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SOME ASPECTS OF THE SIMULTANEOUS ACQUISITION OF DUTCH AND ENGLISH BY A THREE YEAR OLD CHILD

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1. Introduction

In this article, I will discuss some aspects of the natural language acquisition of a girl growing up bilingually. Some recent studies of similar cases include those of Bergman (1977) and Saunders (1982). The former deals with the simultaneous acquisition of Spanish and English and is sociolinguistically oriented. The latter gives a very impressive account of many different aspects of the acquisition of English and German by two Australian boys. This study again is more sociolinguistically oriented and specifically mentions language choice and environmental factors influencing attitudes towards bilingualism on the part of the learners. This same approach is taken by Fantini (1978) who, in contrast with the studies mentioned above, studied two children who started to learn a second language (English) only after they had some knowledge of a first language (Spanish).

The present study resembles these studies in that the data are analysed from a sociolinguistic point of view. On the other hand the present study differs from these studies in that an attempt is made to connect the insights thus gained with issues that have mainly been discussed in studies of first language acquisition.

2. Description of the study

2.1. The subject and her linguistic background

The subject of this study is an only child, Kate, who has been exposed to English and Dutch from birth onwards. The child has almost always been addressed in American English with a Midwestern accent by the mother and in standard Flemish (a variety of Dutch) by the father. The child's paternal grandparents do not speak English but address the child in a 'cleaned up' variety of Gent dialect. Visitors to the home address the child in standard Flemish or Dutch if this is their native or near-native (in the case of dialect speakers) language; in other cases the child is addressed in varieties of English.

The family's home base has up to the time of writing always been Antwerp, a fairly large city in Belgium with much international activity mainly due to the presence of a major sea-port and a large diamond industry. Many languages are spoken in the streets but the language of the local inhabitants is a dialectal variety of Flemish. However, there have been many periods when the family was living abroad. Table 1 gives a picture of the child's whereabouts until the end of the study.

Table 1: list of countries visited by Kate

AGE	COUNTRY
0 to 0;4	Belgium (Antwerp)
0;4 to 0;9	Australia (Canberra)
0;9 to 0;10	USA and Great Britain
0;10 to 1;6	Belgium (Antwerp)
1;6 to 1;8	USA
1;8 to 2;5	Belgium (Antwerp)
2;5 to 2;5	USA (2 weeks)
2;5 to 3;4	Belgium (Antwerp)
end of study	

In total Kate spent between 8 and 9 months in an English-speaking country compared to about 2 years 7 months in a Dutch-speaking country. The local environment has thus been mainly Dutch-speaking. Yet Kate's mother was not her only source of contact with English in Belgium: Kate's parents speak English with one another; Kate has been visiting an English playgroup nearly every week from the age of 2 years; she has been going to an English private school in Antwerp from the age of 2;6; dinner or lunch guests often speak no Dutch and hence use English; and finally, at least once a month the family receives an English-speaking visitor who stays for a few days (usually a different person each time). To sum up, the language input to the child is more or less equally divided between English and Dutch. Within both languages the child is exposed to many different varieties, the main ones being American English and standard Flemish. Both parents are well-educated and have prestigious jobs. The social background could be described as upper middle class.

2.2. Data collection and examples

A total of 19 one-hour audio-recordings of spontaneous, unstructured interaction between Kate and adult interlocutors were made between the ages of 2;7,12 and 3;2,7. On 15 tapes the adults present include at least the child's mother M, who is a native speaker of English, and the investigator A, who is a native speaker of Dutch (the standard Flemish variety). The investigator is a close friend of the child's mother and speaks English to her (M has a very limited productive knowledge of Dutch and a quite unsatisfactory pronunciation). A met the subject 6 months before the start of the study and was in regular contact with her after the initial meeting. The child saw the investigator as a close friend of the family's and felt perfectly at ease with her. The child was not aware that her language was the field of interest of the investigator and behaved quite normally during the recording sessions. The language recorded can be assumed to be typical of the language the child used in non-recorded situations. There is no reason to believe that the interactions between the adults were influenced by the presence of the recorder.

Usually interactions were recorded while Kate was playing with A in the kitchen while M was cooking dinner. Favourite games included 'flying', in which Kate would ask A to lift her high up in the air; playing with an animal farm; pretending you're a lion or some other ferocious animal; making 'dinner' or 'tea' and naming colours. Each day before going to bed Kate would have a conversation with M about the events of that day or the next. Often during the recording sessions M would also discuss past and future events with Kate. Other interaction between Kate and her mother frequently concerned the eating or preparing of food. There are not many examples of playing between Kate and her mother. As M has reported to me she does not usually play with Kate, except when Kate needs someone to give 'tea' or 'dinner' to. Some fairly typical examples of interaction are the following:

1. Tape 1; age 2;7,12

K: Ik ga op de draad. (= I am stepping on the wire.)

A: (to K) Ge hebt zo'n schoon schoentjes aan, zeg.
(= You're wearing such nice shoes!)

K: Ja. (= Yes)

A: Zijn 't nieuwe schoentjes? (= Are they new shoes?)

K: Black!

A: Black. Ja, zwarte schoentjes. (= Yes, black shoes.)

M: (to K) Van wie komt ze, de schoentjes? (= Who does they come from, the shoes? - incorrect Dutch verb)

K: Van Eleanor! (= From Eleanor!)

M: Ven Cousin Eleanor. (= From Cousin Eleanor.)

2. Tape 2; age 2;7,17 (both A and M present besides K)

K: (to M) You have ?..? have black shoes. (?..? indicates section of tape not transcribable)

M: No

K: You have not

M: Fortunately I'm not going to go anywhere tonight that I need them. But I have to go to Brussels tomorrow.

