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Language choice and functional differentiation of languages in bilingual parent–child reading

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ABSTRACT

Language choice and functional differentiation between Papiamento and Dutch were studied in bilingual parent–child reading sessions in Antillian migrant families; the subjects, who were living in the Netherlands, were to some extent bilingual in Papiamento and Dutch. Mothers were asked to read three picture books to their child: one in Dutch, one in Papiamento, and one without text. Code choice was related to the text and contents of the book, as well as to restrictions imposed by the language proficiency in both languages of the mothers and children. It was expected that Dutch would be used more for more demanding cognitive functions because of its association with school. However, these parents did not categorize metalinguistic activity and reasoning as school-related, although they did categorize counting as such and tended to use Dutch to count.

In the United States and Western Europe, including the Netherlands, there is a growing interest in the stimulation of literacy in young children. Arguments for encouraging book reading include its benefits for later school success (Goldfield & Snow, 1984; Wells, 1986), as well as cultural and emotional benefits (Trelease, 1989).

In the last decades many studies have been conducted analyzing the qualities of parent–child book reading that may contribute to children's literacy development. Especially in middle-class families, book reading may be termed dialogic or interactive (Heath, 1983). Dialogic reading is characterized by reading and then talking about the passage just read or being read. Both the reader and the child ask questions. The reader often tries to explain difficulties and underlying presuppositions in the story, which may also lead to associations with earlier experiences, conversations, and other stories. Children can be intensely involved in the book reading activities. After children have heard a story read several times, they may want to act

it out. Dialogic book reading may result in a cooperative construction of meaning between adult and child. It has been described by many researchers as an important means for furthering children's development (Brookes, 1990; Kiefer, 1988; Snow, 1983; Wells, 1986).

However, parental book reading to children has not previously been investigated in a bilingual context or with specific reference to bilingual language use. Hence, we chose to focus on the hitherto unexplored, but potentially quite rich, interaction in bilingual parent-child reading sessions. These are of interest both from the sociolinguistic perspective of bilingualism research and from the educational perspective of literacy acquisition. In many multilingual societies, book reading by parents involves using texts written in a language different from the home language. It is of interest to see how this is actually carried out. The situation under study is characteristic not only for migrants' socialization in Western societies, but also for socialization in many societies dealing with the remnants of colonial educational systems.

We study Antillian and Aruban (henceforth both referred to as Antillian) migrant families in the Netherlands. These families emigrated from Aruba or from the five islands in the Western Caribbean that together form the Netherlands Antilles: Curaçao, Bonaire, St. Martin, Statia, and Saba. The total population of all the islands is about 250,000, of which almost 90% lives on the three Leeward Islands, Aruba (66,000), Bonaire (10,000), and Curaçao (150,000). The other three, comprising the Windward Islands, are situated among a number of Anglo-Caribbean islands. The Leeward and the Windward Islands have about 800 kilometers of Caribbean sea between them. About 85% of the population of the three Leeward Islands speaks a Creole of mixed Portuguese and Spanish origin called Papiamentu (Todd Dandaré, 1985).

There are several differences between Papiamentu and Dutch. Papiamentu has no conjugated verbs. Tenses are indicated by particles preceding the verb. Dutch has limited verbal inflection for tense, person, and number. In Papiamentu, apart from a few exceptions, the subject always precedes the verb, even in question sentences, whereas in Dutch, subject-verb inversion is frequent. Also, Dutch nonfinite verbs are placed at the end of the main clause, and all verbs are placed at the end of subordinate clauses. Demonstrative expressions in Papiamentu are not single words, as in Dutch, but two words enclosing a noun: *e bala aki* 'the ball here; this ball'. Papiamentu compounds include a linking preposition: 'car key' in Dutch is *auto-sleutel*, and in Papiamentu, it is *yabi di outo* 'key of car'. For more extensive descriptions of the structure of Papiamentu, we refer the reader to other studies (e.g., Dijkhoff, 1990, 1993; Kook, 1989; Kouwenberg & Murray, 1994). Because of the characteristics of Papiamentu (e.g., the use of *ta* to indicate present tense, the structure of demonstrative pronouns and compounds), Papiamentu speakers, compared with Dutch speakers, use more separate word forms to convey the same meaning.

Papiamentu is used in daily life by all social classes, although Dutch is still the official language. For most Antillians, however, Dutch is a foreign

language. Television programs on Aruba, Bonaire, and Curaçao are mostly in Papiamentu, English, or Spanish. The most popular newspapers are in Papiamentu, as are most radio stations' broadcasts. There are approximately 190,000 native speakers of Papiamentu, living either in the Caribbean or the Netherlands (De Palm, 1985). Two studies including some 1,000 primary schoolchildren showed that about 60% of the children speak only Papiamentu out of school (Vedder, 1987; Vedder & Kook, 1994). In school, the language of instruction is Dutch. A more extensive description of the language situation on the Antilles can be found in Kook and Narain (1993).

The language situation for Antillians who emigrate to the Netherlands changes drastically. A rather rapid process of language shift is taking place. In the Antilles itself, Dutch is used little in daily life, whereas one cannot function without it in Dutch society. It is clear that, in the process of language shift in an immigrant community, different members of the community have different levels of proficiency in the languages involved. Many studies of bilingual immigrant communities have revealed a cross-generational shift in this respect: generation $n + 1$ uses the ethnic language less, but the language of the wider community more, than generation n (cf. Appel & Muysken, 1987; Extra & Verhoeven, 1993; Fishman, 1964).

One perspective to take with respect to the reading sessions is to look at the code choices of the participants. In line with studies on intergenerational language shift, we would expect a clear difference in code choice between mothers and children, indicating a fairly rapid intergenerational language shift toward an increase in the use of the language of the wider community: mothers would tend to use more Papiamentu, and children, more Dutch.

Code choice also depends on at least two other factors: the language of the book read and the mothers' and children's language proficiency in Dutch and Papiamentu. We explored the influence of the books by using three different books: one Papiamentu, one Dutch, and one without text. If this variable does have a strong effect on its own, we would expect relatively more Papiamentu language to be used when reading the Papiamentu book, relatively more Dutch with the Dutch book, and a more balanced use of Dutch and Papiamentu with the textless book. It is likely, however, that the influence of this factor is mediated by the mothers' and children's bilingual competence. The relationship between bilingual competence and language shift is well documented for other language groups (Li Wei, 1994). Many mothers tend to use Papiamentu with their children, depending on the Dutch competence of the mother and the Papiamentu competence of the child. An important determinant of language choice in the reading sessions, then, is the bilingual competence of both mother and child. Although intergenerational shift and bilingual competence are probably closely interrelated in our sample, we measured them independently. Thus the first cluster of questions can be summarized as follows. Which factors determine code choice during the reading sessions: intergenerational language shift, the language of the text read or recounted, or the language proficiency of the parent and/or child?

