

SECOND LANGUAGE ACQUISITION AND REALISATION OF DENTAL FRICATIVES /θ/ AND /ð/ BY MHISHIP SPEAKERS OF ENGLISH

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Abstract

This study is concerned with the acquisition and realization of dental fricatives, /θ/ and /ð/, by Mhiship speakers of English. Dental fricatives are highly marked sounds. They are rare in the world's languages and bear a low functional load. They are equally problematic in the first and second language acquisitions and relatively understudied within the field of acoustic and perceptual phonetics. Moreover, /θ/ and /ð/ undergo sound changes across many modern varieties of English, being replaced by alveolar stops /t/ and /d/ or /s/ and /z/. The study is aimed at identifying peculiar difficulties in the realizations of these phonemes as well as ascertaining the causes of these difficulties which may stem from the native language background. The primary source of data was oral interview, while the major instruments of data collection were printed papers containing lists of words and a tape recorder. A total of twenty words containing the phonemes, /θ/ and /ð/, were written and given to twenty Mhiship speakers of English to read while the tape recorder was used to record the readings. The findings show that Mhiship learners have difficulties in realizing the dental fricatives.

Key Words: Acquisition, Dental Fricatives, Mhiship, Acoustic and Perceptual Phonetics

Introduction

Language is an essential communicative tool for the expression of ideas through sounds, not just any sound, but organized and meaningful sounds. It forms the basic means through which human interactions and relationships are carried out. This means, the God

given instrument of communication for human kind is language. Natural language can be studied under two general components of spoken and written forms. While the spoken form consists of sounds which are taken in by the ear, the written form consists of symbols which are put on paper for documentation purposes and interpreted by sight.

The concern for this study is with the spoken component of language which Lyons refers to “as the natural or primary medium of human language” (11). This, therefore, makes the study of sound very important and central in Linguistic enquiry. As Lyons further explains, “it is not the full range of sounds that the Linguist is concerned with, but with only those which are meaningful and have roles in the language”. These sounds are limited, and these limited sounds are referred to as the ‘Phonic medium’ (66).

The Linguistic study of speech sounds falls under the domain of phonetics and phonology. From the words of Ecman, “many current approaches to linguistics view language as a system that has been acquired by a human being, and which enables that person to produce and comprehend utterances of that language. Linguistics term the system a grammar, and phonology is the subset of a grammar that underlies pronunciation patterns of the language” (26-27). Acquirers of a language need to learn much of the elements which compose to make the language as a whole. This means, words or lexical items and what they mean, sounds and pronunciation patterns e.g. stress, intonation etc. have to be stored in learners’ mental lexicon.

This study concerns itself with how learners of language pick-up the language, be it in a formal or informal manner. It is also about the study of how learners create their own internal grammar based on the inputs they are surrounded or exposed to. In this instance and in the context of this study, we are considering English as a target language. English, as Jowitt (11) puts it, is the unofficial official language of Nigeria. Further, he says that “... children from educated families might have acquired English before starting school and before

learning any other language....” (39). This is the reality of most educated Nigerian children who before school, must have acquired the English. But there is still a majority of Nigerian children who only start learning English when they enrol into a formal school system. This is not to say that there are no people who must have started learning English when they have passed the critical age of learning a language.

Considering the multilingual nature of Nigeria, most people are either bi-linguals or multi-linguals. This is where the interest of this study lies; English Language learning in a multi-lingual setting. Particularly and specifically, this study is concerned with how learners in a multi-lingual setting acquire the dental fricatives /θ/ and /ð/ of English Language. The study will address the following research questions. In what ways does a typical Mhiship speaker of English acquire and realize the English phonemes / θ/, /ð/, /t/ and /d/? What peculiar difficulties are encountered in the acquisition and realization of these phonemes? How significant is the effect of pronunciation on spelling?

Statement of the Research Problem

Humans have the natural ability and capacity to acquire a language. This, as described by Chomsky, is called ‘Language Acquisition Devise’ (LAD). This devise cannot be activated where language does not exist. It means, therefore, that children must hear a language around them before they can acquire it. At birth, children learn the first language mostly by imitating the sounds they hear around them. They imitate sounds spoken to them from family members. But at this instance, not every child gets to hear English Language spoken to them from family members.

