



Research article

Types of Code-switching among Young Adults with Bilingualism

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Abstract

The present study aimed to analyse and compare various forms of code-switching among adult male and female Tamil-English bilinguals. This research involved thirty bilingual (Tamil and English) adults between the ages of 18 and 25. Each participant was given an updated version of the cookie-theft picture and asked to describe it in Tamil. The various kinds of code-switching, such as tag switching, intra-sentential switching, and inter-sentential switching, were identified through the data analysis. Results indicated that language switching occurs more frequently between phrases and that female participants exhibit code-switching significantly higher than male participants, particularly in tag switching. The study findings can help linguists and speech-language pathologists understand the various types of code-switching employed by Tamil-English bilinguals. However, a larger population needs to be studied for further investigation.

Keywords: Code-switching, Bilingualism, Intra-sentential switching, Inter-sentential switching, Tag switching.

Introduction

Language plays a crucial role in everyday communication. For a decade, language in India has been sharply rising. According to reports, most people in India currently speak two or more languages. The benchmark in India is that 26% of Indians are bilinguals, and 7% are multilingual (Chandramouli & General, 2011; Vasanta, 2011). About 50% of people worldwide are bilingual (Bhatia & Ritchie, 2008; Edwards, 2008; Tabouret-Keller, 2004). The language process for the bilingual community differed from that of the monolingual population (Kovelmen et al., 2008). An essential area of the study looked at how bilingual users switch from one language to another in speech, narration, and picture descriptions.

Code-switching is the term used to describe how people change their language of communication. The language process of code-switching in bilingual language users has been extensively researched (Cantone, 2007). It involved the swapping of two languages, either into

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morphemes, words, or lexical. This switchover produces a person who is literate in both languages and impacts the cross-language society of bilingual or multilingual individuals (Martinez, 2014).

The Code-switching phenomenon can be looked at from various angles, but the key focus of this research was analysing different types of Code-switching in young adults. People use a variety of code-switching techniques in daily life. It includes tag switching, intra-sentential switching, and inter-sentential switching. Inter-sentential switches typically do not require grammatical proficiency in both languages, whereas intra-sentential switches show higher proficiency in the two-grammar involved. In tag switching, the switch was merely an interjection, a tag, or a sentence filler in the other language that functions as an ethnic identity marker (Poplack, 1980). The three that stood out the most were intra-sentential, inter-sentential, and tag switching, which occurs during a conversation, narration, or picture description assignment. Intra-sentential switching, inter-sentential switching, and tag switching all refer to inserting a tag or short phrase from one language into another.

Numerous theories from various linguistic experts who have specialized in different kinds of code-switching concur. The first researcher to demonstrate that the three kinds of code-switching, inter-sentential, intra-sentential, and tag switching, can occur in various parts in every speaker with various capabilities (Poplack, 1980). Three levels of code-switching (Level A, Level B, and Level C) are proposed by Li Wei (1998). Inter-sentential code-switching, or Level A, is where individuals alternate between languages while being answered in a different language. Level B is called "Intra-sentential code-switching," where the speaker uses two or more languages in one speech. Level C is called temporary lexical borrowing, where the speaker inserts a phrase, word, idiom, or expression that is said in a different language within a sentence. From the above theoretical perspective on Code-switching, Inter-sentential, Intra-sentential, and tag-switching are the primary theory for analysing the type of Code-switching.

Geetha & Kamatchi (2010) studied the types of code-switching among bilingual people who speak Tamil and English. They tried to explain the code-switching patterns in Tamil proverbs. According to the study, code-switching occurs among educated persons in a monolingual setting. Most studies have focused on tag switching, inter-sentential switching, and intra-sentential switching in other languages (Abdollahi et al., 2015; Montes-Alcalá, 2000; Yusuf & Fata, 2020). Recently, we investigated the trend of code-mixing among young bilingual Tamil-English speakers (Prabhu et al., 2021). A little body of research has looked at the Tamil form of code-switching. The current study investigated code-switching among bilingual individuals in Tamil and English.