A second perspective to pursue involves the characterization of the bilingual interactions in terms of the functional differentiation of language use connected with particular socialization settings (e.g., the school). We assumed that society's functional differentiation of minority and majority language (home vs. school use) would be reflected in language use during the reading sessions. Immigrant parents in the Netherlands seek opportunities (through centers for early childhood education or participation in educational programs) to have their children learn Dutch because they are aware that Dutch language proficiency is important for a successful school career (Eldering & Vedder, 1992; Vedder, Bouwer, & Pels, 1996). In the context of this particular study, the parent-child reading sessions were clearly associated with the (Dutch-language) school. Parents were asked to bring along their child's favorite reading book, all of which were in Dutch. Moreover, when asked what language they read to their children, 88% of the mothers said they read in Dutch. It could be that their awareness of the importance of good Dutch language skills spurred their efforts to use Dutch in reading sessions. We wanted to find out in what types of interaction or words this functional differentiation is reflected most clearly.

In much of the literature mentioned here, the crucial assumption made is that certain types of interaction better prepare children for their school career. These involve particularly decontextualized and metalinguistic language use, as well as reasoning about the story read and the illustrations. In bilingual settings, it could be that there is a functional differentiation of the languages, whereby the types of interaction deemed to be more typical of school would be carried out in Dutch, the school language.

We approached the issue of functional differentiation through lexical analysis and focused on four types of vocabulary: question words and connectives, words related to metalinguistic and mental activity, and numbers. The first two derive from the literature (cf. Newport, Gleitman, & Gleitman, 1977; Pellegrini, Brody, & Sigel, 1985), and the last one, from our initial impressions on the basis of the recordings.

The alternation of the languages in the reading sessions and their specific functional differentiation during these sessions could be related to the general functional differentiation of the two languages in the bilingual family and the migrant community at large. The language in which the book is written could also influence the alternation of the languages in the reading sessions, including their specific functional differentiation. It may be that Dutch and Papiamentu are to some extent linked with particular socialization settings - Papiamentu with the home setting, and Dutch with the school. This differentiation is likely to be reflected both in the switching patterns in the sessions and in the code choice. (The former is a manifestation of the latter.) The use of specific lexical items belonging to certain semantic fields (e.g., Dutch numerals), then, would reveal functional differentiation. In addition, it may trigger specific switch patterns. In short, we wanted to examine the following questions. How are the two languages used in alternation in the activity of parental book reading, and how does

this relate to a functional differentiation of the languages? These two clusters of questions will be discussed in turn, after a sketch of our design and methodology.

DESIGN AND METHODOLOGY

The study was part of a research project to study the literacy development of 71 Antillian children, aged 4 to 7 years, attending three primary schools in Hoogvliet, a town near Rotterdam in the Netherlands (Kook, 1994). The data and some of the measures are derived from this study. In the present study, 25 caregiver/child dyads participated. All data collection was carried out in spring 1990 by one of the authors (H.K.), who is a native speaker of Papiamentu.

Subjects

We invited the 71 primary caregivers of these children to come to school and read four books with the children. Of these, 25 accepted: 20 mothers, 2 aunts, and 3 grandmothers. (We use the term "mother" to refer to all caregivers.) The children (13 girls, 12 boys) were in first or second grade in the Dutch schools, which corresponds to two years of nursery school or kindergarten. The children's mean age was 5.3 ($SD = 9$ months); the primary caregivers were 33 years old (min., 24; max., 58) on average. All the mothers were born in the Netherlands Antilles, as were all but one of the fathers. Seven of the children were born in the Netherlands, and the others, in the Netherlands Antilles. Their average age of arrival was 2.6 (min., 0; max., 6 years). The mean length of stay of the primary caregivers was 4 years, varying between a few months and 13 years. Of the children, 14 lived with their mothers in single-parent families, 5 lived with either an aunt or a grandmother, and 6 lived with both parents. Thirteen primary caregivers had not attended secondary school; the others had taken part in less advanced forms of postprimary education and had less than 11 years of formal education. Only one mother was employed. Among the families, 21 had a net income of less than 1,500 Dutch guilders per month (US \$800), which in the Dutch social security system is reckoned to be the minimum income for a family. Thus, the Antillian migrants in this study constituted a fairly recent, low-status immigrant group. Both mothers and children were bilingual, but their competence in both languages varied considerably.

Texts

Mothers were asked to come to school with the child's favorite book. This book was read aloud to acquaint the mother and child with the experimental situation. This may have biased the sample; as Kook (1994) suggested, books are not a common item in the type of families under study.

However, we analyzed only the reading and retelling sessions using the

three books chosen by us: *Vijf neer* (no text); *Slaap lekker meneer beer* (Dutch text); *Klop, klop* (Papiamento text). *Vijf neer* ("Five down") (Burningham, 1983), a book without text, deals with the numbers 1 to 5. The numbers are depicted as physical objects which children and animals play with. Every number has its own adventure (e.g., number 5 falls down the stairs). *Slaap lekker meneer beer* ("Sleep tight, mister bear") (Murphy, 1987), a children's book in Dutch, tells the story of a father bear who tries to find a good place to sleep. He cannot sleep in his room because his wife snores, his son's room is full of toys and his son makes strange noises, the faucet in the kitchen drips, and in the garden the animals disturb his sleep. At long last he goes back to his bedroom and falls asleep, only to be woken up soon after by the alarm clock – it is morning. The book had a total of 22 pages, of which 12 had text. As an indicator of the sentence complexity, we used the average sentence length (i.e., 8.2 words). The number of words per page varied between 4 and 73. *Klop, klop* ("Knock, knock") (Koide, 1988), which was provided with a Papiamento text, tells the story of three hamsters who go for a walk in the wood and lose their way in a storm. They find shelter in a large house, and after a while, other animals who have also lost their way join them. Then, suddenly, they hear scary noises outside, think it is a monster, and try to hide. A big bear, the owner of the house, comes in without knocking; he had gone out to help little animals lost in the woods and turns out to be friendly. All the animals share a meal and spend the night. For the reading session, the Dutch version of the book was used. The Dutch sentences were covered by paper strips with Papiamento translations. The original letter type and size were used, so that after the translation the book looked like a "real" book. This book had a total of 31 pages, of which 16 had text; the mean sentence length was 8.2 words. The number of words per page varied between 15 and 74.