The field of language acquisition is concerned with two broad areas; the first language acquisition and second language acquisition. For the purpose of this study, our concern is with the Phonetic aspect of acquisition. The segmental aspect of second language pronunciation has widely and extensively been studied by many

linguists especially as seen in Jowitt (1991), Bobda (2007), Awonusi (1990), Jibril (1982, 1986) and many more. Their studies on segmental features of Nigerian English either generally describe or define the segmental features of the Nigerian English in general or define those of specific regional varieties in Nigeria; for example, those of Yoruba, Hausa, Igbo etc. A study on Mhiship speakers of English is either non-existent or very scarce. As observed in Jowitt (1991) and, Bobda (2007), the fricatives /θ/ and /ð/ do not occur in Nigeria's mother tongues. Dental fricatives are highly marked sounds. They are rare in the world's languages and therefore, bear a low functional load. Just as they are problematic in second language situations, they are equally problematic in First language acquisition and are relatively under-studied especially within the field of acoustic phonetics. Moreover, /θ/ and /ð/ undergo sound changes across many modern varieties of English in Nigeria. They are either replaced by alveolar stops /t/ and /d/ or /s/ and /z/ respectively.

This problem is also peculiar to Mhiship speakers of English both in Nigeria and around the world. Lack of differentiation between /θ/ and /t/ can cause confusion and intelligibility problems in speech as well as in writing, as in the pair, fate and faith, tin and thing etc. Not only that, young Mhiship users of English who are either in lower or higher schools are tested and measured using the native standard model as evident in WAEC and NECO examinations. Therefore, there is the need for them to learn and attain some level of proficiency and competence as they use the English Language both in spoken and in written form. Also, it will enhance their communicative capacity as they communicate with both native and non-native speakers of English. For this reason, as L2 learners, they must make conscious and deliberate efforts to learn these sounds.

Against this background, this study aims at investigating and assessing how Mhiship users of English acquire and realize the dental fricatives of English with the following objectives: to assess the manner in which a typical Mhiship speaker of English acquires and realizes the English phonemes / θ/, / ð /, /t/ and /d/, to identify

peculiar difficulties in the acquisition and realization of these phoneme. To ascertain the causes of difficulties which may stem from the native language background; and to find out if there are significant effects of pronunciation on spelling?

Review of related literature

Included in this review are the Nigerian language situation, the English or RP consonants, perception of Dental Fricatives, Mhiship Consonant Phonemes, and Acquisition of Dental Fricatives.

The Nigerian Language Situation

Nigeria is a linguistic heterogeneous society, it has so many languages. In a description of speech communities, Akindele and Adegbite (1999) identified the monolingual speech community, the bilingual speech community and the multilingual speech community. In their categorization, Nigeria falls within the multilingual speech community where they say, “the Nigerian communities made with a conservative estimate of 400 languages” (20). This also reflects in Jowitt (1991) where he expressed that “to try to determine the exact number of languages indigenous to Nigeria is a daunting task” (9). He added that estimates have ranged from about 200 to over 400. Therefore, this makes Nigeria’s fundamental problem to be a linguistic one, where we have social categorization of these languages into those called ‘major’ and those called ‘minor’ languages.

Since our concern is not with the social categorization, we will only bother ourselves with the linguistic categorization of Nigerians and their speech repertoire. Speech repertoire, as explained by Akindele and Adegbite, “refers to the totality of languages, dialects and their superimposed social and cultural variants possessed by an individual or community” (21). This points to the fact that the tendency is most speakers can speak more than one Language of the speech community. This makes them either bilinguals or multilinguals; especially with the addition of English Language to their linguistic repertoire. In Nigeria, most people are bilinguals and

combinations can vary from person to person or from speech community to another speech community.

The English or RP Consonants

Received Pronunciation (RP) is the recognized accent that is typical with the British variety of English. Though other national standards can be recognized in Britain, this accent is popularly termed, the Queen’s English. Roach (2009) is of the opinion that the name Received Pronunciation is old fashioned and misleading. To him, ‘Received’ has the semantic sense of, accepted or approval which is very rare these days in the real sense of accepting RP everywhere nowadays. He argues that using the word in that sense seems to imply that other accents would not be accepted or approved. Since it is the accent used by most radio or TV announcers, newsreaders and independent television broadcasting channels, a preferable name he suggests is BBC (British Broadcasting Corporation) English. For this study, we will stick with the RP usage. The RP is the most widely studied and frequently described variety of spoken English. It is the accent on which phonetic transcription in dictionaries are based and is widely used for teaching English especially in a non-native post-colonial societies. The table below shows all the 24 consonants of the RP accent.

