Chapter VII

Relationship between the T(r) and the E(r)

In Chapter V, the emphasis was put on variation of the T(r) by three separate social factors: sex, job level and English language background, followed by an analysis of variation of the E(r) by the same social variables. In the following chapter, Chapter VI, a more complex analysis of variation of the T(r) and E(r) was presented. Each phonological variable was related to each of the social factors when the other two were controlled. Thus, the patterns of variation of the T(r) and E(r) have all been presented but in different sections. They have not been compared although in the course of the report (Chapters 5 and 6) striking variation differences between the two may have been quite obvious. Neither has the relationship between the two phonological variables been discussed. The extent of language transfer (2.3) and borrowing cannot be established until such a relationship is known.

As a matter of fact, a general pattern of variation of the T(r) and the E(r) have once been compared (in 4.7) when variants of the variables were described and their frequencies presented. However, no social factors were

taken into consideration as it was not time as yet for them to be introduced.

Comparisons of the T(r) and E(r) variation of various social and social sub-groups reveal that the speakers possess two separate phonological systems and they switch the variants used in conversation according to the language they are speaking. In Thai. they make an extensive use of prevocalic [l] and [ø] in clusters whereas in English they use [ɹ] most frequently. The rate of [ɹ] in Thai is rather low when compared to the use of prevocalic [l] or [ø] in English. The use of [r] is minimal in both languages. Details of the comparisons are presented in the following sections.

7.1 Comparison of the T(r) and the E(r) in different sex groups

Both male and female speakers use extensively the stigmatized T(r) variants, i.e. [l] in the prevocalic position and r-dropping in clusters. As for the E(r), they prefer most the prestigious form [ɹ]. The details are as follows:

7.1.1 Male

Table 7.1 and the corresponding Figures 7.1a-7.1b show that male speakers use prevocalic [l] and r-deletion for the T(r) more than 80% each. In English, they pronounce the same variants less than 40%. The rate of the stigmatized variants in English is less than one half of that in Thai. [ɹ] accounts for only less than 9% in Thai but it occurs for 61% in the prevocalic position and 42% in clusters. [l] in clusters becomes more frequently used in Thai than in English. The use of [r] is minimal in both languages.

Table 7.1- Frequency of T(r) and E(r) variants of the male group

	T(r)	E(r)
Prevocalic		
[ɾ]	2.1%	1.7%
[ɹ]	8.9%	61.2%
[l]	89.0%	37.1%
Total	100%	100%
	(N=2,142)	(N=702)
Postconsonantal		
[ɾ]	1.9%	0.9%
[ɹ]	8.1%	42.1%
[l]	8.0%	17.4%
[ø]	82.0%	39.6%
Total	100%	100%
	(N=1,279)	(N=563)

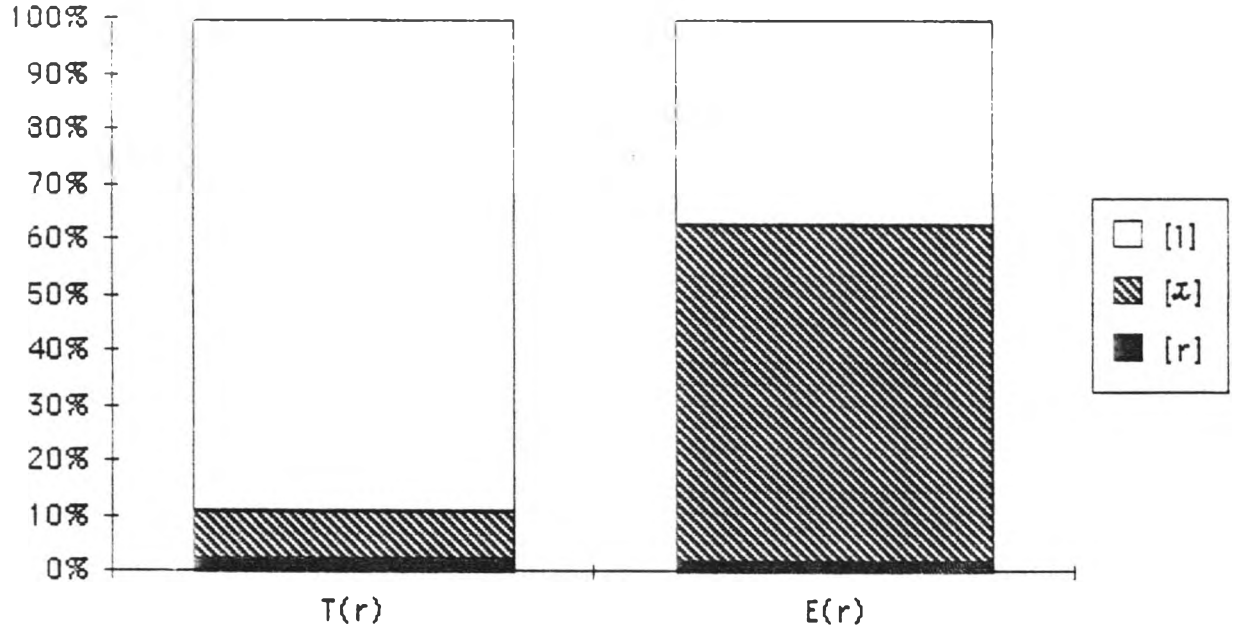


Figure 7.1a-Frequency of prevocalic T(r) and E(r) variants of the male group

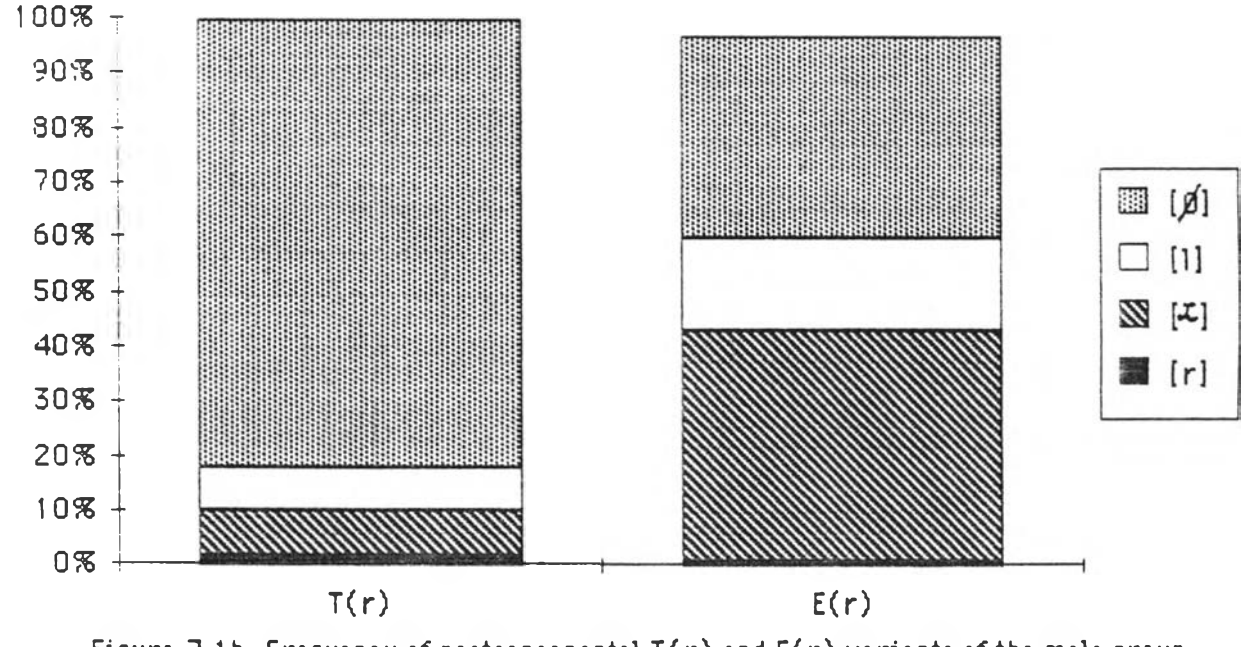


Figure 7.1b-Frequency of postconsonantal T(r) and E(r) variants of the male group

7.1.2 Female

A similar picture emerges for female speakers. As can be seen from Table 7.2 and its corresponding Figure 7.2a. in the prevocalic position, [l] in Thai accounts for more than 90% but in English it accounts for less than 30%. That is, female speakers use [l] variant in English less than one-thirds of [l] in Thai. A statistical analysis shows that there is a positive correlation between the use of [l] in English and [l] in Thai in the prevocalic position of female speakers as a whole (see Table 7.20). [ɹ] accounts for two-thirds in English but in Thai it occurs only 3%. The use of [ɹ] is equal (4%) in the prevocalic position.

In clusters, the frequency of r-reduction is three-quaters of all postconsonantal occurrences in Thai. That accounts for more than twice the rate of [ø] in Engish. The use of [ø] in Thai and [ø] in English of female speakers as a whole is found to correlate (see Table 7.20). The rate of [ɹ] in Thai is still very low in comparison to [ɹ] in English which accounts for more than half of all occurrences. The use of [l] is approximately equal although it tends to be more often used in English. [ɾ] accounts for 5% in Thai but it is nearly non-existent in English.

Table 7.2- Frequency of T(r) and E(r) variants of the female group

	T(r)	E(r)
Prevocalic		
[ɾ]	4.5%	4.1%
[ɹ]	3.0%	67.5%
[l]	92.5%	28.4%
Total	100%	100%
	(N=2,186)	(N=804)
Postconsonantal		
[ɾ]	5.0%	0.6%
[ɹ]	7.2%	56.0%
[l]	12.0%	13.3%
[ø]	75.8%	30.1%
Total	100%	100%
	(N=811)	(N=481)

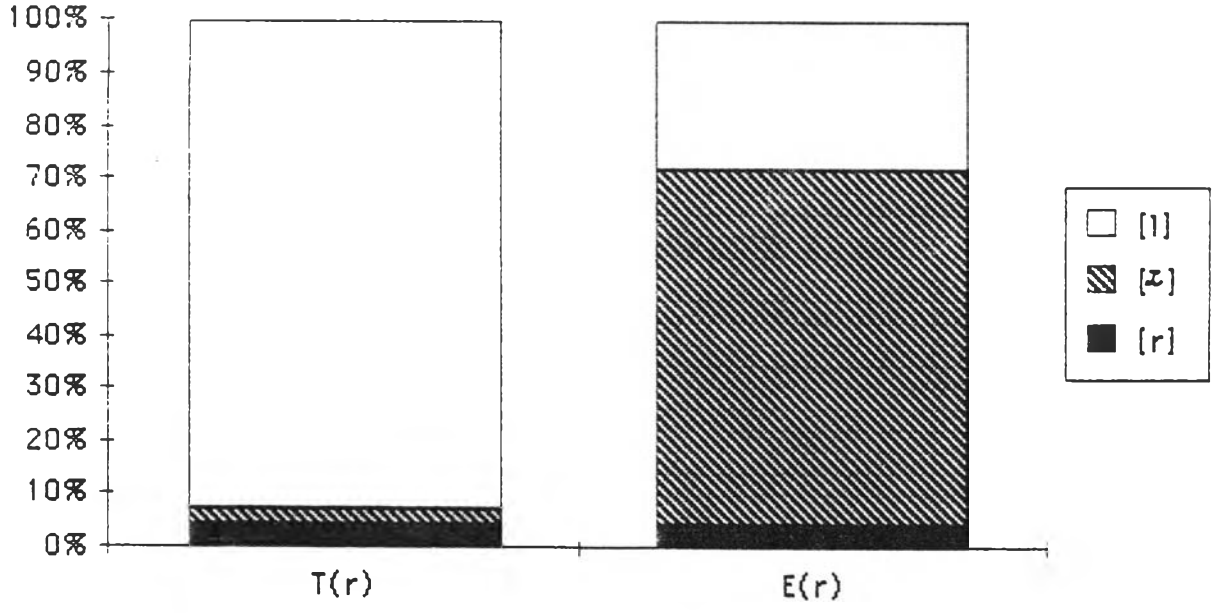


Figure 7.2a-Frequency of prevocalic T(r) and E(r) variants of the female group

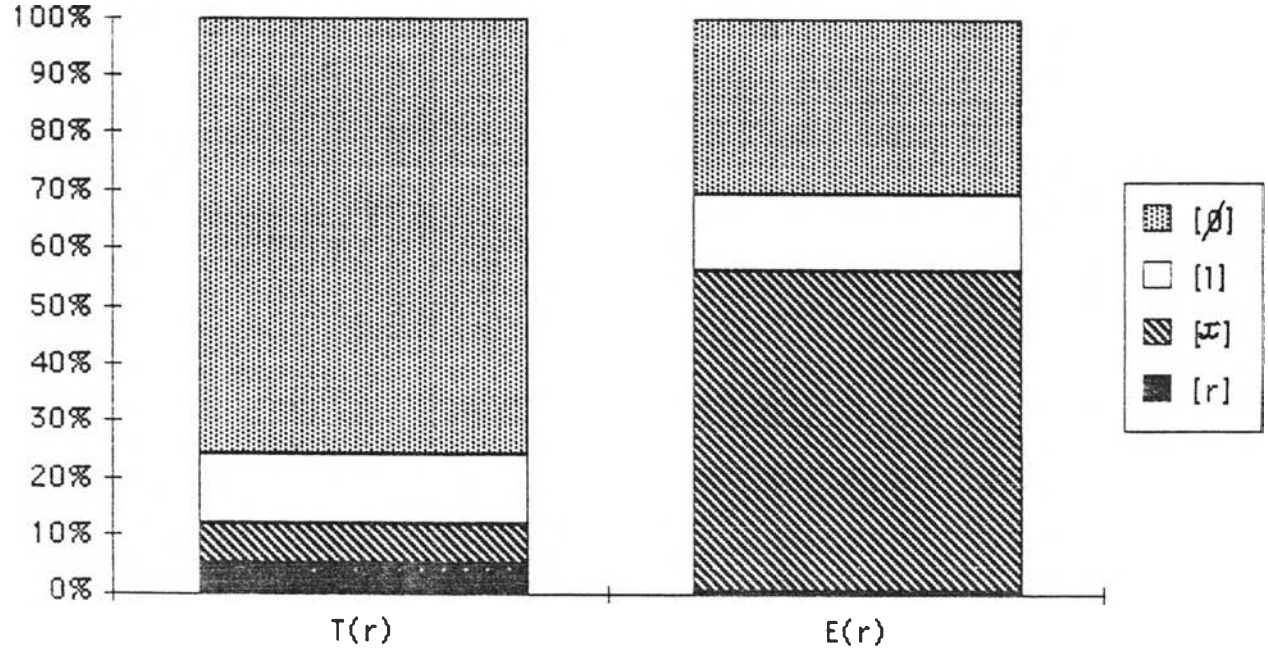


Figure 7.2b-Frequency of postconsonantal T(r) and E(r) variants of the female group

7.2 Comparison of the T(r) and the E(r) in different job levels

A similar pattern of difference is obvious among speakers of different job levels. In Thai, the use of [l] and [ø] prevails in the prevocalic and postconsonantal position, respectively whereas in English, [ɹ] is the most favoured variant.

