouns, and only very slowly start (optionally) using the correct neuter definite determiner *het* with neuter singular nouns.

What is particularly striking is that (monolingual) Dutch children overgeneralize in one direction only i.e. they incorrectly use *de* instead of *het* with neuter nouns but never the reverse, and they do this for a very long time.

2.3 Grammatical gender in French

French also has a two-way gender system for nouns, which is visible not only on the singular definite but also on the singular indefinite determiner (see table 2). French, however, does not distinguish between the gender values neuter and common, as does Dutch, but between masculine and feminine.

Table 2:*morphology of the determiner in French*

	singular definite	singular indefinite	plural
masculine noun *livre* 'book'	*le*	*un*	*les*
feminine noun *table'table'*	*la*	*une*	*les*

Contrary to Dutch, French does not have a default value for the gender of the noun/definite determiner and in French there is no overlap between the morphology of the plural definite determiner and the morphology of one of the singular definite determiners, as is the case in Dutch with *de*: in French, there is no significant difference in frequency between masculine and feminine definite determiners. Finally, it is generally assumed that nominal suffixes in (derived) nouns in French constitute a cue for gender selection.

2.4 Monolingual acquisition of gender in French

Van der Velde (2003, 2004) also studied the acquisition of gender morphology in articles by French monolingual children between 3 and 6 years old, referring to results reported by Jakubowicz (2002) that were based on the same cross-sectional experiment as Van der Velde used for to test the Dutch children. The results showed that these French children not only did not start with a default choice for the gender of the definite determiner, but made no gender errors at all.

This corresponds to what has been found/mentioned by others in the literature (Clark & Slobin 1985): French monolingual children make hardly any gender

errors. Some linguists suggest, however, that the correct use of determiners in the early stages of development does not necessarily imply that the children have already acquired the un-interpretable grammatical gender feature on D. It may be the case that initially the selection of the gender is solely determined by phonological shape of the noun and/or by probabilistic correlation (see also the well known work by Karmiloff-Smith 1979).

2.5 Summary: similarities & differences between French and Dutch

Both French and Dutch have a two-way gender distinction for nouns, which is morphologically visible on the singular definite determiner[2]. In both languages, this determiner appears in pre-nominal position as a weak morpheme.

French and Dutch differ with respect to the frequency of the two gender forms on determiners in general, and therefore also in the input to language learning children: in Dutch one of the two forms (the non-neuter *de*) is by far the most frequent and constitutes the default choice for the child, whereas in French there is no such asymmetry and (consequently) no default choice. Acquisition of neuter gender morphology on definite determiners in Dutch is a slow process, with a high "error rate" and is not completed before age 6, at the earliest. Acquisition of such gender morphology in French, on the contrary, is fast and without errors.

3. Bilingual acquisition of gender morphology

3.1. Some findings from the literature

Problems with the acquisition of morphological markers within DP, such as gender and number, are well-known from the literature on (adult) L2 acquisition. Some authors have attributed such problems to the absence of these specific functional features in the L1 of the learners and claim that gender features are no longer accessible in adult L2 acquisition (e.g. Hawkins & Fransceschina 2004). Other authors, however, have claimed that L2 gender features are acquirable even when absent in the L1 (Bruhn de Garavito & White 2000) and explain the difficulties in production as problems in the mapping of abstract features to overt morphology. Sabourin (2001) studied the on- and off-line processing of gender in definite determiners (and adjectives) in advanced L2 Dutch of learners with three different L1s: German, a Romance language and English. She found that for definite determiners the learners with L1 German performed best, almost target like, English L1 learners worst and the Romance L1 learners in between the two others. She takes this "hierarchy

[2] It is visible elsewhere also, but we focus on the singular definite determiner here.

of performance" to suggest that having a "congruent" gender system for definite determiners in the L1 does help for L2 acquisition, at least in processing. Blom et al. (2006) found that adult L2 learners of Dutch not only have many problems with the acquisition of the neuter definite determiner, but also these learners, contrary to young children, do not adopt a default value for the gender of the definite determiner.

