STRUCTURAL CODE-SWITCHING PATTERNS AS DETERMINED BY TOPIC IN HAUSA

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ABSTRACT

The research is a structural approach to the study of code-switching patterns among Hausa-English bilinguals. It is to discover the linguistic structural code-switching patterns as determined by topic in the speeches of Hausa-English bilinguals and their educational implications at the primary and Junior secondary school levels. Un-guarded data was collected with audio and video recordings. The population sample is three hundred and eighty-five respondents from Jigawa, Kano, Kaduna, Katsina and Sokoto states. These are states with high concentration of Hausa speakers. The research is a survey which uses interviews, observations and recordings. The data collected was analysed along structural patterns. The topics were technical/scientific, politics, education, administration, family, childhood experiences transactions and sermons. The structural code-switching patterns discovered were tag, intra and inter-sentential. Tag switches ranked highest and inter-sentential the least in frequency of occurrences. Code-switchings occurred in all the topics but were more with scientific and technical topics but are less in transactions. The findings indicated that topic is a determinant of code-switchings among Hausa-English bilinguals.

Introduction

Code-switching is the alternating use of two languages at the word, phrase, clause and sentence levels (Wardhaugh, 2006). It can occur in conversations between speakers' turns or within a single speaker turn. Although Matthews (2005) differentiated between code-switching and code-mixing, this paper agrees with Wardhaugh that they can be synonymous. In multilingual societies, the ability to shift from one language to another is accepted as quite normal .In Nigeria it is most times frowned at, because it is regarded as a phenomenon that is random, inhibits language proficiency and shows disrespect if used to address elders among the Hausa people. Most of the Nigerian studies felt that code-switching had no specific pattern, therefore the concern of this research is to bring out the structural patterns produced according to the topic of discussion and their educational implications in teaching and learning contexts.

Hausa-English Linguistic Contact

Language contact between languages results in a situation where individuals become bilingual by learning elements from another

language thus, giving rise to code-switching phenomenon (Turrell,2004). Hausa came into contact with English in the (19th) century. This contact led to the teaching of English in the Nigerian schools. Also, the adoption of English as the official language in Nigeria after independence, made it possible for Hausa people like other Nigerians to learn the language and become bilingual with English as the dominating language because of the prestige attached to it since it is the Colonial language (Philips, 1985 and Salim,1987).As a lingua franca, English became the language of communication among the multiplicity of languages. Olaoye (1991) feels that the amount of influence English has on a Nigerian language depends on the length and intensity of the contact. This means that speakers become fully bilingual if the intensity is high and can only understand some aspects of the language. The contact of Hausa with English gave rise to code-switching as a communicative phenomenon in almost all domains of interaction, especially the classroom!

Code-switching Patterns in Languages

Code-switching patterns could be structural or contextual. The structural patterns are the combination of code-switching instances that are found in utterances. Possible structural patterns can be inter, intra-sentential or tag switches (Myers-scotton, 1988, 1993, and 1995). Inter-sentential code-switching according to Nishira (1997) and Mccarthy (2000) is where a change of language occurs at a clause or sentence boundary, for example;

1. Some times I'll start a sentence in English, y termino en Espanol English Spanish (English-Spanish code-switching, McAuthur, 1996: 211) Intra-sentential switching occurs where the switch is within the clause or sentence boundary. E .g,

2. (---) and of course, they spelled averiado con b en vez de u, I knew that right of you know. English Spanish (English-Spanish code-switching, Turrell, 2004 : 5).

When certain sets of phrases in one language are inserted into the utterance of another language, then tag- switches are witnessed. The tags could be single nouns, verbs, adjectives, prepositions or determiners.

3. Il t'envoire wahed le liquide French Arabic

(It injects a liquid unto you)

(French-Arabic code-switching, Bentahila, 1991: 396).

The structural patterns in languages have been identified Nortier (1990)added extra-sentential as another structural pattern, it is possible to integrate them into the three already mentioned.

Objectives of the Paper

The objectives of the paper are;

1. to determine the structural patterns of code-switching

2. to identify the patterns found according to the domains of interaction and

3. to determine their educational implications in teaching and learning situations.

Research Questions

What are the structural code-switching patterns produced by Hausa-English bilinguals?

Does topic determine the structural patterns produced by Hausa-English bilinguals?

Hypothesis

There are no significant differences in the overall code-switching patterns produced by Hausa-English bilinguals.

