CHAPTER FOUR

ANALYSIS AND FINDINGS

4.0   Introduction

In this chapter, the lexical items in the corpus were analyzed according to the

type and manner of borrowing. The data was also examined for phonemic

changes that the borrowed words had undergone. Finally, the borrowed words

were grouped according to domains of human activities to determine which

domains had contributed to the borrowing of English words. The results obtained were used to answer the two research questions stated in Chapter 1, section 1.3.

The total number of English lexical borrowings which were identified to form the corpus was 512 words (Appendix C). Of these 512 items, 510 were nouns forming 99.62% of the total number of borrowed words, with only one verb and one adjective. This predominance of nouns rather than any other word class concurs with Min Latt's (1966) statement that "Burmese does not usually accept loans as verbs or attributes, every word borrowed is almost always a noun" (p. 223). Each lexical borrowing was then analyzed using Haugen's framework, and the findings are presented in the following discussion.

4.1 Distribution According to Type of Borrowing

The corpus of borrowed words was analyzed according to the assimilation processes the words had undergone in the Burmese language. Analysis according to type of borrowing for 512 words collected was done by placing the words into one of the three general categories of loanwords, loanblends and loanshifts using Haugen's classification. This distribution is presented in Table 4.1.

Table 4.1 : Frequency and Percentage Distribution of Borrowed Items

According to the Type of Borrowing

	Loanwords	Loanblends	Loanshifts	Total
Frequency	445	64	3	512
Percentage	86.91	12.50	0.59	100%

According to the distribution of borrowed items in three categories, loanwords make up the majority of the corpus while loanblends form the second largest group of borrowed words and loanshifts have the least of the corpus items. Loanwords consists of 445 words or 86.91% of the total number of borrowings while loanblends make up 12.50% or 64 words and loanshifts make up 3 words or 0.59% of the corpus. From these findings the most common type of borrowing in Burmese is the borrowing of loanwords.

4.1.1 Loanwords

Haugen (1950) classifies loanwords solely by the extent to which substitution of individual phonemes has occurred in the transfer of the morpheme and its phonemic form into the recipient language. Any morphemic importation can be further classified according to the degree of its phonemic substitution: none, partial, or complete (Haugen, 1950, p. 214). Loanwords make up of 86.91% of the total number of borrowings in this corpus therefore forming the main type of borrowing. As analysis of the items in this loanword category involve the manner

of borrowing, that is, the extent to which the substitution of individual phonemes have taken place, this will be discussed in the next section 4.2, under 'Distribution According to the Manner of Borrowing in Loanword Category'.

4.1.2 Loanblends

Loanblends are compound words in Burmese where one part is imported while a native word is substituted for the rest. In this study, loanblends account for 64 words, that is 12.50%, of English borrowings in the study. The number is small in comparison to the total number of loanwords in the corpus. However these 64 loanblends do fill a necessary semantic gap in Burmese. In the loanblends analyzed, it is clearly seen that English words once adapted, participate freely in compounding.

4.1.3 Loanshifts

Loanshift applies to a complete shift of a word. Some foreign loans appear in the language only as changes in the usage of native words (Haugen, 1950, p. 219) and this kind of changes will here be classed as 'shifts'. The term 'shift' is suggested because they appear in the borrowing language only as a function shift of native morphemes. These words are created by using native words to designate new concepts from English on the basis of the English word, meaning

it is the concept that is borrowed and not the word. There are only 3 loanshift words (0.59%) among the 512 of the words in the corpus.

4.2   Distribution According to the Manner of Borrowing

To determine the manner of borrowing, the borrowed words were further analyzed within each category of loanwords, loanblends and loanshifts.

4.2.1 Loanword Category

Loanwords were classified according to the degree of phonemic substitution which occurred: none, partial and complete. Frequency and percentage of loanwords according to the manner of borrowing is shown in Table 4.2.

Table 4.2 : Distribution Of Loanwords According to the Manner of Borrowing

	none	partial	complete	Total
Frequency	17	246	182	445
Percentage	3.82	55.28	40.90	100%

4.2.1.1   None Substitution

Data revealed that the 17 loanwords were none substituted loanwords. This is minimal compared to the other two manner of borrowed items as it comprises only 3.82% of the loanwords collected (Table 4.2). This is possibly because the Burmese morphological and phonological systems, being so different from English, have a strong impact in transforming borrowed words when native Burmese use them. Hence few English words are integrated into Burmese without any kind of substitution. Most of the words in these categories remain recognizable as English words but with a slight modification of its sound. For example, the English words, 'may day', 'kilo', 'kiwi', 'auto', 'polo' are reproduced almost similar to English, but with a slight phonemic modification:

	English Model		Burmese Phonemic Replica	
a.	auto /⏜:τ∴←/ /⏜:/τ∴←/	-	*atɔfwdk̃*	
b.	barley /⏜β□:λ□/ /β□/λ□/	-	*ÆɱvÐ*	
c.	kilo /⏜κι:/λ∴←/	-	*uÐvdk̃*	/κ∨/λ∴←/
d.	kiwi /⏜κι:/ωι:/	-	*uÐoÐ*	/κ∨/ω∨/
e.	May Day /⏜με□δε□/	-	*ara';*	/με□/δει:/
f.	polo /π∴←/λ∴←/	-	*ydk̃vdk̃*	/π∴←/λ∴←/
g.	Jew /δ∣υ/	-	*ssℒ;*	/δ∣υ:/

In the above cases, the words are defined as none substituted loanwords.

4.2.1.2   Partial Substitution

Data revealed that there were 246 partially substituted loanwords which formed the highest number of words in all categories (Table 4.2). This frequency of partially substituted loanwords made up 55.28% of all the loanwords. This means that most of the English loanwords have gone through some form of phonemic modification because of the way the natives pronounce them. For example:

a.   *uDᵥdk8ᵧrf* /κ\/λ∴←/γ∴/ρℊν/   (kilogram /κ□λ∴←γρ—μ/),   here the initial
      sound kilo /κ□λ∴←/ is retained as *uDᵥdk* /κ\/λ∴←/, while the final sound
      gram /γρ—μ/ is substituted by *8ᵧrf* γ∴/ρℊν/

b.   *ᵬif8dsK* /β□ν/δ│∴←/ (banjo /∩β—νδ│∴←/) here the initial sound ban
      /∩β—ν/ is substituted by *ᵬif* /β□ν/ and the final sound jo /δ│∴←/ is
      retained as *8dsK* /δ│∴←/

c.   *qdkzm* /σ∴←/π│□/ (sofa /∩σ∴←ɸ∴/)   here the initial sound so /σ∴←/ is
      retained as *qdk* /σ∴←/ and the final sound fa /ɸ∴/ is substituted by *zm*
      /π│□/

In this manner of borrowing, although a phonemic sound from the English model has been substituted with a native sound, the borrowed word is still recognizable as an English word. These partially substituted words are the most common form of borrowing for the words in this corpus.