All texts were evidently fun to read for the children and elicited much commentary from both the caregivers and the children. Both books with text were comparable with regard to mean sentence length, but *Klop, klop* had four more text pages.

Measures

Children's language proficiency in both languages was measured using standardized passive and active vocabulary tests in Papiamento and Dutch. The passive vocabulary test contained 34 items, each consisting of four pictures. The child had to point to the picture that corresponds to a word spoken by the test leader. The active vocabulary test contained 30 items. The test leader showed a picture, and the child had to give a label for what is shown. Cronbach's alpha for the passive vocabulary test was .82 for both the Dutch and Papiamento versions; for the active vocabulary test, it was .88 and .86, respectively. Both tests were abridged versions of tests developed in Dutch, Papiamento, Turkish, and Standard Arabic by Verhoeven, Extra, Konak, Narain, and Zerouk (1993). For mothers we obtained self-reports on proficiency in both languages. For the mother and child together, we used the

percentage of adjectives and conjunctions in either language as an indicator of sentence complexity and general language proficiency (e.g., Hindle, 1981). During a lengthy interview at home, the mothers were asked to indicate for 15 oral-language contact situations which language they would use by themselves, the target children, and the children's fathers. We present the answers to the 15 questions to illustrate the intergenerational language shift characterizing this group. For a full description of the language tests, the language contact scale, and their psychometric features, we refer the reader to Kook (1994).

Procedure

In a quiet room in school, the children's language competence was individually tested in Papiamento and Dutch. The interview with the mother took place in the mother's home. For the book reading sessions the caregivers came to school during schooltime and read the books in a quiet room, sitting side by side with the child on a couch. After reading the child's own favorite book, they then read the other books in the order of their choice. During instruction all mothers were addressed in Papiamento. All reading sessions were audiotaped.

Coding and analysis

All audiotapes were transcribed, and the transcriptions were checked for completeness and accuracy. (The analysis of the bilingual interactions in this article excludes the printed text that was read aloud.) The resulting transcripts had the following form:

- C: Ahan
M: Ki e falta? E tin su korant. Kiko e falta? Su lieveling.
C: Su sigaria.
Child: Ahem.
Mother: What is he missing? He has his newspaper. What does he miss? His darling.
Child: His cigar.

We coded the words in the texts with a dual code, indicating both the language status of the item and the grammatical category membership. Coding was largely done semiautomatically in a text-processing program using the *replace* function. We distinguished six language categories (see Appendix 1):

- N Dutch
- X Dutch loans with Papiamento morphology
- Y Unadapted but established Dutch loans
- Z Papiamento words of Dutch origin
- P Papiamento
- Q Unclassifiable

The grammatical analysis was complicated by the fact that many Papiamento function words are short and have various meanings and functions. The relations among them remain a matter of scholarly dispute. The grammatical categories analyzed were (see Appendix 2):

0	prep	prepositions
1	noun	nouns, names
2	verb	verbs
3	aux	tense/mood/aspect particles, auxiliaries, copula
4	pron	personal, possessive, demonstrative, and reflexive pronouns, question words, determiners
5	excl	exclamatives, interjections
6	adv	negation, adverbs
7	conj	coordinating and subordinating conjunctions
8	num	numerals, quantifiers
9	adj	adjectives

In a first coding session, two scorers independently coded the same three transcripts. Out of a total of 1,510 tokens, there was disagreement about the language status for 5.4% of the tokens, disagreement about the grammatical category for 7.8% of the tokens, and, for 3.3% of the tokens, disagreement about whether one or more words should be scored (e.g., when dealing with demonstrative pronouns and compounds). The disagreements in coding were listed and discussed in detail among the three authors. We drew up a rather detailed list of scoring examples and rules (see Appendix 3), and we decided to merge the language categories Z and P. In a second session, the two coders again coded three transcripts. The number of tokens scored was 1,540, including tokens that were scored by only one scorer. Disagreement about occurrence, however, was very low. It went down to 1.2% (18 tokens). Disagreement about grammatical categories went down to 6.1%, while disagreement about occurrence went down to 1.2% (18 tokens). The biggest improvement was achieved with scoring language categories: disagreement went down to 0.8% (13 tokens). The percentage agreement with regard to both language category and grammatical category was 91.9 (1,415 tokens). For the analyses of functional language differentiation, we used data from specific coding categories: pronouns and question words, numerals and quantifiers, conjunctions, and adjectives – both in Dutch and Papiamento. We computed for these categories the percentages agreement on occurrence using the following formula:

$$\{A/(01N2 + 02N1 + A)\} \cdot 100$$

where A is the number of agreements on occurrence, and 01N2 is the number of times scorer 1 scores an occurrence whereas scorer 2 scores a nonoccurrence. 02N1 is the number of times scorer 2 scores an occurrence whereas scorer 1 scores a nonoccurrence. A measure that ignores the amount of agreements on nonoccurrence was used, because with the present

Table 1. *Interscorer agreement on occurrence for two scorers scoring three transcripts*

	Papiamento			Dutch		
	Agreement	Disagreement	%	Agreement	Disagreement	%
Pronouns, question words	215	3	99	109	1	99
Conjunctions	53	20	73	24	13	65
Numerals, quantifiers	17	4	81	38	1	97
Adjectives	8	9	47	11	5	69

material, due to many agreements on nonoccurrence for most categories, such measures would give a misleading picture of the interscorer agreement (Birkimer & Brown, 1979; Popping, 1983). Table 1 presents the percentages of agreement for the listed categories.

It was difficult to score conjunctions and adjectives reliably, as these are relatively low-frequency grammatical categories. The percentage for Papiamento adjectives was clearly too low to warrant valid use of the data for this category; therefore, we will not report about it here. Pronouns and question words as well as numerals and quantifiers could be scored reliably, however.

Overall the information about the quality of scoring was deemed satisfactory so that semi-automatic full coding could then proceed. A number of errors in the transcript turned up and were corrected before a final check of both coding and transcription were made.

The following example gives an indication of what resulted for the above fragment:

{CuVr} AhanQ5?
 {MoCuVr} KiP4 eP4 faltaP2? EP4 tinP3 suP4 korantZ1. KikoP4 eP4 faltaP2? SuP4 lievelingN1.
 {CuVr} SuP4 sigariaP1.
 Child: Ahem.
 Mother: What is he missing? He has his newspaper. What does he miss? His darling.
 Child: His cigar.

