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Korean Americans as Speakers of English: the Acquisition of General and Regional Features

Hikyoung Lee
University of Pennsylvania, hikyoung@babel.ling.upenn.edu

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Abstract

This dissertation addresses Korean Americans as speakers of English and as a unified speech community, exploring the nature and extent of sociolinguistic stratification of the English used by Korean Americans in Philadelphia. The acquisition of three linguistic features is investigated: word-medial /t/ flapping, the use of discourse markers, and the regional feature of Philadelphia short *a*. Statistical analyses examine these features for the effects of linguistic factors and social factors such as age, sex, occupation, age of arrival in the US, length of stay in the US, and English education. Age of arrival shows a very strong effect on flapping: immigrants who arrived in the US as children and US-born immigrants both showed a very high degree of flapping, while Korean-born adult immigrants acquired flapping to a much lesser degree. Style is also analyzed to determine whether speakers show variation along the formality continuum. In addition to production, the perceptual component of English use by the speakers is examined through a perception test. The perception test, administered to native English speakers, elicits judgments of English nativeness and ethnic identity of the Korean Americans. The results of the perception test are correlated with the production results of the linguistic features. In general, Korean Americans show varying degrees of acquisition of the three features according to sociolinguistic factors. Although the speakers exhibit stylistic variation, they have not acquired the Philadelphia dialectal feature of short *a*. The perception test reveals that English nativeness is accurately judged but that ethnic identification is problematic for listeners. The correlation of perception and production is positive in that an increase in the presence of the native linguistic features in the speech being judged is correlated with increased perception of the degree of English nativeness. The three features examined are not taught through formal explicit instruction to either native or non-native English speakers, which implies that speakers must engage in face-to-face interaction with native speakers in order to acquire these native speech community norms.

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Hikyoung Lee

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ABSTRACT

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Hikyoung Lee

Supervisor: Gillian Sankoff

This dissertation addresses Korean Americans as speakers of English and as a unified speech community, exploring the nature and extent of sociolinguistic stratification of the English used by Korean Americans in Philadelphia. The acquisition of three linguistic features is investigated: word-medial /t/ flapping, the use of discourse markers, and the regional feature of Philadelphia short *a*. Statistical analyses examine these features for the effects of linguistic factors and social factors such as age, sex, occupation, age of arrival in the US, length of stay in the US, and English education. Age of arrival shows a very strong effect on flapping: immigrants who arrived in the US as children and US-born immigrants both showed a very high degree of flapping, while Korean-born adult immigrants acquired flapping to a much lesser degree. Style is also analyzed to determine whether speakers show variation along the formality continuum. In addition to production, the perceptual component of English use by the speakers is examined through a perception test. The perception test, administered to native English

speakers, elicits judgments of English nativeness and ethnic identity of the Korean Americans. The results of the perception test are correlated with the production results of the linguistic features. In general, Korean Americans show varying degrees of acquisition of the three features according to sociolinguistic factors. Although the speakers exhibit stylistic variation, they have not acquired the Philadelphia dialectal feature of short *a*. The perception test reveals that English nativeness is accurately judged but that ethnic identification is problematic for listeners. The correlation of perception and production is positive in that an increase in the presence of the native linguistic features in the speech being judged is correlated with increased perception of the degree of English nativeness. The three features examined are not taught through formal explicit instruction to either native or non-native English speakers, which implies that speakers must engage in face-to-face interaction with native speakers in order to acquire these native speech community norms.

CONTENTS

CHAPTER 1

Introduction

1.1 Introduction

The speech community is defined as "an aggregate of speakers who share a set of norms for the interpretation of language, as reflected in their treatment of linguistic variables: patterns of social stratification, style shifting, and subjective evaluations" (Labov 1989a:2). It is characterized by "regular and frequent interaction by means of a shared body of verbal signs and set off from similar aggregates by significant differences in language use" (Gumperz 1972:219) or just simply being "a group of people who interact by means of speech" (Bloomfield 1933:42). In this light, each speech community has distinctive linguistic patterns, whether the demarcation is geographical (e.g., Philadelphia in Labov 1989a) or ethnic (e.g, African Americans in Labov 1966). In the case of Asians, there has been a tendency to characterize all Asians as sounding alike. However, the umbrella terms of 'Asian' or 'Asian or Pacific Islander' do not provide an appropriate level of generalization (Harajiri 1997). In fact, this generalization has never been adequate for linguistic purposes. Just as the speech patterns of Mexican Americans are different from those of Puerto Ricans, the speech patterns of Korean Americans are distinct from those of Chinese Americans and all other Asian Americans.

There have been sociolinguistic studies on the speech patterns of well established immigrant groups such as Hispanic Americans (Silva-Corvalan 1994, Fought 1997). On

the other hand, second language acquisition studies have focused on the imperfect learning of English (Flege 1992, Flege & Hillenbrand 1984, Munro & Derwing 1995 among others). Recently, there have been attempts to fuse sociolinguistics and second language acquisition studies (Bayley & Preston 1996, Preston 1989). However, there have been no studies which attempt to synthesize these two approaches by simultaneously looking at the acquisition of general and regional features by a particular immigrant group.