4.2.1.3   Complete Substitution

182 words or 40.90% of the loanwords in the corpus are complete substitution of loanwords (see Table 4.2). These are loanwords which are distinguishable from English in terms of phonemic structure. This category is second to partial substitution and the percentage is much higher compared to loanblends or loanshifts. This happens because over time, the borrowed words that had been unassimilated initially, would have gone through a lot of transformation in terms of phonology and these words have adapted to the Burmese sound system so well that they have become part and parcel of the native language and few are aware of their English origin. For example:

   a. $\mathcal{ADZm}$ /β$\backslash$/ζ□/ (visa /ϖι:ζ∴/) complete change of sound from /ϖι:ζ∴/
      to
       /β$\backslash$/ζ□/

   b. $abmfv\mathcal{D}$ /β⌐:/λ$\backslash$/ (bodice /β□δ□σ/) complete change of sound from
       /β□δ□σ/ to /β⌐:/λ$\backslash$/

   c. $azmif$ /π$\mid$αυν/   (form /φ⌐:μ/) complete change of sound from /φ⌐:μ/ to
       /π$\mid$αυν/

   d. $zdkif$ /π$\mid$αιν/ (file /φα□λ/) complete change of sound from /φα□λ/ to

/π$\mid$αιν/

   e. $a\jmath pp\mathcal{P\jmath D}$ /φε□/σ□√/σ∴/φ□/ (registry /ρεδ$\mid$□στρι/) complete change of
          sound from /ρεδ$\mid$□στρι/   to /φε□/σ□√/σ∴/φ□/

4.2.2 Loanblend Category

In this study, loanblends account for 64 words that is 12.50% of English borrowings in the study. The number is small when compared to loanwords in the corpus. However these types of borrowings do fill a necessary semantic gap in Burmese. These are borrowed words in Burmese where one part is imported while a native word is substituted for the rest.

The loanblends identified in this study were further classified according to the degree of importation and substitution the words had gone through and two types of loanblends were identified. They consist of Compound Loanblends and Tautological Loanblends. Marginal loanblends were not identified in the corpus. Frequency and percentage of compound and tautological loanblends is shown in Table 4.3:

Table 4.3 : Frequency and Percentage Distribution of Loanblends According to the Manner of Borrowing

	Compound Loanblends	Tautological Loanblends	total
Frequency	15	49	64
percentage	23.44	76.56	100%

4.2.2.1 Compound Loanblends

In compound loanblends, one of the two morphemes making up the compound form is replaced by a native morpheme (Heah, 1989, p. 108). They account for

15 words or 23.44% of total loanblends in the study. All the 15 words that were analyzed in this corpus were found to be words which consist of two words: one English word which stands as a specifier and the other a native word that serves as a classifier. This pattern called a compound loanblend is seen in the word 'carbolic oil'

umabmfvpfqD/κ□/β⌐:/λ□√//σ□/ (carbolic oil) *umabmfvpf*/κ□/β⌐:/λ□√/ (carbolic) is specifier

qD/σ□/ (oil) is classifier .

Other compound loanblends are:

a. *sgwfw∫*/γ℘√//τε/ (guard house/hut)   *sgwf*/γ℘√/ (guard) is specifier

w∫/τε/ (house/hut) is classifier

b. *bufxɟDtdk*/β—τ/τ |∴/φι//∴←:/ (battery-box)

bufxɟD/β—τ/τ |∴/φι/ (battery) is specifier

tdk/∴←:/ (box) is classifier

c. *EsluvD;,m;∫gwfaygif;zdk*/νφυ:/κ∴/λι:/φ□://δ℘√/π□←|/π|∴←/ (nuclear boiler)

EsluvD;,m; νφυ:/κ∴/λι:/φ□:/ (nuclear) is specifier

∫gwfaygif;zdk/δ℘√/π□←|/π|∴←/ (boiler) is classifier

d. *avmu,frD;ɟxm;* /λ⌐/κ—//μι:/φ∴/τ|□:/ (local train)

avmu,f/λ⌐/κ—/ (local) is specifier

rD;ɟxm; /μι:/φ∴/ τ|□:/ (train) is classifier

e. *sɟif;epfphawmfcsdef*/γ∴/φι:ν/ν□√//σ—|/δ⌐:/τ♣ε/ (Greenwich standard time)

sɟif;epf/γ∴/φι:ν/ν□√/ (Greenwich) is specifier

phawmfcsdef/σ—|/δ⌐:/τ♣ε/ (standard time) is classifier

In the items analyzed, the English word participates freely as a specifier in compounding with the native word to form a compound loanblend. These compound loanblends have also been recognized as innovative combinations of borrowed words and native items (Heah, 1989).

4.2.2.2 Tautological Loanblends

Tautological loanblends are pairs of words which consist of one borrowed word and the other a native word, denoting similar referents (Heah, 1989, p. 108). There were 49 tautological loanblends comprising 76.56% of loanblends in the corpus. The following are examples of such loanblends:

<u>English model</u>		<u>Burmese Phonemic Transcript</u>
a. (boot) /βʊːτ/	-	*bGwfzdeyf* /β←√//π ‖∴/ν ℘ √/
b. (shirt) /∩♣±ːτ/	-	*&SyftusDF*

/♣ ℘ √//ε⟩‖/δ‖ι/

c. (cake) /κε□κ/	-	*udwfrkefH* /κε□√//μ□ ‖/
d. (pin) /π□ν/	-	*yiftyf* /π□ν// ℘η√/
e. (act) /—κ/	-	*tufOya'* /—√//←/β∴/∂ε□/

a. The word /β←√/ means 'boot' and /π‖∴/ν ℘ √/ means 'shoes'

b. The word /♣ ℘ √/ refers to 'shirt' and /ε⟩‖/δ‖ι/ means 'dress'

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c. The word /κε□√/ refers to ' cake' and /μ□│/ means 'snack'

d. The word /π□ν/ refers to 'pin' and / ℘η√/ also means 'pin'

e. The word   /—√/ refers to 'act ' and / ←/β∴/∂ε□/ refers to 'law'

Therefore, it is clear that both words in one loanblend denote the same meaning as the English model.

4.2.3 Loanshift Category

Loanshift applies to a complete shift of word. The term shift is suggested because they appear in the borrowing language only as a function shift of native morphemes (Haugen, 1950, p.215). These words are created by using native words to designate new concepts in English on the basis of models of English items, meaning it is the concept that is borrowed and not the word. Loanshifts make up 3 words or 0.59% of the words in the corpus. Further analysis of these three words according to manner of borrowing showed that they were all literal loan translations. From the data collected, there were no Loan Renditions or Syntactic Calques. The 3 Literal Loan Translations are as follows:

<u>English Model</u>   <u>Burmese Phonemic Replica</u>

a. light year /λα□τ/∩φ□α/   *tvif;e* 𝔖*pf* /∴/λ□:ν//ην□√/

b. ultraviolet rays / ℘λτρα∩ϖαι∴λ∴τ/ρε□ζ/   *cɟrf;v*𝔊*efaɟmifjcnf*

                                                     /κ│∴/φ ℘:ν/λ←ν// φ□υν/δ│ι:/

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c. television /τελ□ϖ□│ν/   *ȷkyfȷrifoħjum;*