There are no significant differences between the topic and code-switching patterns produced by Hausa-English bilinguals.

Code-switching Models

Many descriptive works on code-switching have identified some independent theories of code-switching (Halmari, 1997). Basic to the field is the analysis of descriptive data which looks at theories of code-switching under the guidance of general linguistic theories. Models such as the variationists' model, which is a branch of empirical linguistic study known as the variation linguistics (Labov, 1972, Labov and Sankoff,1988 and Sankoff and Sankoff,1988) are used to study code-switching phenomenon.

The model involves a combination of techniques from linguistics anthropology and computer science. The model scientifically investigates language use and structure as manifested in a naturalistic context.

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The pragmatic model associated with Gumperz (1982), who sees code-switching as a distinct communicative resource available to bilingual speakers that have pragmatic and discourse significance. The pragmatic model is concerned with what the speaker means to convey in a particular structure in context that is, what is said and what is implied.

Pragmatics draws ideas of symbolic interactions such as, facial expressions, gestures and other extra linguistic components. It also looks at the effects that the use of language has on the other participants in communicative acts such as, conversational performance and language use.\

Pedagogical model which is ethnographic in nature, is mostly applicable in bilingual classes. It deals with observation and analysis of classroom activities. The communicative cycles of the classroom activities which may include story-telling, art work, guided play and other activities related to a cross-curricular theme that are used as speech events between teacher and student. The pedagogical approach allows for an account of social interaction, and the effects the use of language has on the participants in communicative

activities during teaching\learning situations (Swain, 2000).

The domain analysis model is a macro-sociolinguistic model developed by Fishman (1972). The model deals with multilingual settings in which a single population makes use of two or more languages for internal communicative purposes. The parameters for the model are topic, participants and domain (social, education etc).

Fishman (1972) proposed that topic is a regulator of language choice in multilingual settings. The language varieties used in a society are assigned different complementary functions These include language of the home, family and friendship interactions or in the offices for official purposes (Sobreror, 1988 and Gibbons 1989).

The frame-process is a linguistic model for code-switching proposed by Myers-scotton (1993, 1995). The essential features of the model are: the process of building a frame for the analysis of the data. The basic distinction is between the matrix language (ML), the base and the embedded language (EL). The matrix language is sociolinguistically the dominant language in terms of the number of domains in which it is unmarked. The three structures allowed to occur in code-switched utterances are:

ML+EL constituents are made up of elements from both languages which can be one word insertions as in

Lakini yee pia a katoka nyu-maa-ka-ni <u>connect</u> Amoja <u>solid</u> sana kwayiko

Maori   (ML)
English   English Maori

(But he also came from behind and connected (to) me a solid one on the eye) (Maori-English code-switching, Eurera, 1975). In the sentence connect and solid are English constituents embedded in a Maori sentence.

b.   ML+EL islands consisting of morphemes from the respective languages and well formed according to the grammar of the matrix language as in;

4) Zaka raba into two preparations kawai

   Hausa island   English island
   Hausa constituent

   (You will divide the preparation into two portions only)

   (Hausa-English code-switching, Jibir-Daura, 2008)

In example 5 above, the sentence has matrix and embedded islands and a matrix constituent <u>kawai</u>

c. Fixed ML+ EL islands that contain morphemes from languages organized according to the structural principles of both languages. A single morpheme or EL island can be embedded within a large ML constituent.

5) Wanda   we have just finished,
   sune   musicals
   ML   EL island
   ML   EL constituent
        constituent
        constituent

(Those we have just finished are the musicals)
(Hausa- English code-switching, Jibir-Daura, 2008)

In example 6 the sentence consists of a larger ML constituent wanda an EL island an ML constituent and EL constituent.

The paper will use the frame – process and domain analysis models to analyze the data structurally according to the domains of interaction and topics.

Structural Code-switching Studies

Backus (1991) recorded the utterances of thirty- two informants

of second generation Turkish adolescents residing in Netherlands. A sociolinguistic profile of the informants' personal history, language preferences and attitude was kept. The data were analyzed using the frame-process model. The frequent patterns found were single nouns, verbs, complex NPs (Noun phrases) and Dutch clauses. Nortier (1990) used spontaneous recordings of peer-group bilingual speech. Monolingual interviews were conducted and a detailed sociolinguistic profile was kept. Out of one thousand and ten (1010) switches recorded, 333 were intra and extra-sentential, 275 were inter-sentential and 402 were Single word code-switching patterns.

