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RESEARCH ARTICLE

Simplification: A Case of Phonetic Salience of Consonant Clusters in Marathi

Dr. Milind M. Ahire*
Associate Professor of English
MGV Arts, Science and Commerce College, Manmad,
Savitribai Phule Pune University (India) Email-milindahire7@gmail.com.

Ms. Varsha Barku Pedhekar
Assistant Professor of English
MGV Arts, Science and Commerce College, Manmad,
Savitribai Phule Pune University (India) Email-varshapedhekar@gmail.com.

* Corresponding author

Abstract:

Second/foreign language learning has myriad repercussions upon the way/s a learner tries to learn it. The most striking is how the new language sounds to the learner. Interestingly, the new language sounds both familiar and different. This is unique to all languages sharing language universals. A learner uses strategies to simplify the words of second/foreign language. In doing so, he/she adds phonetic features of his/her native language. The purpose of this research article is to observe native speakers of Ahirani (a dialect of Marathi) making use of English words with obstruent clusters and way/s of simplifying them. It would talk on possible reasons for simplification. The study is observational-analytical in nature. A datasheet as a tool was used to note the English words spoken by the speakers exhibiting cluster simplification. The data collected shows how they adapt English words (pronunciation) to fulfill their purpose of informal communication. The author subscribed to the contrast-based approach to cluster simplification in light of cluster simplification by speakers of Marathi. The author commented on variations in producing consonant clusters of English, simplification processes adapted and morphophonemic environment contributing to simplification. The study observed epenthesis, deletion, vowel shortening, vowel change, as the most frequent strategies used by the participants.

***Keywords*:** Consonant, Cluster Simplification, Phonetic Environment, Marathi/Ahirani

1. Introduction

Once I overheard a discussion between a mechanic and a customer. They were talking about the bike that the customer had brought to repair. The customer was educated, and the mechanic seemed illiterate.

Customer: Is the bike ready?

Mechanic: I have just finished it.

Customer: What was the problem?

Mechanic: It was with the gerbox. I could not move it to newton* position.* (*the discussion is originally in Marathi translated for the readers.)*

The communication was smooth and both understood each other well. Apparently, there was no confusion at all. The two words *(ger, newton)* caught my attention. As a teacher, I immediately termed the two words as incorrectly uttered. However, when I pondered upon the possible reasons, I could reach to an interesting realization. Beyond the territory of right/wrong, correct/incorrect, there was a behavior in linguistic terms aligned with learning a language. I strongly felt that I would have misrepresented the mechanic for being incorrect had I not realized the linguistic behavior sustaining it. Onwards, I started an exercise to listen to people around me and note down such words with deviating flavour in pronunciation. This phenomenon is evident in learners of second/foreign language. The belief is *"native speakers demonstrate some sort of competence with syllables, and syllable structure interacts with other aspects of linguistic organization" (Harris, 1983, p.4).* The above situation triggered a sense of inquiry in me. I wanted to know how people use words of English language in daily life irrespective of their native tongue. A few questions like how do literate people pronounce such words? Is there a difference between the way/s literate and illiterate people pronounce English words? How near or far the speakers are in the production of such words to Received Pronunciation?

Ahirani is a major dialect of Marathi spoken in the four districts of Maharashtra. These districts have population that is socially and economically disadvantaged. However, the study includes population of one (Nashik) district for the present purpose. The aim of the study is to identify and classify differences in cluster simplification in the light of place of articulation of sounds creating clusters. The study throws light on assimilation of English words in languages like Marathi and in its dialects. The speakers of Ahirani reflect variations in consonant cluster simplification (henceforth CCS) quite different from Marathi and English. The speech of Ahirani speakers features English words in local flavor. They are intelligible to the members of the speech community, though may sound different to others.