7.2.1 Job level I

As can be seen from Table 7.3, and Figure 7.3a. in the prevocalic position, speakers of the managerial level have an equal high frequency of [l] in Thai and [ɹ] in English though the former is the stigmatised T(r) variant. In contrast, the rate of [l] in English is only less than one-fourths of that in Thai.

Likewise, in clusters (Figure 7.3b), r-dropping predominates in Thai and accounts for more than twice the rate in English. [ɹ] accounts for only 10% in Thai but it is used more than half of all postconsonantal occurrences in English. [l] is more pronounced in English than in Thai. The use of [r] always trails far behind with a greater use in Thai than in English.

Table 7.3- Frequency of T(r) and E(r) variants of Job level I

	T(r)	E(r)
Prevocalic		
[ɾ]	6.2%	2.0%
[ɹ]	12.5%	81.4%
[l]	81.3%	16.6%
Total	100%	100%
	(N=1,090)	(N=511)
Postconsonantal		
[ɾ]	3.3%	2.2%
[ɹ]	9.4%	56.7%
[l]	12.9%	14.5%
[ø]	74.4%	26.6%
Total	100%	100%
	(N=583)	(N=372)

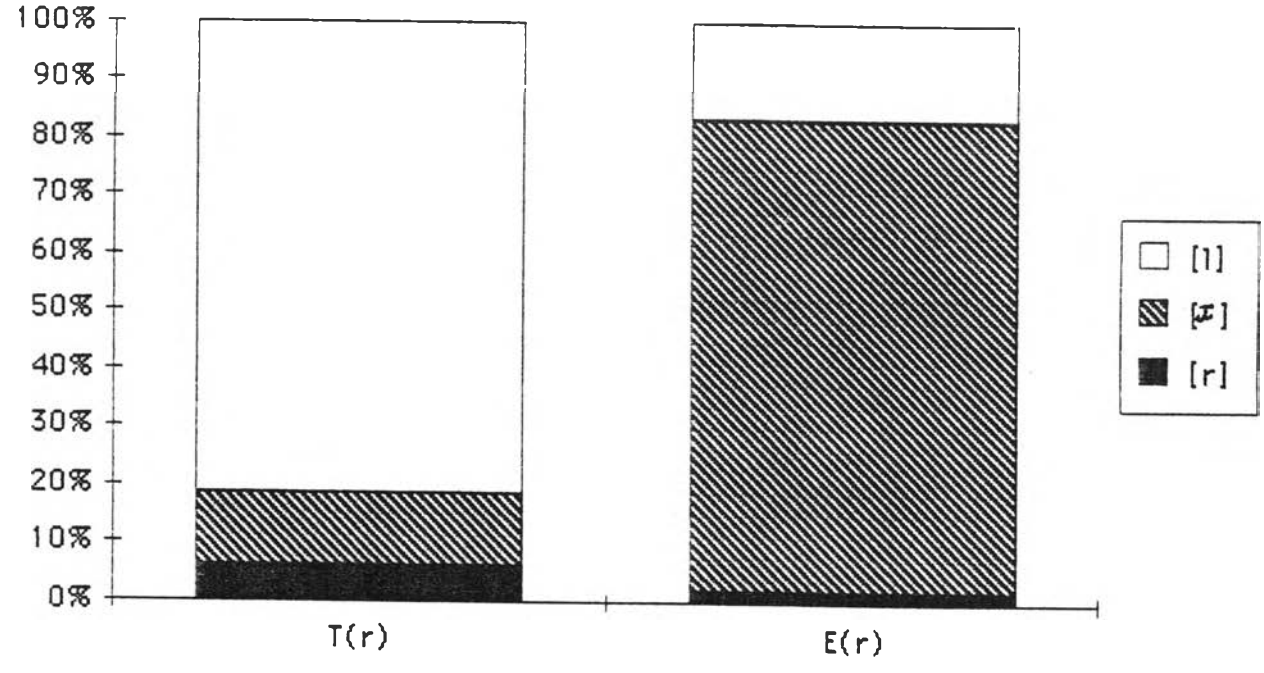


Figure 7.3a-Frequency of prevocalic T(r) and E(r) variants of Job level I

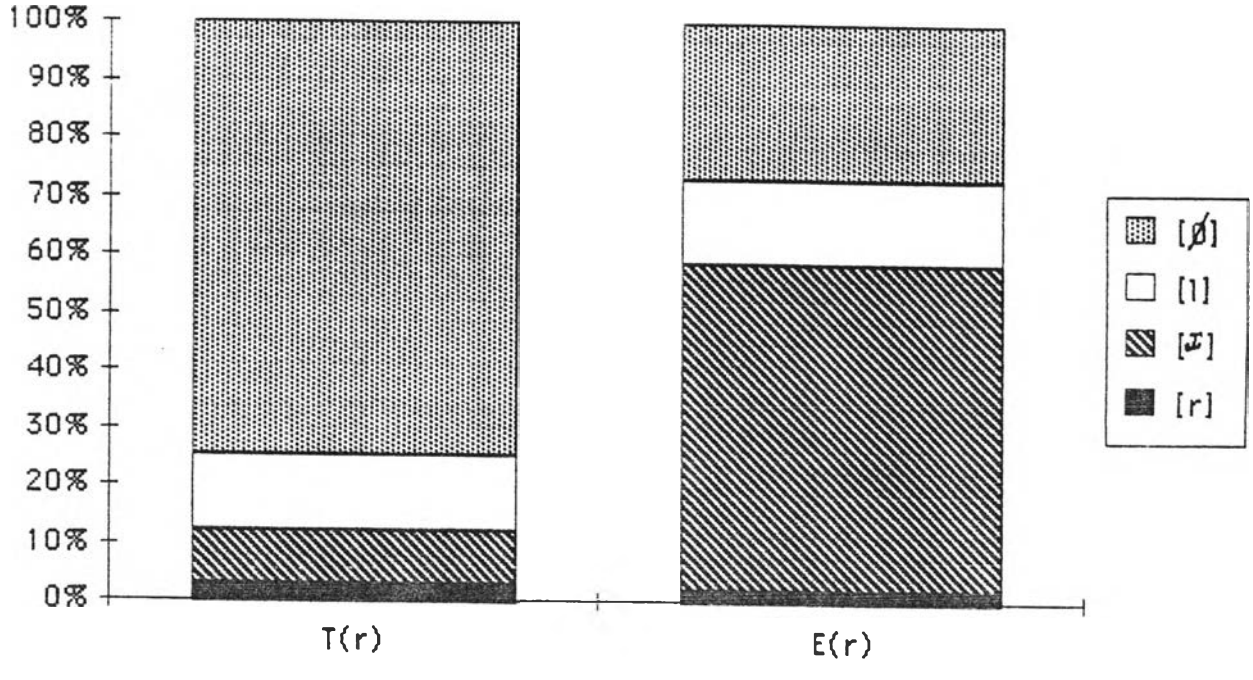


Figure 7.3b-Frequency of postconsonantal T(r) and E(r) variants of Job level I

7.2.2 Job level II

The patterns of T(r) and E(r) usage of the supervisory position are presented in Table 7.4 and its corresponding Figures 7.4a-7.4b.

As illustrated in Figure 7.4a, in the prevocalic position, Job level II speakers almost make an exclusive use of [l] in Thai. The rate of [l] in Thai is twice and a half greater than [l] in English. When speaking English, the speakers use [ɹ] more than half of all the occurrences whereas in Thai it occurs only 2%. The rate of [ɾ] in English is surprisingly twice higher than [ɾ] in Thai. It is shown in Table 6.8 that it is middle status female speakers with less English exposure who pronounce [ɾ] in English at a rather high rate. A closer examination on the data reveals that most of [ɾ] pronunciations come from one speaker who may have aimed at the prestigious E(r) form but mistakenly pronounced the tap [ɾ].

In clusters (Figure 7.4b), the stigmatized r-deletion predominates in Thai. The rate of [ø] in Thai is twice and a half as much as [ø] in English. The rate of [ɹ] in Thai is only 6% while in English it accounts for nearly half of the occurrences in clusters. The speakers obviously make greater use of [l] in English than in Thai. [ɾ] disappears altogether in E(r) clusters.

Table 7.4- Frequency of T(r) and E(r) variants of Job level II

	T(r)	E(r)
Prevocalic		
[ɾ]	2.6%	5.9%
[ɹ]	2.4%	56.8%
[l]	95.0%	37.3%
Total	100%	100%
	(N=1,127)	(N=338)
Postconsonantal		
[ɾ]	4.6%	-
[ɹ]	4.2%	49.2%
[l]	8.6%	17.7%
[ø]	82.6%	33.1%
Total	100%	100%
	(N=476)	(N=266)

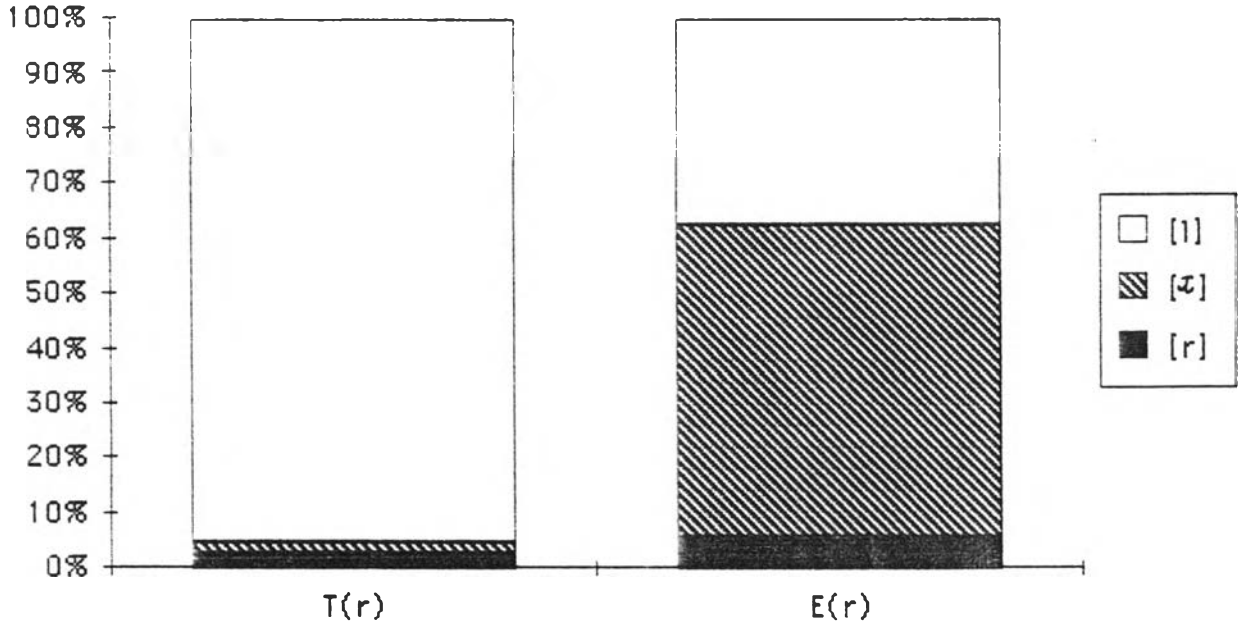


Figure 7.4a-Frequency of prevocalic T(r) and E(r) variants of Job level II

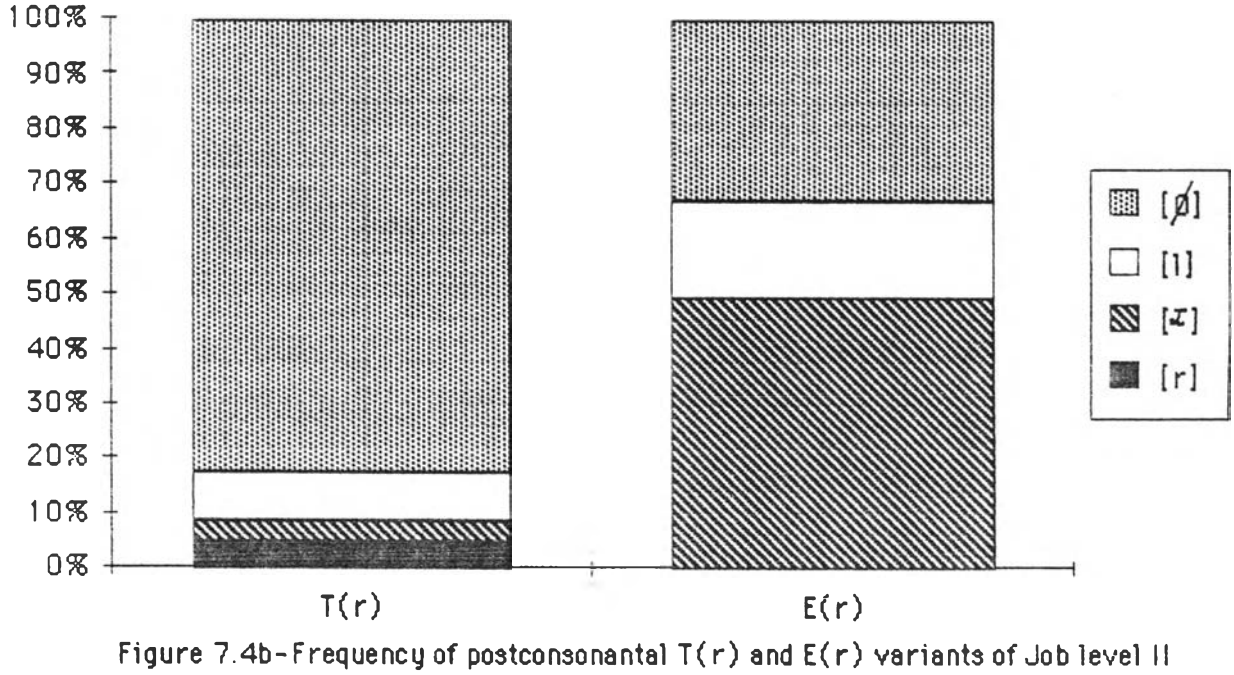


Figure 7.4b-Frequency of postconsonantal T(r) and E(r) variants of Job level II

7.2.3 Job level III

As have been analyzed in 5.1.2 and 5.2.2, the patterns of T(r) and E(r) variation of skilled employees are identical to the supervisory (Job level II). As illustrated in Table 7.5 and the corresponding Figures 7.5a. in the prevocalic position speakers of skilled group also use [l] extensively in Thai but they pronounce it twice and a half less in English. [ɹ] accounts for more than half of all occurrences in English whereas in Thai it is rarely used.

Figure 7.5b shows that in clusters, the speakers use r-dropping in Thai extensively too. However, in English, it occurs less than half the frequency in Thai. The variant they prefer most in English is [ɹ], accounting for approximately half of all postconsonantal tokens. [l] in clusters once again occurs more in English than in Thai.