As for children growing up bilingually from birth and for children acquiring an L2 at a (very) early age, it is generally assumed in the literature that UG and all functional features are still accessible and consequently acquirable for these children. Granfeldt (2003) found indeed that the error rate for the gender of the French definite determiner in the young bilingual Swedish/French children he studied was very low, between 2,1% and 6,7%, which he considered not to be deviant from what is known about the error rate of monolingual children. Mueller (1990) studied the acquisition of gender in the French definite determiner by the French/German bilingual child Caroline. She also found a rather low error rate in the spontaneous production data she considered: 17% between age 2;0 and 2;6, and almost no errors between age 2;7 and 2;10. The errors consisted for the great majority in an overgeneralization of the feminine definite article *la* to contexts where the masculine *le* was required. Moehring (2001) studied bilingual French/German children whose age of first exposure to French was between 2;10 and 3;7. In the spontaneous production data she analysed she found a lot of individual variation, but the mean error rate for the gender of the French definite determiner was 19% - not so very different from what Mueller found for Caroline who was raised bilingually form birth. Nevertheless, Moerhing also found that certain children had a much lower accuracy and were more similar to the child L2 learners of French discussed in Stevens (1984). The latter found that gender assignment accuracy in L1 English children who started acquiring French at age 6 was not as high as in bilingual or monolingual children.

Cornips & Hulk (2006) studied the acquisition of gender of the Dutch definite determiner in two bilingual populations and looked, among other things, for possible cross-linguistic influence. Interestingly, the two populations differed in this respect. In children from bilingual ethnic communities, there was no perceptual influence of the other language on Dutch, irrespective of whether the other language was with or without gender distinctions in the nominal domain, and moreover these children appeared to "fossilize" in a

certain stage of incomplete acquisition concerning the neuter gender of the definite determiner in Dutch[3].

In children from a bilingual dialectal community in the southern part of the Netherlands, on the contrary, there appeared to be positive influence from the dialect onto standard Dutch with respect to the acquisition of the neuter definite determiner *het*. The results indicated acceleration in the acquisition of standard Dutch by these bilingual children compared to monolingual children. Cornips & Hulk suggested that the difference between the two populations as far as cross linguistic influence is concerned might possibly be related to the absence/presence of morpho-syntactic overlap between the determiner systems of these languages and Dutch: the dialectal and the standard Dutch determiner systems show a very high degree of morpho-syntactic overlap, whereas such an overlap is absent in the case of the determiner systems of the 'ethnic' languages and Dutch. Above we saw that the idea that having "congruent determiner systems" helps, was also suggested in the work on adult L2 acquisition of gender in Dutch by Sabourin.

Cornips & Hulk also considered the possible role of the input to explain the results of their subjects. Here too, they found a difference between the two groups: the standard Dutch input to the bilingual children in the ethnic communities was low, both quantitatively and qualitatively: not only, the dominant language within both the family and the community was not always (standard) Dutch, but also the Dutch spoken by the older members of this community often had characteristics of adult L2 Dutch, containing all sorts of "errors" and differing in various respects from the (normative) standard Dutch[4]. The input of standard Dutch to the bilingual children in the dialectal community, on the contrary, was excellent, both quantitatively and qualitatively. We cannot go into the further (sociolinguistic) details of their analysis here, but we will just retain the idea that both the input and the congruence of the determiner systems may play a role in contributing to the success of the acquisition process in the case of the neuter gender of the definite determiner in Dutch.

The last study we will mention here is Unsworth (to appear) who studies the gender of Dutch definite determiners in production data of child L2 learners of Dutch with English as L1. She finds that these children overgeneralize the non-neuter definite determiner *de* in their Dutch and that

[3] Contrary to what they found for the acquisition of verb placement by these subjects, which, although slower than in monolinguals, was nevertheless eventually target like (Hulk & Cornips 2006b).

[4] Interestingly, the influence of deviant input was apparently less important for the acquisition of verb placement since that was target like for these subjects (see note 2).

their acquisition of the neuter definite determiner *het* is delayed. Unsworth found only 3 target-like children which all had had lengthy and (relatively) intense exposure to Dutch. However, most of Unsworth's subjects overgeneralize *de* even after relatively lengthy and moderately intense exposure. Nevertheless, these results show on the one hand that acquisition of syntactic gender when not in the L1 is not impossible (see also Bruhn-Gavarito & White on adult L2 acquisition), and on the other hand that length of exposure/input plays a role, yet to be defined.

