

Assimilation in Connected Speech among Native English Speakers

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Abstract: The aim of the present study is to investigate the native speakers' connected English speech and its phonetic features with particular reference to assimilation. Assimilation is a phonetic feature commonly found in the connected speech of English as a Second Language (ESL) and English as Foreign Language (EFL) learners. This paper examines the use of assimilation in dialogues 20 American and British speakers of English following are the major findings of the study. (1) Dialogues of American speakers demonstrated 90% assimilation in target data set. (2) Dialogues of British speakers of speakers demonstrated 76.66% assimilation in the target data set. (3) Assimilation in both dialogues affected intelligibility of speech. The findings of this study can be used in the ELT (English Language Teaching) planning when speaking is targeted. The study recommendations touch on other important aspects pertaining to language acquisition like rhythm, intonation and tempo which would play a significant role in communication in English in the global context.

Keywords: Assimilation, Connected Speech, Intelligibility, Pronunciation, Voice Quality

Introduction

Connected Speech or connected discourse is a continuous sequence of sounds forming utterances or conversations in spoken language. When we speak fluently, we do pronounce a word, stop and then continue. Fluent speech flows with a rhythm, and the words bump into each other. To make speech flow smoothly, the way we pronounce the end and beginning of some words can change depending on the sounds at the beginning and end of those words. These changes that affect the quality of sounds are known as Features of connected speech. Assimilation, Elision, Linking and R-retention [There is a significant difference between the way words are pronounced in isolation and how they are pronounced in the context of connected speech], In connected speech words or syllables are clipped. Connected speech is widespread in native English speakers' speech. These phenomena never occur when a native speaker speaks his or her native language at a normal pace. Assimilation is the characteristic feature of a rapid or casual connected speech. Assimilation occurs when a phoneme (sound) in a word causes a change in a neighboring sound. Assimilation is a sound change in which some phonemes (typically consonants or vowels) change to be more similar to other nearby sounds. It can occur within a word or between words. It occurs in normal speech and becomes more common in more rapid speech.

The present study examines the role of assimilation in connected speech among 10 American and 10 British native English speakers. The findings reported here are based on the Assimilation in the connected speech of native English speakers from America (U.S.A.) and Britain (U.K.). The data was collected from American native speakers in Boston, New York, New Jersey and Washington D.C. in the U.S.A. In contrast, British English speakers were met when they were on a short tour of Hyderabad and many other Indian Cities. Both Speaker groups had attained +

2 level education. They were given ten short dialogues and requested to enact the roles reusing the target phrases. The data was recorded and later transcribed and analyzed.

I. Literature Review

Under the review of literature, a few studies have been reviewed to lay a research foundation for the book. The summaries of these works are mentioned below.

Intelligibility of American English Vowels by Native and Non-native speakers in Quite and Speech-shaped noise.

The study was carried out by Chang, Charles B, and Liuso-HyunJ in (2012). The study explored the intelligibility of twelve American English vowels produced in English, Chinese, and Korean native speakers with quite and speech-shaped noise which were presented in six sensation levels from 0dB to 10dB. The results of the study are that once background affected Non-native Speakers' intelligibility of vowel greater than Native Speakers, due to lack of listeners have experienced Non-native produced speech and the acoustic deviations.

A Comparative study of connected speech features in Nigerian English and Received Pronunciation

The study was carried out by Rotimi O. Oladipupo (2015). The study was to analyze the proximity of educated Nigerian English speakers to Received Pronunciation (RP). All the speakers showed a noticeable likeness to RP in three assimilation processes such as *regressive devoicing*, *progressive devoicing*, *regressive place* and *consonant elision*. The fact is that Nigerian English is a different pattern of connected speech features from RP. Besides, Nigerian English is largely influenced by a mother tongue. For that reason, distinguishes Nigerian English from RP connected speech features.

II. Methodology

Ten short dialogues, each consisting of 4 or 5 turns, were concocted. 44 target phrases were interwoven in these concocted dialogues, out of which 21 were target assimilated phrases. Subjects were given 10 short dialogues and requested to enact the roles reusing the target phrases. The data on speech was recorded on a Sony Voice recorder. The speakers were briefed about the purpose of the study before recording their speech samples. Speakers were instructed as for how to produce the dialogues naturally. Later, data were transcribed and analyzed.

III. Results and Discussion

Assimilation is the characteristic feature of rapid speech in connected speech.

Assimilation in Dialogues

The dialogues are used to extract the assimilation patterns demonstrated by the speakers. All the speaker's utterances are phonetically transcribed, and the phrases where the speakers demonstrate assimilations are paid attention to. The phrasal realizations of assimilation in the renderings of each speaker are presented in the table below. From the dialogues rendered by the speakers, 12 target phrases are taken into consideration for the analysis. And there are five American and five British speakers. Thus, there are 120 tokens for the analysis. All the 120 tokens

are divided into two data sets; 60 tokens each. Moreover, the glottal reinforcement is also shown contextually.