K: Think so?

M: I don't think I'll wear them.

K: I think you don't wear..wear the shoes.

M: OK.

K: No.

M: I don't think I'll wear them. I think I-

K: I think I will wear that shoes I think.

M: You will?

K: 'Cos I'm going to go to the shops.

M: To the shops?

K: To the shops.

3. Tape 4; age 2;9,0 (only A present besides K)

K: Ik ga nu zitten en nu werken. Jij mag nie..nie..met mij stout zijn nie! (= I'm now going to sit and work. You're not allowed to be naughty with me not! - A had just warned K that she should be careful in throwing a shoe to supposedly shoot an imaginary bird in an imaginary tree. K misunderstood and thought A had said she would break something, not that she might break something)

A: Ik ben nie stout met u! (= I'm not naughty with you!)

K: Jij mag nie spreken tegen mij! (= You're not allowed to talk to me!)

A: Ah!

K: En dan ik ga in den hoek. (= And then I go in the corner.)

A: Ah?

K: En ik ga hier..en ik ga..jij mag nie meer spreken te mij! (= And I'm going here..and I'm going..you are not allowed to speak to me anymore!)

4. Tape 14: age 3;1,13 (only M present besides K)

K: Look! Look there are dancing to-to their all-all people with yellow heads on! (she is making matches dance)

M: Yeah! Little match people hey!

K: Yeah. With all those peo-with with all those yellow heads!

M: Yeah!

K: We can put another people here! Another people here. But they're all standing up like this, look! Is that rice?

M: Rice and buckwheat-and we're gonna mix that with fried vegetables and we're gonna put the egg on top. And that's called fried rice, fried rice and buckwheat, fried vegetables.

K: Not buckwheat, rice!

M: Yeah. But the grey is buckwheat, see? The white is rice and the grey is buckwheat.

K: Grey is buckwheat.

M: Yeah.

K: The yellow is rice.

M: Yeah.

K: Yellow is not rice! (laughs)

M: Yeah it is!

K: But the ye-yellow is not rice, is it?

M: Mm. (meaning yes)

K: But the yellow is not rice!

M: What is it then?

K: The yellow is corn! (not present in the kitchen at that time)

M: Oh yeah, the bright yellow. But we haven't had any corn at the moment. You like corn?

K: Yes.

M: Oh, we'll have lots of it in America.

K: And we'll bake bread in America.

M: Yeah, with daddy and mammy.

K: And I-I too?

M: Yeah, with Kate, of course!

5. Tape 17; age 3;2,7 (both A and M present besides K)

K: (more to self than to anyone in particular) Ik heb hier nu die stukjes en ik ga nog één opete. (= I now have these little pieces here and I'm going to eat one more. - the topic is pieces of strawberry)

K: Kindje, jij moet-moet in mond stukjes doen. (= Little child, you have to in mouth put little pieces. - directed at an imaginary 'daughter', in this case A)

K: Mond. Mondstukjes, OK? (= Mouth. Little mouth pieces, OK?)

A: Zo? (= Like this? - assumes role of 'little child')

K: Jj- (= Ye-)

A: Zo goed? (= Is it good like this?)

K: En dan moet je-ik ik zal da zo-zo in die pot zette- (= And then you have to-I shall put it like that in that pot-)

A: Ja. (= Yes.)

K: -in die pot smijten- (= throw in that pot.)

A: Ja.

K: Jij moet da. (= You have to.)

A: Ja.

K: En ik ga jij een ander stuk hebben en ik da. (= And I'm going to have you another piece and I that one.)

A: Ga je mij nog eentje geven? (= Are you going to give me another one?)

K: Ja.

2.3. Transcription

The tapes were transcribed by the investigator using conventional spelling and adding contextual information where possible. All interactions were transcribed in full (including hesitations, false starts, repetitions and

self-made songs) except for extended conversations between adults that did not include the child in any way. Child utterances were separated from each other on an intuitive basis, which was also used for separating adult utterances.

In the following only fully transcribed utterances are taken into account.

3. Analysis and discussion

All the child's utterances were classified as belonging either to Dutch or English in cases where all the words in a particular utterance were Dutch or English, allowing at most one phonetic element from the other language. Utterances that did not meet this criterion were classified as belonging to a residual class of 'mixed' utterances. This term implies nothing more than that readily recognisable elements from both languages were present in one utterance. It was determined which language was used by the child on what occasion. Eight patterns for English and Dutch utterances exist:

- a. EtoE: English child utterance to English utterance by an English speaker or English utterance initiating conversation with an English speaker
- b. DtoD: same as EtoE, but substitute 'Dutch' for 'English'
- c. EtoD: English utterance to a Dutch speaker in response to a Dutch utterance by that Dutch speaker or initiating conversation with a Dutch speaker
- d. DtoE: Dutch utterance to an English speaker in response to an English utterance by that speaker or initiating conversation with an English speaker
- e. EtoDbyE: English utterance to an English speaker in response to a Dutch utterance by that speaker
- f. DtoEbyD: Dutch utterance to a Dutch speaker in response to an English utterance by that speaker
- g. EtoEbyD: English utterance to a Dutch speaker in response to an English utterance by that speaker
- h. DtoDbyE: Dutch utterance to an English speaker in response to a Dutch utterance by that speaker.

This classification was considered necessary since the present study is exploratory in seeking to discover in what ways language is used in a bilingual home. The division into 8 categories is based on the actual data. Table 2 lists the relevant figures.