This method of coding made it possible to analyze code choice to a large extent by computer, using the text analysis and text-retrieval program, TACT (Bradley, 1990). Thus, the sequence, SuP4 lievelingN1 was automatically identified as a code mix uttered by the mother of CuVr, of the type "possessive pronoun/noun," while the overall interchange was character-

Table 2. *Code choice and language shift in first-generation Antillian immigrants in the Netherlands*

	Dutch (D)	Papiamentu (P)	D + P	Unknown/ not applicable
Child speaks to				
Mother	2 (8%)	3 (12%)	20 (80%)	
Father	2 (8%)	3 (12%)	15 (60%)	5 (20%)
Friend 1	<i>16 (64%)^a</i>	2 (8%)	4 (16%)	3 (12%)
Friend 2	<i>11 (44%)</i>	6 (24%)	4 (16%)	4 (16%)
Grandmother 1	1 (4%)	<i>12 (48%)</i>	6 (24%)	6 (24%)
Grandmother 2	1 (4%)	8 (32%)	2 (8%)	14 (56%)
Mother speaks to				
Child	1 (4%)	10 (40%)	<i>14 (56%)</i>	
Partner	2 (8%)	<i>17 (68%)</i>	1 (4%)	5 (20%)
Her mother		<i>22 (88%)</i>		3 (12%)
Friend 1	3 (12%)	<i>19 (76%)</i>		3 (12%)
Friend 2	3 (12%)	<i>18 (72%)</i>		4 (16%)
Neighbors	<i>13 (52%)</i>	5 (20%)	3 (12%)	4 (16%)
Colleagues	<i>9 (36%)</i>			16 (64%)

^aHighest numbers and percentages are in italics.

ized as almost exclusively Papiamentu. By focusing on the type of interaction and the language used (e.g., the mother asking *kiko* "what" questions), we could study bilingual language use as it relates to the reading activity.

DETERMINANTS OF CODE CHOICE

Is the predicted intergenerational shift reflected in the amount of Dutch and Papiamentu spoken by mothers and children? Which factors more directly determine code choice during the reading sessions? Is it the language of the text read or recounted or the language proficiency of parent and/or child? Using interview data, we explored the extent of intergenerational shift in the participating families. Table 2 gives the numbers and percentages of children and mothers using Dutch, Papiamentu, or both with different persons. The highest numbers and percentages are shown in italics.

The information for the children reveals a nice example of intergenerational language shift (Li Wei, 1994). In communication with grandparents, the children used predominantly Papiamentu; with parents, they used both Dutch and Papiamentu, and with peers, most of the children used Dutch. The information about the mothers' language use shows that most spoke Papiamentu and Dutch to their children, although a considerable percentage tried to hold on to Papiamentu. In contacts with their partner, mother, and friends, most mothers used only Papiamentu; only in contacts with neighbors and colleagues (if employed) did they use Dutch. These findings

Table 3. *Number and percentages of Dutch and Papiamento words in three book reading sessions and differences between book sessions*

	<i>M abs.</i>	<i>M %</i>	<i>SD</i>	<i>T %</i>
Dutch				
<i>Beer</i>	74.5	29.9	27.2	$T_{beer-klop} 4.3, p = .00$
<i>Klop</i>	37.3	13.1	18.7	$T_{beer-vijf} 2.3, p < .04$
<i>Vijf</i>	129.3	40.7	32.6	$T_{klop-vijf} 5.4, p = .00$
Papiamento				
<i>Beer</i>	161.3	55.7	27.6	$T_{beer-klop} 4.9, p = .00$
<i>Klop</i>	218.8	78.0	21.7	$T_{beer-vijf} 1.0, n.s.$
<i>Vijf</i>	170.6	50.8	32.2	$T_{klop-vijf} 4.8, p = .00$
Dutch minus numerals				
<i>Beer</i>	73.8	29.7	27.0	$T_{beer-klop} 2.6, p < .03$
<i>Klop</i>	32.4	14.3	24.7	$T_{beer-vijf} 0.4, n.s.$
<i>Vijf</i>	96.7	27.9	31.1	$T_{klop-vijf} 2.0, n.s.$

correspond to the picture of intergenerational shift that has emerged in previous studies (for a review, see Appel & Muysken, 1987).

These findings parallel language use during the reading sessions. When we compared mothers and children, we found that (a) mothers spoke more than the children in the sessions; (b) they spoke twice as much in Dutch and three times as much in Papiamento. Mothers spoke on average 163 Dutch words ($SD = 225$) and 444 Papiamento words ($SD = 403$), whereas children spoke, on average, 83 Dutch words ($SD = 73$) and 142 Papiamento words ($SD = 159$). We corrected these scores for the length of conversations by using percentage scores. The denominator was the total number of words spoken by the mother, for the mothers' percentage scores, or by the child, for the children's percentage scores. The resulting figures are revealing of the language shift difference in the community: 35% of the words by the children were Dutch ($SD = 26$), compared with 25% for the mothers ($SD = 27$), $t = 4.5; p < .000$. For Papiamento the figures were 55% and 65% ($SD = 26$ and 27 , respectively), $t = 3.8; p < .001$. (The remaining 10% belong to the other categories.)

We hypothesized that the language of the book probably would be an important determinant for code choice. Table 3 presents the average number of Papiamento and Dutch words used in comments per book and the average percentages of Papiamento and Dutch words. Note that the actual text read was not counted in these calculations. The percentages were used to correct for differences in discourse length (i.e., the total number of words used in the discourse about a particular book). Table 3 shows that the average number of Papiamento and Dutch words differed from text to text.