Table 1. Realizations of Assimilation: (Dialogues)

S. No	Phrase	Phrasal Realizations	AMERICANS					BRITISH					
			1	2	3	4	5	1	2	3	4	5	
1	red bags	[ˈre bægz]	√	√	√	√	√	X	√	√	√	√	X
2	note pads	[ˈnəʊ pædz]	√	√	√	√	√	X	√	√	√	√	√
3	notebooks	[ˈnəʊ bʊks]	√	√	√	√	√	X	√	√	√	√	√
4	eight cash books	[ˈi kæʃbʊks]	√	X	√	√	√	X	√	√	√	√	X
5	good girls	[gʊ ˈgɜ:lz]	√	√	√	√	√	√	√	√	√*	√	√
6	top B	[ˈtʰɒ? bɪ]	-	-	√	√	√	X	√*	√	√	√	√*
7	red pens	[re ˈpenz]	√	√	√	√	√	X	√	√	√	√	√
8	ten pens	[ˈtʰem penz]	√	X	X	√	√	X	√	√	√	√	√
9	ten bags	[ˈtʰem bægz]	√	X	X	√	√	X	√	√	√	√	√
10	and cash books	[əŋkʰæʃbʊks]	√	√	√	X	√	√	√	√	√	√	√
11	good morning	[gʊb ˈmɔ:nɪŋ]	√	√	√	√	√	√	X	√	X	√	√
12	meet you	[ˈmi? ju]	√	√	√	√	√	√	X	X	X*	√	√

The above table (1) presents twelve phrases that demonstrate assimilation from speakers' utterances. Out of twelve phrases, the phrases from 1 to 6 (i.e. *red bags*, *note pads*, *notebooks*, *eight cash books*, *good girl*, and *top B*) demonstrated deletion motivated by gemination fed by assimilation. Hence, there is no deletion seen in the data set.

Assimilation in Dialogues: Americans

There are thirty tokens in the data set-I taken into consideration here for the analysis regarding American speakers. They are 6 phrases and 5 speakers. Out of thirty tokens, assimilation is clearly found in 27 tokens. The American speaker 2 of speaker-group-one did not demonstrate assimilation in the phrase *eight cash books*, and in the phrase *top B*, the speaker ignored 'B'. Speaker one of the speaker group too ignored 'B' in the phrase *top B*. On the whole, the American speakers demonstrated 90% assimilation in the target data set-I. Regarding the data set-II mentioned in the table (3.1), 30 tokens are focusing just Americans. In the 25 tokens, assimilation can be seen, as detailed in the table (3.1). And assimilation is not demonstrated in two tokens concerning the phrases *ten pens* and *ten bags*, by the speakers 2 and 3 and in the token concerning the phrase *and cash books* by the speaker 4. However, the phrase *meet you* is rendered as [mɪ:tʃjʊ] with assimilation by speaker 3. Hence, the American speakers demonstrated 83.33% assimilation in the target data set-II.

Assimilation in Dialogues: British

Like the American speakers above, five British speakers' demonstration of assimilation is analyzed in the same thirty tokens in the data set-I. Out of thirty tokens, assimilation is clearly found in 23 tokens. The British speaker 6 did not demonstrate assimilation in the phrases *red bags*, *note pads*,

notebooks, eight cash books, and top B. In the phrase *top B*, the speakers 2 and 5 replaced 'B' with 'beauty school' demonstrated assimilation. And the speaker 4 replaced the word *girls* with *kids* in the phrase- '*good girls*'. Even after such a replacement, the speaker demonstrated assimilation. Moreover, the speaker 5 did not demonstrate assimilation in the phrases *red bags and eight cashbooks*. On the whole, the speakers demonstrated 76.66% assimilation in the target data set-I. Concerning the data set-II mentioned in the table (3.1), 30 tokens are focusing just British. In 22 tokens, assimilation can be seen, as detailed in the table (3.1). And assimilation is not demonstrated in four tokens concerning the phrases *red pens, red bags, ten pens* and *meet you* by speaker 1, in two tokens concerning the phrases *good morning* and *meet you* by speaker 2, in one token concerning the phrase *meet you* by speaker 3 and in one token concerning the phrase *good morning* by the speaker 4. Speaker 3 did not render the pronoun *you* in the phrase *meet you*. On the whole, the British speakers demonstrated 73.33% assimilation in the target data set-II.