Table 2: the 8 categories of language usage by Kate (°)

TAPE	a.	b.	c.	d.	e.	f.	g.	h.	NT(°°)
1.	12.3	61.6	12.3	1.4	-	-	1.4	1.4	73
2.	7.3	42.2	29.9	0.6	0.6	0.3	1.3	1.6	315
3.	-	46.9	28.1	-	-	-	-	-	32
4.	-	96.0	0.6	-	-	-	-	-	322
5.	37.3	58.2	1.5	1.0	-	0.5	-	1.0	201
6.	-	93.6	0.2	-	-	-	-	-	437
7.	17.1	67.6	9.5	-	-	-	-	-	222
8.	28.2	70.2	5.5	0.8	-	-	-	2.0	255
9.	35.0	50.6	2.4	1.2	-	-	1.2	-	83
10.	27.7	52.9	7.6	0.8	-	-	0.8	-	119
11.	65.1	13.8	1.8	0.9	0.9	-	-	3.7	109
12.	41.3	45.0	3.8	1.3	-	-	1.3	-	80
13.	42.8	53.6	1.2	-	-	-	-	-	84
14.	98.1	-	0.9	-	-	-	-	0.9	108
15.	75.5	10.3	1.9	0.6	1.9	-	-	-	155
16.	34.8	55.0	4.0	-	-	0.5	-	1.5	198
17.	39.2	55.9	1.4	0.5	-	-	-	-	222
18.	-	94.7	0.4	-	-	-	-	-	245
19.	-	90.0	3.0	-	-	-	-	-	369

(°) the letters a. through h. refer to the corresponding categories in the text; all figures except those in the last column are percentages; the percentages do not necessarily add up to 100 since mixed utterances are not taken into account

(°°) total number of completely transcribed utterances for that recording session

Table 2 shows that most of Kate's utterances fall in the categories a. through d. Only 38 child utterances (or 1.05 per cent of a total of 3,629 completely transcribed utterances) are responses to code switches by the interacting adults. The adult interacting with Kate is said to have code switched when she has uttered a complete sentence in the language she does not usually use with the child. As may be seen from Table 2 it rarely happens that the child's interlocutors code switch. As a result there is little opportunity for the

child to develop a consistent response strategy. Table 3 looks at Kate's responses to code switches by M and A in some more detail (the data contain code switches only by these interlocutors).

Table 3: child responses to adult code switches

TAPE	ET	RE1	RD1	DT	RE2	RD2	AS	RF	RU
1.	1	100	-	1	-	100	2	100	-
2.	5	80	20	7	28.6	71.4	12	75	25
5.	1	-	100	2	-	100	3	67	33
8.	-	-	-	5	-	100	5	100	-
9.	1	100	-	-	-	-	1	100	-
10.	1	100	-	-	-	-	1	100	-
11.	-	-	-	5	20	80	5	80	20
12.	1	100	-	-	-	-	1	100	-
14.	-	-	-	1	-	100	1	100	-
15.	-	-	-	3	100	-	3	-	100
16.	1	-	100	3	-	100	4	75	25

- ET: total number of switches to English made by Dutch interlocutor
- DT: total number of switches to Dutch made by English interlocutor
- RE1: English responses by Kate to code switches by a Dutch interlocutor (in percentages)
- RD1: Dutch responses by Kate to code switches by a Dutch interlocutor (in percentages)
- RE2: English responses by Kate to code switches by an English interlocutor (in percentages)
- RD2: Dutch responses by Kate to code switches by an English interlocutor (in percentages)
- AS: total number of adult code switches
- RF: responses by Kate in which she follows the adult's language switch (in percentages)
- RU: responses by Kate in which she continues to use the language usually used with the particular interlocutor (in percentages)

In the whole corpus, A switches to English 11 times when speaking to Kate. In 73 per cent of the cases Kate follows the language switch and responds in English. M switches to Dutch 27 times when speaking to Kate. In 78 per cent of the cases Kate follows the language switch and responds in Dutch. The figures in Table 3 show that there is a tendency on Kate's part to respond in the language the interacting adult switches to, whatever the language involved. No pattern emerges that could be explained developmentally: throughout the study the patterning of child responses to adult code switches is the same.

I claimed above that since adult code switches occur quite seldomly, there is not much opportunity for the child to develop a consistent response strategy. Table 3 shows that, although we are not dealing with any consistent response strategy, a marked tendency to follow the adult's code switch can be observed. Since the available data are quite scarce, it is premature to draw any far-reaching conclusions. It does seem to be the case, however, that Kate is well on her way to learning aspects of language use that are typically associated with bilingual individuals: the bilingual's noted flexibility in being able to switch from one code to another has intrigued many scholars and has triggered much research in the field of bilingualism (e.g. Gumperz, 1982). An example of the quasi-automaticity with which many adult bilinguals respond in the language they are addressed in occurs in Tape 2: M and K are talking in English and in one and the same (English) sentence K refers to both M and A:

6. Tape 2; age 2;7,17 (both A and M present besides K)

K: You also going..go to the yellow bus and you also.
(first 'you' is directed at M and the second 'you' at A)

A: Oh, OK, I'll do as you say.

K: And you stay home and you stay home and I'm going to go to the station.

A: To the where? Where?

K: I'm going to go to the station. (underlined word is stressed)

A: Ga je met de tram of ga je met de bus? (= Are you taking the tram or the bus?)

K: I'm going to go..I'm going to go with the bus.