In this light, Korean Americans are an especially interesting group in that they are relatively recent immigrants to the US who are under pressure to assimilate to English speech norms. Insofar as immigrants tend to form linguistically isolated enclaves in metropolitan areas of the US, there is correspondingly less interaction with native English speakers outside of the "ethnic" group. Lack of exposure to native speakers of English could create growing numbers of Korean immigrants who find achieving native command of English problematic.

1.2 Research Proposal

This dissertation explores the nature and extent of sociolinguistic stratification of the English used by Korean Americans as a speech community. Within this community, the acquisition of three linguistic features in both native and non-native speakers of English is investigated. The two features of word medial /t/ flapping and discourse marker use are general features of North American English while the feature of short *a* is a characteristic of the Philadelphia dialect. The effects of general social variables such as age, sex, occupation, and education are examined as well as those that pertain to non-native

speakers such as age of arrival in the US, length of stay in the US, and English education. Style will also be surveyed to determine whether the speakers show stylistic variation of the linguistic features. The perceptual component is integrated into the dissertation by the administering of a perception test to native English speakers which serves as a means to measure the degree of English nativeness of a selected number of subjects. The results of the test are then correlated with the frequency rates of the production of the three linguistic features. Positive correlations show that speakers who show a high frequency of use of general English features tend to be rated more native than those who show a low frequency of use.

1.3 Theoretical Background

The theoretical foundation of the dissertation draws upon the research conducted in variationist sociolinguistics, second language acquisition (SLA), and a fusion of SLA and sociolinguistics. An exhaustive account of the fields is not necessary to meet the immediate goals of this dissertation and can be found in other sources (Ellis 1994, Labov 1994, Preston 1989, Bayley & Preston 1996, Wolfson 1989 among others). Instead, the following brief literature review introduces key concepts and studies which are relevant to the dissertation.

1.3.1 Variationist Sociolinguistics

Variationist sociolinguistics refers to the quantitative sociolinguistic research tradition grounded in the work of William Labov. In his pioneering study of English used in New York City (Labov 1966), Labov introduced a quantitative paradigm for examining

variation in English. His study emphasized the importance of quantitative analysis anchored in empirically-based research. The term 'variationist' is commonly used to differentiate the nature of this particular sub field from that of interactionist sociolinguistics (Gumperz 1970), the sociology of language (Fishman 1971), and the ethnography of speaking (Hymes 1968) which all fall under the umbrella of the general term of 'sociolinguistics.'[1]

The concept of *systematicity* is the driving force behind variationist sociolinguistics research. Variation is systematic in that "alternative forms of linguistic elements do not occur randomly" and that "the frequency of these occurrences is predicted by 1) the shape and identity of the element itself and its linguistic context, 2) stylistic level, 3) social identity, and 4) 'historical' position" (Preston 1996a:2). In this sense, Labov's research on the Philadelphia dialect feature of short *a* reveals that variation in short *a* is 1) grammatically and lexically conditioned, 2) subject to stylistic variation, 3) a characteristic of working class white speakers, and 4) traced back to Old English (Labov 1989).

The influence of social factors on language use has been widely identified. Studies of the effect of sex have shown that women are innovators in linguistic change and use more prestige forms and that men use more non-standard forms than women (Labov 1990, Trudgill 1972 among others). The close examination of age distributions has shown that age stratification can reflect historical change in a community as well as individual change in terms of age grading which equates to individual change (Eckert 1997:151). The effects of social factors are not independent but interact to a certain extent. For example, Labov (1990:203) states that "sexual differentiation is independent

of social class at the beginning of a change, but that interaction develops gradually as social awareness of the change increases."

Another dimension of variationist sociolinguistics relevant to the dissertation is dialect acquisition. Chambers (1992) is a developmental study of six Canadian youngsters who moved to England. Chambers found that the effect of age was discernible in that there were apparent differences between early and late acquirers: "people who immigrate to different dialect areas will vary in their ability to acquire the more complex features of the new dialect...[later acquirers] will probably never completely master the intricacies of a complex phonological rule" (Chambers 1992:690). Kerswill & Williams (1994) examined the consequences of dialect contact and the sociolinguistic maturation of children and adolescents in Milton Keynes. Some of their findings show that adoption of second dialect features depends on peer group orientation and that adults modify their speech less than children (Kerswill & Williams 1994:9-10).

1.3.2 Second Language Acquisition

Second language acquisition refers to the acquisition or learning of a language where the language plays an "institutional and social role in the community" (Ellis 1994:12). For instance, English is learned by many immigrant groups, including Koreans, as a second language in the US but as a foreign language in Korea. A second language can be learned in naturalistic settings through face-to-face interaction or in instructed settings such as a classroom. The main goal of SLA research is "the description and explanation of the learner's linguistic or communicative competence" (Ellis 1994:15). This is evidenced by

SLA research in four major areas: 1) learner language, 2) learner-external factors, 3) learner-internal factors, and 4) the language learner as an individual (Ellis 1994:38).