3.2. Possible predictions for French/Dutch bilingual children

The first question we would like to raise is: What to expect with respect to possible cross-linguistic influence, in the case of gender acquisition of the definite determiner by French/Dutch bilingual children?

On the one hand, the definite determiner systems in French and Dutch show overlap:

- definite determiners are (weak) pre-nominal morphemes in both languages
- definite determiners show morphological gender distinction in both languages

On the other hand, the French and Dutch systems also differ:

- they make a different subdivision within the gender concept: masculine /feminine in French versus common/neuter in Dutch,
- there is different interaction with number in both languages,
- children make a default choice for gender in Dutch, but not in French

This suggests – given what we saw in the literature - that we might expect that the French/Dutch bilingual children will have less problems with the acquisition of gender in the Dutch definite determiner than their English/Dutch peers studied by Unsworth. However, we do not expect an acceleration effect for Dutch, under the influence of French, as found in the dialectal community where the overlap and the similarity of the determiner systems were much more important. As for a possible influence from Dutch onto French, the literature does not offer us much to base our predictions on. Given the partial overlap in determiner systems we do not expect any delay in the acquisition of gender in the French definite determiner, but given the differences, no accelerations either.

The second question we would like to raise is: What to expect with respect to the role of the input and possible threshold effects? For children growing up bilingually from birth we do not expect any decisive influence. On the basis of the results of Hulk & Cornips, and Unsworth, briefly discussed

above, however, we do expect some effect of the quantity of the input, here to be seen as the length of exposure, for bilingual children whose first exposure to the L2 is later than birth.

In order to test these predictions and to gain a further understanding of the acquisition of gender in bilingual learners, we take a look at empirical production data from two different types of bilingual French/Dutch children. First, we consider spontaneous data from two bilingual girls, Anouk and Annick, growing up bilingually from birth, in their early stages of determiner production, from around age 3 onwards. Second, we look at experimental, cross sectional production data from 28 child L2 learners of Dutch (L1 French) between age 4;5 and 7;11, whose first age of exposure was between birth and age 4.

4. Empirical data

4.1. 2L1 acquisition – spontaneous production data

The first data we consider here are longitudinal, spontaneous production data from two young French/Dutch bilingual girls Anouk and Annick (in the Amsterdam corpus). Anouk and Annick were recorded by Hulk & Van der Linden and used in several studies by these authors (e.g. Hulk & van der Linden 1996, van der Linden 2000, Hulk & Müller 2000). Anouk is the only child of a French mother and a Dutch father. Annick is the first born child of a French father and a Dutch mother. She has a younger sister, born when Annick was 2;6. Both parents claim to be using the "one parent, one language" strategy. Both children went to a Dutch language nursery for three or four days a week. Analyses of the data of the three children, measuring MLU, MMU, Upper Bound, and vocabulary richness shows that Annick and Anouk are balanced bilinguals (in the first files Anouk is slightly dominant in French).

Here we will base our observations mainly on the work by van den Berg (2001) and only take into account the files she studied which are from around age 3 onwards, when these girls productively use definite determiners in both languages. Their MLU is then at least 3, and the percentage of bare nouns in French below 10%[5]. Since Dutch does not have a gender distinction on the indefinite determiner, and our goal is to compare French and Dutch on the possible problems with gender marking, we only consider definite determiners here. Consequently, the analysis presented here should be taken with caution, it can only be viewed as showing a tendency, the mere beginning of an

[5] We are not interested here in the question how many lexical determiners they use or how many bare nouns. For a more general analysis of the acquisition of DP by one these children, see Hulk (2004).

understanding of the complete picture of the acquisition of (nominal) gender. In a more elaborated study we would for example also want to find out whether the gender of the noun plays a role with respect to the quantity and frequency of bare nouns, i.e. to raise the question: do neuter nouns occur as bare nouns more often and for a longer period than non-neuter nouns? We leave all these questions and others for future research.

Anouk, age 3;1.4-3;10.7

The gender morphology of French definite determiners

We divided the period under consideration in two in order to see whether there is any development. Between age 3;1.4 and 3;3.23, (MLU >3) Anouk produces **226** definite determiners in French, of which **8** have the wrong gender: 4 have masculine gender instead of feminine and 4 the other reverse.