Chart of English Consonants Phonemes Place of Articulation

| Manner of Articulation | | Bilabial | Labio-Dental | Dental | Alveolar | Palato-Alveolar | Velar | Glotal |
|------------------------|-------------|----------|--------------|--------|----------|-----------------|-------|--------|
| | Plosive | P, b | | | t, d | | k, g | |
| | Fricative | | f, v | θ, ð | s, z | ʃ, ʒ | | h |
| | Affricates | | | | | tʃ, dʒ | | |
| | Nasal | m | | | n | | ŋ | |
| | Lateral | | | | l | | | |
| | Approximant | w | | | | r | j | |

Table 1: (Adapted from Roach 2009:54)

The table clearly states the three basic criteria or parameters for classifying and describing the consonant sounds of English. These parameters are; manner of articulation, state of the glottis and place of articulation.

Dental Fricatives of RP

The RP consonant system comprises two types of dental fricatives; a voiceless dental fricative and a voiced dental fricative. The International Phonetic Alphabet (IPA) represents them as /θ/ and /ð/ respectively, and they are both denoted in the English alphabet by <th>. Dental Fricatives are however, not solely restricted to English Language as they are also present in other languages of the world. For example, the Polish have ‘sibilant dental fricatives’ /s/ and /z/. Though they are realised as dental fricatives, they vary in the way they are represented from their English counterparts /θ/ and /ð/ for in both British and American English, they are non-sibilants.

Perception of Dental Fricatives

Dental fricatives /θ/ and /ð/ are “perceptually weak” sounds and are easily confused with labio-dentals /f/ and /v/. Most studies have not succeeded in identifying consistent acoustic cues for correct identification of dental fricatives, concluding that “[n]either spectral, temporal, nor amplitude properties of the frication noise have shown to reliably distinguish /f/ from /θ/ and /v/ from /ð/” (Jongman: 1). Other thoughts and beliefs are that distinction between the two dental and labio-dental fricatives could be based on other non-acoustic information.

The Mhiship Consonant Phonemes

Hypothetically, there are about twenty-three consonant phonemes of the Mhiship Language. The word hypothetical is used because, this is a language that is still under investigation and for the description of its phonemes to be accepted, it must pass through an instrumental investigation that is beyond the scope of this study. The

consonant chart presented for Mhiship Language is based on Longtau R. Selbut’s consonants of Tarok Language since they share a similar linguistic history.

Consonant Phoneme Chart

| Manner of Articulation | Place of Articulation | | | | | | | |
|------------------------|-----------------------|----------|--------------|----------|-----------------|---------|-------|---------|
| | | Bilabial | Labio dental | Alveolar | Palato-alveolar | Palatal | Velar | glottal |
| Plosive | | P, b | | t, d | | | k, g | |
| Implosive | | ɓ | | ɗ | | | | |
| Fricative | | | f, v | s, z | ʃ | | | h |
| Affricate | | | | | tʃ, dʒ | | | |
| Nasal | | m | | n | | | ŋ | |
| Lateral | | | | l | | | | |
| Aproximant | | w | | r | | | y | |

Table 2

Looking at the above consonant chart, the dental fricatives are conspicuously absent. The concern of the study is to help learners become aware of it, and then help them understand the significance of adding them to their phonological inventory as they learn the English Language as a second language.

Acquisition of Dental Fricatives

According to Cruttenden (196-197), dental Fricatives are generally problematic to both L1 and L2 acquirers of Language. This difficulty stems from both acoustic and articulatory aspects of these sounds. Apart from their perceptual ambiguity, they are inherently difficult sounds in production, both for natives and learners of English as a Foreign Language.

In L1 acquisition, Polka’s (101) research proves that these sounds are among the most difficult to acquire. Although individual speakers acquire speech sounds in unique ways and not uniformly,

there is a tendency for acquiring speech sounds in a certain order. For example, consonant stops tend to be acquired before fricatives etc. Children tend to acquire /f/ first, while /θ/ is acquired last being the most difficult.