In a syntactic and functional analysis of Italian dialect contact in Catania study carried out by Alfonzetti (1990). Fourteen (14) hours of tape-recorded natural speech in different communicative situations (formal and non-formal) were used. A total of 1059 switches were recorded and three patterns were identified. Four hundred and thirty-one (431) inter-sentential, four hundred and ninety-nine (499) intra-sentential and sixty-nine tag- switches were identified.

Bentahila and Davies' (1991) study on Moroccan Arabic-French code-switching patterns used six hours of tape recording and two and a half hours of informal, conversations and interviews with highly educated Arabs. The findings showed that the older generation switched more at clause boundaries used fillers and grammatical items, while the younger generation switched within the clause, used more inra-sentential and word internal switches.

Madaki's (1983) pragmatic study of Hausa- English code-switching looked at the syntactic constraints which prohibited code-switching at certain environments. The findings showed the syntactic patterns of code-switching and not pragmatic patterns. Data collected from written documents mostly Hausa poems were collected by Yusuf (1985). The study aimed at disproving any syntactic constraints in Arabic-Hausa code-switching. Yusuf's (1985) findings were samples of code-switched utterances perceived to be impossible in some universal constraints. The research proved them to be possible with Hausa-Arabic data, but did not confirm their relevance to Hausa - English bilinguals.

Theoretical Framework

The theoretical framework comprises of the linguistic frame-process model (Myers-Scotton, 1993) which was used to account for the structural patterns. The domain analysis model

Fishman (1972) was used to determine the sociolinguistic variables of age, educational level, social status, setting and participant role as they are affected by topic.

Research Methodology

The research design is a survey which is inductive in nature because it used interviews, observations and recordings to elicit and collect data. The population consisted of selected adult speakers from states with high population of Hausa speakers in Northern Nigeria. A sample of 385 young and old respondents was used to represent the population of the bilinguals. This set of subjects was selected based on the fact that all forms of code-switching patterns were found within the groups. Also, the concept of code-switching is understood to be a social phenomenon that could be accepted or rejected within these groups.

The research instruments were audio and video recordings of speeches and conversations at home, office, market and other public ceremonies. Open recording was done in order to avoid affecting the respondents code-switching behaviour. The patterns were analyzed in tables according to he number of occurrences and percentages. Analysis of variance statistics was used to test for significance.

Data Analysis

The code-switching structural patterns found in the study were tag, intra and inter-sentential switchings. These were computed in frequencies and percentages.

Table 1.1: Shows the structural patterns found among Hausa speakers. No. of Respondents=385. No. of Recordings=114

Structural Patterns	No. of occurrences	Percentages
Inter-sentential	301	28.60%
Intra-sentential	330	31.33%
Tag-switches	422	40.07%
Total	1053	100%

The table shows an overall occurrence of 1053 structural patterns. Tag-switches ranked highest (40.07%) and inter-sentential the lowest (28.60).This means that most Hausa-English bilinguals in the study used more tag switches, possibly because they are open-class items that are easily retrieved in meaningful communications. Table 1.2 is the analysis of variance statistic of the overall structural

code-switching patterns among Hausa-English bilinguals.

Table 1.2: **ANOVA statistics for the overall code-switching patterns among Hausa-English bilinguals**

Structural Patterns	X	Source	SS	Df	Ms	F	P	D
Inter-sentential	10.00	Between	52.51	2	26.26	1.27	0.2865	Retain
Intra-sentential	8.46	Within	2262.20	109	20.75			Ho
Tag-switches	9.81	Total	2314.71	111				

Table 1.2 the analysis of variance for code-switching overall structural patterns among Hausa-English bilinguals is not significant at = 0.05, p =02863.

CODE-SWITCHING STRUCTURAL PATTERNS ACCORDING TO TOPIC

The analysis of the structural patterns was done using frequency tables and analysis of variance statistic. The code-switching structural patterns according to topic by Hausa-English bilinguals is presented in table 1.3 showing the number of occurrences and percentages.