A responds in English after K has addressed her in this language. This is atypical for A's language usage when speaking to K, but quite typical for her language usage when speaking to adult bilinguals. In fact A had to make a conscious effort at the beginning of her acquaintance with K not to use English with

her out of respect for Kate's parents' wish that the child would hear mainly one language spoken by one and the same person. (For a recent study on strategies used by parents in order to raise their child bilingually, see Arnberg, 1979.) Extract 6 also exemplifies Kate's response to code switching. In the second and third child utterances the responses follow the code switches. The fourth child utterance does not follow the switch back to the language usually used by A, maybe because the topic is still the same and was initiated by M. Another example of a response to an adult code switch occurs in extract 7:

7. Tape 11; age 3;0,17 (both A and M present besides K)
- K: (to M) When my hand goes wuh! I got big hands!
- M: If it grows, yeah.
- A: (to M) Yeah, we compared hands a minute ago.
- M: Much bigger than the lion. Is it gonna get bigger?
- K: Bigger and bigger and bigger and bigger!
- M: Here comes a giant hand...
- A: (to K) Mama is zot hè. 'n Beetje zot hè. (= Mommy is crazy, huh. A little bit crazy huh.)
- M: Klein beetje. (= Just a little bit.)
- K: Alle handen woew!! (= All hands - and then a sound meaning 'growing', 'getting bigger')

In this extract Kate's last utterance follows the code switch by M, although the topic had so far been dealt with in English. M's switch to Dutch seems to indicate a lightness of tone and an acknowledgement of the teasing playfulness of A's previous remark. Kate's use of Dutch might be seen as a sign of her wish to be part of that easy camaraderie. This possible explanation attributes to Kate a very subtle knowledge of the functions that language can assume. This is uncalled for in the light of the paucity of the relevant material. All that can be said is that Kate is starting to resemble many older bilinguals in that she seems to be quite sensitive to code switches made by her interlocutors. This sensitivity is shown by a tendency to respond in the language addressed in.

In the preceding we have discussed the categories e through h. The mass of the data, however, concerns the categories a through d. The figures in Table 2 show that Kate uses both languages with both types of interlocutors but it is not clear from this table to what extent a particular interlocutor triggers the use of a particular language. Table 4 gives a clearer picture of Kate's language use as dependent on interlocutor. Responses to language switches by the interacting adults are not included.

Table 4: Kate's language use dependent on interlocutor

TAPE	ENGLISH INTERLOCUTOR			DUTCH INTERLOCUTOR		
	DUTCH	ENGLISH	N ^(°)	DUTCH	ENGLISH	N ^(°°)
1.	10	90	10	83	17	54
2.	4	96	25	59	41	224
3.	-	-	-	62	38	24
4.	-	-	-	99	1	311
5.	3	97	77	97	3	120
6.	-	-	-	99	1	410
7.	-	100	38	87	13	171
8.	3	97	74	93	7	193
9.	3	97	30	95	5	44
10.	3	97	34	87	13	72
11.	1	99	72	88	12	17
12.	3	97	34	92	8	39
13.	-	100	36	98	2	46
14.	-	100	106	-	100	1
15.	1	99	118	84	16	19
16.	2	98	70	93	7	117
17.	1	99	88	97	3	127
18.	-	-	-	99	1	233
19.	-	-	-	97	3	343

(°) total number of utterances directed at an English speaker

(°°) total number of utterances directed at a Dutch speaker; all other figures are percentages

* It should be noted that mixed utterances are not taken into account here.

When we leave out of consideration the data for tape 1 (English interlocutor where N=10) and the data for tape 14 (Dutch interlocutor where N=1), it is clear that Kate uses English with an English interlocutor (usually M) more consistently than she uses Dutch with a Dutch interlocutor (usually A). A Wilcoxon matched pairs signed-ranks test applied to all data where figures exist for both languages (except for tape 14) confirms this impression: the differences are highly significant in the direction pointed out above ($p < 0.005$). The following extracts contain examples of EtoD and DtoE utterances.

8. Tape 7; age 2;10,28 (A, M and M's sister from America, S, are present besides K, as well as K's father who has just come in)
- K: (to father F) Jij kan nie gaan! (= You can't go!)
- F: Kan jij nie gaan? (= Can't you go?)
- K: Nee, jij kan nie gaan! (= No, you can't go!)
- F: Nee, ik kan nie weggaan, nee. 'k Moet blijven staan bij Kate. (= No, I can't leave, no. I have to keep standing by Kate.)
- K: Ik vast! (= I hold! - or: I tight; the verb is missing)
- F: Jij hebt mij vast, ja. Ik zal mijn boekentas neerzetten, op Kate. (= You're holding on to me, yes. I'll put my briefcase down, on Kate.)
- K: Ja! Doet hem ?..? (= Yes! Put it?..?)
- F: Boekentas op jou zetten? (= (Shall I) put the briefcase on you?)
- K: Put it on me! (EtoD)
- F: Ja, 't staat op jou. (= Yes, it's on top of you now.)
- K: Put it nog-een deken! (= Put it more-a blanket!) (mixed to D)
- F: Een deken ook? (= Also a blanket?)
- K: Ja! (= Yes!)
9. Tape 10; age 3;0,11 (both A and M present besides K)
(M is teasing K while dressing her)
- K: (to M) Nee! (= No! - DtoE) I'll go on bike!
- M: Well, let's put on your shoes and then you can go all over the place.

10. Tape 2; age 2;7,17 (A is alone with K while M is in another room)

A: Je mag niet in je neus peuteren. (= You mustn't pick your nose.)

A: Je moet een zakdoek nemen. (= You've got to get a handkerchief.)