The study reviews three empirical researches in the area of consonant cluster simplification (CCS). Alongside, it makes an attempt to identify Place Sequence based CCS and its characteristics. The dominant research approaches are (1) Syllable based approach to consonant clusters making explicit the role of surrounding sounds in the syllable contributing to CCS. This correlates syllable structure with nature of simplification, (2) Sonority sequence principle (Clement 1990) identified the pattern in CCS wherein complex onsets rise in sonority, and complex codas fall in sonority. This approach finds correlation between sonority of the sound in the cluster and its characteristic features of simplification, (3) Rule based approach (Borowsky 1986) generated three rules (a) Voiced obstruent deletion, (b) n-

deletion *(bomb)* and (c) g-deletion *(sign)*. This focuses on deletion of voiced obstruent in final position as a result of cluster simplification. The studies reviewed syllabic environment, sonority as a factor and deletion as the processes involved in CCS. This article focuses on how *Place sequence principle* wherein immediate sequence of two or more sounds with similar place of articulation occurs in a cluster carries the load of CCS in the informal speech of the target community. This is more about speakers of Marathi and specifically in semi-literate and illiterate members of the speech community. The study is relevant to know how English as a lingua franca is assimilated in the lives of people, salient features of such assimilation. It would create space for researchers to study presence and assimilation of English in other speech communities.

2. Research Question

The study will address the following research question with a prime intent to identify, classify and interpret features of simplification. The question is *how do speakers of Marathi pronounce/simplify consonant clusters of English in informal communication?*

3. Objectives

The direction of the study would be akin to the objectives stated below.

3.1. Collect and analyze linguistic corpus of speakers of Ahirani *(a dialect of Marathi)* to analyze features of simplification in the pronunciation of consonant clusters in English.

3.2. Identify variation in the production of consonant clusters of English by speakers of Ahirani.

4. Methodology

4.1. Setting

The study is set in Malegaon; a semi urban tehsil place in Nashik district of North region of Maharashtra. It is geographically located at Latitude: 20.560797 Longitude: 74.525070. The people here primarily speak Marathi as a second language and their native tongue is Ahirani: a dialect of Marathi spoken in four districts (Nashik, Dhule, Nandurbar, and Jalgaon) of the region.

4.2. Study Populations

The linguistic corpus collected is limited to people in Northern region of Maharashtra who speak Ahirani (dialect of Marathi) as a mother tongue and Marathi as a second language. Marathi is the regional language in the state of Maharashtra in India. It has dialects like Ahirani, Kokani, Warhadi, Malwani, and Kolhapuri. The north region of Maharashtra which is popularly known as Khandesh (Nashik, Dhule, Jalgaon, Nandurbar) speaks Ahirani as a mother tongue. The study consists of the data collected from 12 native speakers (Appendix-A) of Ahirani. The study population features a group of illiterate and semi-literate people.

4.3. Sampling

The author used convenience sampling. The study involves 12 participants (Appendix A). These 12 participants were the part of observation schedule. The sampling is done on the basis of frequency of contact of the author with the participants to know how they pronounce English words with consonant clusters. The sample has 7 illiterate *(in formal sense)* and 5 semi-literate people. The participants were in the age group of 38 to 67. The average age of the participants is 52.41. Among the 12 participants 3 are female and 9 are male.

4.4. Data collection

The author planned a structured observation schedule to identify English words spoken by the speakers of Marathi exhibiting features of simplification. The author designed a datasheet. (Appendix B) He recorded the English words spoken by the speakers in informal conversation. It lasted for 7 months (July 2021 to January 2022). The criteria for selection of words are:

a. a spoken word (English) in informal conversation.

b. frequency of occurrence of such words in informal communication.

c. exhibit features of simplification.

Subsequently, the research could collect 64 words which were relative to different simplification processes. The author marked 24 words that feature simplification of consonant clusters.

4.5. Data Analysis

The collected data is analyzed in three categorical components. They are features of simplification, patterns of simplification and probable reasons of simplification. The author adapted three methodological stages as follows:

4.5.1. Description

The author organized the 24 words alphabetically. Then, he transcribed phonemically the words in standard British English. He also transcribed the same words in the way they were spoken by the speakers.

4.5.2. Identification

The author compared the spoken form of the English words with that of the British English (RP) variation. The comparison focused on identification of the differences in pronunciation of words. The differences are marked with the help of phonemic transcription. The process focused on consonant clusters and the features of simplification.