Table 1.3: **Code-switching Structural Tag, Intra, and Inter-sentential Patterns according to Topic No. of Respondents =385. No of recordings =114**

Topics	No. of occurrences	Percentages %
Technical/scientific	198	8.80
Politics	121	11.49
Education	142	13.49
Administration	110	10.45
Family	125	11.87
Childhood experiences	130	12.35
Transactions	110	10.45
Sermons	117	11.11
Total	1053	100

Table 1.3 above shows that technical/scientific ranked highest in frequency of occurrences (18.80%), administration and transactions

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ranked lowest. This shows that most of the switches were found with technical discussions Extract (7) is

an example of a tag switch in the market during a transaction.

7)   T: <u>Customer</u>, zo ki sayi kayan miya
              (Come and buy soup ingredients)
              EL constituent +ML island

        B: Ga shi ka ba ni <u>okra</u> ta naira hamsin

              (Here, give me fifty naira worth of okra)
              ML Island +EL Constituents

        T: Shi ke an abin da za ki saya?
              Ga <u>plantain</u> fa da <u>potato</u>
              (Is that all you are buying? I also have plantain and potatoes).

These are all tag-switches because they are only one word insertions. The free movement of the EL constituent indicates an informal form of conversation.

Extract (8) is an example of tag-switching in a mechanic workshop.

8)   M: Me ya samu motar ta ke kin ja?
              (Why is the car not running well)?

        Z: Ina ganin <u>filter</u> ce ko kuma <u>plug</u>.
              (It may be the filter or the plug that is faulty).
              ML Island +EL Constituents

The switching could be as a result of the lack of equivalents in Hausa language. The words were technical concepts that could not be readily translated by the speaker.

Extract (9) is an example of a tag switch during preaching.

9)   I: Bature ya kawo muku <u>satellite, video, CD</u> da
              <u>Internet,</u> kun mance abinda Allah y ace game
              da karatu.
              ML Island + EL Constituents.

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(The whites had brought satellite, video, CD and
the internet. You have forgotten Allah's injunction
on reading).

The switch is a tag switch because it is all one word (noun) insertions. The switch could be to explain what was taking the minds of the youths away from reading, i.e. innovations are not available in Hausa.

Extract (10) is an example of an intra-sentential switching among friends.

10)   A: Wannan registration bamu gane mashi ba,
           A ce har yanzu wasu basu san ana yi ba.
           ML Island +EL Constituent

           (I do not understand what is happening with the
           voters registration exercise. Some people are not even
           aware it has begun).

      B: A ce Makarfi <u>Local Government only one computer</u> ke
           aiki , <u>when we used to have more than fifteen polling
           booths is unacceptable.</u>
           ML Island + EL Island

           (There is only one computer to the whole of Makarfi Local
           Government Area, when we used to have more than fifteen polling
           booths. This is unacceptable).

The example is intra sentential because the embedded language is inserted within the sentence or clause boundary.

Extract (11) is an example of intra-sentential switch in a political topic.

11)   C: Local government za ta iya <u>handling</u>]in
           Shi kafin <u>minister of state</u> ta yi arriving.

           (The local government can handle it before the
           minister of state arrives).
           ML Island +EL Island +EL Constituents.

W: Kuna ganin za ku iya yin wani abu kafin
     Erosion, watau zaizayar }asa ta tashi mutane?

     (Do you think you can do something about the
     Erosion before it drives people away)?
     ML Island +EL Constituent

The topic of discussion invariably was an influencing factor in the occurrences of the switches. The fear people living in the area felt made them to switch in order to stress the importance of the topic, erosion.

Extract (10) is an example of intra-sentential switch emanating while discussing educational topic.

(10)   T: Za mu yi <u>concentrating</u> ne a kan <u>the procedure of</u>
         <u>making fruit juices from the different types available.</u>
         ML Island +EL Island
         (We will concentrate on the procedure of making fruit juices from
         the different ones that are available).

The teacher might be trying to make the students comfortable with the procedure in the laboratory. Another possibility is that the teacher was more comfortable with the English language than Hausa in handling the

class. The switches were all within the sentence.

Extract (11) is an example of intra-sentential switching among family members.

11)   M: Kun kuwa gama abinci ?
         (Have you finished cooking)?

       H: Wallahi bam u gama ba, ga shi
          Har <u>the boys are all asleep</u>
          ML Island + EL Island

          (By Allah, we have not finished, and the boys are all asleep).

The switch could be to focus on how late the food had been and also

because the topic was informal. This

might be to show remorse for the lateness in preparing the food.