Table 7.5- Frequency of T(r) and E(r) variants of Job level III

	T(r)	E(r)
Prevocalic		
[ɾ]	2.0%	2.5%
[ɹ]	2.2%	58.6%
[l]	95.8%	38.9%
Total	100%	100%
	(N=1,088)	(N=355)
Postconsonantal		
[ɾ]	1.8%	-
[ɹ]	7.5%	49.0%
[l]	11.1%	14.4%
[ø]	79.6%	36.6%
Total	100%	100%
	(N=495)	(N=202)

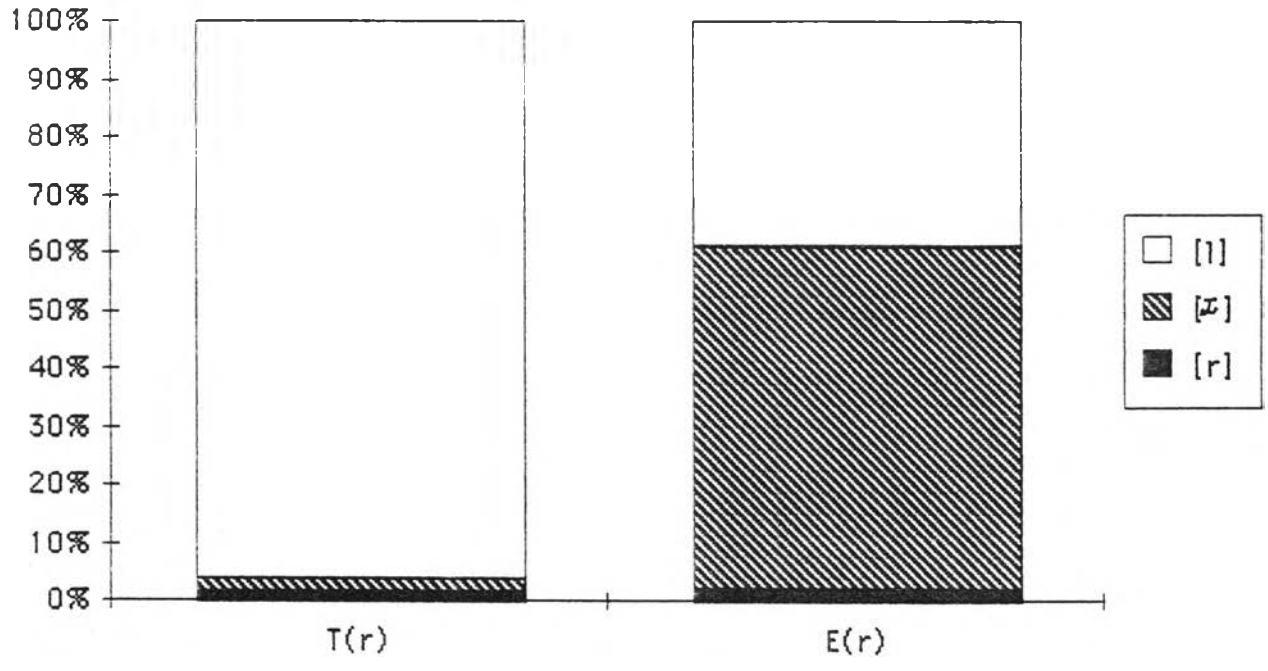


Figure 7.5a-Frequency of prevocalic T(r) and E(r) variants of Job level III

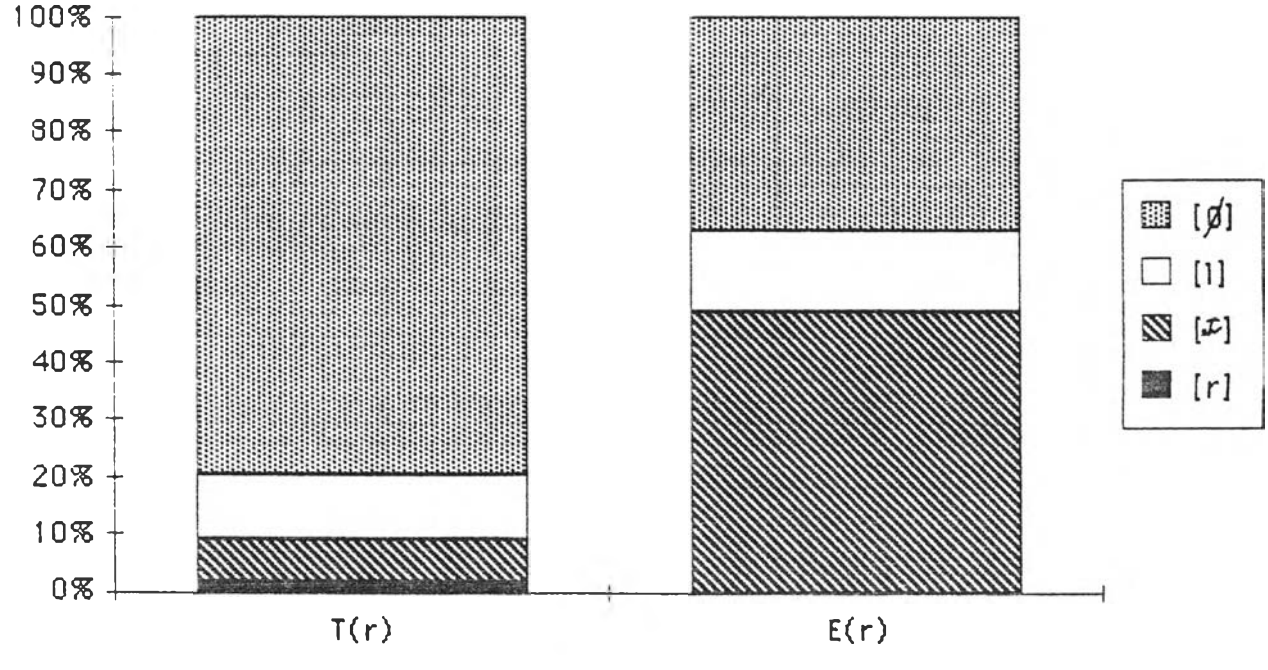


Figure 7.5b-Frequency of postconsonantal T(r) and E(r) variants of Job level III

7.2.4 Job level IV

Like the middle status speakers, the bottom group use [l] in Thai extensively in the prevocalic position and it is more than twice the rate of [l] in English, as shown in Table 7.5 and Figure 7.5a. The speakers pronounce [ɹ] in English slightly more than half of all occurrences but they use it 7% in Thai. [r] occurs minimally.

In clusters, the speakers not only make a great use of r-deletion in Thai, but they also use it most frequently in English. As illustrated quite clearly in Figure 7.6b, the proportion of r-lessness in English is slightly more than half of E(r) clusters. In other words, for the semi-skilled employees, [ø] predominates. In terms of pattern, both emerge as the same: [ø]>[ɹ]>[l]>[r]. Although the rate of [ɹ] ranks second in both languages, the English [ɹ] is three times the use of [ɹ] in Thai. The rate of [l] is greater in English clusters than in Thai.

In sum, [l] in the prevocalic position and r-deletion are the first choices for speakers of all social class groups to pick when they use the T(r). On the contrary, when speaking English, most of them use [ɹ] most for the E(r) in either position, except the bottom group who favour more [ø] than [ɹ] in clusters.

Table 7.6- Frequency of T(r) and E(r) variants of Job level IV

	T(r)	E(r)
Prevocalic		
[ɾ]	2.5%	2.0%
[ɹ]	6.8%	52.0%
[ɻ]	90.7%	46.0%
Total	100%	100%
	(N=1,023)	(N=302)
Postconsonantal		
[ɾ]	2.7%	-
[ɹ]	9.5%	31.9%
[ɻ]	5.2%	15.6%
[ø]	82.6%	52.5%
Total	100%	100%
	(N=536)	(N=204)

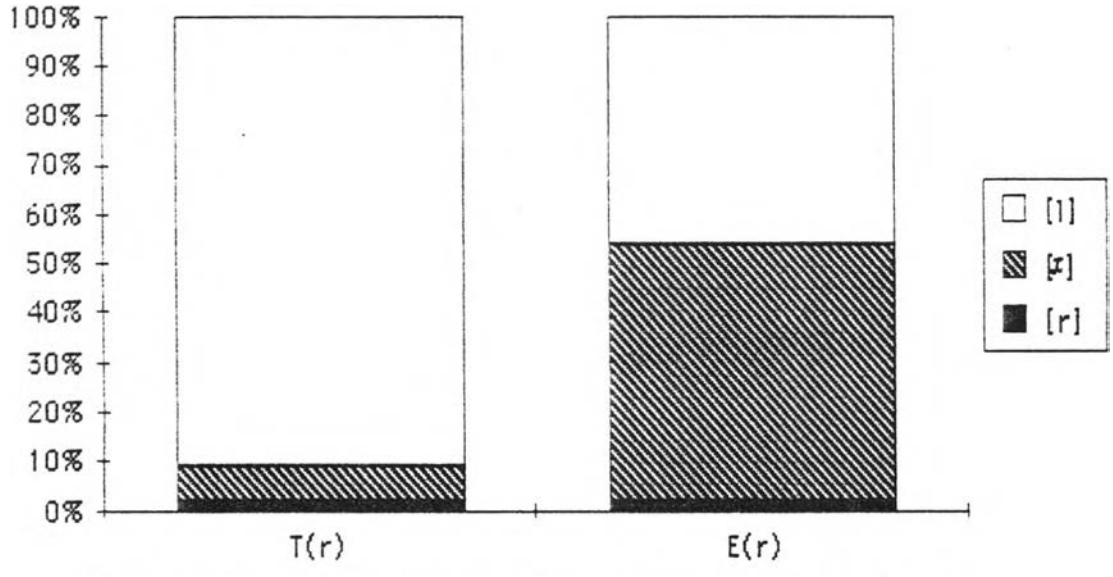


Figure 7.6a-Frequency of prevocalic T(r) and E(r) variants of Job level IV

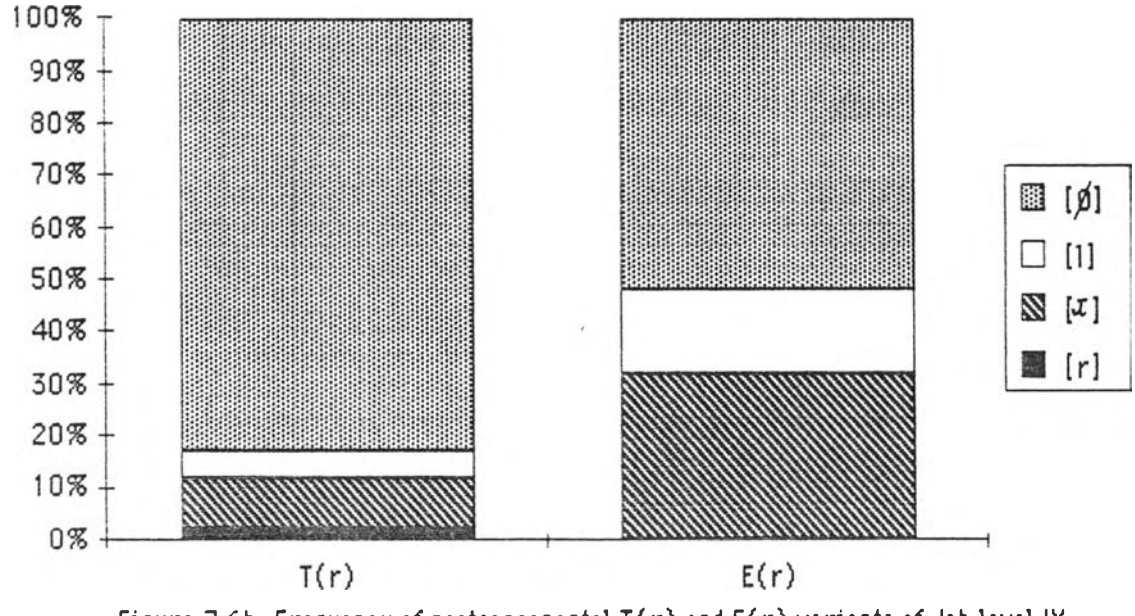


Figure 7.6b-Frequency of postconsonantal T(r) and E(r) variants of Job level IV

7.3 Comparison of the T(r) and the E(r) in different types of English language background

The linguistic behaviour of speakers with different types of English background is most likely to conform to the norm. That is, [l] and [ø] occur most frequently for the T(r) in the prevocalic position and in clusters, respectively. In English, they pronounce [ɹ] most, except Type III. Main details regarding their differences of T(r) and E(r) usgage are given below.

7.3.1 English language background Type I

As can be seen from Table 7.7, and Figure 7.7a and Figure 7.7b, speakers with English experience abroad show a rather small proportion of prevocalic [l] and [ø] in English when compared to their counterparts in Thai. The rate of prevocalic [l] in English is eight times less, and that of [ø] in English three times less. [ɹ] in English occurs predominantly in both positions but it is not frequently used in Thai. The rate of [ɾ] in Thai is always much greater than [ɾ] in English while the rate of [l] in clusters is approximately equal.