4.5.3. Analysis

The analysis focused on identifying the pattern/s of morphophonemic simplification found in each word. Plausible reasons for adapting a simplification strategy are identified and interpreted. The

applied simplification strategies created variation in production. Such variation needed relative phonetic environment. The author identified CCS in the collected words. The CCS was then classified as initial, middle and final. The phonetic environment of the cluster was studied to see how the sounds in the cluster received simplification and identified possible reasons to account for the speakers' move to simplify the cluster.

5. Observations, Interpretation and Discussion

The following table (1) consists of English words with consonant clusters. The speakers of Marathi use strategies to simplify these clusters. The simplified versions of the clusters are also documented. The discussion that follows details on the nature of clusters and the strategies the speakers used to simplify them.

Table 1: *List of* Words with Features of Simplification

Sr. No.	English Word	Transcription	Cluster position	Simplification
1	Neutral	/nju:trəl/	Final	/nutən/
2	Paddle	/pǣdl/	Final	/pǣndal/
3	Scooty	/sku:tI/	Initial	/kuti/
4	Tractor	/trǣktə/	Initial	/tǣktər/
5	Train	/treIn/	Initial	/təren/
6	Treatment	/tri:tmənt/	Initial	/tesment/
7	Triple	/tripl/	Initial	/tIbal/
8	Straight	/streit/	Initial	/stret/
9	Plot	/plɔt/	Initial	/Plat/
10	Three	/θri:/	Initial	/thiri/
11	Slow	/sləu/	Initial	/səlo/
12	Free	/fri:/	Initial	/Firi/
13	Plan	/pla:n/	Initial	/Palan/
14	Clear	/klI: ə/	Initial	/kIlIər/
15	Class	/kla:s/	Initial	/kalas/
16	Plain	/plein/	Initial	/pəlen/
17	Plate	/pleit/	Initial	/pəlet/
18	Grease	/gri:s/	Initial	/gIris/
19	Cream	/kri:m/	Initial	/KIrim/
20	Plus	/plʌs/	Initial	/pələs/

21	Truck	/trΛk/	Initial	/tərək/
22	Print	/prInt/	Initial	/pIrInt/
23	Krishna	/kriʃna/	Initial	/kisna/
24	Clean	/klI:n/	Initial	/kIlIn/

1. Neutral- /nutən/*

In the word 'neutral' the consonant cluster /tr/ has a combination of alveolar /t/ followed by alveolar /r/. The speakers find it difficult to pronounce two alveolar sounds one followed by other involving similar phonemic processes of articulation. Thus, the cluster of two similar sounds in terms of place of articulation is simplified. The sounds in the cluster /t,r/ are not just separated. The latter one is lost in the process.

2. Paddle- /pǣndal/*

In the word 'paddle' the cluster is at the final position of the word. It does not have a combination of multiple sounds to form a cluster. However, the sound /l/ in the final position of certain English words forms a consonant cluster by itself. The speaker simplifies the cluster with an addition of /ə/ in between /d/ and /l/. Both /d/ and /l/ are alveolar in place of articulation. The speaker might want to avoid immediate occurrence of two similar sounds in articulation. The word 'triple' also has similar simplification process.

3. Scooty- /kuti/*

In the word 'scooty' the cluster is at the initial position. It has a combination of three sounds /s, k/. A speaker pronouncing this phonemic combination has to move from front /s/ to back /k/. This seems a little tricky for a non-native speaker of English to quickly move from front position to the back one in a connected speech. Consequently, the speaker removes front /s/ and moves to back /k/ followed by /u/ a back vowel.

4. Tractor-/tǣktər/*

In the word 'tractor' the cluster is in the initial position. It is formed with /t, r/. It has a combination of alveolar /t/ and post-alveolar /r/. Immediate occurrence of two sounds with similar position of articulation makes it a little difficult for the speaker to pronounce. Thus, the speaker removes /r/ and simplifies the cluster. The process is similar in words like *train, and treatment*.