Correspondingly in L2 acquisition of dental fricatives, there is a strong body of evidence proving that most non-native speakers of English substitute /θ/ and /ð/ sounds with acoustically or articulatorily similar sounds as seen in Jowitt (79) and Bobda (285). They substitute from their L1 phonetic inventory. For example the tendency in PNE (I) and PNE (Y) is to substitute /θ/ with [t], or /s/ and /z/. Whereas Bobda noted, learners in the South of Nigeria substitute /θ/ and /ð/ with either /t/ /d/ or /t̪/ /d̪/ respectively, realization in the north is either, /t/ /d/ or /s/ /z/. Although, other studies may show a great deal of variability among non-native speakers, the choices they make can be explained both on phonetic and on phonological grounds; /f/ and /v/ bear strong acoustic similarities to /θ/ and /ð/. Hence, the choices made by non-native speakers of English can be explained in terms of speech perception or acoustic explanation. On the other hand, the alveolar fricatives /s/ and /z/ resemble the dental fricatives phonologically, as only the feature (strident) distinguishes these phonemes.

Brief History of the Mhiship People

Mhiship people are found in a place called Chip Land. The language they speak is called Mhiship Language. They are found in the North-West subgroup of Pankshin Local Government in Plateau State. They belong to the tribe linguistics classified as being of Chadic-Afro-Asiatic Origin. The history of the Mhiship people is not without some controversy. To some, they originated from Borno about 1800 years ago to a place called Gyangyang in Kabwir where they had a brief stay before continuing with their journey to their present abode.

Another version of the story has it that it was an Ngas man by name Dawar, who was a son of the ruling house of Garram, who founded Chip Land. In fact, it is believed that they do not have a long

standing history. Mhiship Language is a mixture of languages which surround Chip Land. These are the Mwaghavul, Ngas, Mupun, Tal, Merynyang, Goemai, Montol etc. Some have actually believed that the Mhiship people have migrated from these different neighbouring villages and settled in the present Chip land. As a result of this migration, each person migrating came with his/her language and the mixture of these different languages gave birth to what is presently called the Mhiship Language. That may explain why the Mhiship people share some similarities in culture, custom, traditions, norms and chieftaincy with the people mentioned above, as having the same historical background which are similar.

Theoretical Framework

Theories help in describing and explaining scientific phenomena. To achieve a successful Language Acquisition, several theories have been propounded by linguists. In the field of second language acquisition Ritgeroð and Einar (2-3) explained three theories which are based on Krashen's proposition. The creative obstruction theory – this is seen as naturalistic approach. It explains the innate ability of humans to acquire and use language. Secondly, there is the communicative language teaching theory. This is a learner-centred theory. It explains communicative proficiency in language teaching. Its main focus is on language competence which gears toward making learners be involve in the learning activities. This will influence how they communicate in the target language. The last, but not the least, is the cognitive approach. This claims that the knowledge acquired unconsciously can be automatically recollected when the need arises. Which means, the learner has to be provided with knowledge and exposure to the target language. It explains the possibility of once learners experience the language, they can automatically recollect and use it while working to improve. These theories are important for this study.

Again, the phonetic perspective to SLA has to be considered in order to have a balanced treatment on the subject of discussion. There are several perspectives in which the study of SLA can be

approached. These are, the linguistic, the pedagogical, the psychological approach etc. This study is concerned with the linguistic approach which considers the grammar of a particular language, components of grammar such as semantics, pragmatics, phonology etc. Of specific relevance to this study is the phonological component of SLA.

The phonetic perspective to SLA is concerned with speech and the way the sounds of language are used. Clark et al says, it is concerned “with the way in which humans produce and hear speech” (1). It is equally concerned with the study of three aspects of speech sounds namely, their production, transmission and reception. These correspond with the three branches of the phonetic study called articulatory, acoustics and auditory phonetics.