7.3.2 English language background Type II

The data in Table 7.8 and Figures 7.8a-7.8b still confirm the pattern differences of the two variables among

Table 7.7- Frequency of T(r) and E(r) variants of English language background Type I

	T(r)	E(r)
Prevocalic		
[ɾ]	3.4%	0.3%
[ɹ]	5.9%	87.4%
[l]	90.7%	12.3%
Total	100%	100%
	(N=831)	(N=398)
Postconsonantal		
[ɾ]	4.5%	1.8%
[ɹ]	14.2%	67.4%
[l]	11.6%	10.5%
[ø]	69.7%	20.3%
Total	100%	100%
	(N=485)	(N=276)

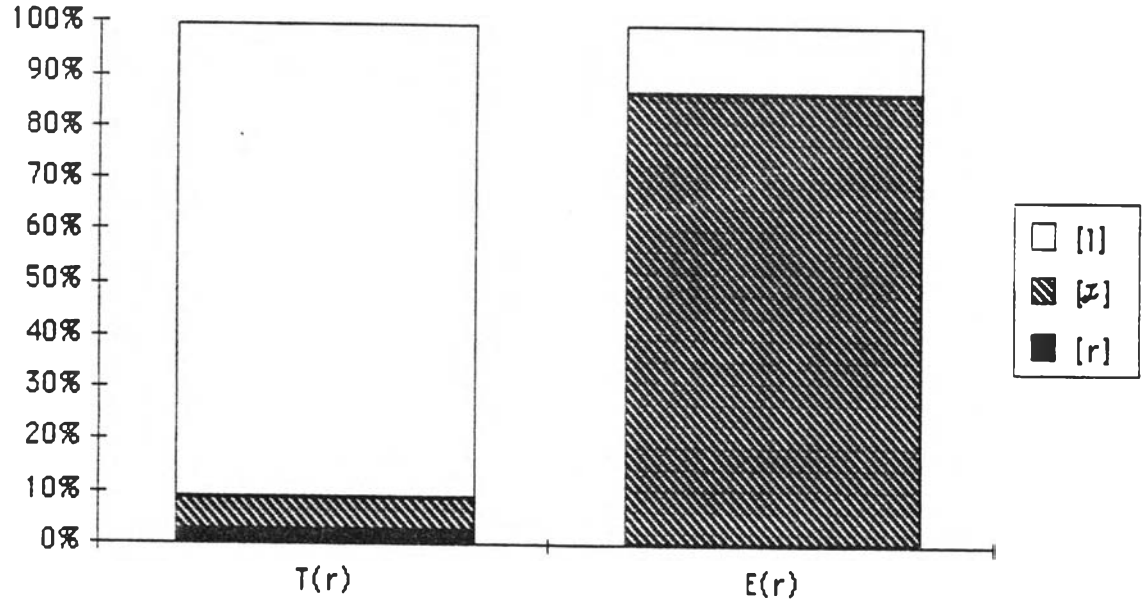


Figure 7.7a-Frequency of prevocalic T(r) and E(r) variants of ELB Type I

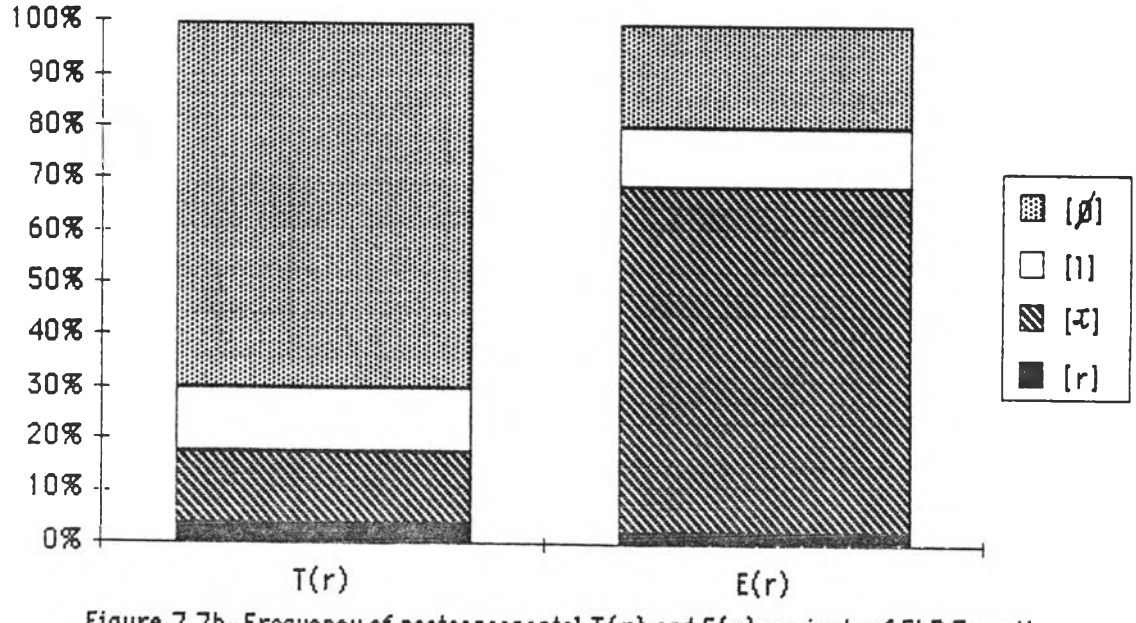


Figure 7.7b-Frequency of postconsonantal T(r) and E(r) variants of ELB Type II

Table 7.8- Comparison of frequency of T(r) and E(r) variants in English language background Type II

	T(r)	E(r)
Prevocalic		
[ɾ]	3.3%	6.1%
[ɹ]	6.6%	55.9%
[l]	89.9%	38.0%
Total	100%	100%
	(N=1,856)	(N=605)
Postconsonantal		
[ɾ]	2.6%	0.7%
[ɹ]	2.6%	41.4%
[l]	10.1%	22.4%
[ø]	84.6%	35.5%
Total	100%	100%
	(N=832)	(N=437)

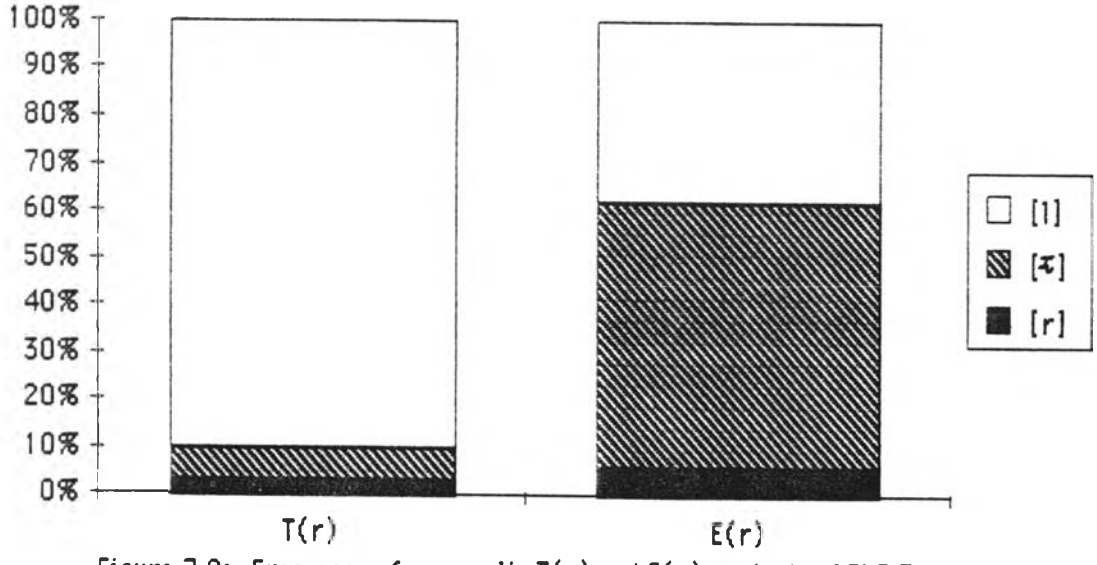


Figure 7.8a-Frequency of prevocalic T(r) and E(r) variants of ELB Type II

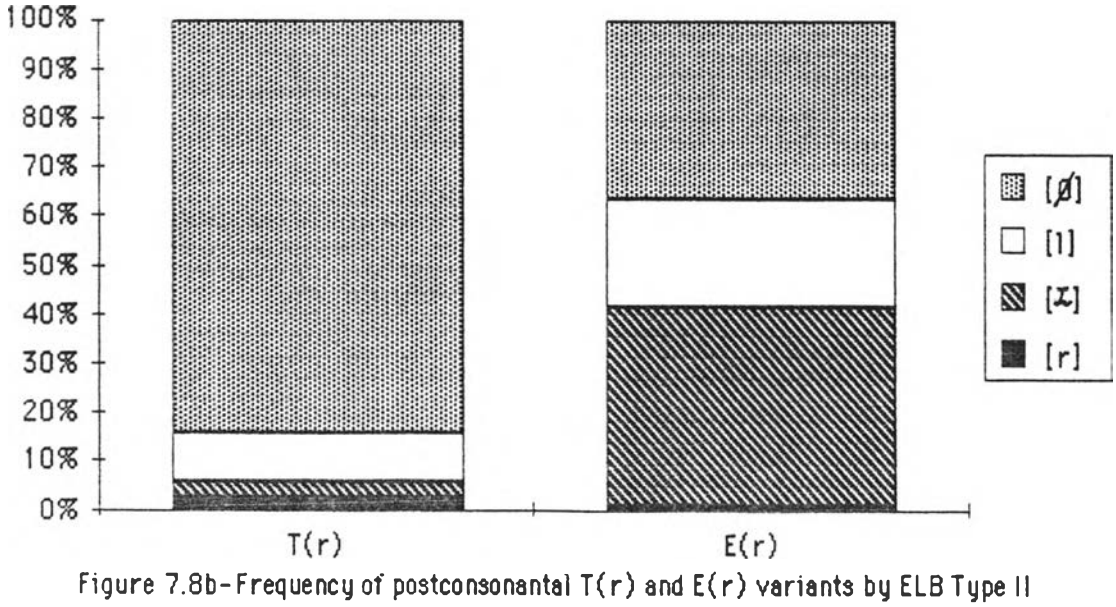


Figure 7.8b-Frequency of postconsonantal T(r) and E(r) variants by ELB Type II

speakers who have been working in the hotel for at least five years. [l] in the prevocalic position and [ø] have the largest share in Thai but in English each occurs less than half the amounts used in Thai. [ɹ] in Thai accounts for only a small fraction of its occurrences in English. The rate of [r] is unexpectedly greater in English than in Thai in the prevocalic position, and the explanation for this has been given in 7.2.3. The frequency of [l] for T(r) clusters is obviously much lower than that in English.

7.3.3 English language background Type III

Table 7.9 and Figures 7.9a-7.9b show that the differences in the use of T(r) and E(r) of speakers with least exposure to English are similar to those in Job level IV (7.2.3). In the prevocalic position, the speakers use [l] for the T(r) most of the time. In English, [l] occurs less than half of all occurrences, and less than half its rate in Thai. However, there is a positive correlation between prevocalic [l] in Thai and [l] in English spoken by the subjects least exposed to English (see Table 7.19). [ɹ] accounts for more than 50% in English whereas in Thai it occurs only 5% or ten times less.

In clusters, the speakers adhere to the norm by using predominantly r-reduction in Thai. But in English,

Table 7.9- Frequency of T(r) and E(r) variants of English language background Type III

	T(r)	E(r)
Prevocalic		
[ɾ]	3.1%	1.4%
[ɹ]	5.3%	57.1%
[l]	91.6%	41.5%
Total	100%	100%
	(N=1,641)	(N=503)
Postconsonantal		
[ɾ]	2.6%	-
[ɹ]	9.3%	42.0%
[l]	7.6%	10.6%
[ø]	80.5%	47.4%
Total	100%	100%
	(N=773)	(N=331)

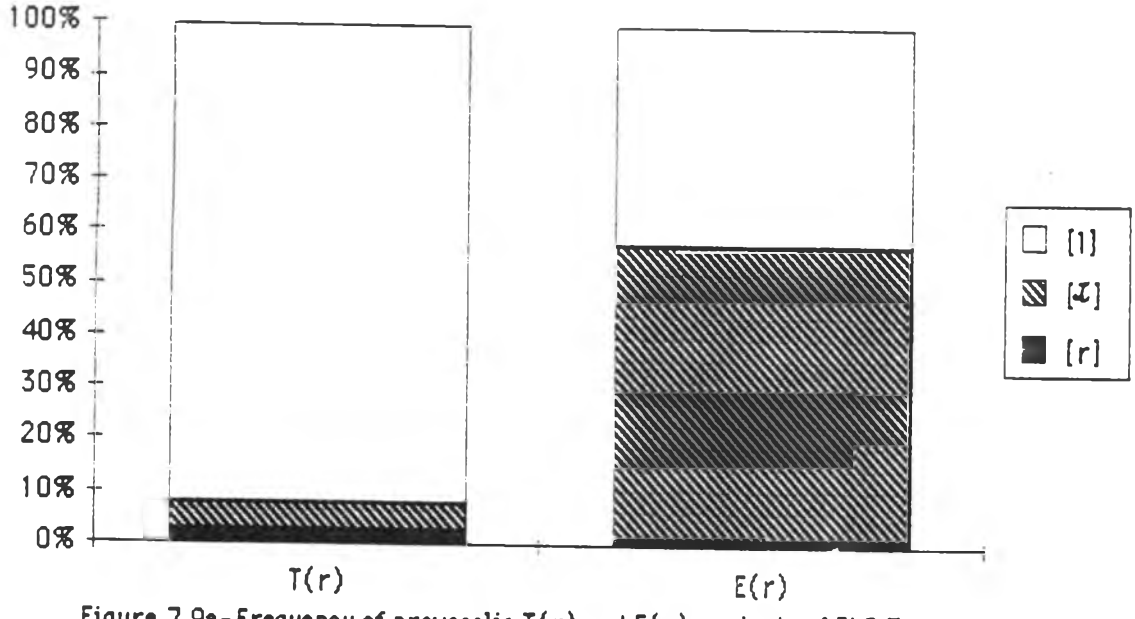
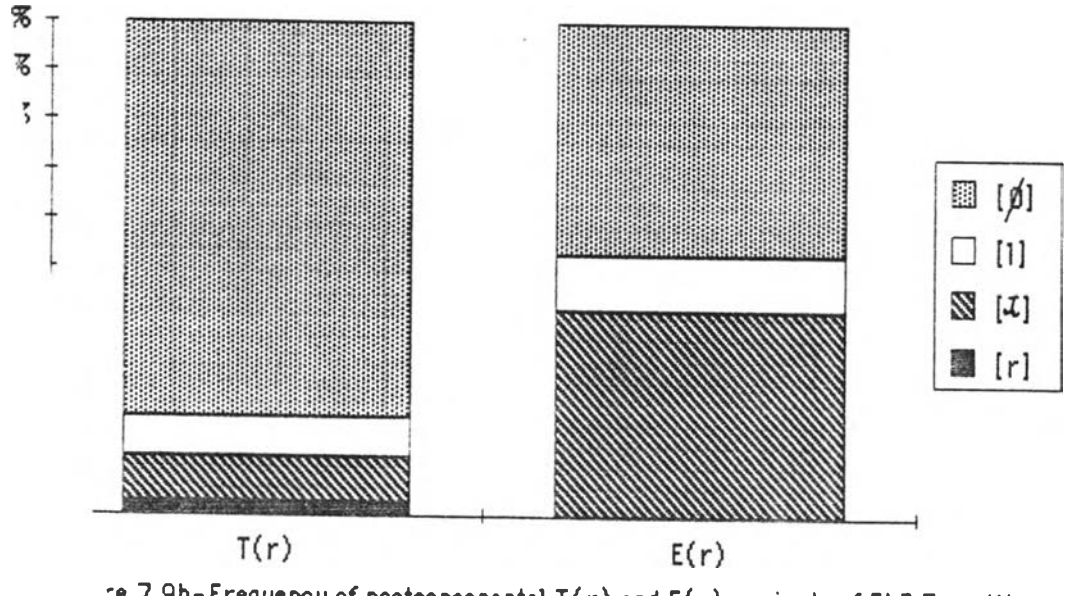


Figure 7.9a-Frequency of prevocalic T(r) and E(r) variants of ELB Type III



e 7.9b-Frequency of postconsonantal T(r) and E(r) variants of ELB Type III

they depart from the normal pattern found in other social groups by pronouncing more [ø] than [ɹ]. That is, in terms of patterns, their postconsonantal T(r) and E(r) variation becomes identical: [ø]>[ɹ]>[l]>[r]. As for [l], once again, it is more frequently used in English than in Thai.

It can be concluded at this stage that in general most social groups differentiate the T(r) and E(r) usage. They produce two distinct patterns, one for each variable. In Thai, they use two stigmatized variants, one for each position of occurrence. In contrast, the E(r) variant they pronounce most is the standard one. The rate of prevocalic [l] is always much greater in Thai than in English while the rate of [ɹ] in Thai accounts for only a small fraction when compared to [ɹ] in English. [r] always occurs least frequently in both languages.