                                            /φ←√/μφ□ν//τ℘ν/τ♣℘:/

In the example above,

a. *tvif; /∴/λ□:ν/* means 'light' and *e̋℘pf/ ην□√/* means 'year'

b. *cȷrf;v℃ef/κ│∴/φ℘:ν/λ←ν/* means 'ultraviolet' and *aȷmifȷcnf /φ□υν/δ│ι:/* means 'rays'

c. *ȷkyfȷrif /φ←√/μφ□ν/* means 'image-see (vision)' and *oħjum;/τ℘ν/ τ♣℘:/* means 'sound-hear (tele)'

In these kind of loans, some English models are reproduced element by element in the recipient language but some are reversed to fit in the recipient language. The examples:

<u>English model</u>	<u>Burmese Phonemic Transcript</u>
a. <u>light</u> <u>year</u>	/∴/λ□:ν/ /ην□√/
1 2	1 2
b. <u>ultra</u> <u>violet</u> <u>rays</u>	/κ│∴/φ℘:ν /λ←ν/ /φ□υν/δ│ι:/
1 2 3	2 1 3
c. <u>tele</u> <u>vision</u>	/φ←√/μφ□ν/ /τ℘ν/τ♣℘:/
1 2	2 1

The first word is element to element replacement of the English model while in the second and the third word, the word order of the English item is reversed to fit the normal pattern in Burmese.

4.3 Phonological Adaptations in Accordance With Native Phonemes

In the analysis of data, pronunciation patterns of the borrowed words were examined for the phonemic changes that occurred. The pattern of changes and adaptations in the phonemic system that these words in the corpus have undergone are:

a) retaining of initial sound pattern

b) adaptation of /f/ and /v/ sounds

c) changes in phonemic sound pattern

d) dropping and replacing of sounds in final consonants

e) replacement of final nasalized codas

f) functions of glottal check /√/

g) adaptation of /r/

4.3.1 Retaining of Initial Sound Pattern

Mostly all English speech sounds can be transliterated into Burmese by using the key letters shown in Appendix A except for certain sounds which were replaced with certain letters in the system. When analyzing words beginning with the first

Burmese consonant *u* 'κ∴' (see Appendix A), it was noted that the /κ/ sound was

a close parallel with the /k/ sound in English. Here the pronunciation in English

seemed to have served as a guiding norm. For example:

a. /κ□/   *umw𝒢ef;* /κ□/τυν:/ in Burmese goes parallel with
(cartoon) /κ□:τυ:ν/ in English.

b. /κ\/   *u𝒟vdk̄* /κ\/λ∴←/ in Burmese goes parallel with
(kilo) /κ\λ∴←/ in English

c. /κ—/   *uufwavmuf* /κ—√/τ∴/λ∴←√/ in Burmese goes parallel with
(catalogue) /∩κ—τ∴λ□γ/ in English

d. /κ∴←/   *udk̄uif;* /κ∴←/κιν:/ in Burmese goes parallel with
(cocaine) /κ∴←∩κε□ν/ in English

e. /κυ/   *u∫y𝒢ef* /κυ/πυ:ν/ in Burmese goes parallel with
(coupon) /∩κυ:π□ν/ in English

The same pattern of retaining the initial sound was experienced in initial sounds

of other words as in the example shown below.

<u>English Model</u>	<u>Burmese Phonemic Replica</u>
a. (auto) /⊥:τ∴←/	*atmfwdk̄* /⊥:/τ∴←/
b. (television) /τελ□ϖ□∣ν/	*w,fv𝒟𝒜𝒟;ɼ𝒮if;* /τε/λ□/β□:/∣ν/
c. (telephone)/τελ□φ∴←ν/	*w,fv𝒟zk̄ef;*/τε/λ□/π∣o←ν/
d. syndicate /σ□νδ□κ∴τ/	*qif'𝒟udwf*/σ□ν/δ□/κε□√/
f. (chicory) /τ♣□κ∴ρι /	*cs𝒟udk̄ɼ𝒟* /τ♣□/κ∴←/φ□/

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These sounds are very strong sounds that can be easily differentiated and are similar to English sounds, therefore enabling the retention of the sound.

4.3.2 Adaptation of /f/ and /v/ Sounds

In most cases, there is availability of a Burmese sound that corresponds closely to English. However, the exceptions were the /f/ and /v/ sounds that do not exist in Burmese. Analysis of data showed that the English words using /f/ and /v/ sounds are compensated with /π∫/ and /β/ respectively in Burmese. In the following words from the data, /f/ and /v/ in English are pronounced respectively as /π∫/ and /β/ in Burmese.

Adaptation of /f/ in English to /π∫/ in Burmese

English Model		Burmese Phonemic Replica
(film)	-	*zvif* /π∫α/λ□ν/
(furlong)	-	*zmvhk̃* /π∫□/λ←∫/
(February)	-	*azazmfog7Ɗ* /π∫ε∫/π∫⌐:/ω□/φ□/
(form)	-	*azmif* /π∫αυν/
(fountain)	-	*azmifwdef* /π∫⁻αυν/τειν/
(fahrenheit)	-	*zm7if7dk̃uf* /π∫□/φ□∫/η□ιτ/
(fore-man)	-	*zdk̃rif* /π∫∴←/μ□ν/

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(fashion)	-	_zuf꟭Sif_	/π—√/♣ν/
(sofa)	-	_qdk̄zm_	/σ∴←/π̱α/
(uniform)	-	_,ℓeD̄azmif;_	/φυ/νι/π̱αυν:/

Adaptation of /v/ in English to Burmese /β/

English Model		Burmese Phonemic Replica
(_v_isa)	-	_ÆÐZm_ /β□/ζ□/
(_v_ito)	-	_ÆÐwdk̄_ /β□/τ∴←/
(_v_arnish)	-	_Æm;epf_ /β□:/ν□√/
(_v_aseline)	-	_Æuℓpvif_ /β—τ/σ∴/λ□ν/
(_v_itamin)	-	_ÆÐwmrif_ /β□/τ□/μ□ν/
(_v_olt)	-	_AdkF̄ (ʇm;)_ /β∴←⌒/
(_v_olley ball)	-	_abmfvD̄abm_ /β⌐:/λ□/β⌐/
(tele_v_ision)	-	_w,fvD̄ÆÐ;꟭Sif;_ /τε/λ□/β□:/│ν/

From the analysis of the above patterns, the adaptation of English /f/ and /v/ to Burmese /π│/ and /β/ can be clearly seen in the items analyzed.