(1) **la** frigidaire An 3;1.4
'the[FEM] fridge[MASC]'

(2) **le** glace An 3;3.17
'the[MASC] ice cream[FEM]'

From age 3;4.28 until the end of therecordings (age 3;10.7), Anouk produces **337** definite determiners in French and makes **only 1** gender error, using the feminine instead of the masculine:

(3) **la** soleil An 3;10.17
'the[FEM] sun[MASC]'

From these results, we may tentatively conclude that Anouk makes hardly any errors in the gender of the definite determiner in French: 9 out of 563, which is 1,7%. Moreover, the few errors go in both directions. This result corresponds to what has been found for monolingual French children.

The gender morphology of Dutch definite determiners

Unfortunately there are in general less recordings for Dutch in Anouk's database, moreover in Dutch bare nouns take longer to disappear than in French, therefore we only have a small amount of data with definite determiners. In the total period under consideration, between age 3;1.4 and 3;10.7, we found **52** definite determiners in Dutch, of which **8** have the wrong gender (= 15%). All the errors consist in the use of the non-neuter/default **de** instead of the neuter **het** (with a neuter noun):

(4) **de** water An 3;1.4
'the[DEF] water[NEU]'
(5) **de** poppeliedje An 3;7.9
'the[DEF] puppet-song[NEU]'
(6) **de** ijs An 3;10.7
'the[DEF] ice-cream[NEU]'

Anouk only produces 2 correct neuter definite determiners, in their reduced form *'t* (on a total of 10 neuter nouns), but it is not entirely clear whether these examples really represent a productive use:

(7) Dat is helemaal in **'t** Frans An 3;7.29
'that is entirely in the French'
(8) Is alleen maar in **'t** Nederlands
'Is only in the Dutch'

Although absolute numbers are low, it is clear that for Anouk the acquisition of gender in Dutch is more problematic than in French. Not only the percentage of errors is higher taken all definite determiners together, but also the errors go in one direction: it is the neuter definite determiner that causes the problems. Here the error rate is 80%.
However, these results do not differ very much from what has been found in the literature on monolingual Dutch children who initially overgeneralize the definite determiner *de* and do not use the neuter *het*. It may be the case that Anouk is a little bit slower than monolingual children in starting to use the neuter *het*, but we do not have enough data here to support such a claim. We have shown elsewhere, however, that Anouk does have a slight delay compared to monolingual children in the acquisition of the DP in general (Hulk 2004).

Annick
The gender morphology of French definite determiners: age 3;1.26-3;5.8

Between age 3;1.26 and 3;5.8 (MLU> 3), Annick produces **82** definite articles of which **28** have the wrong gender (=**34%**). Interestingly, most errors go into one direction: Anouk uses 2x the masculine *le* instead of the feminine *la*, and **26** the feminine *la* instead of the masculine *le*. The errors occur in all files under consideration, there is no clear development in this period. Here are some examples of her errors:

(9) **la** tracteur Ani 3;1.26
'the[FEM] tractor[MASC]'

la livre Ani 3;4.9
'the[FEM]book[MASC]'
la chateau Ani 3;5.8
'the[FEM]castle[MASC]'
la jardin
'the[FEM]garden[MASC]'

(10**)** **le** ferme Ani 3;1.26
'the[MASC]farm[FEM]'
le musique Ani 3;5.8
'the[MASC]music[FEM]'

Interestingly, Annick clearly differs from Anouk, and from monolingual French children, in making quite a lot (34%) of gender errors and in overgeneralizing the feminine definite article. A similar example of overgeneralization of the feminine has been mentioned by Mueller (1990) for the German/French bilingual child Caroline whose error rate, however, was lower (17%) than Annick's error rate, which seems to be nearer to some of the early child L2 children Moehring (2001) studied.
To get a more complete picture it is necessary to also take into account the indefinite determiners and other gender agreement phenomena such as adjective agreement. We leave this for future research.