5. Train-/təren/*

The word has initial cluster /tr/. Here, the sound /t/ and /r/ are produced at alveolar and post-alveolar position respectively. However, Indian speaker of English pronounces both sounds /t,r/ as alveolar. The speaker finds it difficult to repeat the pattern in quick sequence. The speaker takes a break

between /t/ and /r/ and inserts /ə/. Then, why do sound /ə/ and not any other one? The reason is leaving the constriction made for /t/releases /ə/ sound before the speaker proceeds to next sound.

6. Treatment / tesment/*

The word has initial cluster of /t,r,I/. The cluster is simplified by removing /r/ and /I/ sound. Here, in producing these three initial sounds the position of the tongue moves towards alveolar. For /t/ and /r/ direct contact is established and for /I/ the tongue position is similar the earlier sounds. Thus, the speaker inserts /e/ and /s/ sound immediately after releasing /t/. He/she does not keep the stricture intact for the sounds following /t/.

7. Triple /tibəl/.*

The word has initial cluster of /t,r,I/. Sound /r/ is lost and cluster is simplified as /tibal/.* The sounds in the cluster create a stricture involving alveolar ridge. The speaker finds it difficult to repeat sounds with similar place of articulation. Thus, the speaker resorts to drop /r/ sound and simplify the cluster.

8. Straight- / stret/*

The word has initial cluster of /s, t, r,ei/ sounds. The word has a diphthong /ei/ which is not a common feature in Marathi. Interestingly, unlike earlier words 4,5,6,7, the initial cluster of /t, r/ sounds are not simplified. Rather the sounds are intact in cluster and the diphthong /ei/ is simplified. If a diphthong is a part of a consonant cluster, it also entitles to simplification.

9. Plot /Plat/*

The word has initial cluster of /p, l, ɔ/ sounds. In Marathi, sound /ɔ/ is rarely used. The word begins with a bilabial /p/ and moves to alveolar /l/ and shall move to /ɔ/. But when the speaker releases the bilabial stricture of /p/, the alveolar /l/ is merged with /a/ which is similar to the release of sound /p/. Instead, sound /a/ is used. Here, the sound /ɔ/ is replaced by /a/ to simplify it.

10. Three /θIrI/*

The word has initial cluster with of /θ, r,I:/. Speakers of Marathi produce sound /θ/ as alveolar plosive and not as dental fricative. Thus, occurrence of alveolar* /θ/ and /r/ in immediate succession creates problems for the speaker. So, the speaker resorts to insert vowel /I/ between /θ/ and /r/ to avoid such immediate occurrence.

11. Slow- /səlo/*

The initial cluster of /s,l/ is simplified by inserting /ə/ sound between the cluster of /s and l/. Here, the sounds /s and l/ are similar in terms of place of articulation; alveolar. Immediate occurrence of sounds in succession with similar place of articulation compels the speakers to simplify the cluster.

12. Free- /firi/*

The initial cluster is formed by /fr/. The speaker simplifies it with addition of /I/ between /f/ and /r/. The speaker pronounces /f/ as a bilabial sound and not as labio-dental. The stricture for sound /f/ when released gets carried over to /I/ rather than /r/. The phonetic environment created by /f/ gets assimilated with /I/. This separates /r/ from /f/ and thus the cluster/fr/ is simplified.

13. Plan /pəlan/*

The cluster is formed by /p,l/. The speaker adds /ə/ between the cluster sounds to simply it. The stricture for bilabial /p/ when released carries /ə/ sound before it moves to alveolar /l/. Thus, the speaker maintains /ə/ and then moves to /l/.

14. Clear-/kIlIər/*

The cluster is formed by /k,l/. The speaker adds /I/ between the cluster forming sounds to simplify it. Production of velar sound /k/ followed by alveolar /l/ might be difficult. The movement is from back part of the tongue for /k/ to the front for /l/. Comparatively, the speaker might be at ease to move from velar /k/ to front /I/.

15. Class-/kəlas/*

The cluster is formed by /k,l/. The speaker adds /ə/ sound in between to simplify it. It is similar to the process that takes place in simplification of the cluster /k,l/ in the word ‘clear’ (14). However, here simplification is done by adding /ə/. The speaker’s choice of adding vowel /ə/ is governed by the following sound /a/.