Articulatory phonetics is concerned with the anatomy and physical speech production, while acoustic is concerned with the physical properties of speech sounds as transmitted in the air, from the speaker to the hearer, and the auditory is concerned with how the ear receives the sound wave and turns it into meaningful use. For a balance explanation of the data, both theories of SLA and the phonetic perspective to SLA have to be considered. Since this is not an instrumental, nor experimental study, the acoustic instrumental consideration will not be used.

Research Methodology

The method for this research was the recording of oral interviews. The primary sources of data were the respondents in the oral interview. The process comprised the administration of printed papers containing lists of simple words; respondents were expected to read aloud to the hearing of the investigator. A tape recorder was used to record the proceedings of the interviews. Thereafter, the respondents were given the transcribed versions of the same words to ascertain if what they saw corresponded with their pronunciations.

Presentation of Data

A total of twenty words containing the phonemes /θ/ and /ð/ were written and given to twenty Mhiship speakers of English to read while a tape recorder was used to record the reading process. Meanwhile, the same words were transcribed with options so they could choose the options they felt fitted their pronunciations. The following were the words;

S/N WORDS

1. Thin
2. This
3. Throne
4. Then
5. Thought
6. Though
7. Thirty
8. They
9. Theft
10. Them
11. Threat
12. Thine
13. Than
14. That
15. Theme
16. Theory
17. There
18. Method
19. Mother
20. Author

Being a speaker of the Mhiship Language, the researcher observed how the English phonemes were realized by the Mhiship English users. The research population was made up of Senior Secondary School Students only i.e. SS1-3.

Data Analysis

From the recordings, it was observed that out of the twenty respondents, a reasonable number of them realised /θ/ as /t/ and /ð/ as /d/ while a few respondents did not realize it as that. This shows that those who did not realize the words correctly outnumbered those who realized the words correctly. Since the target was /θ/ and /ð/, the mispronounced are transcribed based on the results of the findings. Meanwhile, a careful look at the respondents' articulation of the selected words shows a striking difference from that of RP as can be seen below.

| S/N | WORD | RP | PRONUNCIATION BY RESPONDENTS |
|-----|---------|---------|------------------------------|
| 1. | Thin | /θin/ | /tin/ |
| 2. | This | /ðis/ | /dis/ |
| 3. | Throne | /θrəun/ | /trɔ:n/ |
| 4. | Then | /ðen/ | /den/ |
| 5. | Thought | /θɔ:t/ | /tɔ:t/ |
| 6. | Thou | /ðau/ | /dau/ |
| 7. | Thirty | θɜ:ti/ | /tɜ:ti/ |
| 8. | They | /ðei/ | /dei/ |
| 9. | Theft | /θeft/ | /teft/ |
| 10. | Them | /ðem/ | /dem/ |
| 11. | Threat | /θret/ | /tret/ |
| 12. | Thine | /ðain/ | /dain/ |
| 13. | Than | /ðæn/ | /dan/ |
| 14. | That | /ðæt/ | /dat/ |
| 15. | Theme | /θi:m/ | /ti:m/ |
| 16. | Theory | θiəri/ | /tiəri/ |
| 17. | There | /ðeə/ | /deə/ |
| 18. | Method | /meθəd/ | /metəd/ |
| 19. | Mother | /mʌðə/ | /mʌdə/ |
| 20. | Author | /ɔ:θə/ | /ɔ:tə/ |

The total sample population was twenty out of which only a few respondents correctly realized the phonemes in the words, while other respondents did not. The percentages are shown below with a simple calculation. Few of the respondents represent 10%, while the other respondents represent 90%.

KEY

| | | |
|----------------|------------------------------|-------|
| 1. Respondents | $2 \times \frac{100}{20} =$ | 10.0% |
| 2. Respondents | $3 \times \frac{100}{20} =$ | 15.0% |
| 3. Respondents | $4 \times \frac{100}{20} =$ | 20.0% |
| 4. Respondents | $5 \times \frac{100}{20} =$ | 25.0% |
| 5. Respondents | $6 \times \frac{100}{20} =$ | 30.0% |
| 6. Respondents | $7 \times \frac{100}{20} =$ | 35.0% |
| 7. Respondents | $8 \times \frac{100}{20} =$ | 40.0% |
| 8. Respondents | $14 \times \frac{100}{20} =$ | 70.0% |
| 9. Respondents | $15 \times \frac{100}{20} =$ | 75.0% |