The gender morphology of Dutch definite determiners

For Annick we have more data on Dutch than for Anouk, however absolute numbers are still rather low. We find the first definite articles in Dutch at age 2;07.10. From that age until age 3;4.10, at the end of the recordings, Annick only makes gender errors with definite determiners accompanying neuter nouns: in that period, she uses **21** neuter, singular, nouns, **11** of which **(=50%)** with the (wrong) non-neuter/default definite article *de* and **10** with the correct neuter *het.*
When we compare the first and the last file considered here, we see that there is a clear development: at age 2;07.10 Annick uses 7 neuter, singular, nouns, 6 of which with the wrong definite determiner *de*, i.e. 85% error. This percentage is comparable with what we saw in Anouk's data.[6] At age 3;4.10, Annick also uses 7 neuter singular nouns, but here only 2 nouns take the wrong definite

[6] In this file she also produces 13 non-neuter singular nouns, all with the correct definite determiner *de.*

determiner *de*[7]. This result represents 28% errors and is comparable to the error percentage which has been found by van der Velde for monolingual Dutch children of that age. Clearly, Annick is further in her acquisition of the gender of the definite determiner in Dutch than Anouk. This corresponds to a more general difference in development between the two girls which has also been noted elsewhere.

Nevertheless, we can tentatively conclude that both Annick and Anouk appear to be within the range of monolingual children with respect to their gender choice of the definite determiner in Dutch, although Annick is quite a bit faster than Annouk. We did not however find any clear evidence for this being an acceleration effect under the influence of French.

As for French, here Anouk is clearly within the range of monolingual French children, where Annick presents a slightly different picture, at least for the gender of the definite determiner considered here, which seems to be more in line with what has been found in some of Moehring's early child L2 acquirers of French. More research is necessary here. We are not (yet) able to determine whether Annicks French is influenced by her Dutch and whether the overgeneralization of the feminine maybe represents an initial default choice.

Summarizing

Both Anouk and Annick are growing up bilingually from birth and are, at least in the period under consideration here, balanced bilinguals. There is no reason to question their input in Dutch neither quantitatively nor qualitatively. We have no information about their ultimate attainment, but given that they live in the Netherlands and that they are already at an early age within the range of monolingual Dutch children, there is no reason to think they will end up differently, at least for Dutch. As for French, their main source of input is the French native speaker parent and other family and some friends. There is no reason to question the quality of this input, the quantity may be a bit low, but in the period under consideration this does not seem to create any major problems.

The situation is a bit different for the other French/Dutch bilingual children we will study in the next section.

4.2. French/Dutch bilingual/early child L2 acquirers, ages 4;5-7;11

4.2.1. Subjects and experiment.

[7] In this file we also find 24 non-neuter singular nouns, all with the correct definite determiner *de.*

In this section we take a closer look at some aspects of elicited production data by 28 young bilingual Dutch/French children attending the French school in the Hague. All these children have been first exposed to Dutch between birth and age 4 or possibly even a bit later[8]. All except Yannis, are dominant in French, their native language. These children were submitted to a picture description test, containing 30 pictures, telling a story about two little men going to rescue a princess. The test was designed by Dimroth (2001) to elicit topic-related particles, such as *again, also* and was carried out in the Hague by an MA-student from the University of Amsterdam. For the purpose of this article, we only looked at the gender of the definite determiners which appeared in the production data of the children[9]. The mean number of definite nouns produced per child was around 25. Of the total of 28 children, 17 were tested in Dutch, the other 11 in French. Comparison of the acquisition of the two languages within the same individual is therefore not possible with these subjects.

4.2.2. Results

French

The total number of definite determiners produced by the 11 bilingual children tested in French was around 275. Only **one** gender error was made, by the youngest child Karine age 4;5, who once used the feminine article *la* with the masculine noun *chateau*. However, she also twice used the correct masculine *le* with the same noun:

(11) la chateau; le chateau, le chateau Karine 4;5
[FEM] castle [MASC]

This result is not very surprising, given that French is the dominant language for these children and monolingual children make hardly any gender errors in this domain. Moreover, we saw above that one of the children growing up bilingually from birth, Anouk, did also make very few gender errors (1,5%) before age 3;10.

Dutch

No gender errors were made with non-neuter nouns, all children correctly used the non-neuter definite determiner *de*. This corresponds to what

[8] Unfortunately, more precise information about the age of onset is not available to us.
[9] It is important in to keep in mind that determiners were not the purpose of the elicitation in this experiment.

we have seen in their monolingual peers and the 2L1 girls Anouk and Annick, at a younger age.

Many gender errors, however, were made in the production of definite determiners with neuter singular nouns. All 17 children taken together produced **109** neuter nouns with a definite determiner, **only 30%** of these determiners had the correct gender morphology *het*:
in other words these children overgeneralize the non-neuter/default definite determiner *de* in **70%** of the cases, incorrectly using it with neuter nouns.