In terms of the pattern of variation, the bottom social class group and the group with least exposure to English are different from the others in that their patterns of T(r) and E(r) become identical. That is, in English they have a higher rate of r-reduction than the standard [ɹ].

7.4 Comparison of the T(r) and the E(r) in different social sub-groups

It has been mentioned at the beginning of Chapter 6 that there are ten social categories (cells) or social sub-groups of subjects in this study. In the course of analysis, the male group of Job level I with ELB Type I has been found to be problematic with regard to its linguistic behaviour (6.2.1). Therefore, this group of speakers has been left out of analysis and will not be included in the comparison of the T(r) and E(r) in different social sub-groups in this section. Tables 7.10-7.13 together with their corresponding Figures 7.10-7.13 show comparisons of T(r) and E(r) of four sub-social groups of males with different job level and English language background. Tables 7.14-7.18 and Figures 7.14-7.18 show comparisons of five social sub-groups of females with different job levels and English language background.

In details, the social sub-groups of male speakers are:

(1) Job level II/III and ELB Type I
(Table and Figure 7.10)

(2) Job level I and ELB Type II/III
(Table and Figure 7.11)

(3) Job level II/III and ELB Type II/III
(Table and Figure 7.12)

(4) Job level IV and ELB Type II/III
(Table and Figure 7.13)

As for social sub-groups of female speakers, they are:

(1) Job level I and ELB Type I
(Table and Figure 7.14)

(2) Job level II/III and ELB Type I
(Table and Figure 7.15)

(3) Job level I and ELB Type II/III
(Table and Figure 7.16)

(4) Job level II/III and ELB Type II/III
(Table and Figure 7.17)

(5) Job level IV and ELB Type II/III
(Table and Figure 7.18)

Like other comparisons in 7.1-7.3 above, most of the social sub-groups differentiate the T(r) and E(r) usage. The two distinct patterns are here repeated. The prevocalic [l] and [ø] are the most common variants in Thai whereas [ɹ] is the most preferred E(r) variant, except a few cases. Middle status and low status female speakers with less English language background (Table 7.17 and Figure 7.17a, and Table 7.18 and Figure 7.18a) appear to

Table 7.10-Frequency of T(r) and E(r) variants of males, Job level II/III, ELB Type I

	T(r)	E(r)
Prevocalic		
[ɾ]	-	-
[ɹ]	0.6%	91.4%
[l]	99.4%	8.6%
Total	100%	100%
	(N=158)	(N=58)
Postconsonantal		
[ɾ]	8.7%	-
[ɹ]	8.7%	68.6%
[l]	7.2%	17.7%
[ø]	75.4%	13.7%
Total	100%	100%
	(N=69)	(N=51)

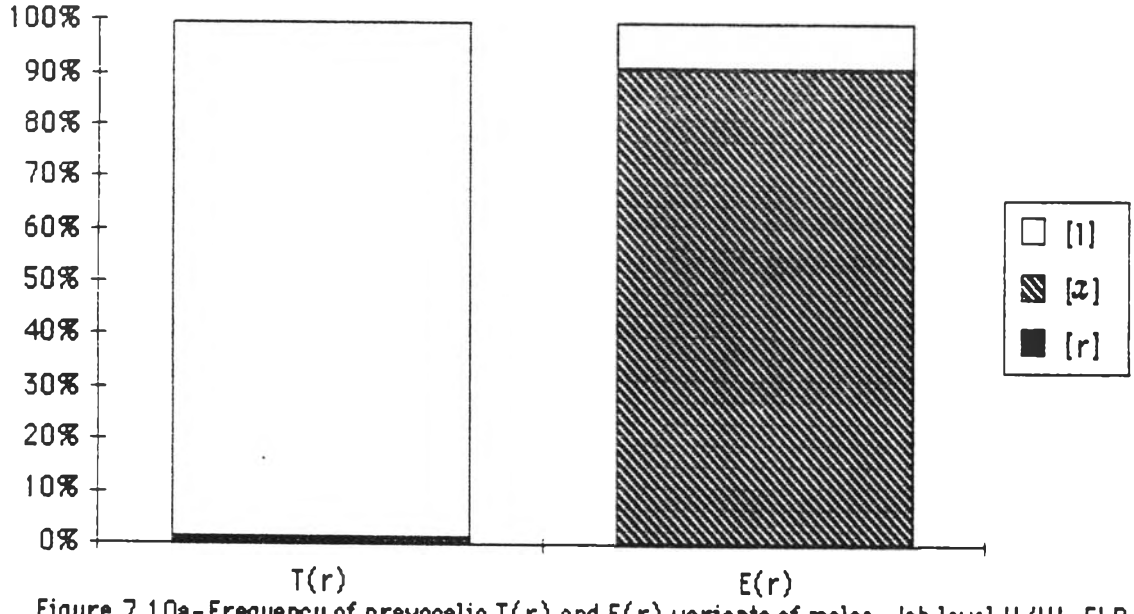


Figure 7.10a-Frequency of prevocalic T(r) and E(r) variants of males, Job level II/III, ELB Type I

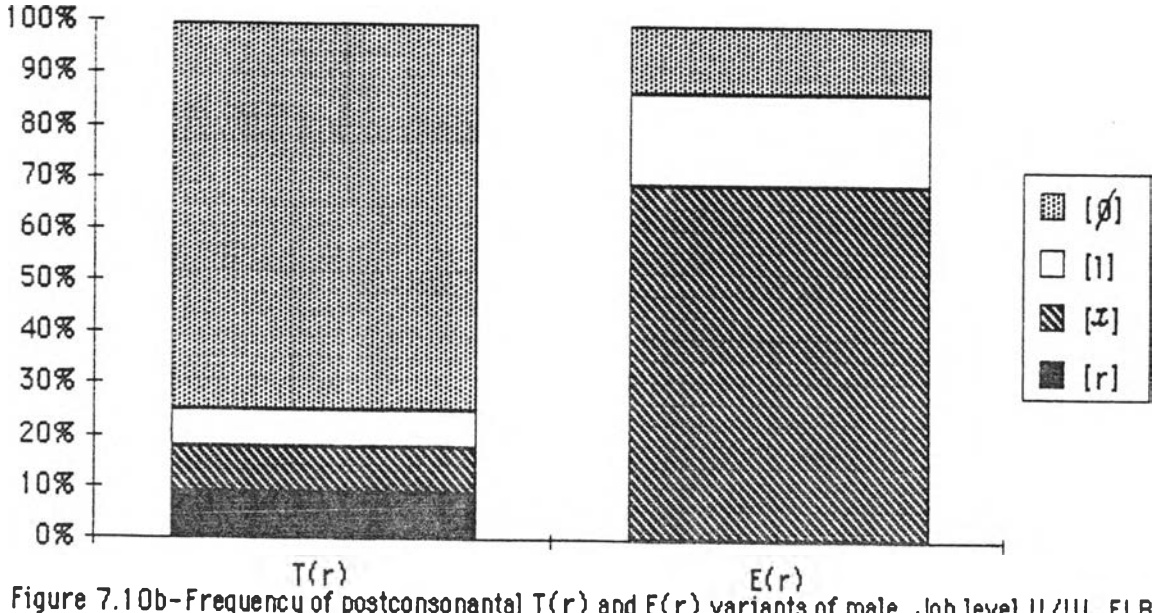


Figure 7.10b-Frequency of postconsonantal T(r) and E(r) variants of male, Job level II/III, ELB Type I

Table 7.11-Frequency of T(r) and E(r) variants of males, Job level I, ELB Type II/III

	T(r)	E(r)
Prevocalic		
[r]	1.6%	4.4%
[ɹ]	28.0%	67.8%
[l]	70.4%	27.8%
Total	100%	100%
	(N=272)	(N=180)
Postconsonantal		
[r]	1.7%	1.6%
[ɹ]	8.9%	42.6%
[l]	8.9%	21.3%
[ø]	80.5%	34.4%
Total	100%	100%
	(N=179)	(N=122)

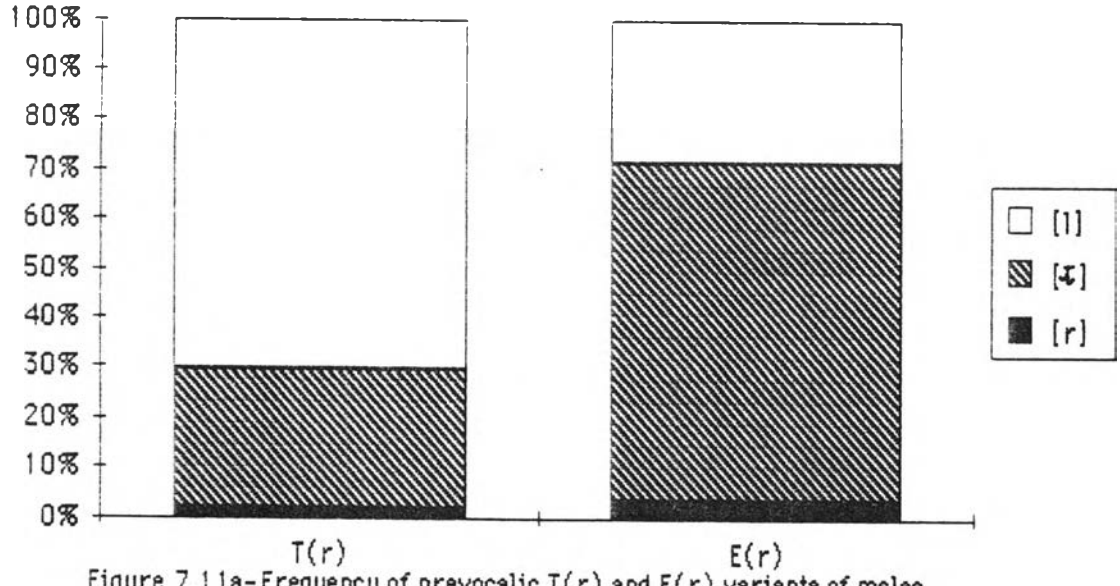


Figure 7.11a-Frequency of prevocalic T(r) and E(r) variants of males, Job level I, ELB Type II/III

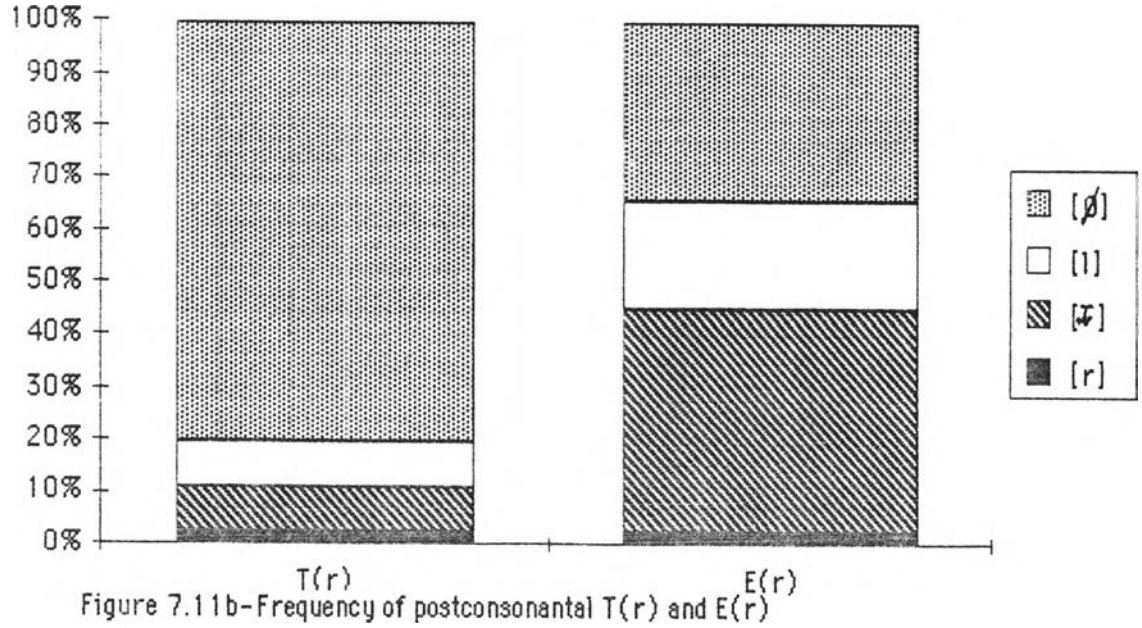


Figure 7.11b-Frequency of postconsonantal T(r) and E(r) variants of males, Job level I, ELB Type II/III

Table 7.12-Frequency of T(r) and E(r) variants of males, Job level II/III, ELB Type II/III

	T(r)	E(r)
Prevocalic		
[ɾ]	1.6%	0.8%
[ɹ]	1.6%	56.4%
[l]	96.8%	42.8%
Total	100%	100%
	(N=956)	(N=243)
Postconsonantal		
[ɾ]	0.6%	-
[ɹ]	3.3%	37.1%
[l]	8.9%	16.7%
[ø]	87.2%	46.2%
Total	100%	100%
	(N=516)	(N=240)

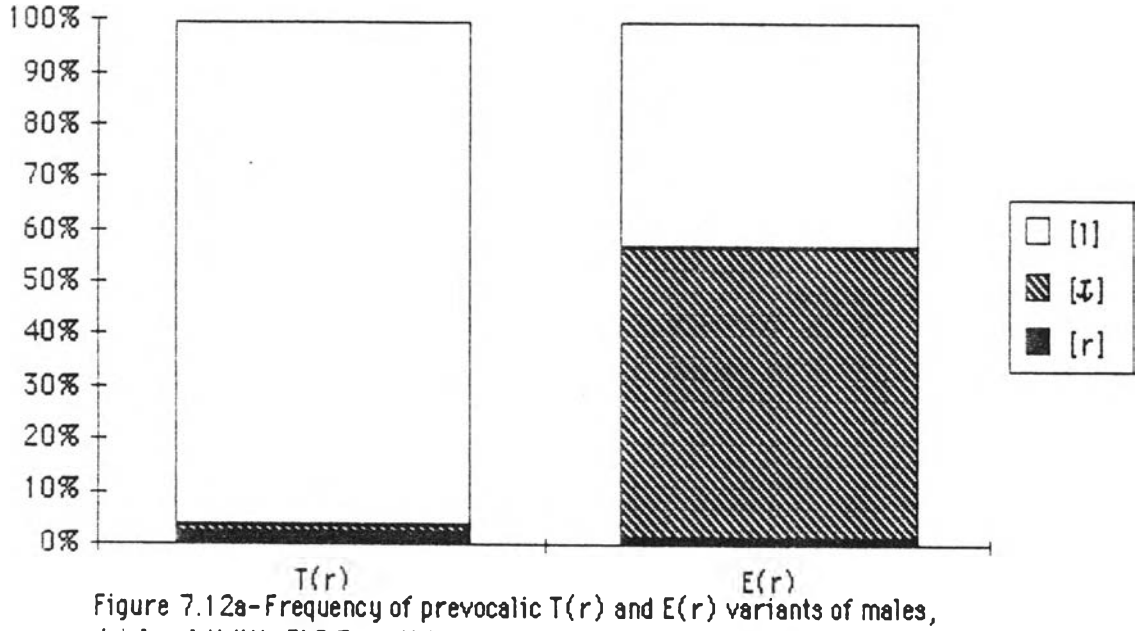


Figure 7.12a-Frequency of prevocalic T(r) and E(r) variants of males, Job level II/III, ELB Type II/III