16. Plain /pəlen/*

The cluster is formed by /p,l/. The speaker adds /ə/ sound in between to simplify it. The stricture made for bilabial sound /p/ when released produces a vowel sound /ə/ due to the phonetic environment of /p/. So, the speaker produces /ə/ as an effect of /p/. This adds to simplifying the consonant cluster /p,l/.

17. Plate- /pəlet/*

The cluster is formed by /p,l/. This cluster is simplified by adding /ə/ vowel sound. The process is similar to the simplification of the cluster in the word ‘plain’.

18. Grease- /gIrIs/*

The cluster is formed by /g,r/. The speaker simplifies it by adding the vowel sound /I/. This cluster demands a movement from back (velar) part of the tongue to the front (post-alveolar). The speaker finds this movement rather difficult and with an intention to simplify it adds a vowel sound /I/.

19. Cream- /kIrIm/*

The cluster is formed by /k,r/. The speaker simplifies it by adding a vowel sound /I/ in between. The simplification process adapted for 'Cream' is similar to 'Grease'. Since both clusters /kr, gr/ both begin with a velar sound and moves to post alveolar position. The movement might seem difficult for the speakers and so to make it simple, the speakers add a vowel sound /I/.

20. Plus-/pələs/*

The cluster is formed by /p,l/. The speakers simplify it by adding a vowel sound /ə/ in between. The process of simplification adapted here is similar that is found in words like *'plan, plate, plain'*. The cluster begins with /p/ and release of its stricture generates a vowel /ə/ sound due its phonetic environment.

21. Truck-/tərək/*

The sounds /t,r/ form the cluster here. The speaker simplifies it by adding a vowel sound /ə/ due to the phonetic environment of /t/. The two sounds /t/ and /r/ are alveolar and post-alveolar *(the speakers of Marathi produce /r/ as alveolar).* The succession of two alveolar sounds compels the speakers to add /ə/ in the cluster and simplify it.

22. Print-/pIrInt/*

The sounds /p,r/ form the cluster here. The speakers simplify it by adding a vowel sound /I/. In Marathi, the sound /p/ is understood as the letter 'p' which sounds like /pI/. Thus, the speaker pronounces it as a letter and not as a sound.

23. Krishna-/kIsna/*

The sounds /k,r/ form the cluster. This cluster demands a movement from back (velar) part of the tongue to the front (post-alveolar). This movement is perceived rather difficult resulting in simplifying the cluster by adding /I/ which has the anaphoric phonemic effect for the choice of /I/.

24. Clean- /kIlIn/

The sounds /k,l/form the cluster. The cluster asks for a movement from velar /k/ of the tongue to alveolar /l/. This immediate movement is difficult for the speaker so resorts to insertion of /I/ to simplify the cluster.

6. Findings

The study put forth some significant inputs in the process of CCS. The rule-based approach is more limited to occurrence of CCS in certain words. The generated rules are not consistent. The syllable-based approach focuses on the sonority of the sounds. However, the sequence of nasal sound and voiced stops do not violate the Sonority Sequencing Principle. The Sequence based principle creates

space for the researcher to identify the sequence of sounds in the cluster and see how they correlate with each other resulting in the speakers tends to simplify the cluster. The study points out to a few significant findings. They are follows.

6.1. First category of simplification is of two alveolar sounds in immediate occurrence. Since the speakers do not differentiate between an alveolar and post alveolar sound. Both are produced similarly. This is due to the speaker's knowledge of morphophonemic structures of his/her language. Radford, et.al, (1999, p.88) support this assumption by stating that "*languages offer various kinds of syllables, and native speakers of languages bring their knowledge of syllables and syllable structures in their attempt to produce words from other languages."* For instance, in words like *neutral, train, triple, treatment, tractor, straight* this cluster simplification pattern is visible. Simplification strategy involves addition of a sound (*train*) and loss of /r/ sound (*neutral, triple, treatment, tractor*).