In order to find out whether there was any age-related development in the correctness of gender, we divided the children in three age groups, see table 3.

Table 3: *subjects tested in Dutch – three age groups*

Age group	number of children	neuter nouns	incorrect *de*	percentage error
Young 4;5-5;4	5 children	21	13	**62%**
Middle 5;7-6;10	6 children	36	21	**60%**
Old 7;3-7;11	6 children	52	42	**80%**

Surprisingly, there is no age-effect in the sense that the older children do not make less errors than the younger ones. Note that Unsworht(to appear) did not find any clear age effects in her data either. However, an important question to be raised here is whether these older children also had a more lengthy exposure to Dutch than the younger ones, or to put it differently the question is which was their age of first exposure to Dutch. Unfortunately, we do not have precise information about the exposure of these children. Future research will have to consider this aspect in more detail.

It is possible to distinguish different patterns in the individual production data:

- **targetlike**: **3** children (TH age 4;8, FL age 6;1 and SA age 6;10) never overgenralize *de*, but always use the correct neuter definite determiner *het* with neuter nouns (0% error)
- **no *het*** and **overgeneralization** of ***de*** to all neuter nouns (100% error with neuter nouns): **7** children never produce *het*; 4 of these 7 are in the oldes age group, between age 7;3 and 7;11
- **overgeneralisation of *de*** (mean error rate 70%)**,** but **some correct uses** of **het**: the other 7 children. Moreover, 3 of these children produced

the same neuter noun (*kasteel*) both with correct *het* and with incorrect *de*

Particularly the results of these last seven children which show optionality in gender morphology with the same noun, constitute a challenge for any linguistic explanation. We will leave this challenge for future research.

4.2.3. Discussion

Let us now consider these results in the light of the predictions/questions raised above concerning the role of cross-linguistic influence and/or input.

The error-rate of these children is a very high compared both to what we know of monolingual children in this age group, and of the younger 2L1 child Annick who had an error rate of only 28% at age 3;4.10. It is however comparable to what Hulk & Cornips (2006a) found in the production data of the bilingual children from the ethnic communities, around age 5 and to what was found by Unsworth (to appear) for the English/Dutch bilingual children she tested which had an overall error rate of 77,5% with neuter nouns, massively overgeneralizing *de*. One of the possibilities we mentioned above was that the French/Dutch bilinguals would do better in Dutch than the English/Dutch bilinguals since there is at least a partial overlap between the determiner systems of French and Dutch. The data considered here do not support the idea of such a positive cross-linguistic influence of French onto Dutch. Above we saw that the role of the L1 in the acquisition of gender morphology of the L2 is subject to a debate in the literature. The present data may contribute to this debate in the sense that here we did not find any positive influence of the L1 (French) onto Dutch, nor the reverse. Moreover, these results suggest that the conditions for possible cross linguistic influence in 2L1 acquisition as proposed by e.g. Hulk & Mueller might not hold for such an influence in (very) early child L2 acquisition, or alternatively, might not hold for phenomena such as gender assignment which are at the interface between lexicon-morphology and syntax.

As for the role of the input, that looks like an important factor here. Both the 2L1 acquirers Anouk and Annick and the very early child L2 learners from the Hague are living in the Netherlands, in Dutch speaking communities, in (middle class) families who are aware of the bilingual situation and in particularly of the importance of the input in French, which is not the language of the community. Therefore, I think it is safe to assume that there is nothing

wrong with quality of the input in both French and Dutch[10]. The only difference between Anouk/Annick and the other children could be the quantity of the input in Dutch, in the sense of the age of first exposure, and maybe, but that is less clear, the length of exposure. In that respect the bilingual children from the Hague seem to be in similar situation as the child L2 learners from Unsworth and partially also the bilingual children from the ethnic communities in Hulk & Cornips (2006a), although for the latter the input in Dutch is probably also low from a qualitative point of view.

This immediately raises the question: what is so special about the phenomenon of neuter gender in Dutch that it makes it vulnerable to the quantity of input , contrary to other phenomena which do not show the same vulnerability. We will address this question in a more general context in the next section.