English		Burmese
/f/	⟶	/π│/ _z_
/v/	⟶	/β/ _Æ.б_

4.3.3 Changes in /s/ Sound

Another pattern observed is the /s/ sound which is a distinctive feature in English. But when it is in the borrowed lexical items it becomes a weak /σ∴/ or it is just dropped or replaced by a glottal check. All English models of the data with an /s/ sound were replaced by one of the pattens in the following examples:

a. Changing the strong /s/ sound to the weak /σ∴/ sound

   (pla<u>s</u>ter) in English becomes *yvmpwm* /π∴/λ□/<u>σ∴</u>/τ□/ in Burmese

   (po<u>s</u>ter) in English becomes *ydkpwm* /π∴←/<u>σ∴</u>/τ□/ in Burmese

b. Dropping the strong /s/ sound

   (compa<u>ss</u>) in English becomes *uǦefyg* /κ← |/π□/ in Burmese

   (pancrea<u>s</u>) in English becomes *yefuɟd,m* /π℘ |/κ∴/φ□∩/φ□/ in
   Burmese

c. Replacing strong /s/ sound with a glottal check /√/

   (Chri<u>s</u>tian) in English   becomes *cɟpf,mef* /κ |∴/φ□√/ψ℘v/ in
   Burmese

   (billiard<u>s</u>) in English becomes *ßdvd,uf* /β□∩/λ□∩/φ—√/ in
   Burmese

   (wirele<u>ss</u>) in English becomes *odkif,mvuf* /ωαιν/φ□ /λ—√/ in
   Burmese

4.3.4 Dropping or Replacing of Final Consonant Sounds /s/, /l/ and /r/

Comparison of the final consonant sounds of English models and of the Burmese replicas, revealed that the final sound of the borrowed word is either dropped or replaced with other phonemic sounds when the English native word ends with /s/, /l/ and /r/. The patterns for /s/ are discussed in subsection 4.3.3. The /l/ as a final consonant sound in the English word is dropped as in the following words:

English Model		Burmese Phonemic Replica
(shawl)	-	*aʃˢm* /♣⌐:/
(hotel)	-	*a]mfw,f* /η⌐:/τ——/
(overhaul)	-	*tdkℋma]m* /∴←/β□/η⌐:/
(municipal)	-	*jrℓe𝒟p𝒟y,f* /μφυ/ν□/σ∴/πε/
(council)	-	*aumifp𝒟* /κ□υν/σ□/
(diesel)	-	*'𝒟𝒵,f* /δ□/σε/
(nickel)	-	*epfu,f* /ν□√/κε/

Final consonant sounds of /r/, /er/, /or/ are replaced with /□/ as in the following:

English Model		Burmese Phonemic Replica
(bunker)	-	*befum* /β℘|/κ□/
(bumper)	-	*befyg* /β□ν/π□/

(car) - *um;* /κ□:/

(collar) - *aumfvm* /κ⌐:/λ□/

(lever) - *vƊℋm* /λ□/β□/

(mortar) - *armfwm* /μ⌐:/τ□/

(order) - *atmf'g* /⌐:/δ□/

(operator) - *atmfyaꝛwm* /⌐:/π∴/φε□/τ□/

4.3.5 Replacing Final Nasalized Codas

Comparison of the final nasalized codas of English models /m/, /n/ and of the Burmese replicas, revealed that the final sound of the borrowed word is replaced with weaker nasalized codas /ν/ or /∣/. This is illustrated in the following examples:

(a) when /m/ is replaced by weaker sound /ν/

<u>English Model</u>   <u>Burmese Phonemic Replica</u>

(platform) - *yvufazmif;* /π∴/λ—√//π |o←:ν/

(gram) - *8ꝛrf* /γ∴/φ℘ν/

(logarithm) - *avmf8ꝛpforf* /λ⌐:/γ∴/φ□√/∂℘ν/

(album) - *t,fvƀrf* /—/λ∴/β℘ν/

(theorem) - *∘Ɗtdkꝛrf* /□□/∴←/φ℘ν/

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(plutonium)	-	*yvʃwdk̃eɗ,rf*/π∴/λʊ/τ∴←/ν□/φ℘ν/
(gypsum)	-	*ɞspfyqrf*/δ ǀ □/π∴/σ℘ν/
(uranium)	-	*ʃaʒeɗ,h̃* /φʊ/φ∴□/ν□/φ℘ν/

(b) when /m/ and /n/ is replaced by / ǀ /

<u>English Model</u>		<u>Burmese Phonemic Replica</u>
(ice-cream)	-	*tdkufpuʒif*/√αι√σ∴/κ∴/φ□ ǀ/
(queen)	-	*uℊif;* /κωι: ǀ/
(token)	-	*wdk̃uif*/τ∴←/κ□ ǀ/
(pension)	-	*yifpif* /π□ν/σ□ ǀ/
(penguin)	-	*yifɞℊif* /π□ν/γ←□ ǀ/

The Burmese script has six letters for nasal sounds: /*i*/, /*Ꮎ*/, /*n*/, /\/, /*e*/, /*r*/ , while

English has only two that can plausibly be used to replace them: /n/, /m/ (Okell,

1971, p.6). However in the transcription of words which have the six Burmese

nasalized consonant sounds, as in the above words, some can be paired

together as one since they have a similar sound. These are /\/ /*e*/ which have /ν/

sound, /*i*/, /*Ꮎ*/, /*n*/, which has / ǀ / sound and /*r*/ with /μ/.

4.3.6 Functions of Glottal Check /√/

The borrowed words were analyzed for glottal checks /√/ as glottal checks /√/

play an important role in the pronunciation of Burmese words. The findings

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showed 3 positions for glottal checks: as a final ending of the word, across syllable boundaries and as an onset sound in the vowel initial words. The strongest pattern was found in glottal checks /√/ as endings. The common final consonant sounds which were replaced by a glottal check are as follows:

(a) Glottal check as a final ending of the word:

English Model		Burmese Phonemic Replica
<u>English Model</u>		<u>Burmese Phonemic Replica</u>
(coat)	-	*ukwf* /κο←√/
(bailiff)	-	*bdvpf* /β□∩/λ□√/
(bureaucrat)	-	*AsL&dkuɔuf*
/βφ←∴/φ∴←/κ∴/φ—√/		
(block)	-	*bavmuf* /β∴/λ∴←√/
(beef-steak)	-	*bdpwdwf* /β□∩/σ∴/τε□√/
(clip)	-	*uvpf* /κ∴/λ□√/
(cheque)	-	*csuf* /τ♣—√/
(college)	-	*aumvdyf* /κ↵/λε□√/
(contract)	-	*uefxɔdkuf* /κ℘ν/τ|∴/φ□□√/
(communist)	-	*uǦefjrɭepf* /κ←|/μφ□υ/ν□√/
(permit)	-	*ygrpf* /π□/μι√/
(carat)	-	*uɔuf* /κ∴/φ—√/
(photostat)	-	*zdkwdkpwuf*
/π|∴←/τ∴←/σ∴/τ—√/		
(Olympic)	-	*tdkvhypf* /∴←/λ℘μ/π□√/
(stock)	-	*pawmℋf* /σ∴/τ□√/

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(tonic)	-	*awmfepf* /τ⌐:/ν□√/
(salad)	-	*qvyf* /σ∴/λ℘√/
(pyramid)	-	*ydJrpf* /π□∩/φ∴/μ□√/
(postcard)	-	*ydkHpuwf* /π∴←∩/σ∴/κ℘√/
(eucalyptus)	-	*,fuvpf* /φυ/κ∴/λ□√/
(motorboat)	-	*armfawmfbkwf* /μ⌐:/τ⌐:/βου√/
(biscuit)	-	*bDpuGwf* /β□/σ∴/κ←√/
(truck)	-	*xJyf{um;}* /τ\∴/φ℘√/

(b) Glottal checks /√/ which serve as syllable boundaries:

	English Model	Burmese Phonemic Replica
	(doctor) -	*a'gufwm* /δ∴←√/τ□/
	(captain) -	*uy{dwdef* /κ℘√/π□/τ℘ν/
	(Latin) -	*vufwif* /λ—√/τ□ν/
	(magazine) -	*r8*Zif;* /μ—√/γ∴/ζ□|/
	(registry) -	*aJppPJD* /φε□/σ□√/σ∴/φ□/
	(taxi) -	*wuUpD* /τ℘√/σ□/
	(Eskimo) -	*tufpuD;rdk;* /—√/σ∴/κι:/μ∴←:/

(c) Glottal checks /√/ which serve as an onset in the vowel initial words :

	English Model	Burmese Phonemic Replica
	(acting) -	*tdKufwif* /√αι√/τ□|/
	(ice-cream) -	*tdKufpuJif* /√αι√/σ∴/κ∴/φ□|/
	(August) -	*joskwf* /√⌐:/γου√/

However, there is a pattern in which the glottal occurs in two positions simultaneously, that is, across boundaries as well as final ending. This occurs because of the abrupt tone of the words in the two positions mentioned above. Examples are:

English Model		Burmese Phonemic Replica
(cabinet)	-	*uufAdeuf* /κ—√/β□∩/ν—√/
(catalogue)	-	*uufwavmuf* /κ—√/τ∴/λ∴←√/
(Christmas)	-	*crpPrwf* /κ|∴/φ□√/σ∴/μ℘√/
(circus)	-	*qyfuyf* /σ℘√/κ℘√/
(racket)	-	*rufuuf* /φ—√/κ—√/
(bracket)	-	*brufuuf* /β∴/φ—√/κ—√/
(make-up)	-	*rdwfuyf* /μει√/κ℘√/
(metric)	-	*rufxrpf* /μ—√/τ|∴/φ□√/
(automatic)	-	*atmfwdkrufwpf* /⌐:/τ∴←/μ—√/τ□√/
(mud-guard)	-	*rwf8wf* /μ℘√/γ℘√/
(budget)	-	*bwf8suf* /β℘√/δ|ε√/
(dog-cart)	-	*a'gufuyf* /δ∴←√/κ℘√/
(typhoid)	-	*wdkufzGdkuf* /τ□□√/π|□□√/
(plastic)	-	*yvwfpwpf* /π∴/λ℘√/σ∴/τ□√/
(latitude)	-	*vwfwDwGwf* /λ℘√/τ√/τυ√/
(negative)	-	*euf8wpf* /ν—√/γ∴/τ□√/

The above analysis shows that the glottal check is used in a number of possible positions in the adaptation of English loans into Burmese but is most frequently used as the final ending of a borrowed word.

4.3.7 Adaptation of /r/

In the Burmese sound system there are certain sounds which do not exist, like the English /r/ sound. Analysis of the /r/ sound when transliterated into Burmese showed that it is replaced by /φ / sound. However, /r/ sound in a borrowed word when articulated is either replaced with /φ / or /ρ/ depending on the speaker's command of the English language. If a Burmese speaker has a good command of English the substitution of English 'r' with /ρ/ may increase, but the majority of Burmese who do not have such a command of English will pronounce with /φ/. Therefore, both sounds are acceptable as correct pronunciation of the borrowed word. The two possible pronunciations of these words are illustrated as follows:

	English Model	Burmese Phonemic Replica	
		/φ/ sound	/ρ/ sound
	(radar)	* aʃ′g* /φ∴□/δ□/	/ρ∴□/δ□/

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(radio)   *aɟ'𝒟,dꝁ* /φ∴□/δ□/φ∴←/

/ρ∴□/δ□/φ∴←/

(ration)   *ɟmɟ𝒮if* /φ□/♣ν/   /ρ□/♣ν/

(recorder)   *ɟaumfᵗɡ* /φ∴/κ↲:/δ□/   /ρ∴/κ↲:/δ□/

(rubber)   *aɟmfƀm* /φ↲:/β□/   /ρ↲:/β□/

(racket)   *ɟufuuf* /φ—√/κ—√/   /ρ—√/κ—√/

(rifle)   *ɟdꝁifz,f* /φ□□/π |ε□/   /ρ□□/π |ε□/

(registry)   *aɟpp𝒫ɟ𝒟* /φε□/σ□√/σ∴/φ□/

/ρε□/σ□√/σ∴/ρ□/

(royal)   *ɟ𝒢d𝒦ifɟ,f* /φ↲□/φε□/

/ρ↲□/φε□/

(royalty   *&𝒢d𝒦ifɟ,fw𝒟* /φ↲□/φε□/τ□/

/ρ↲□/φε□/τ□/

4.4 Syllabic Structure of Borrowed Words

Syllabic structure of the borrowed words was analyzed for common patterns and the results are presented in the following sections.

4.4.1 Common Syllabic Structure

From analyzing the syllabic structure of borrowed words, the most common syllabic structure is the CV structure, that is consonant and vowel. Wheatley (1987) states that a Burmese syllable minimally has CV structure, where a vowel

is preceded by glottal stop if not by another consonant. This structure is illustrated in the phonemic transcription of the following words:

English Model		Burmese Phonemic Replica
(brassiere)	-	*ḃɟmp 𝔇,m* /β∴/φ□/σ□/φ□/
(driver)	-	*'&dkifɓm* /δ∴/φα□/β□/
(decree)	-	*'𝔇uɟ𝔇* /δ□/κ∴/φ□/
(degree)	-	*'𝔇ɞɟ𝔇* /δ□/γ∴/φ□/
(democracy)	-	*'𝔇rdꝁuaɟp𝔇* /δ□/μ∴←/κ∴/φε/σ□/
(February)	-	*azazmfoɡɟ𝔇* /π |ε/π |⌐:/ω□/φ□/
(helicopter)	-	*ʃ,fv𝔇aum𝓗ywm* ηε/λ□/κ□/π∴/τ□/
(negro)	-	*e𝔇ɞɟdꝁ;* /ν□/γ∴/ρ∴←:/
(ice-cream)	-	*tdꝁufpuɟif* /√αι√/σ∴/κ∴/φ□ |/
(platform)	-	*yvufazmif;* /π∴/λ—√/π |o←:ν/
(plaster)	-	*yvwfpwm (yvmpwm)*
		/π∴/λ□/σ∴/τ□/
(plug)	-	*yvwf* /π∴/λ ℘ √/
(pliers)	-	*yvm,m* /π∴/λ□/φ□/
(operator)	-	*atmfyaɟwm* /⌐:/π∴/φε□/τ□/
(registry)	-	*aɟpp𝒫ɟ𝔇* /φε□/σ□√/σ∴/φ□/
(scale)	-	*pau;* /σ∴/κε□:/
(studio)	-	*pwʃ𝔇,dꝁ* /σ∴/τυ/δ□/φ∴←/
(stadium)	-	*paw'𝔇,ḟ* /σ∴/τε□/δ□/φ ℘ ν/

(stock)   -   *pawn Hf*/σ∴/τ□√/

(whiskey)   -   *ₒDₚuD*/ω\/σ∴/κ\/

4.4.2 Increase in Syllables of a Borrowed Word

Among all the borrowed words (512 words) in this data, 38 words are one

syllabic words and the rest consist of at least two syllables or more. The

borrowed words generally have more syllables than the English models,

therefore the length of a borrowed word in Burmese would be longer than the

same word in English. For example:

<u>English Model</u>   <u>Burmese Phonemic Replica</u>

/∩πλ□ɔσ/τ∴ρ/ (two syllables)   -   /π∴/λ□/σ∴/τ□/   (four
syllables)

/∩στφυɔ/δ\)∴←/ (two syllables)   -   /σ∴/τυ/δ□/φ∴←/   (four
syllables)

/δ\)∩/μ□κ/ρ∴/σι/ (four syllables) -   /δ□/μ∴←/κ∴/φε/σ□/ (five syllables)

/ηε/λ\)/κ□π/τ∴ρ/ (four syllables) -   /ηε/λ□/κ□/π∴/τ□/   (five syllables)

/ω\σ/κι/   (two syllables)   -   /ω\/σ∴/κ\/   (three syllables)

From the above analysis we know that each consonant is followed by a vowel.