As could be expected, the Dutch text, *Slaap lekker meneer beer*, elicited more comments in Dutch than the Papiamento text, *Klop, klop*. Notice, however, that the picture book, *Vijf neer*, elicited still more Dutch; in fact,

Table 4. *Statistically significant ($p < .05$) Pearson product-moment correlations between active child vocabulary and code choice*

	Active child vocabulary Papiamento	Active child vocabulary Dutch
Mother and child		
% Pap. <i>Beer</i>	.49	-.47
% Dutch <i>Beer</i>	-.53	.41
% Pap. <i>Klop</i>	.46	n.s.
% Dutch <i>Klop</i>	-.61	n.s.
% Pap. <i>Vijf</i>	.50	n.s.
% Dutch <i>Vijf</i>	-.52	n.s.
Mother or child		
% Pap. child	n.s.	n.s.
% Dutch child	-.57	n.s.
% Pap. mother	.54	n.s.
% Dutch mother	-.57	n.s.

it elicited a significantly higher percentage of Dutch words than either of the other texts. Clearly source text was not the only determining factor. The percentage of Papiamento words in *Klop*, *klop* (Papiamento text) was significantly higher than in either of the other texts, as could be expected. However, *Slaap lekker meneer beer* (Dutch text) and *Vijf neer* (textless) contained a similar percentage of Papiamento words. When we took out the numerals, the amount of Dutch words in *Vijf neer* decreased drastically and was comparable to the amount of Dutch words in *Meneer beer*.

In the process of language shift in an immigrant community, different members of the community have a different level of proficiency in either language involved. This is also the case in our sample; however, there were no significant correlations between the mothers' self-reported proficiency levels and the language used during reading sessions. Still, an important determinant for code choice in the reading sessions was the bilingual competence of both mother and child. For the children, we had passive and active vocabulary measures for both languages, but we lacked these measures for the caretakers. We had measures for both the mothers and children derived from the transcribed reading sessions themselves with respect to the use of adjectives and conjunctions, which we took to be indicative of sentence complexity.

In Table 4, code choice is presented as the proportion or percentage of either Papiamento or Dutch words spoken by the mother and child in book-related discourse (first six rows), or as the percentage of either Papiamento or Dutch words spoken by either the mother or the child during all three book reading sessions.

Passive vocabulary measures turned out not to correlate (Pearson product-moment correlation) with code choice. Active vocabulary in Papiamento of the children, on the other hand, showed a number of correlations:

Table 5. Statistically significant ($p < .05$) Pearson product-moment correlations between sentence complexity measures

	Conjunctions		Adjectives	
	Dutch	Papiamento	Dutch	Papiamento
Dutch-mother	.92	n.s.	.59	n.s.
Dutch-child	.85	n.s.	.76	n.s.
Papiamento-mother	n.s.	.89	n.s.	.89
Papiamento-child	n.s.	.81	n.s.	.70

.49 with the use of Papiamento (by both participants) in the Dutch text *Beer*, and $-.53$ with the use of Dutch in this text. Active knowledge of vocabulary in Dutch showed the mirror image: .41 with the choice of Dutch in *Beer*, and $-.47$ with the choice of Papiamento. For *Klop*, Papiamento active vocabulary correlated .46 with Papiamento use, and $-.61$ with Dutch use. The book without text, *Vijf neer*, correlated .50 with Papiamento use, and $-.52$ with Dutch use. For the latter two books, Dutch active vocabulary did not correlate significantly. That the positive correlations with the use of Papiamento come together with negative correlations with the use of Dutch should come as no surprise, given that the proportions of Dutch and Papiamento spoken during the book reading sessions were largely complementary.

When we take the three texts together, but separate the analyses for mother and child, active Papiamento vocabulary knowledge of the child did not correlate with the use of Papiamento by the child, but it did correlate negatively with Dutch use by the child (.57). We interpret this result to mean that, if the child had good knowledge of Papiamento, he or she would prefer speaking this language in an unstructured situation and would not use much Dutch. The fact that the mothers' use of Papiamento correlated (.54) with the children's active knowledge of Papiamento vocabulary suggests that the mothers were either adaptive or effective agents in the children's Papiamento proficiency.

When we consider the relation between the dependent measures of the use of Papiamento and Dutch adjectives and function words (summed for mother and child), as well as the use of Papiamento and Dutch in general, we notice a number of striking correlations (see Table 5).

None of the measures was corrected for length of discourse because all of them were derived from the same transcripts. The complexity of both languages increased with the use of adjectives and conjunctions in the bilingual reading sessions. The overall number of Dutch words used by the mothers correlated highly with the use of Dutch function words and adjectives. Thus, an indirect measure of linguistic competence (i.e., complexity of language use as evidenced by the use of adjectives and conjunctions) turned out to correlate highly with overall language use.

We found a clear difference in code choice between mothers and chil-

dren, indicating a fairly rapid intergenerational language shift toward an increase in the use of the language of the wider community. This intergenerational language shift became evident when the children's and mothers' language usage with a variety of persons was studied. The mothers had more Papiamento language contacts and also spoke relatively more Papiamento than their children during book reading sessions; the children had more Dutch language contacts and spoke relatively more Dutch during reading sessions. Furthermore, our findings revealed that code choice depended on both the children's language proficiency (vocabulary) and the language of the text read. These findings confirmed our expectations.

FUNCTIONAL DIFFERENTIATION

Here we address two questions. How are the two languages used in alternation during the activity of parental book reading, and how does this relate to a functional differentiation of the languages.

Let us first consider the choice of either a Dutch or a Papiamento question word or subordinator, elements that figured in the cognitively more demanding parts of the interaction. We assumed that parents would identify these parts as more school-related than those cognitively less demanding parts. We hypothesized that more Dutch would be used with the more demanding parts than with the less demanding ones. Table 6 shows a list of Papiamento and (equivalent) Dutch question words and subordinators; the Dutch alternatives are italicized. The table presents the frequency of occurrence of these words, specified by book, but summed over all caregiver-child pairs. The second column gives the English equivalents of the words. The percentage scores in the last two rows show the proportion of question words and connectives, in relation to all the Papiamento words and all the Dutch words used during book reading sessions. By comparing these two proportions, we can tell whether the pairs used proportionally more Dutch when using question words and subordinators.

Papiamento turned out to be dominant overall, but with significant differences between the books. In *Vijf neer*, the ratio between the sum of question words and subordinators in Papiamento and those in Dutch is three to one; in *Klop, klop*, eight to one; and in *Meneer beer*, five to two. We already know that, irrespective of the type of word, the caregiver-child pairs used more Papiamento than Dutch words in their discourse. Table 6 also presents the proportion of question words and subordinators in Papiamento, in relation to the number of Papiamento words in the discourses; the same is done for the question words and subordinators in Dutch. This correction clarifies that the proportion of question words and subordinators was higher in Papiamento than in Dutch. The findings correspond with our earlier findings concerning the overall use of Papiamento, but not with the idea that Dutch is dominant in more cognitively demanding (i.e., school-related) interactions. There are three possibilities: (a) the idea is wrong, (b) (a significant subset of) these words do not necessarily indicate a cognitively demanding interaction, (c) another factor intervenes.