IV. Implications

Assimilation is a phonetic feature commonly found in the connected and free speech of ESL and EFL learners. This paper examines the use of assimilation in dialogues of 20 American and British speakers of English. Following are the major findings of the study. (1) Dialogues of American speakers (5 Americans-5 British) demonstrated 90% assimilation in target data set 1, whereas American speakers had 83% assimilation in the target data set II. (2) Dialogues of British Speakers demonstrated 76.66% assimilation in the target data set 1 and those in target data set II had 73.33% assimilation. (6) Assimilation in dialogues affected intelligibility of speech.

Conclusion

The findings of the study can be used in the ELT (English Language Teaching) planning when speaking is targeted. The intelligibility scores and the connected speech parameters are of great help for the English teachers, policymakers of English language education. The study also recommends looking into other aspects like rhythm, intonation, and tempo with specific reference to connected speech since such aspects are supposed to affect the intelligibility of English in the global context.

Appendices

I

Particulars of the Subjects

S No.	Name	Country	Mother tongue	Age	Gender	Medium		Education
						S	C	
1	Mathew Lucke	USA	English	17	Male	E	E	High school
2	Jack Heller	USA	English	17	Male	E	E	Junior in High school
3	Mathew Ellerson	USA	English	18	Male	E	E	High School
4	Gavin Shropshire		English	18	Male	E	E	High school
5	Eden Garcia	USA	English	21	Female	E	E	High school Diploma
6	Adenine Garcia	USA	English	44	Female	E	E	Master of Education
7	Lisa Tovey	American	English	44	Female	E	E	Bachelors degree
8	Mike Tovey	USA	English	46	Female	E	E	Masters Degree
9	Jani Bolton	USA	English	38	Female	E	E	Master degree
10	Alison Keddington	America	English	42	Female	E	E	High school Degree
11	James	British	English	23	Male	E	E	MBChB
12	Fei	British	English	23	Female	E	E	Bachelor of medical science
13	Helen Macilwaine	British	English	67	Female	E	E	Master Degree
14	Graeme Jones	British	English	56	Male	E	E	B. Sc Chartered Engineer
15	Davin Brinkman	British	English	27	Male	E	E	MB, Bch, BDO
16	Maeve Crowley	British	English	28	Female	E	E	Chartered Account
17	Ben Deahin	British	English	28	Male	E	E	Master engineering
18	Joseph Meintosh	USA	English	19	Male	E	E	High school
19	Michael McFzdyen	British	English	24	Male	E	E	Diploma of Cultural Arts
20	Georgina	British	English	22	Female	E	E	Bachelor of commerce

II

Normal Readings of the Test Material in Phonetic Transcription

DIALOGUE 1

- James** : Excuse me! Do you have red pens and red bags?
Book seller : Yes. We do.
James : Could you give me ten pens and ten bags, please?
Book seller : Sure. Here you are.

DIALOGUE 2

- Ann** : Excuse me! Do you sell note pads, notebooks and cash books?
Book seller : Yes. We do.
Ann : Well, I need one note pad, five note books and eight cash books.
Book seller : Sure. Wait for a moment, please.

DIALOGUE 3

- John** : Hi, Paul ! Good morning.
Paul : Good morning John! Do you need any help from me?
John : Could you tell me how to get to the tenth street
Paul : Sure. Take any bus that goes to the market Plaza and get down at the tenth street.

DIALOGUE 4

- Paul** : Hi Ann! What's your telephone number?
Ann : It's 8087138363.
Paul : I want to meet you next week. I'll call you for your appointment.
Ann : Sure. It's a pleasure.

DIALOGUE 5

- Ann** : Paul! Who's that girl?
Paul : She's Fred's daughter.
Ann : How old is she and what's she doing?

Paul : She's thirty-two and she's a teacher at Harvard school.

DIALOGUE 6

James : Joe! When's your birthday?

Joe : It's in May.

James : Are you planning to celebrate in China this year?

Joe : I want to think about that.

DIALOGUE 7

James : Joe! Surprise. I am going to buy a car.

Joe : A car!

James : Yes. A big car.

Joe : Great. What color is it?

James : Red color. My favorite color.

DIALOGUE 8

James : Joe! Where did you go that night?

Joe : I went to dinner with Zack.

James : Did Fleming also join with you?

Joe : No, he didn't. The bad thing is that he met with an accident.

DIALOGUE 9

Paul : Hey John! Did you watch the yesterday's cricket match?

John : Yes. I did. It was a tough game indeed.

Paul : Did India win the match?

John : Unfortunately, it was a black day for Indians.

DIALOGUE 10

Ann : Are Ria and Reno good girls?

John : Sorry, I don't know much. Ask my father. Any issue?

Ann : Nothing. They got admission into one of the top B Schools in Boston.