Consonants do not stand alone. It is always followed by a vowel and therefore

each syllable is tonal and is lengthy in comparison to its English model.

4.5 English Borrowings in Thematic Domains

The English source words in the corpus were categorized according to a domain they belonged to. The domains and the frequency of borrowings in each are discussed in the following sections.

4.5.1 Domains of the English Borrowings

Categorization of the borrowed words resulted in 15 different thematic domains. The category with the highest frequency of borrowings is presented first, followed by the category with the second highest frequency, the third and so on. The order of the thematic domains according to total number of words are as follows:
(1) Science/Technology, (2) People, (3) Things, (4) Recreation (5) Law & politics, (6) Clothing/cloth, (7) Measures, (8) Transport, (9) Food & Drink, (10) Military, (11) Time, (12) Nature, (13) Education, (14) Economy, and (15) General.

The frequency of English borrowed words in the thematic domains are shown in Table 4.4.

Table 4.4 :Distribution of Borrowed Words According to Thematic Domains

No	Semantic Categories of Loans	Frequency	Percentage(%)
1	Science/Technology	96	18.75
2	People	75	14.65
3	Things	55	10.74
4	Recreation	41	8.01
5	Law & politics	38	7.42
6	Clothing/cloth	38	7.42
7	Measures	35	6.84
8	Transport	27	5.27
9	Food & drink	22	4.30

10	Military	20	3.91
11	Time	17	3.32
12	Nature	16	3.13
13	Education	12	2.34
14	Economy	10	1.95
15	General	10	1.95
	Total	**512**	**100.00**

As can be clearly seen from Table 4.4, the domain that has the most lexical borrowings is 'Science and Technology' with 96 words (18.75%). This is closely followed by the 'People' domain with 75 words (14.65%) and the 'Things' domain with 55 words (10.74%). The 'General' domain consists of a variety of borrowed words that could not be categorized into any of the specific domains, as such it does not represent any specific area of human activity. Hence, the specific thematic domains with the lowest number of lexical borrowings are 'Education' with 12 words (2.34%) and 'Economy' with 10 words (1.95%). Table 4.4 clearly shows that the science and technical domain has the largest number of loanwords (96) words in the corpus. Therefore, it can be assumed that the greatest need for English borrowings has been in the field of science and technology which is consistent with the fact that the predominant language of science and technology worldwide is English.

All 512 words in the 15 thematic domains were further classified into sub-domains, under more specific thematic headings.

4.5.1.1 Science & Technology

This domain is divided into the following sub-domains as shown in Table 4.5:

Table 4.5 : Frequency of Loans in Science and Technology Category

1. SCIENCE & TECHNOLOGY		
i. Technical equipment	photostat, automatic, transistor, telephone,	7
	computer,electronics, camera,	
ii. Medicine/Diseases	quinine, glycerin, tonic, tincture, DDT, protein,	22
	phenol, vitamin, BCG, morphine, hormone,	
	plaster, penicillin, liniment, iodine, typhoid	
	syphilis, TB, plague, polio, cancer, pancreas,	
iii. Chemistry/Chemical	gypsum, turpentine, neon, proton, varnish,	27
	polish, potash, mercury, molecule, hydrogen	
	washing-soda, acid, atom, oxygen, oxide, urea,	
	nucleus, nuclear, neutron, silica, ozone, laser,	
	carbon, carbolic, permanganate, xenon, helium	
iv. Metal	nickel, platinum, plutonium, radium, graphite,	6
	Uranium	
v. Machines/Parts	carbine, generator, bulldozer, engine, gear, tyre,	21
	battery-box, brake, dynamo, bumper, bearing,	
	boiler, mud-guard, tractor, crane, wireless,	
	battery, lever, mortar, overhaul, mono-word (block).	
vi. Science	negative, positive, volt, Pluto, amoeba, electron,	13
	argon, ultra violet rays, Uranus, Neptune, watt,	
	prism, circular.	
Total		**96**

Distribution of words in the sub-categories are: Chemistry/Chemical (27),

medicine/diseases (22), machines/parts (21), science (13), technical equipment

(7) and metal (6). According to the frequencies in the table, it is clear that the domains of Chemistry/Chemical, Medicines/Diseases and Machines/Parts have the most borrowed words, possibly because the Burmese language lacked the lexicon to define the meaning or concepts precisely within the scope of a single word.

Since British colonization of Burma, words that did not exist in Burmese were possibly borrowed from English and the most words taken were for machines and medicine as well as words related to diseases, chemistry and chemicals. This shows that chemical, medical and scientific terms like molecule, urea, oxygen, etc. are words that are indeed difficult to be replaced by native words. Here it is noted that the data collected from the revised edition included words such as 'computer', 'solar energy', and 'ultraviolet rays' that were not published in the older edition.

4.5.1.2 People

Of the 75 words in this domain, which accounted for 14.65% of borrowed words in the corpus, 5 sub-domains emerged as shown in Table 4.6. These are occupation, groups, places , religion, and race.

Table 4.6 : Frequency of Loans in People Category

2. PEOPLE		
i. Occupation	contractor, captain, compounder, operator, champion, driver, chairman, joker, manager, secretary, sergeant, director, doctor, editor, police, fore-man, over-seer, engineer, boarder, leader, pin-min (laundry-man), consul, warder, king, queen, pension, jobbing, royal,	28
ii. Groups	communists, syndicate, corporation, party cadre, committee, council, company, cartel, union, procol, sub-committee, conference, royalty, commission	14
iii. Places	zone, studio, stadium, district, platform, bloc, bank, bunker, veranda, club, pyramid, gate, workshop, hotel, Arctic, oasis, empire, area, bar, counter, guard, Rome, equator, Antarctic	24
iv. Religion	Christ, Christian, Christmas, Jesus, Roman Catholic	5
v. Race	Eskimo, Negro, Jews, Latin	4
Total		**75**

The category that furnishes most loanwords is the domain of people with
occupation (28), groups (14), places (24), religion (5) and race (4). Here the
occupations of people such as 'jury', 'bailiff', 'captain', 'contractor' and 'sergeant'
suggest that these words were borrowed during the colonial period where they
existed in the English judiciary and military language and were assimilated into
the Burmese language.