5. Concluding remarks

The results of this exploratory, pilot study show on the one hand that for bilingual children the acquisition of gender morphology in the definite determiner shows more deviance in the case of Dutch than in the case of French. On the other hand, the results show that within the group of bilingual children considered, with respect to Dutch, there is a difference between the children who grow up bilingually from birth, and the children who start acquiring the second language only slightly later. Moreover, the results suggest that the deviance found cannot be explained by cross-linguistic influence from the other language. Let us consider these points one by one to see what are the more general issues at stake here.

In the introduction we briefly mentioned earlier work on the vulnerability of interface phenomena in early child bilingualism. That work was mainly concerned with the interface between syntax and pragmatics. In the present paper, however, we considered a phenomenon, the gender morphology of the definite determiner in French and Dutch, which can be characterized as being at the interface between lexicon-syntax and morphology. Now, it could simply be the case that this type of interface phenomenon is not vulnerable with respect to cross-linguistic influence. Although not a very attractive hypothesis, future research should be concerned with the acquisition of other interface phenomena of this type, before we can reject such a hypothesis.
Another possibility could be that the conditions for cross-linguistic influence as proposed by Hulk & Mueller only hold for bilingual acquisition from birth and

[10] However, the quality of the input has not been explicitly studied here and should be properly established in future research on this topic.

not for very early child L2 acquisition. This too is something to be studied for other phenomena and other subjects, before we can start answering this question.

More importantly, the results of the present study show that cross-linguistic influence cannot be the only explanation for deviant development in early child bilingualism. We saw that the bilingual children from the Hague did show a deviant development in the acquisition of neuter gender morphology in the Dutch definite determiner which could not be explained by cross-linguistic influence, confirming similar findings in the literature for this phenomenon.
Comparing the different data from our own subjects with the results from Unsworth and from Hulk & Cornips, we tentatively suggested that the input is playing a crucial role here. It is probably not the quality of the input, as had been mentioned as a possible explanation in Hulk & Cornips, but rather the quantity of the input that is important here. All cases of deviant development in the bilingual acquisition of neuter gender in Dutch have in common that the subjects are not children growing up as (balanced) bilinguals from birth and therefore they have got less (or no) input in Dutch at a very early age. Apparently the acquisition of neuter gender Dutch is extremely vulnerable with respect to the amount of input at an early age, contrary to the acquisition of other phenomena. This might even suggest the existence of a new kind of "critical age", around age 3 or 4, for this (type of) phenomenon[11]. If we speculate a little bit on this topic, we could say that just as is known from the literature on the "traditional" critical age discussion, here we expect and see a lot of variation: for some children this new critical age does not seem to play a role (both in the data considered here and in Unsworth there are child L2 learners who develop target like) and we also find a lot of individual variation. Clearly, this is a very speculative hypothesis to be tested in detail for other phenomena and other subjects in future research.

Finally, the question has been raised: why is it the acquisition of neuter gender in Dutch that is so vulnerable to input and not other phenomena? Although we have no possibility to answer this important question here, there is one element which probably should be taken into account in future research which addresses this question. We have seen that the frequency of the neuter definite determiner *het* in the Dutch input is extremely low and that the definite determiner *de* is by far the most frequent and (consequently) its value is adopted as default for the characterisation of the gender feature during a very

[11] At a recent workshop on early child bilingualism in Amsterdam (December 2005) similar suggestions as for such a critical age have been made.

long period in the acquisition process of monolingual children[12]. We might hypothesize that such phenomena - at the interface of lexicon-syntax and morphology - which feature characterization can be assigned a default value, constitute a good candidate for deviant development and "early critical age" effects in early child bilingualism. Future research will have to tell whether there is independent support for such a hypothesis.

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[12] The results of production experiments here and in the literature and their explanations also raise the question what to expect for these children in comprehension tasks. On the one hand, if these bilingual children really *misrepresent* the feature specification of the (common) definite determiner *de* in their grammar as being compatible with both neuter and common nouns, we expect them to show this also in comprehension tasks. If, on the other hand, they produce *de* as a 'default' choice because they have a mapping problem, i.e. difficulties in relating the appropriate surface form to the correct underlying abstract feature, we expect them to show (correct) knowledge of the gender specification in comprehension tasks. Brouwer, Cornips & Hulk address this question in forthcoming work.

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