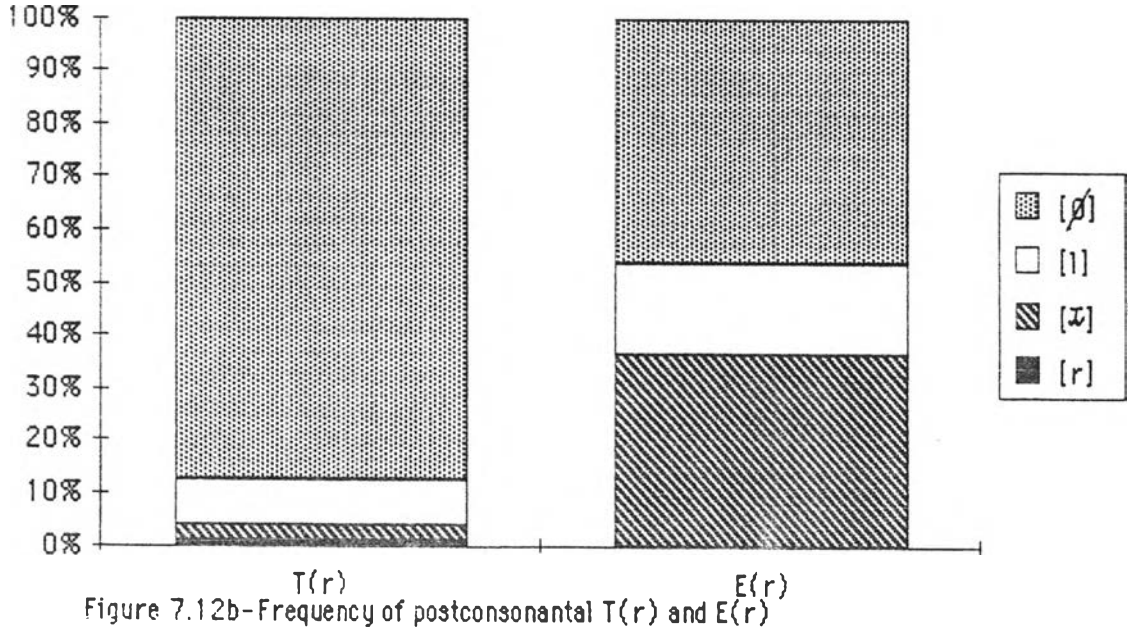


Figure 7.12b-Frequency of postconsonantal T(r) and E(r) variants of males, Job level II/III, ELB Type II/III

Table 7.13-Frequency of T(r) and E(r) variants of males, Job level IV, ELB Type II/III

	T(r)	E(r)
Prevocalic		
[r]	4.6%	1.2%
[ɹ]	13.9%	55.9%
[l]	81.5%	42.9%
Total	100%	100%
	(N=496)	(N=170)
Postconsonantal		
[r]	2.3%	-
[ɹ]	14.4%	41.3%
[l]	7.1%	12.8%
[ø]	76.2%	45.9%
Total	100%	100%
	(N=354)	(N=109)

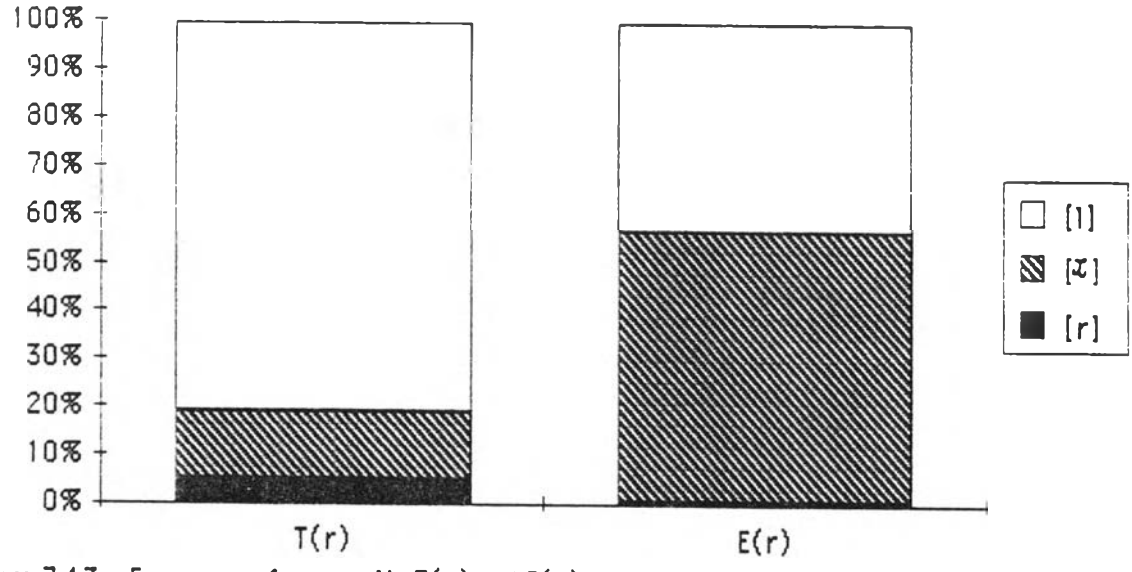


Figure 7.13a-Frequency of prevocalic T(r) and E(r) variants of males, Job level IV and ELB Type II/III

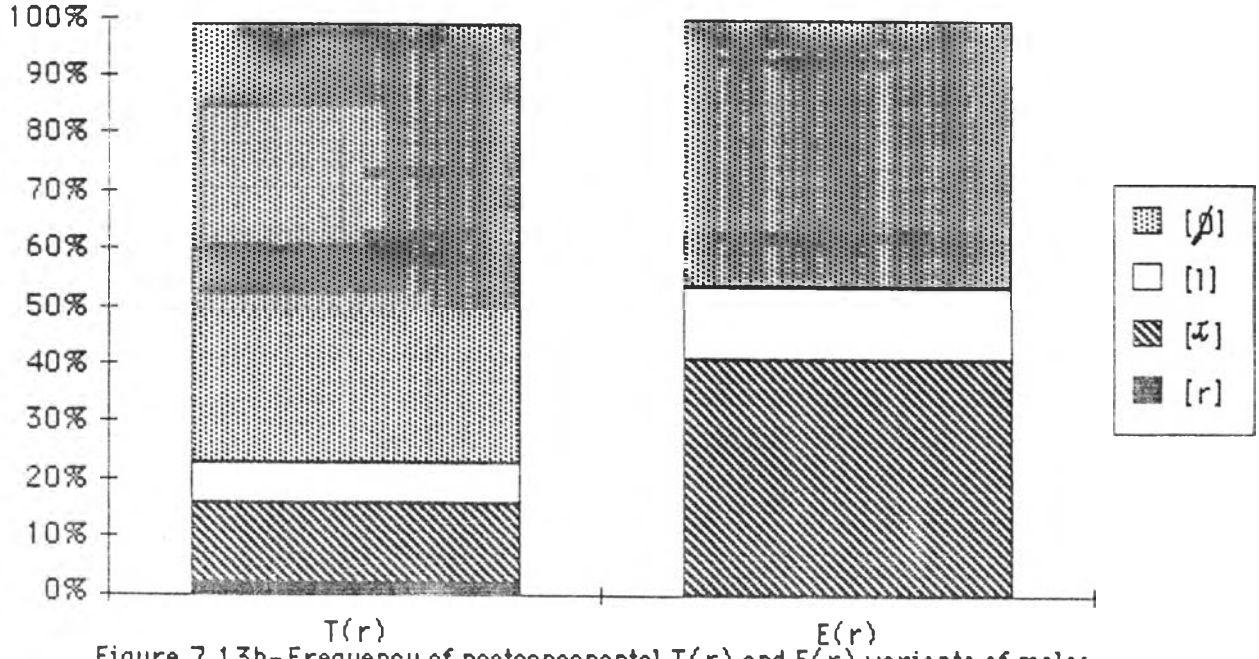


Figure 7.13b-Frequency of postconsonantal T(r) and E(r) variants of males, Job level IV, ELB Type II/III

to have a higher rate of [l] than [ø] for the E-r-. If the percentages of r-coloured variants [ɹ] and [r] are combined, it can be seen that the rate of [l] is not greater than r-coloured variants. In relation to r-deletion, three social sub-groups have a higher rate of [ø] than [ɹ] in English. They are middle status and low status male speakers with less English language background (Table 7.12 and Figure 7.12b, and Table 7.13 and Figure 7.13b), and low status female speakers with less English language background (Table 7.18 and Figure 7.18b).

It can be concluded then that the subjects of any social or social sub-groups have two systems of r-pronunciations. Prevocalic [l] and [ø] are the norm variants for the T-r- and [ɹ] is the most preferred E-r- variant.

Table 7.14-Frequency of T(r) and E(r) variants of females, Job level I, ELB Type I

	T(r)	E(r)
Prevocalic		
[ɾ]	4.4%	0.5%
[ɹ]	6.3%	96.9%
[l]	89.2%	2.6%
Total	100%	100%
	(N=316)	(N=192)
Postconsonantal		
[ɾ]	4.0%	1.5%
[ɹ]	12.1%	70.7%
[l]	19.7%	6.0%
[ø]	64.2%	21.8%
Total	100%	100%
	(N=173)	(N=133)

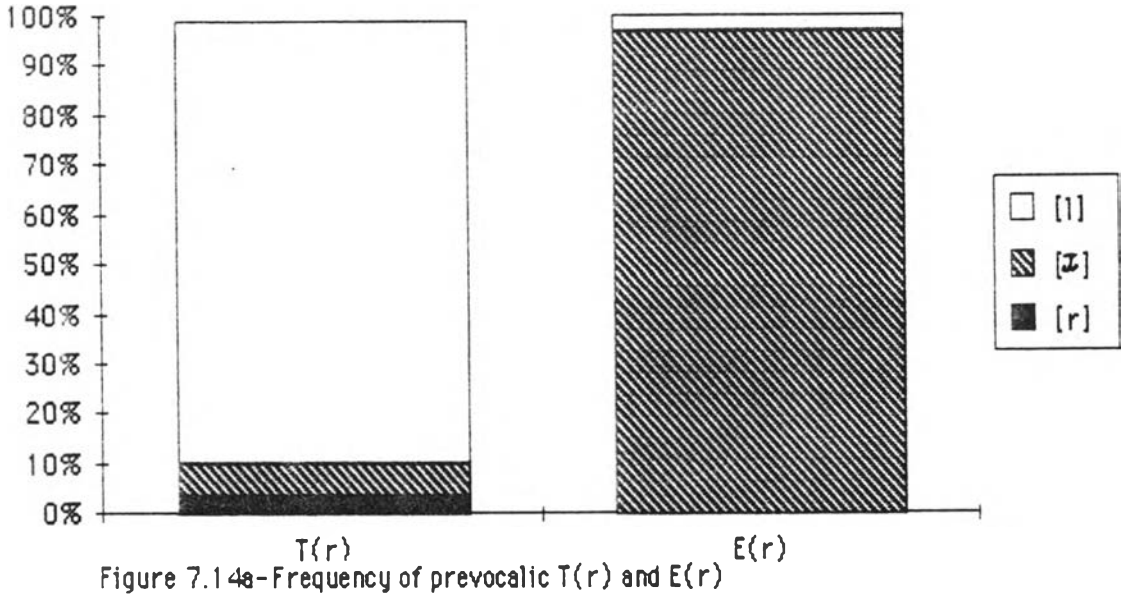


Figure 7.14a-Frequency of prevocalic T(r) and E(r) variants of females, job level I, ELB Type I

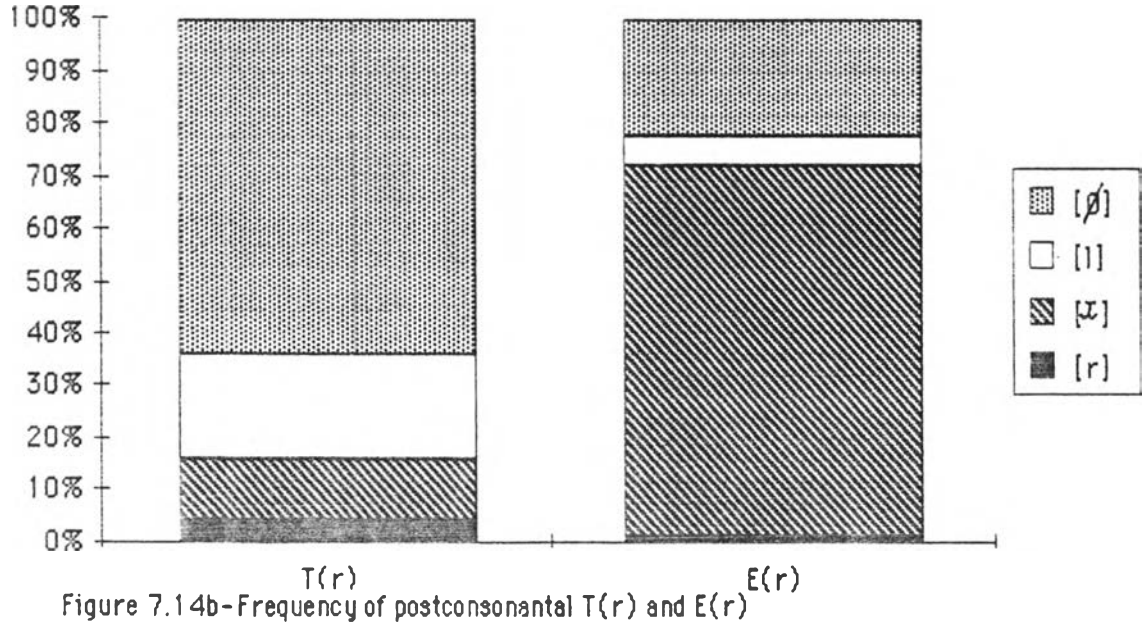


Figure 7.14b-Frequency of postconsonantal T(r) and E(r) variants of female, Job level I and ELB Type I

Table 7.15-Frequency of T(r) and E(r) variants of females, Job level II/III, ELB Type I

	T(r)	E(r)
Prevocalic		
[ɾ]	4.4%	-
[ɹ]	8.9%	88.7%
[l]	86.7%	11.3%
Total	100%	100%
	(N=293)	(N=97)
Postconsonantal		
[ɾ]	5.1%	-
[ɹ]	28.3%	80.4%
[l]	8.1%	5.9%
[ø]	58.5%	13.7%
Total	100%	100%
	(N= 99)	(N=51)