6.2. In the process of simplification, the speakers evidently insert the variations of the vowel sound /a/. *Anderson (1987) refers to insertion and deletion. He concludes that the former is favoured in onset clusters, and the latter in coda clusters.* Insertion can be seen in words like 1. neutral /ə/, 2. Paddle /ə/, 4. Tractor /ə/, 5. Train /ə/, 6. Treatment /e/, 7.Tripple /ə/ 9. Plot /a/, 11. Slow /ə/. 13. Plan /ə/.

6.3. Simplification pattern in words like 7. Triple /I/, 10. Three /I/, 12. Free /I/, 14. Clear /I/, 18. Grease /I/, 19. Cream /I/, 22. Print /I/, 23. Krishna /I/ indicates that the speakers insert the short vowel sound /I/ between the cluster sounds to simply the cluster.

6.4. The cluster of /k/ and /l/ is simplified by adding a vowel sound depending on the nature of the following vowel sound. In words like clear, class, plan, plain, plate, grease, cream, plus, and print sound /I/ and /ə/ are added as the following sounds are relative to them. Observation makes it evident that clusters with /pl/, /kl/, /sl/, /pr/, /kr/, /gr/ in when occur in initial position, simplification process of such consonant cluster is undertaken by adding vowel sound /ə/ or /I/. The speakers of Marathi add sound /ə/ when the following sound of the cluster is a variation of /a/. The speakers add sound /I/ when the following sound of the cluster is a variation of /I/. This is observed in words like *(Train, Triple, Plot, Three, Slow, Free, Plan, Clear, Class, Plain, Plate, Grease, Cream, Plus, Truck, Print, Krishna).*

6.5. In majority of examples, the clusters are at initial position. A couple of them are at final position. The speakers relatively simplify the consonant clusters those occur at initial position compare to final position clusters. It means the speakers of Ahirani and relatively Marathi simplify consonant clusters at onset position more than coda obstruent.

6.6. The speakers have the tendency to insert a vowel sound to simplify English consonant clusters. Interestingly, it is true in almost all the words that have been analyzed that insertion of a vowel sound is pretty common irrespective of the position of the cluster; initial or final.

7. Limitations of the Study

7.1. The study has 12 participants whose data of producing consonant clusters in English was collected through observation schedule. There is ample scope to get in more 50-100 such examples of cluster.

7.2. It has a smaller number of representations of female speakers (three) compare to male.

7.3. Sample of the participants has literate and illiterate people. There number is odd and not comparable.

7.4. The data showed a few other simplification processes; epenthesis, vowel change, plural markers, etc. But cluster simplification is the focus of analysis.

8. Conclusion

Speakers bring variation in use. Inter language phonology supports exchange of morphophonemic components from native language to new language. Cluster simplification is more evident in the collected data. Speakers of Marathi simplify consonant clusters of English with a variety of strategies; insertion of /ə/ and /I/ depending upon the phonemic environment. The speakers might find it difficult to pronounce the clusters in English standard form. Nevertheless, the speakers do not consider the standard form of cluster pronunciation as of prominence. They rather resort to use a form that fits intelligible in their understanding and the audience they communicate with. Cluster simplification is more evident in their speech when it occurs at initial positions. It accounts for the speakers try to make the initial segment of speech clearer to the listener. The final position cluster is less prominent as the listener is able to generate the most probable sense of a spoken word with the help of initial sounds. The study marks its prominence in understanding how English as a foreign language is assimilated in Indian speech society with its added flavor. It is interesting to know how other speech communities which are very diverse in India add up their flavor of in using English.

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Appendix-A

List of Participants

Sr. No.	Name	Gender	Age*	Education	Occupation
1	Female 1	Female	68	Illiterate	Housewife
2	Male 1	Male	62	7th Grade	Retired
3	Male 2	Male	67	4th Grade	Retired
4	Male 3	Male	44	Illiterate	Watchman
5	Male 4	Male	58	12th Grade	Constable
6	Male 5	Male	56	Illiterate	Farmer
7	Male 6	Male	44	6th Grade	Green Grocer
8	Male 7	Male	47	Illiterate	Labourer
9	Female 2	Female	43	9th Grade	Housewife
10	Female 3	Female	46	Illiterate	Housewife
11	Male 8	Male	56	Illiterate	Milkman
12	Male 9	Male	38	illiterate	Carpenter

*Age of the participants is considered as told by them.