$$10. \text{ Respondents} \quad 16 \times \frac{100}{20} = 80.0\%$$

$$11. \text{ Respondents} \quad 17 \times \frac{100}{20} = 85.0\%$$

$$12. \text{ Respondents} \quad 18 \times \frac{100}{20} = 90.$$

| S/N | MISPRONOUNCIATION | RESPONDENTS | PERCENT |
|-----|-------------------|-------------|---------|
| 1. | /tin/ | 16 | 80.0% |
| 2. | /dis/ | 16 | 80.0% |
| 3. | /trɔn/ | 15 | 75.0% |
| 4. | /den/ | 15 | 75.0% |
| 5. | /tɔit/ | 16 | 80.0% |
| 6. | /dau/ | 14 | 70.0% |
| 7. | /dei/ | 17 | 85.0% |
| 8. | /teft/ | 16 | 80.0% |
| 9. | /tɜ:ti/ | 15 | 75.0% |
| 10. | /dem/ | 17 | 85.0% |
| 11. | /tret/ | 18 | 90.0% |
| 12. | /tain/ | 18 | 90.0% |
| 13. | /dæn/ | 17 | 85.0% |
| 14. | /dæt/ | 17 | 85.0% |
| 15. | /ti:m/ | 17 | 85.0% |
| 16. | /tiəri/ | 17 | 85.0% |
| 17. | /deə/ | 17 | 85.0% |
| 18. | /metəd/ | 15 | 75.0% |
| 19. | /mʌdə/ | 17 | 85.0% |
| 20. | /ɔ:tə/ | 14 | 70.0% |

Table 3

| S/N | Correct Pronunciation By Mhiship Speakers | No. Of Respondents | PERCENTAGE |
|-----|---|--------------------|------------|
| 1. | /θin/ | 4 | 20.0% |
| 2. | /ðis/ | 4 | 20.0% |
| 3. | /θrəun/ | 5 | 25.0% |
| 4. | /ðen/ | 5 | 25.0% |
| 5. | /θɔ:t/ | 4 | 20.0% |
| 6. | /ðau/ | 6 | 30.0% |
| 7. | /θɜ:ti/ | 3 | 15.0% |
| 8. | /ðei/ | 4 | 20.0% |
| 9. | /θeft/ | 5 | 25.0% |
| 10. | /ðem/ | 3 | 15.0% |
| 11. | /θret/ | 2 | 10.0% |
| 12. | /ðain/ | 2 | 10.0% |
| 13. | /ðæn/ | 3 | 15.0% |
| 14. | /ðæt/ | 3 | 15.0% |
| 15. | /θi:m/ | 3 | 15.0% |
| 16. | /θiə:ri/ | 3 | 15.0% |
| 17. | /ðeə/ | 3 | 15.0% |
| 18. | /meθəd/ | 5 | 25.0% |
| 19. | /mʌðə/ | 3 | 15.0% |
| 20. | /ɔ:θə/ | 6 | 30.0% |

Table 4

Summary, Conclusion and Recommendations

The result of the study has revealed that the pattern of the English Phonology is different from the Mhiship Phonology such that they have problems pronouncing some of the English Phonemes. The consonants /θ/ and /ð/ are realised as /t/ and /d/ by Mhiship speakers in words thirty /θɜ:ti/ as /tɜ:ti/, breathe /bri:ð/ as /bri:d/. Mhiship speakers of English do not have problems in writing these

words; the problem becomes obvious and noticeable when speaking. As such, the listener's comprehension might be affected as the word pronounced may be given a different meaning. Examples of such words may include 'bath-bat', 'thick-tick' and 'theme-team' although meaning can be deduced not only on words but the context in which they are used. The realization of dental fricatives /θ/ and /ð/ is known to be the most pronounced problem among Mhiship Speakers of English, however, there are other ethnic groups with similar problem since it is known to be one of the problems encountered by L2 speakers of English. Nevertheless, this problem can be controlled to the barest minimum level if teachers discover it early when L2 learners begin to learn the English Language. This is where the place of acquisition study comes in. For as our theory predicts learners have the innate ability to acquire a language, but they must be exposed to it as early as possible. From the interview session, many of them confessed that, their teachers too do not realize the dental fricatives differently when teaching the English language.

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