Extract (12) is an intra-sentential switch in childhood experiences.

12)   Z: Ku taho mu tafi yawo in an jima.
            (Let us go out later)

        S: Kuna so ne ku riga shiga <u>near by villages</u>
            Kamar yadda muka yi da?
            ML Island +EL Island
            (Do you want to be going to the near by
            Villages as we used to do before)?

The switch is intra-sentential because it was within the sentence.

Extract (13) is an inter- sentential switching in an educational topic.

13)   F: Ba biyan kudin makaranta ba, ku je ku yi
            Wasting time din kowa ba karatu.
            ML Island + EL Island

            (It is not the payment of school fees that bothers me, but
            your going to waste time without studying).

        S: Baba (Father).

        F: Yi shiru! <u>I have not finished telling you
            what I called you here for.</u>
            ML Island +EL Island

The switch depicted an inter-sentential pattern because a sentence. It was also an example of an embedded language island signaling the father's anger at the son interrupting his speech.

,Extract (14) is an example of inter-sentential switch in a hospital a doctor explaining about his patient's condition.

14)   D: Kun gani. <u>This case will require admission
                with intensive care.</u>
                ML Island +EL Island

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The switch was motivated by the doctor's desire to explain the patient's situation better.

In this case, the Hausa version was an interruption of the smooth English speech flow.

Table 1.4 is the analysis of variance statistic for the structural code-switching patterns according to the topic of discussion.

Table 1.4: **Analysis of variance statistic (ANOVA) of Structural Code-switching Patterns according to Topic.**

Topic	X	Source	f	Ss	Ms	F	P	D
Technical/Scientific	.90	Between groups	23	531	23.12	1.80	0.0169	Ho
Politics	5.41	Within groups	204	2617.29	12.83			Reject
Education	6.29	Total	227	3149.04				
Administration	4.18							
Family	4.81							
Childhood experiences	4.60							
Transaction	3.77							
Sermons	3.64							

Table 1.4 shows the analysis of variance with p= 0.0169 at level 0.05 which indicated that topic has significant effect on the structural code-switching patterns of Hausa-English bilinguals.

Educational Implications

Code-switching studies have many educational implications especially in the Nigerian classrooms. Simon (1998),Macaro (2000) are of the opinion that it is not only impractical to exclude the first language from the classroom, its exclusion can lead to the learners being deprived of an important tool for language learning that could result in high drop-out rate.

For many learners Atkinson (1993), Cole (1998) the occasional use of the LI gives them opportunity to show they are intelligent sophisticated people. Students can code-switch as a fall 'back method when their knowledge of the L2 fails them, they could also code-switch for other participant or discourse-related functions that contextualize the interactional meanings of their utterances (Liebscher &Dailey-Ocain, 2005).

Teachers could translate concepts switched by students so that by the time they are in senior classes, they would have mastered adequate vocabulary to easily speak in the L2.

McCarthy (2000) and Ludi (2003) have revealed how diverse children's language tradition and ways of knowing their broader cultural frames affect their learning in school. Code-switching can positively affect the children's learning of vocabulary, grammar points and improving their overall communicative competence. It can be an attempt at overriding communicative stumbling blocks when students fall back on the mother-tongue especially in the primary school where there is low proficiency level in English. Teachers and fellow students could assist lower ability groups using code-switching if handled well as is done in the USA bilingual classes(Whitmore & Cromwell, 2006).

Conclusion

Code-switching structural patterns common to Hausa —English bilinguals were tag, intra and inter-sentential. Significant differences were found between the topics and code-switching patterns. Technical and scientific discussions ranked highest, family and political discussions came second. Sermons and transactions had the lowest frequency.

The highest frequency found among the structural patterns was the tag, followed by intra and inter-sentential switchings.

Topics of discussion sometimes necessitated the use of code-switching .This is because some topics had to be explained or discussed using code-switching due to their technical nature. In some cases, it was found that the topic was not the only trigger for switching, the participants (friends) code-switched for social pleasantries. Sociolinguistic studies show that doctors and nurses switch to explain patients' condition, and family switched in informal situations for scolding children and making jokes. Traders were found to code-switched in order to bargain and negotiate with customers. In the educational context, code-switching could be used as an attempt at over-riding communication stumbling blocks when students fall back on the mother-tongue especially at the primary school level where there is low proficiency. Code-switching could also be used to teach a language for short duration courses.

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