In the sub-domain of religion, the words included in the corpus are related to Christianity. This is possibly because, with colonization, Christian missionaries arrived in Burma and brought along a new religion which the Burmese language had no words to describe, hence leading to certain lexical borrowings like 'Christian' and 'Christmas' from English.

Lexical items in the 'Place' domain, like 'veranda', 'club', 'bank', 'platform', and 'studio' suggest that these borrowed words are some of the features of Western culture that have become salient to the Burmese people.

4.5.1.3   Things

This domain which consist of 55 words and accounts for 10.74% of borrowed words resulted in two sub-categories as shown in Table 4.7.

 (i)   household   (38)
(ii)   tools   (17)

Table 4.7 : Frequency of Loans in Things Category

3. THINGS		
i. Household	sofa, token, tank, diary, nip, fountain-pen, plastic, poster, postcard, pipe, pin, powder, boudoir, bat, mug, rubber, horn, coupon, parcel, wire, lino, album, cabinet, card, tube, putty, bow, book, magazine, cigarettes, form, block, autograph, ledger, catalogue, Vaseline, concrete, voucher	38
ii. Tools	chain, spring, pliers, plug, pulley, search- light, file holder, bracket, peri-scope, pinion, buoy washer, whistle, thermometer, clip, jack, file	17

Total		**55**

The third category that has most of the loans is in the 'Things' category where household items make up 38 words and tools make up 17 words of the borrowed items. In this category, words describing consumer goods like 'sofa', 'boudoir', 'plastic', 'mug', 'plug', 'pliers', 'pipe', 'album' and 'cabinet' can be found. These are words concerning western household and tools items which cannot be replaced by Burmese words.

4.5.1.4 Recreation

This domain has 41 words, with a percentage of 8.01% of the borrowed words.

The words in this domain are divided into sub-domains as shown in Table 4.8

(i)   entertainment   (27)
(ii)   sports   (14)

Table 4.8 : Frequency of Loans in Recreation Category

4. RECREATION		
i. Entertainment	guitar, banjo, mandolin, harmonica, harmonium, accordion, opera, acting, academy, censor, film, cassette, setting, stunt, cartoons, circus, tape outdoor, ballet, television, radio, recorder, t.v., stereo, tape-recorder, video, bioscope	27
ii. Sports	polo, billiards, ball, volleyball, basketball, marathon, racket, hockey, Olympics, diving, goal, golf, poker, ping pong.	14
Total		**41**

Recreation is the fourth highest domain in terms of frequency of borrowed words in the corpus. Here, sports like 'golf', 'polo', and 'hockey' used to be the activities of colonial powers and words like 'guitar', 'banjo', 'mandolin', 'harmonica', 'accordion', 'cartoons' and 'circus' in the entertainment sector are lexical items which reflect the preoccupations of the colonial powers in the sports and entertainment fields.

4.5.1.5 Law & Politics

The fifth largest domain is law and politics. 38 words or 7.42% of the total borrowed words fall into this domain as shown in Table 4.9

Table 4.9 : Frequency of Loans in Law & Politics Category

5. LAW & POLITICS	contract, jury, bailiff, gazette, tender, decree, notice, proof, permit, policy, summary (judgement), license, order, democracy, party, party-unit, parliament, board, municipal, bureaucracy, politburo, congress, autocracy, act, code, socialism, diarchy, fascist, remand, warrant, summons, bureaucrat, grant, veto, registry, colony, power, visa.	38
Total		**38**

The borrowing of lexical items in these areas could be due to the fact that these words are related to the era of colonization and the advancement of systematic administration in the government sectors where quite a number of words like 'parliament', 'congress', 'democracy' have been borrowed. It also indicates the

judiciary system that Burma has today. By looking at words like 'jury', 'bailiff', 'decree', it indicates that Burma has not only borrowed English words for its legal system but possibly adopted the English judiciary system.

4.5.1.6 Clothing/cloth

38 words fall into this domain which accounts for 7.42% of borrowed words in the corpus. These words are presented in Table 4.10.

Table 4.10 : Frequency of Loans in Clothing Category

6. CLOTHING/ CLOTH	khaki, collar, coat, gown, jacket, jersey, fashion, sweater, tatting, nylon, plaid, poplin, brassiere, brocade, bail, bodice, marcelite, muffler, design, uniform, rayon, shawl, shirt, long-coat, linen, hem, Hawaiian shirt, organdy, zip, tarpaulin, chemise, sheet, boot, shoe, locket, georgette, flannel, style	38
Total		**38**

Clothing also takes the sixth place. Words like 'khaki', 'coat', 'muffler', 'shirt', 'linen', 'collar', 'gowns', 'boots' were part of various types of clothing worn by Westerners during the colonial era and 'khak'i, 'boots' indicates the presence of military during and after World War ll. Up till now these words are widely used in the daily lives of Burmese people with only minor modifications, like adding a classifier to the root word. Example:

'coat' becomes /κουν√/ε⟩|/δ|□/   /ε⟩|/δ|□/ is a classifier for dress.

'boot' becomes /β←√/π|∴/ν℘√/   /π|∴/ν℘√/ is a classifier for

shoes.

4.5.1.7 Measures

35 words or 6.84% of the loans were classified in this domain of 'Measures' as

shown in Table 4.11

Table 4.11 : Frequency of Loans in Measures Category

7. MEASURES	carat, kilogram, kilometer, kilolitre, kilowatt, kilohertz, compass, gram, gallon, quarter, quart, gross, scale, stone, pound, pint, furlong, fahrenheit, metric, mile, unit, line block, ounce, acre, ton, cube, dozen, centigrade, tally, dial, millimeter, gauge, grain, number, contour,	35
Total		**35**

This domain has a mixture of two types of weighing and measuring system, one

is British which includes the terms such as 'pounds', 'pints', 'quarter', and 'stone'

and the other is metric system which has such terms as 'kilogram', 'kilometer',

and 'kilowatt'. These are terms which have been borrowed to describe the

systems implemented to standardize the weighing and measuring units used in

Burma with the measuring systems found in the world.

4.5.1.8   Transport

This domain has 27 words which account for 5.27% of the borrowed words as presented in Table 4.12.

Table 4.12 : Frequency of Loans in Transport Category

8. TRANSPORT	jet, jeep, saloon-car, sedan-car, side-car, car, taxi, truck, diesel, dodge-jeep, dog-cart, buggy, local train, lorry, line, line-bus, helicopter, gig, motorcar, motorcycle, motorboat, auto, motor, shunting, bus-car, sleeper, bicycle,	27
Total		**27**

'Transport' domain has been placed in the eighth position. This domain shows the advancement in the transportation sector from 'buggy' to 'bicycle', 'motorcycle', 'jeep', 'train', 'helicopter' and 'jet'.

4.5.1.9   Food/Drinks

22 words or 4.30% of borrowed lexical items fall into this domain which is considered the ninth largest domain. The borrowed words concerned with food and drinks are shown in Table 4.13.