Appendix B

Consonant Cluster Simplification Datasheet

Sr. No.	English word	Transcription	Simplified	Transcription	Simplification Features	Simplification Process
1	Accelerator	/əkseləreitə/	Accelerator	/eksletər/	Loss of weak /ə/, /ə/ becomes /e/, /ei/ becomes /e/ /ə/ becomes /r/	**Aphaeresis** vowel change vowel change sound change
2	Boots	/bu:ts/	Boots	/butə/	Long /u:/ becomes short /u/, change in consonant /s/ becomes vowel /ə/	vowel shortening vowel change
3	Coffee	/kɔfI/	Coffee	/kafI/	Vowel /Ɔ/ becomes /a/	vowel change
4	College	/kɔlIʤ/	College	/kaleʤ/	vowel /Ɔ/ becomes /a/, /I/ becomes /e	vowel change
5	Construction	/kənstrʌkʃən/	Constructio n	/kəntrəkʃən/	Loss of /st/ cluster, cluster becomes alveolar from affricative	cluster simplification, syncope
6	Customer	/kʌstəmə/	Customer	/kəstəmbər/	Addition of /m/ and /r/	vowel change, Epenthesis
7	Doctor	/dɔktə/	doctor	/daktər/	Vowel /Ɔ/ becomes /a/, addition /r/	vowel change, /r/
8	Driver	/draivə/	Driver	/daIvər/	Consonant cluster, diphthong, addition of /r/	cluster simplification /r/
9	First	/f3:st/	First	/fəs/	/3:/ becomes /ə/	vowel shortening
10	Flu	/flu:/	Flu	/fulu/	Consonant cluster, sequence of alveolar, addition of /u/	epenthesis, cluster simplification
11	Fuse	/fju:z/	Fuse	/fuj/	loss of /j/, long /u:/becomes /u/	syncope, vowel shortening

12	Garage	/gæra: ʤ/	Garage	/gæreʤ/	Vowel change /a:/ becomes /e/, /ʒ/ fricative becomes /ʤ/ affricate	vowel shortening, Debuccalisation
13	Gear	/gIə/	Gear	/ger/	Difficulty for /Iə/, diphthong /e/, /r/ valid	monophthongisation /r/
14	Headmaster	/hedma:stə/	headmaster	/hedmastər/	long /a:/ becomes /a/, addition of final /r/	vowel shortening /r/
15	Helicopter	/helikɔptə/	Helicopter	/helikapter/	Vowel change /Ɔ/ becomes /a/	vowel change
16	Inspiration	/inspIreIʃən/	inspiration	/inspaireʃən/	Generalization, /I/ becomes /ai/, loss of diphthong /ei/	monophthongisation
17	Joint	/ʤɔInt/	Joint	/jɔInd/	Consonant change /t/ becomes /d/	consonant mutation
18	Lawns	/lɔ:ns/	Lawns	/lans/	Vowel change /Ɔ/ becomes /a/	vowel change
19	License	/laisəns/	license	laisən/	Deletion of /sə/, immediate repetition	apocope
20	Manager	/mænIʤə/	manager	/mænenʤər/	/I/becomes /e/, addition of /n/ and final /r/	vowel change, Epenthesis /r/
21	Matchbox	/mæʧbɔks/	Matchbox	/maʧi:s/	Vowel change /æ/ becomes /a/	vowel change
22	Military	/militərI/	Military	/militri/	loss of /ə/ converted into consonant cluster	syncope
23	Neutral	/nju:trəl/	Neutral	/nutən/	Alveolar-immediate sequence of alveolar sounds, simplification of consonant cluster	cluster simplification
24	Office	/ɔfis/	Office	/hafis/	Vowel change /Ɔ/ becomes /ha/	vowel shift
25	Operation	/əpəreiʃən/	Operation	/apreʃn/	/Ɔ/ becomes /a/, loss of /ə/, /ei/ becomes /e/	vowel change, syncope, monophthongisation