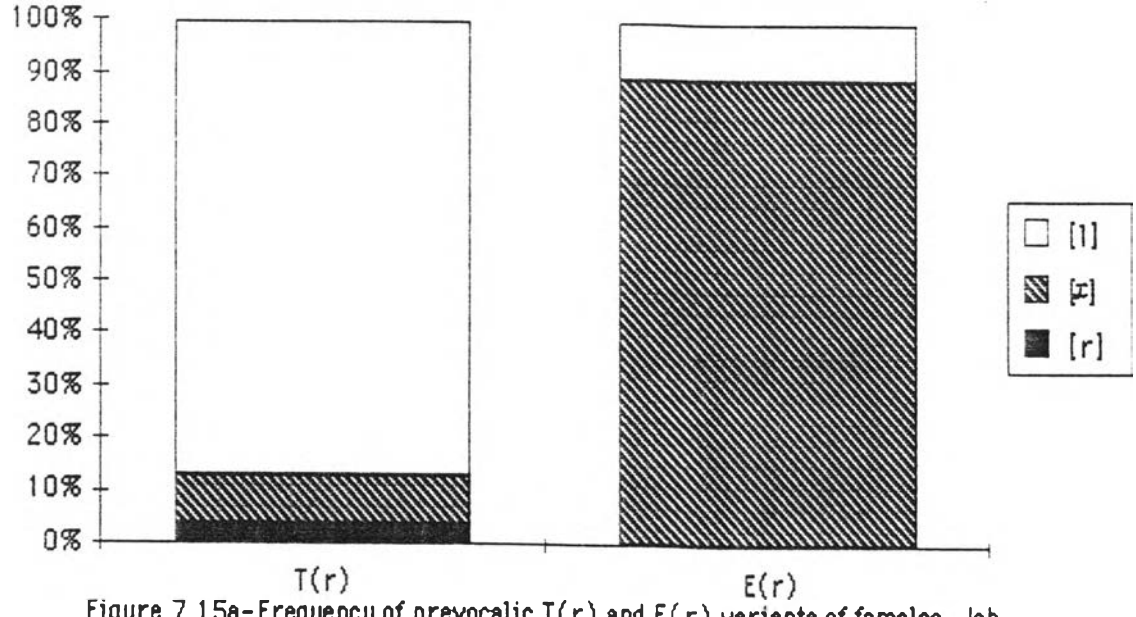


Figure 7.15a-Frequency of prevocalic T(r) and E(r) variants of females, Job level II/III. ELB Type I

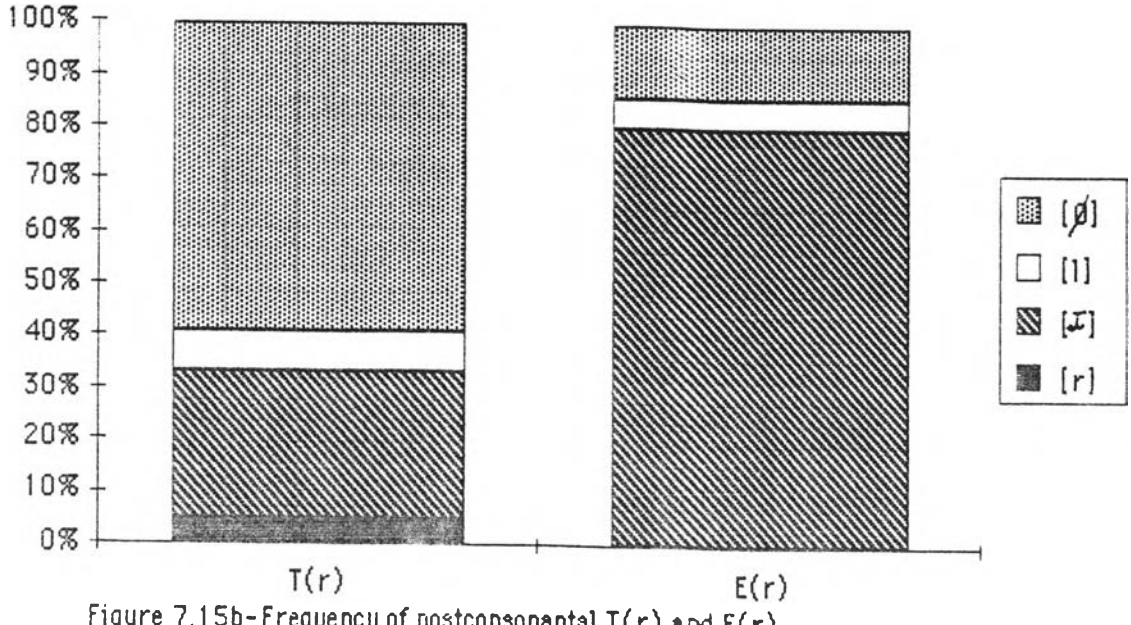


Figure 7.15b-Frequency of postconsonantal T(r) and E(r) variants of females. Job level II/III. ELB Type I

Table 7.16-Frequency of T(r) and E(r) variants of females, Job level I, ELB Type II/III

	T(r)	E(r)
Prevocalic		
[ɾ]	19.0%	1.1%
[ɹ]	4.5%	96.6%
[l]	76.5%	2.3%
Total	100%	100%
	(N=242)	(N= 88)
Postconsonantal		
[ɾ]	7.1%	1.3%
[ɹ]	5.7%	64.5%
[l]	21.4%	14.5%
[ø]	65.7%	19.7%
Total	100%	100%
	(N= 70)	(N= 76)

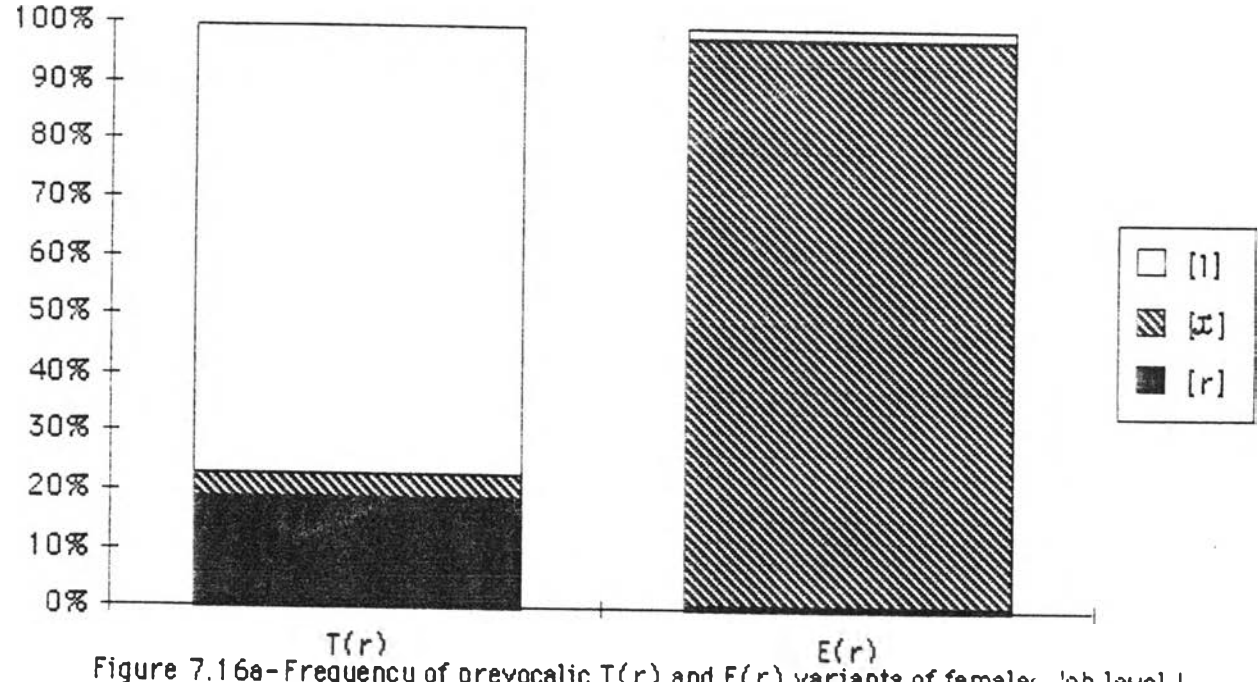


Figure 7.16a-Frequency of prevocalic T(r) and E(r) variants of females, Job level I and ELB Type II/III

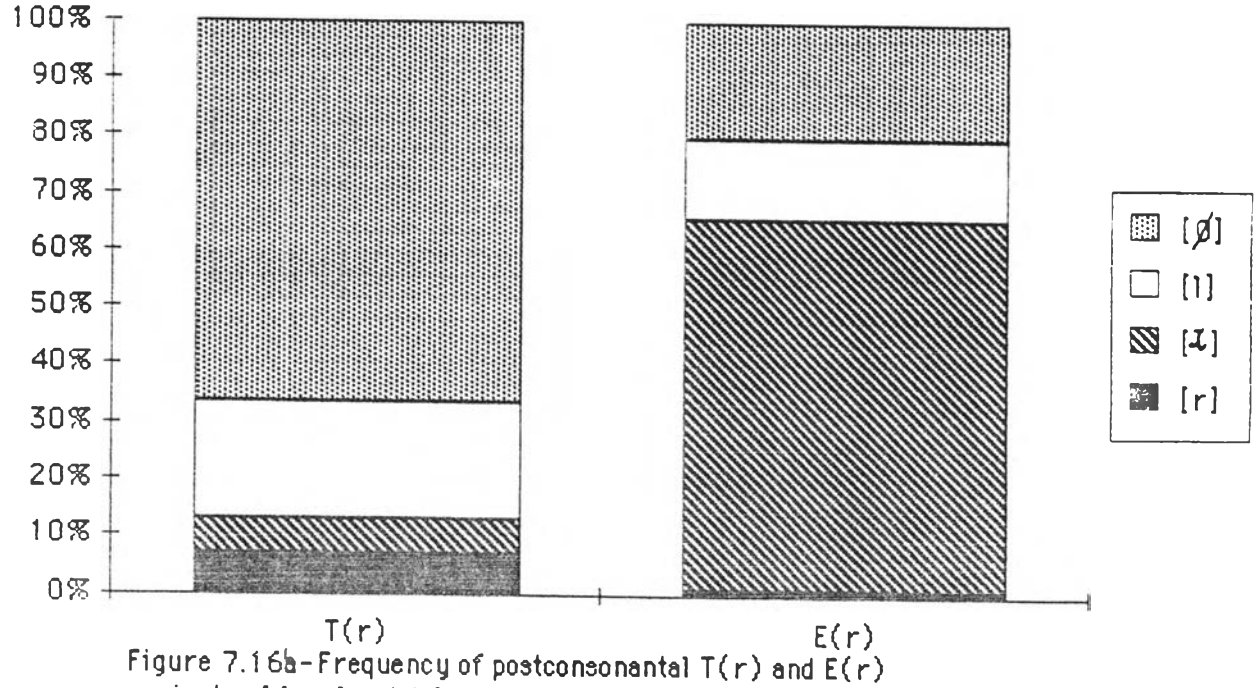


Figure 7.16b-Frequency of postconsonantal T(r) and E(r) variants of females, Job level I and ELB Type II/III

Table 7.17-Frequency of T(r) and E(r) variants of females, Job level II/III, ELB Type II/III

	T(r)	E(r)
Prevocalic		
[r]	2.5%	9.2%
[ɹ]	1.0%	42.0%
[l]	96.5%	48.8%
Total	100%	100%
	(N=904)	(N=295)
Postconsonantal		
[r]	5.6%	-
[ɹ]	2.0%	51.6%
[l]	12.5%	19.0%
[ø]	79.9%	29.4%
Total	100%	100%
	(N=304)	(N=121)

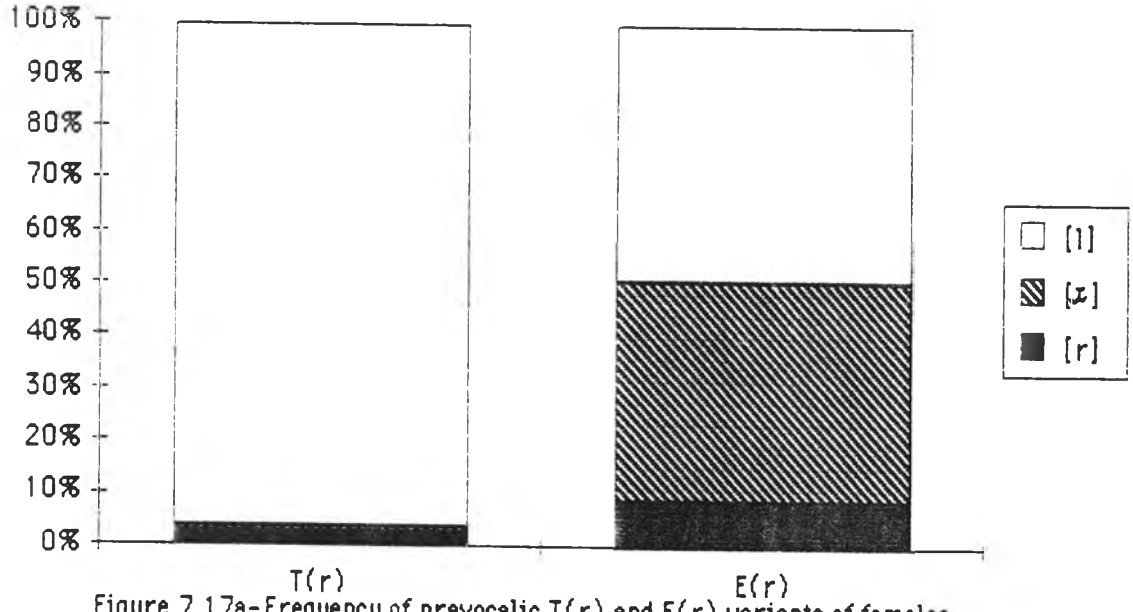


Figure 7.17a-Frequency of prevocalic T(r) and E(r) variants of females, Job level II/III, ELB Type II/III

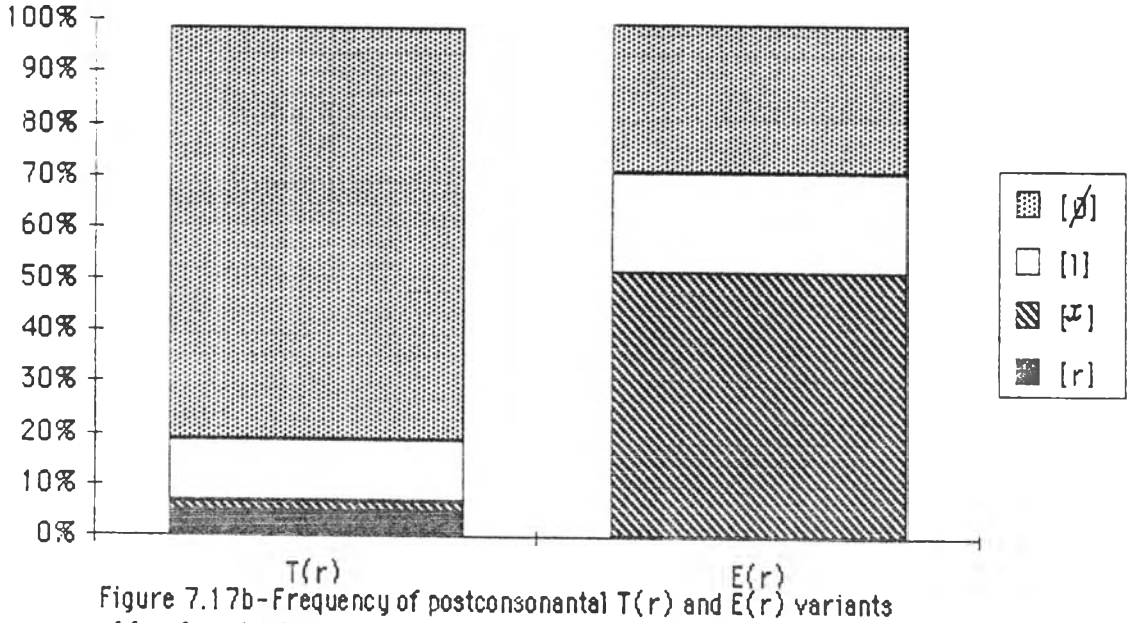


Figure 7.17b-Frequency of postconsonantal T(r) and E(r) variants of females, Job level II/III, ELB Type II/III