The study's objective was to analyse the type of Code-switching (Intra-sentential switching, Inter-sentential switching, and Tag switching) among Tamil-English bilingual young adults and to compare the types of Code-switching between males and females.

Methods

Thirty bilingual participants (15 males and 15 females) aged 18 to 25 years and participants with a first language (Tamil-L₁) and a second language (English-L₂) were included in this study. Participants with monolingual and multilingualism were excluded. Interagency Language Roundtable (ILR) scale was used to check the participant's language proficiency. Participants with

ILR scores of <3 in Tamil-English language proficiency were excluded from the study. Informed consent was obtained from all the participants. Demographic details were collected from each participant.

Test procedure

The test procedure was carried out in 4 phases.

Phase I – Selection of participants

Initially, each participant was asked about their language exposure. Participants with the first language (L₁) and second language (L₂) details were collected. In this phase, late bilingual adults who had their first language L₁- Tamil and Second language L₂- English only participated in this study.

Interagency Language Roundtable (ILR) scale was used to assess their language proficiency in Tamil and English. This is a 0–5-point self-rating scale. Participants must grade their language proficiency on a scale of 0–5. On this scale, those whose language proficiency rating was 3-5 in both languages (Tamil and English) only participated in this study.

Phase II- Demographic information

In this phase, Demographic information was collected from each participant. In demographic data, the following details were collected from the participants; Name, age, and gender.

Phase III- Administration of test

In this phase, bilingual participants were given an updated version of the Cookie-theft picture (Berube et al., 2019) for the picture description task. In this task, the examiner asked the participants to describe the picture in Tamil (The participant's first language). The participants described the picture to Tamil speaking examiner in a familiar place. The Tamil-English bilingual examiner analysed the sample for rich documentation. Code-switching was analysed from the picture description task. The following types of Code-switching were analysed for each participant;

- i. Intra-sentential switching
- ii. Inter-sentential switching
- iii. Tag switching

Each bilingual participant's response was recorded using a Sony voice recorder (ICD-PX470). The recorded samples were then transcribed for analysis.

Phase IV- Data Analysis

The following types of Code-switching were analysed in this phase;

i) Analysing of Intra-sentential switching

In this type, switching occurs within a clause or sentence boundary. It was found in words, phrases, or clauses of a second language in a first-language sentence.

For example

Intha padathula oru **pet** iruku. (In this picture, there is a pet)

Punai vanthu **birds** thurathitu iruku. (The cat is trying to catch the bird)

In the above sentences, the switching of a second language, English, occurs within a sentence in the Tamil language; this is called Intra-sentential switching. Switching of clauses, lexical items, and morphemes of a second language (English) within sentences was calculated. Therefore, the number of switching to a second language within the sentences was counted for analysis. The formulation of analysis of the types of Code-switching has been given by Sugiyono (2012).

The analysis of the percentage of Intra-sentential switching was carried out using the following formula,

$$P = F/N * 100$$

P = the percentage of Intra-sentential switching

F = frequency of Intra-sentential switching on the speech utterance

N = sample (the total of words in the description passage).

ii) Analysing of Inter-sentential switching

In this type, switching occurs between a clause or sentence boundary. Participants switch to another language for a subsequent clause or sentence of this type. This switching should take place between at least two clauses or two sentences.

For example

Intha padathula **husband and wife** irukanga, **husband plate clean** panitu irukaru.

(There is a husband and wife in this picture, the husband is cleaning the plate)

Husband liquid edhuthu **dish wash clean** panitu irukaru, **wife** vanthu **gardern clean** panitu irukanga.

(Husband washing dish using the liquid trying to clean it and wife is cleaning the garden)

In the above sentences, switching of a second language occurs between two sentences; this is called Inter-sentential switching. Therefore, the total number of switching of the second language between the sentences was counted for analysis. The analysis of the percentage of Inter-sentential switching was carried out using the following formula,

$$P = F/N * 100$$

P = the percentage of Inter-sentential switching

F = frequency of Inter-sentential switching on the speech utterance

N = sample (individual total number of words in the description task)

iii) Tag switching

In this type, switching of tags/phrases occurs in the sentences. Switching of a tag or specific phrases in one language is inserted into another.