Table 6. *Question word and subordinator use in the three recorded story reading situations*

		<i>Vijf neer</i>		<i>Klop, klop</i>		<i>Meneer beer</i>	
		Pap.	Dutch	Pap.	Dutch	Pap.	Dutch
kiko	what	81		34		61	
ki	which	130		75		55	
<i>wat^a</i>	<i>what</i>		49		25		49
<i>welke</i>	<i>which</i>		14		—		3
ken	who	7		36		3	
<i>wie</i>			9		2		3
kiora/dia	when	—		—		—	
<i>wanneer</i>			—		2		—
kon	how	23		26		7	
<i>hoe</i>			5		—		6
unda	where	6		18		25	
<i>waar</i>			8		—		6
kuantu	how much	56		11		1	
<i>hoeveel</i>			7		—		2
pasobra	because	1		1		6	
<i>omdat</i>			1		—		—
dikon	why	1		10		9	
<i>waarom</i>			—		—		1
manera	like	3		11		4	
<i>als (P)</i>			—		—		—
<i>zoals</i>			—		—		—
kaminda	where	2		2		7	
si	if	2		1		—	
<i>als (conj)</i>			2		3		6
ke men	thus	3		17		10	
Column total		305	95	244	30	188	76
% Pap.-% Dutch		76	24	86	14	71	29
% of total Pap. words		7.0		4.3		4.5	
% of total Dutch words			2.9		3.2		4.1

^aDutch alternatives are in italics.

The latter is certainly the case for those Papiamento utterances where the elements in question were relatively isolated, inserted Dutch words. There is a large literature indicating that question words and subordinators generally are not borrowed or code mixed. Thus, there would be an intervening structural factor; this may have to do with the fact that question words constitute a paradigmatically organized set of words and are often involved in clausal subordination, as are subordinating conjunctions (Poplack, San-koff, & Miller, 1988).

The second possibility – that a significant subset of these words do not necessarily indicate a cognitively demanding interaction – can be further explored by taking a closer look at particular question words. We compared

“what” and “which” with “how” and “why,” assuming that “how” and “why” generally indicate a cognitively more demanding interaction than “what” and “which.” If this is so, we should find relatively more instances of “how” and “why” in Dutch and relatively more instances of “what” and “which” in Papiamentu. Summed over all books and all caregiver-child pairs, however, “what” and “which” were used three times as much in Papiamentu as in Dutch, whereas “how” and “why” were used six times as much in Papiamentu as in Dutch. This finding is far from what we expected. Cognitively more demanding words did not necessarily lead to a functional differentiation of languages, as manifested in a preference for Dutch when using cognitively demanding words. This leaves the first possibility: the idea that functional language differentiation is related to cognitive complexity of language is wrong. Let us consider some other word classes. We tested this with yet another set of lexical items – the lexicon involved in metalinguistic comments and those depicting mental activity (see Table 7).

Here again Papiamentu predominated, but with significant differences from the data presented for question words and subordinators. In *Vijf neer*, the ratio is three to two; in *Klop, klop*, twenty-four to one; and in *Meneer beer*, about two to one. This corresponds with our earlier findings concerning the overall use of Papiamentu. Comparing the code choice for verbs of saying and thinking with overall code choice, as measured by the number of either Papiamentu or Dutch words, the resulting percentages in the last two rows show that the type of verbs we analyzed were used more in Papiamentu than in Dutch in the discourses about *Vijf neer* and *Klop, klop*. With *Meneer beer*, the proportion of verbs was comparable in Papiamentu and Dutch. Thus, the language of the book read influenced code choice, but it was not overriding. The findings are not in agreement with the general idea that Dutch is used for cognitively demanding interactions.

A limiting factor could be the linguistic competence of the mothers, who may not have been able to use the Dutch vocabulary for metalinguistic comments very adequately. Evidence for this comes from the figures for verbs of seeing – “see” and “look” in both languages (see Table 8). Both verbs indicate rather simple, picture-related talk (contextualized talk).

Compared with verbs of saying and thinking, substantially more Dutch is used here in *Klop, klop* and *Meneer beer*. This cannot be explained under the assumption that Dutch is associated with cognitively demanding interactions because the verbs are simple and probably do not indicate such demanding interactions. The fact that they are simple words could explain the more frequent use of Dutch. Particularly, the use of *kijk* ‘look’ does not demand much Dutch competence.

We found no indication that functional language differentiation was related to cognitive complexity of language. It might be that our underlying assumption that cognitively more demanding interaction parts are seen by mothers and children as more school-related is wrong. Perhaps they did not use cognitive complexity to distinguish school-related from nonschool-related topics. Maintaining our notion that functional differentiation is re-

Table 7. Code choice for verbs of saying and thinking in the three recorded story reading situations

		<i>Vijf neer</i>		<i>Klop, klop</i>		<i>Meneer beer</i>	
		Pap.	Dutch	Pap.	Dutch	Pap.	Dutch
nifiká	mean	—		—		3	
ke men	mean	5		18		17	
<i>beteken^a</i>			—		—		1
<i>yama</i>	call	6		12		5	
<i>heet</i>			3		1		1
<i>noem</i>			—		—		—
Papiamento		1		20		1	
<i>Papiaments</i>			—		—		3
Hulandes		1		2		5	
<i>Nederlands</i>			1		1		3
Ingles		—		3		—	
komprondé	understand		2		15		7
<i>begrijpen</i>			—		—		—
kòrda	remember		1		2		3
<i>herinneren</i>			—		—		—
<i>onthouden</i>			—		—		—
pensa	think	—		—		—	
<i>denken</i>			2		—		—
kere	believe	2		7		3	
<i>geloven</i>			—		2		—
konosé	know	—		—		—	
<i>kennen</i>			—		—		1
sa	know	5		31		13	
<i>weet</i>			11		2		13
konta	count	56		8		—	
<i>tellen</i>			31		—		2
konta2	tell	—		31		7	
<i>vertellen</i>			—		—		—
pasa	happen		13		12		8
<i>gebeuren</i>			8		—		3
Column total		89	56	147	6	62	27
% Pap.-% Dutch		61	39	96	4	70	30
% of total Pap. words		2.1		2.6		1.5	
% of total Dutch words			1.7		0.6		1.5

^aDutch alternative are in italics.