Table 7.18-Frequency of T(r) and E(r) variants of females, Job level IV, ELB Type II/III

	T(r)	E(r)
Prevocalic		
[ɾ]	0.4%	3.0%
[ɹ]	0.2%	47.0%
[l]	99.4%	50.0%
Total	100%	100%
	(N=527)	(N=132)
Postconsonantal		
[ɾ]	3.3%	-
[ɹ]	-	21.0%
[l]	1.7%	19.0%
[ø]	95.0%	60.0%
Total	100%	100%
	(N=182)	(N= 95)

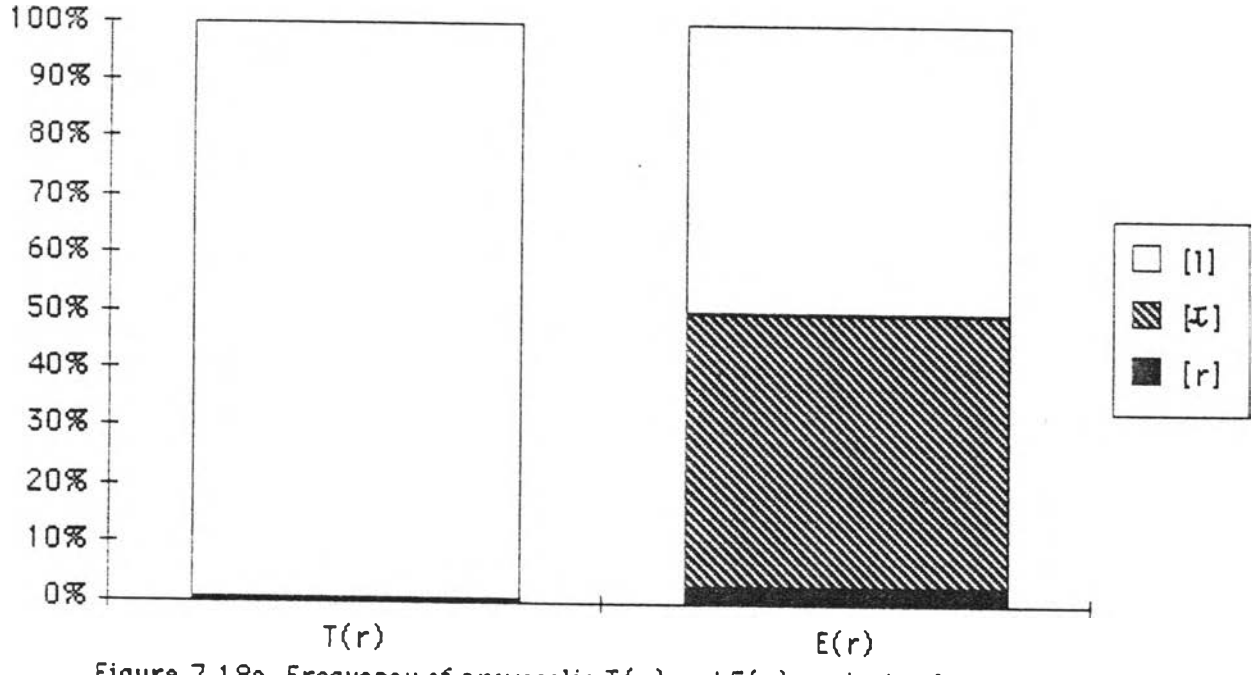


Figure 7.18a-Frequency of prevocalic T(r) and E(r) variants of females, Job level IV and ELB Type II/III

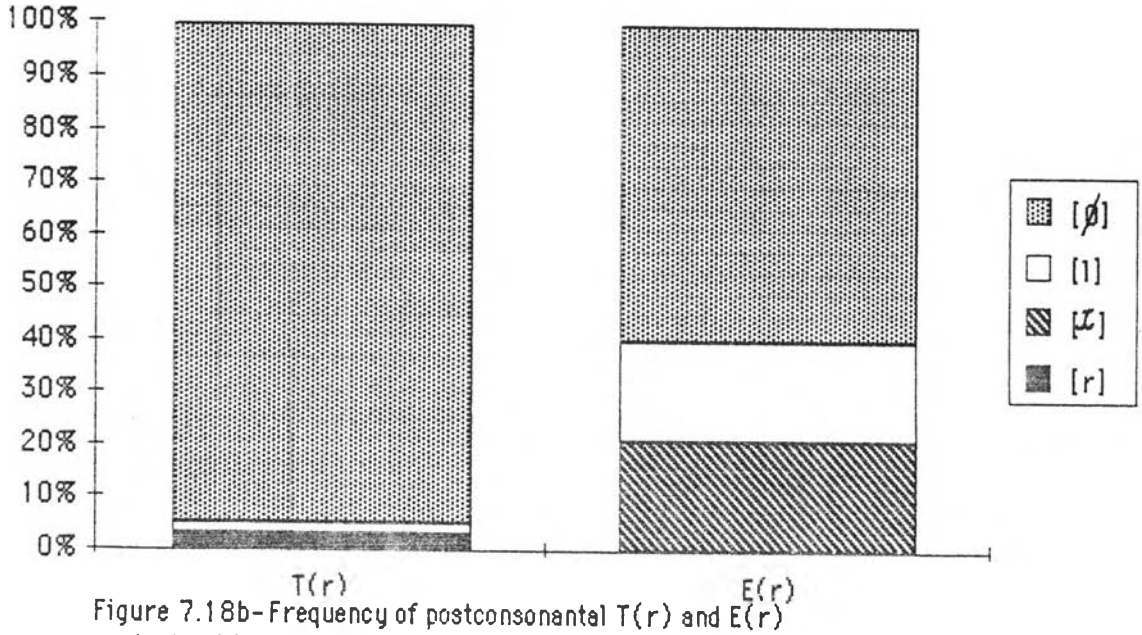


Figure 7.18b-Frequency of postconsonantal T(r) and E(r) variants of females, Job level II/III, ELB Type II/III

7.5 Relationship between the T(r) and the E(r)

During data analysis, it was noted repeatedly that the subjects use [l] and [ø] extensively for the T(r) in the prevocalic and postconsonantal position, respectively. The evidence also pointed out that they use [l] and [ø] for the E(r) in the corresponding position, though to a lesser extent. In English, they use [ɹ] most frequently, except in some social sub-groups (7.4). [ɹ] occurs much less in Thai, however. Since the subjects use three variants of (r) in Thai as well as in English in the prevocalic position and four variants in clusters, the question is whether such usage of corresponding variants has any relationship. In other words, is subjects' use of a variant in one language correlated with the use of that variant in the other language? In the case of prevocalic [l] and r-lessness in English especially, do they have any significant relationship with the corresponding variants in Thai? This is the final inquiry in this study.

Tables 7.19 and 7.20 illustrate the Spearman rank correlation coefficients r_s of T(r) and E(r) variants of various social and social sub-groups of subjects in the prevocalic and postconsonantal position, respectively. (For further details of Spearman rank correlation, see Appendix C).

Table 7.19 - Spearman rank correlation coefficients (r_s) for the prevocalic E(r) and T(r)

No. and group of subjects	r_s for prevocalic (r): [r]	[ɹ]	[l]
(1) All 58 subjects	0.350*	0.485*	0.553*
(2) 29 males	0.634*	0.418	0.421
(3) 29 females	0.100	0.577*	0.692*
(4) 15 Job level I	0.278	0.061	0.166
(5) 14 Job level II	0.319	0.552	0.586
(6) 14 Job level III	0.319	0.284	0.449
(7) 15 Job level IV	0.573	0.641	0.629
(8) 12 ELB Type I	0.273	0.269	0.297
(9) 23 ELB Type II	0.332	0.481	0.527
(10) 23 ELB Type III	0.463	0.651*	0.673*
(11) 6 Job level I ELB Type II/III males	0.600	-0.143	-0.029
(12) 12 Job level II/III ELB Type II/III males	0.603	0.407	0.414
(13) 7 Job level IV ELB Type II/III males	0.741	0.643	0.714
(14) 11 Job level II/III ELB Type II/III females	0.082	0.500	0.764*
(15) 8 Job level IV ELB Type II/III females	0.470	0.631	0.542

*$p < .01$

Table 7.20 - Spearman rank correlations (r_s) for the postconsonantal E(r) and T(r)

No. and group of subjects	r_s for postconsonantal(r): [r]	[ɹ]	[l]	[ø]
(1) All 58 subjects	0.466*	0.404*	-0.015	0.440*
(2) 29 males	0.572*	0.366	-0.185	0.240
(3) 29 females	0.386	0.461	0.119	0.548*
(4) 15 Job level I	-0.020	-0.140	-0.213	-0.159
(5) 14 Job level II	0.562	0.616	0.088	0.508
(6) 14 Job level III	0.681*	0.416	0.226	0.554
(7) 15 Job level IV	0.647	0.585	0.073	0.339
(8) 12 ELB Type I	-0.171	0.383	0.369	0.346
(9) 23 ELB Type II	0.580*	0.144	-0.188	0.190
(10) 23 ELB Type III	0.638*	0.355	-0.137	0.500
(11) 6 Job level I ELB Type II/III males	0.257	-0.671	-0.543	-0.886
(12) 12 Job level II/III ELB Type II/III males	0.885*	0.661	-0.266	0.278
(13) 7 Job level IV ELB Type II/III males	0.679	0.545	0.250	0.286
(14) 11 Job level II/III ELB Type II/III females	0.545	-0.100	0.289	0.466
(15) 8 Job level IV ELB Type II/III females	0.619	0.500	0.292	0.143

*$p < .01$

Table 7.19 shows r_s of the corresponding prevocalic [r], [ɹ] and [l] in Thai and English. Table 7.20 shows the calculated values of r_s of [r], [ɹ], [l] and [ø] in Thai and English. The social sub-groups with 5 subjects or less are excluded from the measure of association as the rank correlation coefficient requires at least 6 pairs of observations (N=6) at the one per cent level of significance ($p<0.01$) in a non-directional test.

Tables 7.19 and 7.20 illustrate that there are significant correlations between [r] in Thai and [r] in English for some groups of speakers (two groups in the prevocalic position and six groups in clusters). The data analysis indicates that the subjects rarely use the variant either in Thai or in English. It has been noted several times in the course of the study that for the subjects as a whole [r] is almost non-existent in either language. The significant correlations between [r] in Thai and [r] in English stress the fact that the variants are indeed used minimally in both languages.

In Tables 7.19 and 7.20, the r_s values of [ɹ], too, are significant in a few groups of speakers (three in the prevocalic position and one in clusters). The data analysis indicates that the subjects use [ɹ] extensively in English but most of them do not use it in Thai. The

significant correlations between [ɹ] in Thai and [ɹ] in English confirm the fact that while it is frequently used in one language, it does not occur in the other.

Table 7.20 also shows that none of the correlations of [l] in Thai and [l] in English clusters is significant. It has been noted that the rate of [l] in T(r) or E(r) clusters is relatively low. The correlation coefficients show that the two variants are independent or unrelated.

The two remaining variants, the prevocalic [l] and [ø] in clusters, require more attention since it has repeatedly been mentioned that they occur extensively in Thai and they also occur in English to a considerable extent.

With regard to the prevocalic [l] variant, Table 7.19 shows that the use of [l] in English of all fifty-eight subjects (No.1 in the table) correlates significantly with [l] in Thai (see also Table 4.11 and Figures 4.1-4.2). When taking sex into consideration (No.2 and 3), the results show that there is a moderate association* in the male group and there is a statistically

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*See Table C.1 in Appendix C for the interpretation of r_s and its level of association.

significant correlation in the female group (see also Table 7.2 and Figure 7.2a).

Among all the four job levels (Nos.4-7), the r_s value of Job level 1 subjects is the smallest, showing low association. There is a moderate association in the Job level III subjects and the r_s values of Job level II and Job level IV show a high correlation. However, none of the r_s values of the four job levels is statistically significant.

When taking English language background into account, the results show that ELB Type I has the smallest r_s value while there is a high association in the ELB Type II. The correlation of ELB Type III is statistically significant. (See also Table 7.9 and Figure 7.9a).

Among social sub-groups, middle status females with least English exposure (No.14) are the only group that has a significant correlation (see also Table 7.17 and Figure 7.17a), the r_s values of other social sub-groups are also quite high. High status males with less English language background have a negative correlation, signifying that the more they use [l] in one language, the less they use [l] in the other. However, their r_s is non-significant.

In relation to the use of r-dropping, Table 7.20 shows that there is a significant correlation between [ø] for the E(r) and [ø] for the T(r) of all the subjects (No.1 in the table). (See also Table 4.12 and Figures 4.3-4.4). Table 7.20 also shows that the correlation of male subjects as a whole is quite low whereas that of female subjects (No.3) is statistically significant (see also Table 7.2 and Figure 7.2b). The level of association of the three lower job levels ranges from moderate to high. Job level I subjects are the only group that show a different direction in the use of r-lessness although the correlation is not significant. This may indicate code switching in speaking in two different language modes. Among the three types of English language background, those with least exposure to English have a rather high correlation while the r_s values of the other two types are small.

As for social and social sub-groups, their r_s values are not large enough to claim a significant association between the use of r-deletion in English and that in Thai. However, the r_s of middle status females with less English language background signifies a moderate association. More importantly, high status males with less English exposure (No.11) show a negative correlation and the r_s value is

large. The interpretation is that the more they use [ø] in Thai, the less they do in English.

To conclude, most social and social sub-groups have different patterns of T(r) and E(r) usage. In Thai, all of them use prevocalic [l] and [ø] extensively. In English, nearly all of them have a higher frequency of [ɹ] than stigmatized variants in each position of occurrence. The data show that the use of [ɹ] from English for the T(r) is much less than the use of stigmatized variants from the mother tongue to their English. The rank correlation coefficients show that there is a significant positive correlation between the use of stigmatized (r) variants in English and in Thai of the subjects as a whole. The level of correlation between stigmatized (r) variants in English and in Thai of most social and social sub-groups ranges from moderate to high. Some of the correlations are statistically significant. The use of (r) in English of the subjects is therefore influenced by their use of (r) in Thai.