For example

Papa kela vila pogurathu kuda theyriyama appa pathiram kaluvuranga, **you know**.

(Dad is washing the vessels without realizing that kid is going to fall, you know)

In the above sentence, a tag from a second language (English) was inserted while speaking the first language (Tamil) is called Tag switching. The above example was speaking in Tamil, but at the end of the sentence, his/her decided to use a tag phrase, 'you know' in English Switching of tags or phrases of a second language (English) in the sentences was calculated. Therefore, the total number of tags of the second language (English) from the description task (Tamil) was counted for analysis. The analysis of the percentage of Tag switching was carried out by using the following formula,

$$P = F/N * 100$$

P = the percentage of Tag switching

F = frequency of Tag switching on the speech utterance

N = sample (individual total number of sentences in the description task)

Statistical Analysis

Descriptive statistical analyses (Mean, Range & Standard Deviation) were conducted to determine the samples' baseline characteristics. Graphical representations such as bar charts have been presented to describe visually the participant's characteristics. Mann-Whitney U test was carried out to compare whether there was a difference between males and females. Analysis was performed using 22 versions of IBM SPSS software.

Results and Discussion

i) Types of code-switching

Table 1. Represents the mean age and standard deviation of the study population.

Table 1. Descriptive analysis of age in the study population (N=30)

Parameter	Mean± Std. deviation	Minimum	Maximum
Age	21.37±2.12	18	25

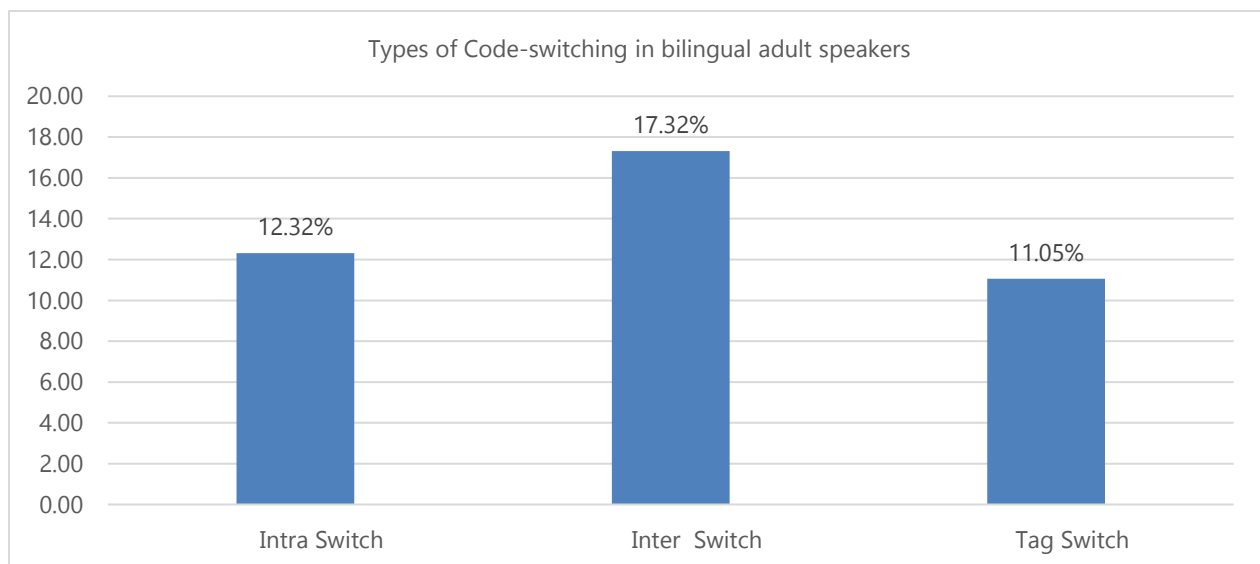
Table 2. Represents the types of Code-switching in Tamil-English bilingual adult speakers. Intra-sentential switch of mean± St. Deviation was 12.31±3.32, the Inter-sentential switch of mean± St. Deviation was 17.31±4.22, and the Tag switch of mean± St. Deviation was 11.05±7.02.