John : Wow! It sounds great.

daɪlə:ɡ wʌn||

James : ɪkskjuz mi | 'du hæv ,re? p^hens ən re? bægz||

- Book seller** : jɛsə | wɪ du ||
- James** : 'kud ju ɡɪv mi |'tem p'hens ən 'tem bægz ,p'hj: z ||
- Book seller** : `ʃu əo ɪ juə ||
daɪlə:g tu: ||
- Ann** : ɛkskjʊ: z mi | 'dju set ,nəʊ? p'hæds ,nəʊ? buks əŋ `kæʃ
bukə ||
- Book seller** : jɛsə | wɪ du ||ðə vər ðeɪr ən ðə ʃɒp ||
- Ann** : wɛt |ə ni: wʌ'n ,nəʊpæd | 'faɪv ,nəʊ? buks| en eɪ kæʃ
bukə ||
- Book seller** : ʃʊr | eɪ pər e mu'məm ,Plj: z | ən 'əʊ ð ge? ðeəm ||
daɪlə:g θri: ||
- John** : heɪ ,dʒɒ: k | ɡʊ mə: niŋ ||
- Paul** : ɡʊ mə: niŋ ,mæθjʊ | 'wʌd ju ni: ,prə mi ||
- John** : kəd ju 'p'hj: z 't'he mi haʊ tə 'get ð ,ten ətʃi:t ||
- Paul** : ʃʊ:ɹ | 't'heɪk enɪ' bʌz ə'ɡəʊzʊ ðə ,mɑ:kɪt| ən' get ə:və ten ətʃi:t ||
daɪlə:g fə: ||
- Paul** : haɪ dʒɒk | wə zi wə' t'h'eɪə,fəʊ ɪlʌmbəɹ ||
- Ann** : ɪtə eɪ əʊ ,eɪ ævən,wʌŋ ,θri eɪ θri' sɪks θri ||
- Paul** : ə 'wɑ: n tu'mi:jð nekə wi:k | ə: k'hɒl ju fər ɪʊ əpəɪmən ɪn ,ədʋænz ||
- Ann** : səʊns 'ɡreɪt əm ɪɡzɑ:ɪtɪd ||
daɪlə:g faɪv ||
- Ann** : haɪ dʒɒk | hu:z ðæk ɡə:l ||
- Paul** : ʃɪz ,frez dɒtər ||
- Ann** : haʊ ʊl ðə ,ʃɪ | wɒtʃɪ du:ɪŋ ||
- Paul** : ʃɪz 'θs:tɪ tu ən ʃɪz t'h:i: tʃər ,hɑ: rʋəd ||
daɪlə:g sɪks ||
- James** : hɛ dʒɑ: k | wen ʒʊ bɜ: deɪ ||
- Joe** : ɪtə ɪ meɪ ||
- James** : əɪ θɪŋk ju bi:n tʃaɪnə | ,wɒntjɔ: ||
- Joe** : əɪm nəʊt əbaʊ ðə | əɪm θɪŋks sou ,əʊ ||
daɪlə:g seʊŋ ||
- James** : dʒæk | səp'ɹaɪz | əm ɡəʊɪŋbaɪ ə'kɑ:ɹ ||

- Joe** : k^ha:ɹ ðʌk geɪt ||
- James** : `jɑ: its | veri biɡ kɑ:ɹ ||
- Joe** : wɑ: wʌkkləʃ ɪz ɪt ||
- James** : red | maɪ ˈfevərð kʌləɹ ||
- daɪlɔ:g eɪt ||
- James** : dʒæk | weɹ d ju ɡou ðənɑɪt ||
- Joe** : 'aɪ went ə 'dɪnər ɪ zæk ||
- James** : dɪ 'bʰemɪŋ | 'ɒtsɒvʊ , dʒɔɪn ju ||
- Joe** : nou | 'sʌm θɪŋ `bæd ,hæpɪn dæn | hɪ wəz e' ,næks ən səʊ | hɪ klɪ kʌm ||
- daɪlɔ:g naɪn ||
- Paul** : 'hè dʒæk | ju wɑ: tʃ ðə pɪtʃəɪtʃ geɪm ɪstə,deɪ ||
- John** : jæ aɪ dɪd | hɪ wəz ðəv geɪm ||
- Paul** : dɪðð ,p^hi: tʃəri: z wɪm ||
- John** : a: ,nəʊ? | nəʊ? ðɪz t^haɪm ||
- daɪlɔ:g ten ||
- Ann** : ədʒɒk ʌ'ŋ kæn ʌŋ ɡʊ' ,ɡə:ls ||
- John** : a:'aɪ daʊn nou? nou? ðə mʌtʃ | ju kæn ɑ:s maɪ- `dæd | ɪz ere' ,prɒbəm ||
- Ann** : nau? ðe dʒʌz ɡɑ:t | ɪn tu wʌn əv ðə tɒp sku:lz ɪm bɑ: sən ||
- John** : wau | ðəs əʊsəm ||

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