K: I'll ask mommy, OK? (EtoD) This is bonpa's. (= granddaddy's)

K: (to M, while running away from A to M in other room) Een zakdoek mama! (= A handkerchief mammy!) (DtoE)

In total Kate directs 17 Dutch utterances to her mother. Of those 17 there are 4 that could be English as well (OK, which is frequently used in informal Dutch, occurs once and mama, which is used in both Dutch and English, occurs three times). These words were classified as belonging to Dutch because of their Dutch pronunciation. Words like these are typical of the sometimes very vague boundaries between the languages involved. Sometimes arbitrary cut-off points are unavoidable, however, and in this case it might equally well be argued that mama and OK are English, which would only lend more support to the observation that Kate nearly always addresses M in English. Of the remaining 12 DtoE utterances there are 3 that might also have been directed at A, but that seem to be more addressed to M. Five of the DtoE utterances consist of Dutch 'yes' or 'no', one is an imitation of the Dutch part of a mixed utterance by M and the remaining 4 do not seem to fall within any one category. 12 of the 17 DtoE utterances are single words. When we look at the EtoD utterances, the picture is quite different. A whole range of utterances is used, disregarding semantic or syntactic complexity. Some examples include:

- (1) K: (to A) I'll put that in there, OK. (tape 1)
- (2) K: (to F) I love you. (tape 3)
- (3) K: (to A) My drink! (tape 5)
- (4) K: (to A) And on my head! (tape 11)
- (5) K: (to A) I put my clothes on my clothes on. (tape 12)
- (6) K: (to A) Spoon. (tape 18)
- (7) K: (to A) I want to play-play with the balls! (tape 19)

Before attempting to formulate any reason for the differences in language use by Kate as outlined above we shall discuss Kate's use of colour terms. The relevance of this discussion will become clear as we give possible reasons why Kate uses much more English with A and F than Dutch with M.

Table 5 represents Kate's use of English and Dutch utterances containing colour terms as related to interlocutor. It also shows the use of colour terms in mixed utterances, disregarding interlocutor.

Table 5: Kate's use of colour terms

TAPE	ENGLISH			DUTCH			MIXED		
	EtoE	EtoD	total	DtoD	DtoE	total	ECT	DCT	total
1.	40	60	5	100	-	2	100	-	1
2.	5	95	19	100	-	2	62.5	37.5	16
3.	-	100	2	100	-	1	100	-	1
4.	-	-	-	100	-	3	100	-	2
5.	-	100	1	-	-	-	-	-	-
6.	-	-	-	100	-	1	100	-	3
7.	25	75	4	-	-	-	-	-	-
8.	100	-	1	100	-	2	100	-	3
9.	-	100	2	100	-	7	100	-	1
10.	-	100	2	100	-	8	-	-	-
11.	100	-	4	100	-	1	100	-	2
12.	100	-	1	50	50	2	-	100	1
14.	100	-	16	-	-	-	-	-	-
16.	-	-	-	100	-	12	-	-	-
17.	100	-	4	100	-	3	-	-	-
18.	-	-	-	100	-	10	-	-	-
19.	-	-	-	100	-	10	100	-	1

ENGLISH, DUTCH and MIXED refers to English, Dutch and mixed utterances that contain a colour term. In each column headed by total the total number of English, Dutch and mixed utterances containing a colour term appears. For the English and Dutch utterances percentages are shown that reflect the use of colour terms in relation to interlocutor. ECT refers to mixed utterances that contain an English colour term; DCT refers to those that contain a Dutch colour term. The figures under ECT and DCT are percentages as well.

It is clear from this table that Kate only uses Dutch colour terms in Dutch utterances with a Dutch interlocutor (the only exception in tape 12 being a direct imitation of the Dutch part of a mixed utterance by M). On the other hand, in the first ten sessions Kate uses many English utterances containing English colour terms when speaking to A. These account for 16.2 per cent of all EtoD utterances. From session 16 onwards, we see a sharp rise in the use of Dutch colour terms. In fact the total number of Dutch utterances containing Dutch colour terms for tapes 16, 17, 18 and 19 is 35, or 55.5 per cent of all Dutch utterances containing Dutch colour terms. At the same time we see a sharp decrease to almost zero in the use of English colour terms in mixed utterances, whereas in sessions 1 through 11 nearly all mixed utterances are Dutch utterances directed at A that contain an English colour term. It then does not seem too rash to state that before the age of around 3;1,18 (at the time of tape 15) Kate prefers to discuss colours in English rather than in Dutch. This may be because she does not know colour terms in Dutch as well as in English. This seems plausible since about 39 per cent of all Dutch colour terms used are imitations of (part of) the immediately preceding adult utterance. The following extract is fairly representative in this respect:

11. Tape 8; age 2;11,14 (F and A are present besides K)

K: (to A) Aan mijn vingertjes ik heef-ik heef ook nagellak. (= On my little fingers I have - I have also nail polish --this, however, is not true!)

A: Ah? 't Is nagellak die ge niet ziet, dan. Ja? Is het da? (= Oh? It's nail polish that you can't see, then. Yes? Is that it?)

A: Is uw nagellak rood? (= Is your nail polish red?)

K: Pink en rood. (= Pink and red -- pink is not Dutch)

A: Wabliefert? (= What?)

K: Pink en rood. (= Pink and red.)

A: Ah, pink en rood, roos en rood. (= Oh, pink and red, pink and red -- roos is the correct Dutch word.)

K: Roos en rood.

Kate also imitates English colour terms, but these imitations amount to only 8 per cent of all English colour terms and occur in learning situations or in 'playful' situations. An example of such a learning situation may be found in extract 4 in section 2.2. The relevant utterance occurs in the middle of the extract where Kate says: Grey is buckwheat which is a direct imitation of the final part of M's previous utterance

Extract 12 exemplifies the more 'playful' situation:

12. Tape 17; age 3;2,7 (both A and M are present besides K)

M: (to K) You got lipstick on your pants?

A: Lipstick? (laughs)

K: (to M) No I don't!

P: (in a funny voice) Pink spots on your pants!