Table 2. Descriptive analysis of types of Code-switching in Tamil-English bilingual adult speakers in the study population (N=30)

Parameter	Mean± Std. deviation	Minimum	Maximum
Intra-sentential switching	12.31±3.32	6.38	20.25
Inter-sentential switching	17.31±4.22	8.51	25
Tag switching	11.05±7.02	0	22.2

The first research question analysed the type of code-switching employed in the picture description task. The result indicates that Tamil-English bilingual speaker uses 12.3% of Intra-sentential switching, 17.3% of Inter-sentential switching, and 11.0% of tag switching in the picture description task (Figure 1). The Tamil-English bilingual adult speaker uses more Inter-sentential switching than Intra-sentential switching and Tag switching. Greater fluency in both languages is needed for inter-sentential switching than other switching techniques since a large portion of the utterance must adhere to the laws of both languages (Romaine, 1995). The second most common form was intra-sentential switching, which is more personal than inter-sentential and tag switching and suggests that the code-swapped segment and those around it must adapt to the syntactic conventions of both languages (Poplack, 1980). Tag switching was the least prevalent type; it was only employed to assure a few claims or descriptions relating to the picture description task. The current study's findings indicated a higher rate of language shift between sentences. Some of the supporting studies have reported similar results on the nature of code-switching in bilinguals (Girsang, 2015; Abdollahi et al., 2015; Sari, 2016). Overall, 40% of the participants were code-switched while describing pictures. The study's findings provide insight into how bilingual Tamil and English speakers used various code-switching techniques to complete the picture-description task and describe code-switching in a detailed manner. This study aids linguists and speech-language pathologists in understanding the different types of code-switching used by bilingual Tamil and English speakers.

Figure 1. Shows a graphic representation of the type of Code-switching in Tamil-English bilingual adult speakers



ii) Comparison of type of Code-switching between males and females

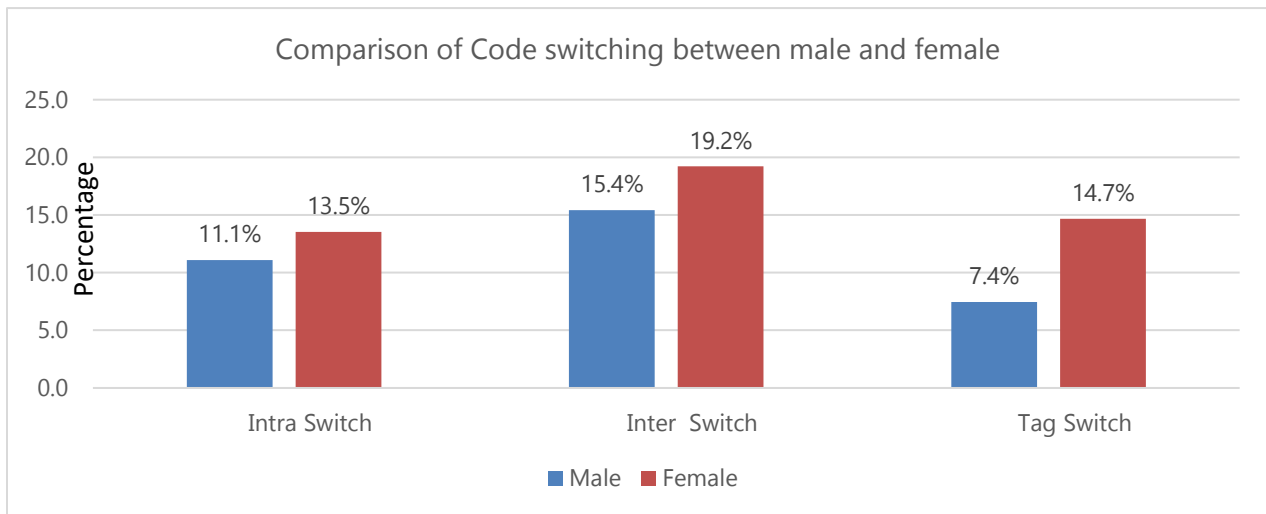
Table 3. Represents the descriptive analysis of the types of Code-switching between males and females. For males, the Intra-sentential switch of mean \pm St. Deviation was 11.09 ± 2.91 , the Inter-sentential switch of mean \pm St. Deviation was 15.41 ± 4.00 , and the Tag Switch of mean \pm St. Deviation was 7.44 ± 6.09 . For females, the Intra-sentential switch of mean \pm St. Deviation was 13.53 ± 3.34 , the Inter-sentential switch of mean \pm St. Deviation was 19.21 ± 3.63 , and the Tag Switch of mean \pm St. Deviation was 14.66 ± 6.09 .