Table 8. Code choice for verbs of seeing in the three recorded story reading situations

		<i>Vijf neer</i>		<i>Klop, klop</i>		<i>Meneer beer</i>	
		Pap.	Dutch	Pap.	Dutch	Pap.	Dutch
wak	look	108		139		108	
mira	see	42		71		12	
<i>kijk(en)^a</i>	<i>look</i>		<i>51</i>		<i>15</i>		<i>66</i>
<i>zie(n)</i>	<i>see</i>		<i>33</i>		<i>11</i>		<i>33</i>
Column total		150	84	208	26	120	99
% Pap.-% Dutch		77	23	89	11	55	45
% of total Pap. words		3.5		3.7		2.9	
% of total Dutch words			2.6		2.8		5.3

^aDutch alternatives are in italics.

lated to language use in particular socialization settings, we explored whether the mothers and children used more superficial characteristics of words to distinguish school-related from nonschool-related words. For this, we considered yet a third subdomain - numbers. Here, Dutch was the dominant language.

As shown in Table 9, in *Vijf neer*, the ratio is one to six; in *Klop, klop*, there is a roughly equal split between the two languages; in *Meneer beer*, the ratio is about one to four. When we compare the amount of numbers in Papiamento with the total amount of Papiamento words and the amount of Dutch number words with the total amount of Dutch words in the respective book reading sessions, the resulting percentages clearly show that number words form a considerable proportion of all Dutch words in the discourse, particularly when reading *Vijf neer* and *Klop, klop*.

Number use in the reading sessions was often clearly school-related. As shown in Table 10, *Vijf neer* has the character of a classroom exercise for the numbers 1 to 5 - hence, the high proportion of Dutch here. In *Klop, klop*, Papiamento was used quite often for the lower figures, while for the higher figures, Dutch predominated. This may be linked to an interaction pattern in which a child started counting in Papiamento but was stopped by the mother and urged to count in Dutch, as in:

Mother: Konta 'CountP'

Child: Un 'OneP'

Mother: Nee. Nederlands. Na Ulandes bo tin ku konta. Kuminsa konta één bai 'NoD. DutchD. InP DutchP youP haveP toP countP. StartP countingP oneD goP.'

Let us summarize our findings. We expected that mothers and children would use relatively more Dutch in cognitively demanding interactions. For mothers, this might be the consequence of an awareness that children need to be proficient in Dutch to do well in school. For the children this might

Table 9. Code choice for numbers in the three recorded story reading situations

	<i>Vijf neer</i>		<i>Klop, klop</i>		<i>Meneer beer</i>	
	Pap.	Dutch	Pap.	Dutch	Pap.	Dutch
un	23		14		2	
<i>één^a</i>		<i>221</i>		<i>17</i>		<i>5</i>
dos	42		23		3	
<i>twee</i>		<i>187</i>		<i>13</i>		<i>6</i>
tres	41		39		—	
<i>drie</i>		<i>177</i>		<i>19</i>		<i>4</i>
kuater	26		4		—	
<i>vier</i>		<i>177</i>		<i>13</i>		<i>7</i>
sinku	17		5		—	
<i>vijf</i>		<i>163</i>		<i>8</i>		—
seis	3		2		—	
<i>zes</i>		<i>10</i>		<i>8</i>		—
shete	2		5		—	
<i>zeven</i>		—		<i>8</i>		—
ocho	2		8		—	
<i>acht</i>		—		<i>11</i>		—
nuebe	3		1		—	
<i>negen</i>		<i>1</i>		<i>6</i>		—
dies	—		—		—	
<i>tien</i>		<i>5</i>		<i>3</i>		—
Total	159	961	101	106	5	22
% Pap.-% Dutch	14	86	49	51	19	81
% of total Pap. words	3.7		1.8		0.1	
% of total Dutch words		29.7		11.4		1.2

^aDutch alternatives are in italics.

Table 10. Code choice for the numbers in the three recorded story reading situations, separated into two groups, 1-5 and 6-10

	<i>Vijf neer</i>		<i>Klop, klop</i>		<i>Meneer beer</i>	
	Pap.	Dutch	Pap.	Dutch	Pap.	Dutch
1-5	149	945	85	70	5	22
6-10	10	16	16	36	—	—

have become a habit; school-like talk is mostly done in schools and then always in Dutch. This expectation, in the general way we stated it, could not be confirmed. Question words or subordinators, which often indicate cognitively more demanding interactions, and words involved in metalinguistic comments were mostly in Papiamentu. Language choice with these words was hardly different from code choice with other words.

Still, we found one clearly school-related lexical domain – numbers – for which mothers urged children to use Dutch. The findings on the use of Dutch and Papiamentu in cognitively demanding interactions suggest new hypotheses. It is the conscious perception by the parents of what is cognitively demanding that determines the choice of Dutch, rather than the status of the item itself. In addition, the use of Dutch for cognitively demanding interactions seems limited by the mothers' competence in Dutch as a second language.

Related to the perception of what counts as school-related for mothers may be the initially surprising fact that their attempts to keep the children seated and quiet were often stated in Dutch: *niet X doen* 'don't do/act X', *ga zitten* 'sit down', etc. Again, this may have to do with the fact that the recordings were made in a school setting.

CONCLUSIONS AND SUMMARY

We addressed two sets of problems. (a) Which factors determine code choice during the reading sessions: intergenerational language shift, the language of the text read or recounted, or language proficiency of parent and/or child? (b) How are the two languages, Dutch and Papiamentu, used in alternation in the activity of parental book reading, and how does this relate to a functional differentiation of the languages?

The code choice of mothers and children in the reading sessions corresponded to code choice in the mothers' and children's language contacts with a variety of persons. The information about mothers' and children's language contacts showed us a fragment of the ongoing process of intergenerational language shift in this group of first-generation Antillian migrants. As expected, we found that code choice in the book reading sessions was related to the text of the book, as well as to the mothers' and children's language competence. If a child had good knowledge of Papiamentu, he or she preferred to speak this language during the book reading sessions.