26	Overhauling	/əuvəhɔ:lIŋ/	Overhauling	/orǣliŋ/	/əu/ becomes /o/, loss of /v/ and /ə/, /ɔ:/ becomes/æ/	monophthongisation, vowel change, syncope
27	Paddle	/pǣdl/	Paddle	/pændal/	Syllabic consonant-loss, addition of /n/ alveolar	Epenthesis, Debuccalisation
28	Pant	/pǣnt/	pant	/pænd/	Consonant change /t/ becomes /d/	consonant mutation
29	Partner	/pa:tnə/	Partner	/patnər/	Long /a:/ becomes short /a/, addition of /r/ after a vowel sound.	vowel shortening /r/
30	Peg	/peg/	Peg	/pǣk/	/e/ becomes /æ/, /g/ becomes /k/	vowel change
31	Pendant	/pendənt/	pendant	/pændal/	/e/ becomes /æ/, /nt/ replaces /al/	consonant mutation
32	Puncture	/pʌŋkʧə/	puncture	/pənʧər/	Loss of /k/, movement from /k/ back to front /ʧ/ thus avoid	syncope
33	Quarter	/kwa:tə/	quarter	/kwatər/	/a:/ becomes /a/, addition of /r/	vowel shortening /r/
34	Rickshaw	/rikʃɔ:/	Rickshaw	/rIkʃa/	Vowel change /Ɔ/ becomes /a/	vowel change
35	Rings	/rIŋz/	rings	/riŋa/	Plural marker-allophone /z/ becomes /a/	Plural marker (male)
36	Salon	/sǣlɔ/	Salon	/səlun/	/æ/ becomes /ə/, addition of /un/	vowel change, Epenthesis
37	Scooty	/sku:tI/	Scooty	/kuti/	Consonant cluster, /s/ alveolar move to /k/ velar long distance to cover, long /u:/ becomes short /u/	vowel shortening, Cluster simplification
38	Shape	/ʃep/	shape	/sep/	/ʃ/ becomes /s/	consonant mutation
39	Sharpener	/ʃa:pnə/	sharpener	/ʃɔpnər/	/a:/ becomes /ɔ/, addition of final /r/	vowel shortening /r/
40	Shirt	/ʃ3:t/	Shirt	/ʃ3:rtə/	Long /3:/ becomes short /ə/, addition	vowel shortening, Epenthesis

					of /ə/	
41	Sorting	/sɔ:tIŋ/	sorting	/ʃɔ:tIŋ/	/s/ becomes /ʃ/	consonant mutation
42	Steering	/stiərIŋ/	steering	/steriŋ/	/iə/ becomes /e/	monophthongisation
43	Temporary	/tempərərI/	Temporary	/tempərvari/	addition of /r/, /m/ and /v/	Epenthesis
44	Tile	/tail/	Tile	/stail/	addition of /s/	Epenthesis
45	Tractor	/trækta/	Tractor	/tæktər/	loss of /r/ and addition of final /r/	Cluster simplification
46	Train	/treIn/	Train	/təren/	Consonant cluster, loss of diphthong	Cluster simplification, monophthongisation
47	Treatment	/tri:tmənt/	Treatment	/tesment/	Consonant cluster is simplified /ri/ becomes only/es/	Cluster simplification
48	Triple	/tripl/	Triple	/tIbal/	/tri/ cluster becomes /tI/	Cluster simplification
49	Tube light	/tjublait/	Tube light	/tub lait/	Loss of /j/	syncope
50	Turn	/t3:n/	Turn	/tən/	Long /3:/ becomes weak /ə/	vowel shortening
51	Website	/websait/	website	/websaid/	/t/ becomes /d/	consonant mutation
52	Wires	/waiəz/	Wires	/wajəri/	addition of /j/	Epenthesis
53	files	/failz/	files	/faili/	/z/ becomes /i/	plural marker /i/ male
54	computer	/kəmpjutə/	computer	/kamputər/	/ ə/ becomes /a/	vowel change, syncope