Table 4.13 : Frequency of Loans in Food & Drink Category

9. FOOD/ DRINKS	coffee, cocoa, chicory, soda, barley, brandy, beer, champagne, lemonade, whisky, wine, cake, chocolate, salad, toffee, beef-steak, ice-cream, ration, soup, biscuit, bun, rum	22

Total		**22**

Many of the borrowed words in this domain relate to Western dietary habits like 'beef-steak', 'ice-cream' and even 'salad'. The borrowed words pertaining to this area of human activity are all related to Western food and beverages such as 'soda', 'brandy', 'champagne', 'rum' and 'coffee'. It is words like these which probably entered Burma together with its colonial powers.

4.5.1.10 Military

20 words fall into this domain and the percentage of borrowed words is 3.91%. This is shown in Table 4.14.

Table 4.14 : Frequency of Loans in Military Category

10. MILITARY	cadre, cruiser, tank-car, time-bomb, torpedo, tommy-gun, bazooka, bran-gun, rifle, oligun, mines, dynamite, drill, demine, radar, wireless-car, bomb, napalm bomb, mine-bomb, grape (shot).	20
Total		**20**

Nearly all the words in this domain are related to weapons of war. 16 of the 20 items describe the various kind of weapons, which are used for shooting and blowing up the enemy. Therefore it can be assumed that these words described military artillery used by the British military to attack enemies during operations in the World War II.

4.5.1.11   Time

17 words fall into this domain describing time and the its percentage of total

borrowed words is 3.32%. The words are presented in Table 4.15.

Table 4.15 : Frequency of Loans in Time Category

11. TIME-MONTH	January, February, March, April, May Day, June, July, August, September, October, November, December, light year, minutes, Greenwich, AD, BC	17
Total		**17**

Most words are the names of months according to the English calendar. The use

of these words is possibly because the months in Western calendar have been

widely accepted in daily transactions, both in official and unofficial circumstances.

The use of 'BC' or 'AD' to refer to years in historical time was probably introduced

during British colonial administration as well, hence the integration of these

words into the Burmese language as Burmese words.

4.5.1.12   Nature

The 'Nature' domain consists of 16 words which account for 3.13% of the loans

and has been divided into sub-domains as shown in Table 4.16.

Table 4.16 : Frequency of Loans in Nature Category

12. NATURE		
i. Animals	dinosaur, Muscovy (duck), kiwi, penguin, insect	5
ii. Plants	zinnia, root plant, coca, Virginia (tobacco plant), cocaine	5

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iii. Flowers	daisy, dahlia	2
iv. Fruits	strawberry, cherry, kiwi	2
v. Trees	mahogany, eucalyptus	2
Total		**16**

The low frequency of words in this domain is possibly due to the fact that Burma has its own names for plants, trees, flowers, fruits and animals found in Burma itself.   The borrowed words in this domain reveal possibly plants, flowers and fruits not native to Burma but its use has become common leading to assimilation of these words into the Burmese language.

4.5.1.13   Education

12 words or 2.34% of the total number of borrowed lexical items fall into this domain of 'Education'. This is shown in Table 4.17.

Table 4.17 : Frequency of Loans in Education Category

13. EDUCATION	college, geometry, degree, theory, logarithm, longitude, latitude, graph, university, theorem, diploma, journal	12
Total		**12**

Based on the words in this domain, Burma has colleges and universities with a mathematic system that is fairly advanced with words like 'logarithm', 'theorem' and 'graph' in use. On the other hand, the low frequency of borrowed words in this domain might be due to the fact that during the pre war and post war periods,

education was mainly conducted in English and therefore the need to borrow English words did not arise.

4.5.1.14   Economy

10 words fall into this domain of 'Economy' which has a percentage of 1.95%. The words are presented in Table 4.18.

Table 4.18 : Frequency of Loans in Economy Category

14. ECONOMY		
Banking/Money	cheque, dollar, stock, penny, bill, budget, share, shilling, over-time, premium	10
Total		**10**

This domain contains words like bill, cheque, premium, budget which deals with the necessary transactions in the daily life of people. The low frequency of words in this domain is possibly due to the fact that there are Burmese words that adequately represent the daily transactions in Burmese society.

4.5.1.15   General

10 words or 1.95% of borrowed words   are in this 'General' domain as shown in Table 4.19.

Table 4.19 : Frequency of Loans in General Category

15. General	point, hello, project, popular, make-up,	10

	copy, column, jam, sign, ditto	
Total		**10**

Words that could not be categorized according to any of the other domains stated in this chapter were grouped into a general category. Words like 'point', 'hello', 'popular', 'make up', 'jam' and ' ditto'.

Based on the findings above, one of the reasons why lexical borrowings have taken place is because of the lack of suitable lexicon in the Burmese language, as there was a need to describe new words and new concepts which the Burmese did not posses in the Burmese language. Burmese did not have words which could describe the whole meaning in a single word, and as borrowing of a single English word was possibly more convenient, the word was first borrowed and adapted and eventually integrated into the system. This is the reason why most of the borrowings (18.75 %) occurred in the Science and Technology domain.

4.6 Conclusion

From the above findings, we come to know that, in the transferring process, there are many patterns which English lexical items undergo to become a part of the Burmese language. Some of the transformation that these English words undergo when adopted into the Burmese language include the rephonalization

and modification of phonemes, decreasing and increasing of syllables as well as a complete shift in form.

The findings based on English loanwords, using Haugen's classification system for the types of borrowed words, reveals that the influence of English borrowings on the Burmese language is mainly in the form of partial substituted loanwords. Evidence of other forms of substitution also exist, but are second to partial substitution. None substituted loans are minimal due to the fact that when words are borrowed, they have to go through phonemic transformation, before they are accepted into the borrowing language, meaning, Burmese morphological and phonological systems play a big role in transforming the words as they are being used today. Therefore, we can say that, phonemic substitution is the most common type of adaptation of English loans into Burmese.

Nearly all of the words borrowed are nouns, and these words are cited in the nominate singular forms as this is the simplest form of transfer from English to Burmese. This is in line with the work of Whitney (1881) which stated that nouns are borrowed more easily than other parts of speech. It also concords with Haugen's statement, which says "Nouns showed least resistance to borrowing, then the other parts of speech in an ascending scale (Haugen, 1969, p. 405)".

Classification of the English loans into different semantic categories revealed that Science and Technology was the domain with the highest number of borrowings.

This finding seems to agree with other studies (English borrowings in different languages of the world) in which most borrowed words from English are in this domain. On the other hand, the absence of borrowings from certain categories like journalism, language and literature seems to suggest that perhaps in these domains, the Burmese language is able to meet the lexical needs of Burmese society and therefore has no need for borrowed words.

CHAPTER FIVE

CONCLUSION

5.0   Introduction

The aim of this study is to investigate English lexical borrowings in Burmese, specifically the type and manner of borrowing as well as the spheres of human activity that gave rise to such borrowings. In order to investigate the problem, English lexical borrowings extracted from a Burmese monolingual dictionary were analyzed using Haugen's classification framework. The findings of this study established the main types of lexical borrowing, the predominant manner of loanword borrowing, as well as specific patterns of phonemic adaptation that the English words underwent in the process of integration into the Burmese language. In addition the findings established the domains of human activity that furnishes the most borrowings. This chapter draws conclusions on the type and manner of borrowing and the domains of human activity. It also discusses the significance and implications of the study as well as makes suggestions for further research.