K: Pink spots on my pants. (i.e. the imitation)

K: I'm pink spots! (also in a funny voice) Bim bam bom!
(sings)

Imitations of Dutch colour terms are not linked to any one particular situation. Extract 11 may have suggested that they occur mainly after corrections by A (the extract was meant to be representative of the type of imitation that occurs, not of the situation in which imitations occur). This, however, is not the case. Imitations occur in non-corrective situations as well, as is shown in extract 13:

13. Tape 2; age 2;7,17 (both A and M present besides K)

A: (to K) Wat is da? (= What is that? -- in a conversation about colours.)

K: A flower. (EtoD)

A: Da's blauw, ja, een blauwe bloem. (= That's blue, yes, a blue flower.)

K: Blauwe bloem. (= Blue flower -- imitation)

K: I like a green-one. (EtoD)

Imitations in child language can have various functions (see R. Clark, 1979, and McTear, 1978). One of these functions may be a learning function. For lexical learning this may involve the imitation of lexical items that are not readily available in the child's lexicon either because they are not present or because they are not yet fully established. If it is accepted that imitation might fulfill a learning function, the material presented here shows that there is much more learning going on with Dutch colour words than with English ones. This brings us back to our previous suggestion that Kate does not (until session 15) know colour terms in Dutch as well as in English and that this is the reason why she often uses English colour terms when speaking to A. As her use (and knowledge) of Dutch colour terms increases, there is no more need to use English colour words with a Dutch speaker, and indeed, from session 16 onwards only one English colour term is used in addressing a Dutch speaker in contrast with 35 Dutch colour terms.

This discussion of Kate's use of colour terms goes to show that there is at least one topic that is usually connected with one language: colours tend to be discussed in English. As Kate's language development proceeds, however, her knowledge of this domain in Dutch increases and an almost complete separation takes place: Dutch colour terms are used with a Dutch interlocutor, and English colour terms continue to be used with an English interlocutor.

As far as other topics are concerned, there do not seem to be any that are linked to a particular language. This finding resembles that of Fantini (1978) who reports that his two children growing up bilingually in Spanish and English (but who only started to learn English from around the age of 2) did not switch languages as a result of any change in topic; rather interlocutor and setting were the main determinants of language switching. Thus we can postulate that topic switching is not the reason that Kate uses much more English with speakers who speak Dutch with her than Dutch with a speaker who speaks English with her, except for the colour domain. The reason that this particular topic and no other is so geared towards English might be that colour terms are learned mainly at school, where English is spoken. On top of this, M discusses colours frequently with Kate whereas F does not.

One might argue that Kate uses more English with Dutch speakers than Dutch with English speakers because English is her dominant language, that is, the language she is most fluent in or knows best. In order to test this possibility one must compare Kate's knowledge of both languages. MLU is not a very good measure in this case, since from session 12 onwards Kate is already well into Stage V of language development as defined by Brown (1977:54): 'By the time the child reaches Stage V ... the index /MLU/ loses its value as an indicator of grammatical knowledge'. Thus other measures have to be found. At this point in our analysis we do not possess any objective and detailed information that would give an accurate picture of Kate's development in both languages. The impression one gets from various readings of the transcripts, however, is that Kate's knowledge of English and Dutch is similar. This claim will have to be substantiated by future analyses.

When the number of hesitations in each language is compared, the proportion of hesitations per language is about the same. If hesitations are an indication of language fluency or the lack of it, it may be said that Kate is as fluent in English as she is in Dutch.

In a recent book on bilingualism, Baetens Beardsmore (1982:74) writes that 'in certain cases it is easy to detect the relative dominance of a bilingual's two languages by such things as the nature and direction of interference'. In our data English words occur in Dutch utterances as much as Dutch words occur in English utterances. Of all mixed utterances 64 per cent are entirely in one language except for a noun in the other language, for example:

- (8) K: Nee, 'k wil water in mij beaker nog! (tape 16)
(= No, I want more water in my beaker.)
- (9) K: I wanna look in the sp^oegel. (tape 16)
('spoegel' is an attempt at Dutch 'spiegel' i.e.
mirror.)

Mixed utterances containing one other-language word that is modified according to the rules of the host language occur very infrequently. Only English colour words are inserted in Dutch sentences; not the other way round. This is understandable in the light of what was said above about Kate's use of colour words. Kate knows English colour words better than Dutch ones but this does not mean that she is dominant in English. In fact Kate does not seem to have a dominant language: however, more analysis is required before this conclusion can be anything more than tentative. With regard to language choice the concept of dominance does not seem to be relevant, since it refers to comparative fluency and ability. Rather the concept of preferred language (Dodson, 1981) seems relevant in this respect: this concept reflects the fact that bilinguals feel more at ease using a particular language for a particular activity. Kate seems to feel more at ease using English colour terms, so one might well say that as far as the domain of colour terms goes English is her preferred language. No other such domain can be detected. It may be predicted that as Kate grows up and partakes in scholastic and leisure activities that are connected with one particular language she will develop a preference for a particular language depending on the activity. At this point, however, there are no strong indications that Kate has a dominant or preferred language. Hence we must look further for a reason for the different language behaviour observed with Dutch and English interlocutors.

Kate's father has reported to the investigator that he has never heard Kate speak English to her monolingual grand-parents. In a separate interview Kate's mother has said that, whereas she notices Kate sometimes using English with F (who is bilingual and often speaks English when Kate is present as well as Dutch), she has never heard Kate use English with her grand-parents except in very special circumstances, either when Kate is extremely upset or angry or when she wants to tease her grand-parents or show off. The slight difference in parental observations may be due to the fact that hardly ever both parents are present simultaneously when the grand-parents and the child are together so that different situations are experienced by both parents. Before the age of 2;6 (before the beginning of this study) Kate used to say that women spoke English and men Dutch. She would insist on this for quite some time, even when presented with counterexamples such as those of her grandfather and the investigator. This again was reported by the subject's mother.