Table 3. Descriptive analysis of the type of Code-switching between male and female

Parameter	Male	Female
	Mean± Std. deviation	
Intra sentential switching	11.09±2.91	13.53±3.34
Inter sentential switching	15.41±4.00	19.21±3.63
Tag switching	7.44±6.09	14.66±6.09

Figure 2. Represents a comparison of the type of Code-switching between males and females. The Tamil-English bilingual male speaker uses 11.1% of Intra-sentential switching, whereas the female speaker uses 13.5% of Intra-sentential switching. The Tamil-English bilingual male speaker uses 15.4% of Inter-sentential switching, whereas the female speaker uses 19.2%. The Tamil-English bilingual male speaker uses 7.4% of Tag switching, whereas the female speaker uses 14.7%.

Figure 2. Shows a graphic representation of the comparison of types of Code-switching between male and female



Mann-Whitney U test was used to determine whether there was a significant difference between males and females. The results show U value for Intra-sentential switching was 56.5, the p-value <0.05, the U value for Inter-sentential switching was 51.0, the p-value <0.05, the U value for Tag switching was 46.0, the p-value <0.05. The above statistical analysis shows a significant difference in the type of code-switching between males and females.

The second research question was to compare the types of Code-switching between males and females. The study result shows a significant difference in Code-switching between males and females in the picture description task. This may be due to the second language, English being the preferred language of Code-switching in females (Farida, 2018 & Sadiqi, 2008). Lipski (1985)

reported that early bilinguals engage in intra-sentential switching while late bilinguals do this comparatively less. From this perspective, the participants in this study were late bilinguals, perhaps acquiring English in school and Tamil at home as a part of their primary socialization. Koban (2013) found that Turkish-English bilinguals used more intra-sentential code than inter-sentential mixing. The study also reported a positive though nonsignificant correlation between intra-sentential switching and language proficiency. In the current study, although participants' proficiency in Tamil and English ranged between 3 and 5, they still had a different level of proficiency in the two languages. The participants, specifically the female participants, used more code-switching. Going to Poplacks (1980) claims, particularly the female participants, may have a high English proficiency level compared to the male participants. This point needs to be investigated further.

Conclusion

Code-switching enables the efficient transfer of information; it can be helpful in language learning and the chance for language development. A need for understanding of code-switching in bilingual adults is necessary for speech-language pathologists and linguists. The present study's findings help to comprehend the various code-switching strategies used by bilingual Tamil and English speakers. All the participants more frequently flip between sentences in one language and another when speaking. These findings allow researchers to determine the frequency of code-switching among young Tamil speakers. Female speakers code-switched more than male speakers, which could be linked to their language proficiency. Future research should be needed to substantiate these findings in Tamil-English bilingual adults using a larger population.

Declaration of Conflicts of Interests

The author(s) declared no potential conflicts of interest.

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Data availability statement

Data are unavailable due to [ethical/legal/commercial] restrictions. Due to the nature of this research, participants did not agree for their data to be shared publicly, so supporting data is unavailable.

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