Exploring answers for the second cluster of questions revealed that not only the text as such, but also the subject matter, played a role. Something that we cannot go into in detail here, but is clearly relevant, is the fact that recordings of the same children and mothers at mealtime in their homes showed almost 100% Papiamentu usage in the family setting (Kook, 1994). Thus, the rather frequent use of Dutch in book reading in the school setting reflects a code choice in the way we expected. However, while awareness of the role of Dutch may result in a code choice (e.g., reading tasks are more oriented toward Dutch), it does not translate into specific choices, unless the parents are aware that a given class of lexical items (e.g., numbers) is

related to school tasks. The verb *konta* 'count' is often spoken Papiamento, but the numbers themselves are often counted in Dutch. It was not the case that the school language, Dutch, was used more in lexical items associated with more demanding cognitive functions such as reasoning and metalinguistic activity. Thus, the relation between "school language" and "cognitively demanding" language is less clear than has sometimes been assumed. Maintaining our notion that functional differentiation is related to language use in particular socialization settings, we formulated a new hypothesis that suits our findings but should be tested in further studies. Mothers distinguish school-related from nonschool-related language on the basis of their own earlier school experiences and global ideas about the school curriculum. It is the conscious perception by the parents of what is school-related language that determines the choice of Dutch, rather than the status of the item itself. We showed that, in cases where such awareness is lacking, language competence had a very strong influence on language choice.

We feel that, with respect to the issues of code choice and functional differentiation, we now have a somewhat comprehensive picture of bilingual book reading by parents in this particular minority group. Studies of other groups are needed to reveal other patterns of code choice in book reading and thus enrich our perspective on this central topic in the study of literacy development among bilingual minorities.

APPENDIX 1

LANGUAGE CATEGORIES SCORED

- N Dutch (e.g., *boek* 'book').
- X Dutch loans with Papiamento morphology: the Dutch word is recognized, but adapted to a Papiamento context (e.g., *boeknan* 'books', *poesnan-* 'cats', *var-kennan-* 'pigs', *dorku-* 'because of that'). These words are indicated in the Papiamento word list of Joubert (1991) as (Hul. "Dutch"); the words not listed in Joubert are listed in the standard Dutch dictionary of Van Dale (Geerts & Heestermans, 1984) as Dutch words.
- Y Unadapted but established Dutch loans. These words are used in Papiamento and have a Dutch origin; their pronunciation does not strongly deviate from Dutch (e.g., *eigenlijk* 'really', *gewoon* 'just, ordinarily').
- Z Papiamento words of Dutch origin, but completely adapted to Papiamento pronunciation (e.g., *kashi* 'little cupboard', *kuki* 'cookie', *pushi* 'cat'). These words are classified by Joubert (1991) as Papiamento words.
- P Papiamento (e.g., *pretu* 'black').
- Q Unclassifiable (onomatopoeic elements, English words, exclamations, names).

APPENDIX 2

GRAMMATICAL CATEGORIES SCORED

- 0 prepositions
- 1 nouns, names
- 2 verbs

- 3 tense/mood/aspect particles (*ta* 'present', *lo* 'future', *a* 'past', *tabata* 'durative past'), auxiliaries, the copula *ta*, *tin* 'have, there is'
- 4 personal (*mi* 'I', *bo* 'you', etc.), possessive, demonstrative ([*es*] . . . *aki* 'this', [*es*] . . . *ei* 'that'), and reflexive pronouns, and question words (*ki[ko]* 'what', *ken* 'who', *unda* 'where'), and determiners
- 5 exclamatives, interjections (*ja* 'yes', *nee* 'no', *uhum*, *ahan*)
- 6 negation (*niet* 'not', *no* 'not'), adverbs
- 7 coordinating (*en* 'and', *of* 'or, whether', *maar* 'but', *pero* 'but', *i* 'and', and sometimes *ku* 'that') and subordinating conjunctions (*ku* 'that', *si* 'if, whether')
- 8 numerals, quantifiers (*tur* 'all')
- 9 adjectives

APPENDIX 3

SCORING GUIDE FOR GRAMMATICAL CATEGORIES

Exclamations like *ahan*, *uhum*, and *ahn* are scored as Q5.

Ja 'yes', *nee* 'no', or *si* 'yes', *no* 'no' are scored as N5 and P5, respectively.

Nouns used as exclamations (*yu* 'Son', *hesu* 'Jesus', *dios* 'God') are scored as P5.

Interjections like *bon* 'good' and *ata* 'right', which resemble adverbs, are scored as P5; *jakkes* 'bah' as N5.

All grammatical variants of *hebben* 'have' and *zijn* 'be', and *tin* 'have, there is', *ta* 'is', *tabata* 'was', and *a* 'has', are scored as N3 and P3, respectively; all other verbs are scored in category 2.

Er zijn 'there are' and *er is* 'there is' are scored as one word (N3).

Tin ku 'have to' is also scored as one word (P3).

Banda di 'next to', *bou di* 'under', and *ariba di* 'on top of' are scored as single words (P0).

Tei < *ta bai* 'gonna' is scored as P3, but if it is derived from *ta ei* 'is there' it is a double score: P3-P6.

Onomatopoeic elements are scored as Q5.

Composite verbs are scored as single words if the two elements are written as one word and as two words (verb and adverb or adjective) if they are written as two words with at least one word between them.

Papiamento plurals are scored as single words.

Aki nan 'here PL' and *aki bou* 'here below' are scored, like *akibanda* 'here on the side' and *akiriba* 'here above', as single words.

Esei 'that there', *es un ei* 'that one there', *e kos ei* 'the thing there', *es un aki* 'the one here', *es un aya* 'the one over there' are all scored as single words, but if the noun is named (e.g., *e homber ei* 'the man there', *e kas aki* 'the house here') all elements are scored separately (P4-P1-P4).

Goed zo 'good!' is scored as one word (N5), as is *hopi bon* 'very good!' (P5).

Alafin alafan 'and so it ends' is scored as P5-P5.

Mucha homber 'boy' and *mucha muhe* 'girl' are scored as P1-P9.

Malamucha is P9.

Asinei or *asina ei* 'thus' is scored as a single word (P6).

Dje (*di dje*) is P0-P4, (*en no ta dje bon*) is P6, (*ke papia den dje*) is P4, (*e buki dje mucha*) is P0-P4.

Anto is mostly P7 except if the meaning is 'then' (P6).

The Papiamentu element *no* is ambiguous between 'no' (P5) and 'not' (P6). If it is just a sentence-final expletive it is scored as P5.

The Papiamentu element *ku* may be a preposition, as in (i) *lechi ku suku* 'milk with sugar' (P0), a conjunction, as in (ii) *mi no ta kere ku mi ta bin* 'I don't think I am coming' (P7), or a conjunction forming part of words like *meskos ku* 'same as', *dor ku* 'because of', *ora ku* 'now that', *kon ku* 'as' - all scored as single words (respectively, P7, Y7, P7, P6).

The Dutch complex complementizer *om te* 'for' is scored as one word (N0).

The Papiamentu complementizer/preposition *pa* 'for' is scored as P0.

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