In a very interesting article Eve Clark (1978) gives an account of early awareness of language in children. See

notes that such an awareness may be present as early as the age of 2 and that it may show in a number of ways, the most obvious one being what she calls 'repairs'. She also mentions choice of language in the case of bilinguals. Reports by the child on language usage such as the one cited above are also taken to be a sign of awareness of language.

Saunders (1982:92) writes that his bilingual sons' language switches are 'predominantly dependent on who the person being addressed is and which language has been established as being appropriate to speak to that person in'. My data confirm this finding. I would like to add, however, that the child does not only take into account the person being addressed, in the sense that the child knows what language it is appropriate to use with that person, but that the child is also aware of the linguistic abilities of the interlocutor, even of those that do not show at the moment of interaction. Although F and A might only be using Dutch with Kate and might not be using any English at all (since no English speaker is present), still Kate does occasionally switch to English when speaking to them. The fact that she does not do this with monolingual Dutch speakers is highly significant since it highlights the role of the interlocutor in verbal interaction. Extract 14 exemplifies Kate's occasional use of English when the adults present are exclusively using Dutch and when no English speaker is present.

14. Tape 19; age 3;3,16 (both F and A present besides K)

(A and K are playing hide-and-seeK with objects)

A: Zo! Wa nu? (= There! What now?)

K: Ik ga nog's. (= I'm going again.)

A: Ah. (= Oh.)

K: I don't look! (FtoD)

A: Nee nee, nie kijke. (= No no, no looking.)

A: Goho, nu zijn ze moeilijk verstopt, hoor, kom maar.
(= Hey hey, now they're hidden very well, you know.
You can come now.)

A: Nu zijn ze moeilijk verstopt. (= Now they're hidden very well.)

K: Hihi! (laughs) Zwaar is da nu? (= Where is it now?)

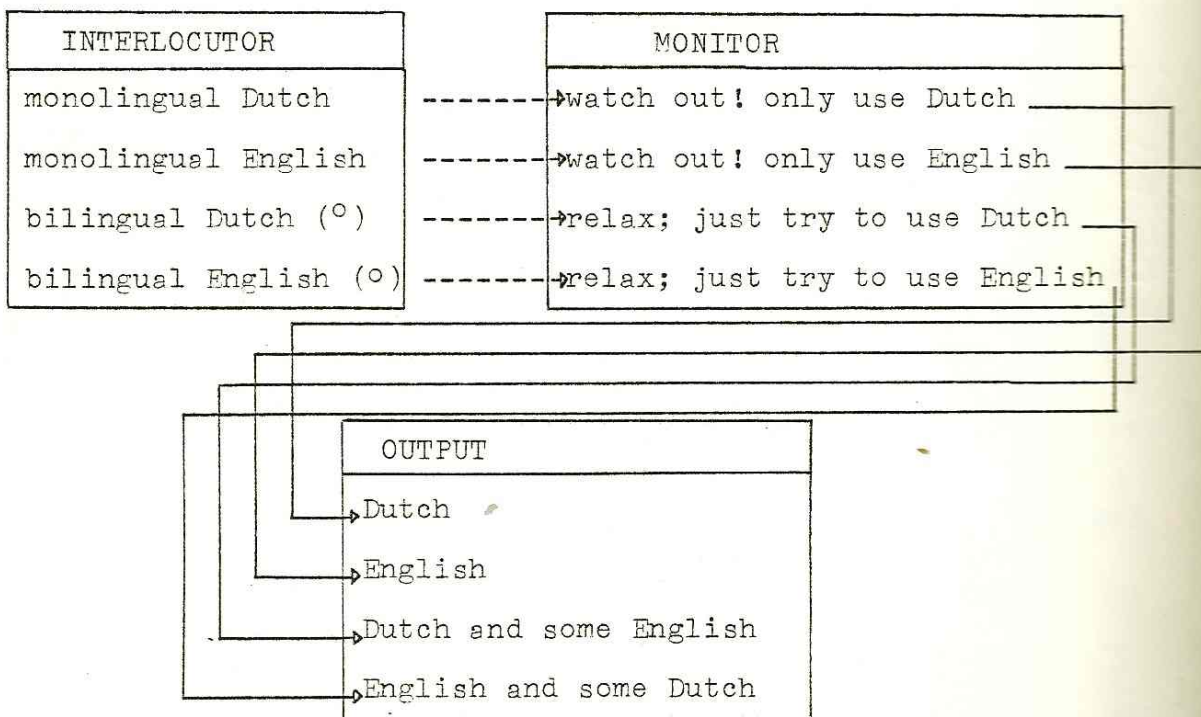
K: Das onder bank! (= That's under couch!) Z moeilijk.
(= Is hard.)

By making language choice dependent on interlocutor Kate not only shows an awareness of language as such, but also exhibits some degree of social awareness: a particular language is

only used when it will both be understood and accepted by the interlocutor.

The above discussion explains variation in language use as dependent on interlocutor. This sociolinguistic explanation does not, however, explain how a child actually comes to use a particular language with a particular interlocutor. We shall briefly attempt to fill this gap by suggesting the following partial model for language choice by Kate (see Figure 1).

Figure 1: model for Kate's language choice



(°) bilingual Dutch: usually speaks Dutch with Kate
bilingual English: usually speaks English with Kate

This model explains the code-switching that occurs in the material at hand as a result of a loosening of the monitor-function. The term 'monitor' here is used very much in the way it is understood in cognitive psychology and refers to a postulated cognitive mechanism that 'oversees the operations, deciding when they are productive and when they are not, exercising an overall guidance to the operation of the system' (Lindsay & Norman 1977:367). This use of the term also seems to be implied by Eve Clark (1978).

When speaking with a bilingual interlocutor, the diminished need to consistently speak the usual language with that interlocutor is recognised by the child, and it may be cognitively more work to suppress any language input from memory not appropriate in the situation than to allow some of this input to be actually produced. Hence the occurrence of utterances in both languages. However, the choice of the actual language produced is still guided by the principle 'try to use the language spoken to you by the interlocutor as far as possible'.

The monitor may be seen at work more clearly in repaired utterances and particularly in utterances where repairs are made concerning the choice of language. These repairs only account for 4.4 per cent of all repaired utterances but even in their paucity show the existence of a mechanism responsible for constantly overseeing (i.e. monitoring) the language output. Examples include the following:

- (10) K: Ee gele lepel, en ik heef een rood sp- een rood lepel. (tape 18)(toD)(= a yellow spoon, and I have a red sp- a red spoon.)
- (11) K: Can-kun je lie down? (tape 3) (toD) (= Can-can you lie down?)

As has been hinted at above, input to the monitor includes not only knowledge of the interlocutor and of both languages, but also language output as it occurs (otherwise repairs would be impossible). Figure 1, then, is certainly incomplete. It also does not show at what level of speech production language input from memory in either language is suppressed (or inhibited) and at what level the monitor functions. No psychological reality is implied at this point, although the suggested model does account for the facts. We hope to present a more fully worked out model in the future after other aspects of Kate's language development have been analysed.

4. Conclusion

This discussion of some aspects of the simultaneous acquisition of English and Dutch by a three-year-old girl has laid the emphasis on language use. It has been shown that language choice patterns were quite different depending on interlocutor: significantly more English was used with a Dutch interlocutor than Dutch with an English interlocutor. Various possible reasons for this phenomenon were examined. A possible determining factor of topic was rejected except for the colour domain: there a clear tendency on the child's part to use English rather than Dutch was noticed. This tendency fits well with the notion of 'preferred language', which is thought to be a better predictor of language choice than 'dominant language'. However, for domains apart from colour, language preference did not seem relevant and hence another explanation for language choice was called for. This explanation depended on the following: Kate uses English with monolingual Dutch speakers only in highly 'abnormal'

situations; the Dutch that she uses with an English monolingual speaker is very limited both in nature and quantity; and finally, the interlocutors in this study who speak Dutch with the child are fluently bilingual in both English and Dutch, a fact which the child has had ample opportunity to become acquainted with. The discussion also considered evidence from other studies in which children are said to have some awareness of language and its use in social interactions from the age of 2 onwards.

In the light of the preceding argument, an acceptable explanation for the different patterns of language use with different interlocutors seemed to be that the child is acutely aware of the linguistic abilities of her interlocutors and acts accordingly. A partial cognitive model was presented in which the possibility for acting according to available knowledge about interlocutors depends on the workings of a language choice monitor.

At the age of around 3, children who are growing up with two languages already show much of the language behaviour of adult bilinguals. They also use both their languages with bilingual speakers but confine themselves to one language with monolingual speakers (see e.g. Baetens Beardsmore, 1982). In conversations between bilinguals the point of switching is often determined by a change in topic. This aspect does not yet seem to be present in Kate's language use, although for some time conversations about colours tended to trigger the use of English. Kate's response to language switches by interacting adults was considered quite flexible in that three quarters of the time the language switch by the adult was followed. Here also characteristics of more mature bilinguals who adapt their use of language quite automatically to the language used around them are already present.

The picture that emerges from this shows a highly sophisticated little girl who is able to use language as a socially appropriate tool even though the forms she uses are still far removed from adult speech.

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REFERENCES

- Arnberg, L. (1979) Language strategies in mixed nationality families. Scandinavian Journal of Psychology. 20, 105-112.
- Baetens Beardsmore, H. (1982) Bilingualism: Basic Principles Clevedon: Tieto Ltd.

- Ervin, C.R. (1977) Problems in the Developmental Psycholinguistics of Bilingualism: Language Acquisition and Language Use. Unpublished doctoral dissertation, University of California, San Diego.
- Brown, R. (1977) A First Language: The Early Stages. Cambridge: Harvard University Press.
- Clark, E. (1978) Awareness of language: some evidence from what children say and do. In Sinclair, Jarvella, Levelt (eds.) The Child's Conception of Language. Berlin: Springer Verlag.
- Clark, R. (1979) Some even simpler ways to talk. In Waterson & Snow (eds.) The Development of Communication. New York: Wiley and Sons.
- Dodson, C.J. (1981) A reappraisal of bilingual development and education: some theoretical and practical considerations. In Baetens Beardsmore, H. (ed.) Elements of Bilingual Theory. Brussel: Vrije Universiteit Brussel.
- Fantini, A. (1978) Bilingual behavior and social cues: case studies of two bilingual children. In Paradis, M. (ed.) Aspects of Bilingualism. Columbia: Hornbeam Press.
- Gumperz, J. (1982) Discourse Strategies. Cambridge: Cambridge University Press.
- Lindsay, P. & Norman, D. (1977) Human Information Processing. New York: Academic Press.
- McTear, M. (1978) Repetition in child language: imitation or creation? In Campbell & Smith (eds.) Recent Advances in the Psychology of Language. New York: Plenum Press.
- Saunders, G. (1982) Bilingual Children: Guidance for the Family. Clevedon: Multilingual Matters Ltd.