'Systematicity' is a central concept in SLA research as well (Schachter 1986, Tarone 1982). Systematic variation has been incorporated in the theory of *interlanguage* (Selinker 1969). Interlanguage suggests that there is an intermediate language system which is deviant from the target language yet influenced by the native language (Selinker 1972.1992). The deviations and variations are rule governed and can be accounted for in a systematic way. However, Young (1991:16) points out that system in interlanguage is defined as a hypothetical relationship between interlanguage forms and the contexts in which they occur which may be explicitly stated and reduced to rule. In addition, he suggests that much variation may be due to surface level constraints imposed by the linguistic environment in which the forms occur.

Studies of interlanguage have examined linguistic aspects such as phonology (Eckman 1981, Ioup & Weinberger 1987, Nagy et al. 1995), syntax (Sato 1988, Tarone 1985), morphology (Young 1991), and pragmatics (Crookes 1990, Kasper 1992). These studies have described the state of the learner's competence at a certain period of time. The concept of interlanguage presupposes first language transfer. Transfer is defined as "the influence resulting from the similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired" (Odlin 1989:27; cited in Ellis 1994:301). In Preston (1996b), transfer is differentiated from universal effects. Transfer implies that "all learners from the same language background make up learner communities" while universals imply that "all learners from all language backgrounds belong to the same learner community" (Preston 1996b:253).

However, a third implication of a more individual notion of learning than transfer and universals states that "subgroups of learners even from the same language background make up distinct communities" (Preston 1996b:253). Studies by Bayley (1991; cited in Preston 1996b:252) which examined past-tense marking by Chinese learners of English and Young (1990; cited in Preston 1996b:254) which examined Czech and Slovak learners' noun plural marking in English provide evidence that different factors influence different subset of learners.

The effects of various factors in the attainment of a second language have been widely studied with age being one of the foremost factors of interest. The *critical period hypothesis* claims that there is a sensitive period for learning in a person's life span after which successful acquisition is not possible (Lennenberg 1967). A study relevant to this dissertation is Johnson & Newport (1989), which tested age related effects on the learning of grammar in Korean and Chinese immigrants. The subjects were categorized according to their age of arrival in the US and the nature of their exposure to English. Subjects were either early arrivals who arrived before the age of 15 or late arrivals who arrived after the age of 17. They found an overall correlation between age of arrival and performance on an English grammaticality judgment test (Johnson & Newport 1989:89). Subjects who arrived in the US before the age of seven showed native performance while subjects who arrived later showed a decline in performance (ibid.:90). The results were explained by a maturational account where "there is a gradual decline in language learning skills over the period of on-going maturational growth and a stabilization of language learning skills at a low but variable level of performance at the final mature state" (ibid.:97).

1.3.3 Fusing SLA and Linguistic Variation

The two fields of sociolinguistics and second language acquisition are not discrete but entwined with each other as are most disciplines. Academia has seen a surge in interdisciplinary or interface endeavors where the relationship between fields are mutually beneficial as well as mutually compatible. The interdisciplinary courtship does not imply that one field is superior or dominating of the other or that one is merely a means to the end of the other. Instead, the strengths of the fields are pooled in order to reach a multidimensional explanation of phenomena which holds "explanatory adequacy" in addition to "descriptive adequacy" (Chomsky 1965:29).

In the case of sociolinguistics and SLA, the relationship has been developing in a multifaceted manner. SLA research has been receptive towards different sociolinguistic approaches. In particular, the application of variationist sociolinguistics to SLA has been steadily increasing (Adamson 1988, Beebe 1988, Tarone 1988, Preston 1989, 1996 among others). The key concepts which link the two fields together are *change, variation,* and *systematicity* as the acquisition of language implies the change and variation of language skills over time whereas language itself is in constant but systematic flux. Furthermore, common ground is found in the central role the effect of social variables plays in language use and language acquisition. The social variables which garner the most attention in both fields are age, sex, social class, style, and ethnic identity (Ellis 1994:201).

Blind adaptations or unidirectional applications of the workings of one field to another are not without criticism. Preston (1993a:153, 1996a:20) lists four impediments which have hampered recent research in sociolinguistics and SLA: 1) the apparent

reluctance or inability of variationists to advance plausible psycholinguistic models, 2) the mistaken understanding of sociolinguistic aims as sociological, social psychological, and anthropological ones, 3) misunderstandings of concepts, findings, and research tools developed in variation linguistics, and 4) the recent relative hegemony of the generative paradigm in SLA research.

One of the first published studies of the application of variationist sociolinguistics to SLA was Dickerson (1974: cited in Preston 1996a:8). This study showed the applicability of Labov's model of sound change to second language phonological development (Beebe 1988:48) by examining the pronunciation of English variables by Japanese speakers over a nine month period. Dickerson found that stylistic variation exists in the interlanguage of non-native speakers and that while native speakers produce more prestige forms as formality increases, non-native speakers produce more target language forms.

One study particularly relevant to this dissertation is Adamson & Regan (1991). This study investigated the acquisition of (-ing) in Vietnamese and Cambodian immigrants from a sociolinguistic and psycholinguistic perspective. Varbrul 2 was used as a means of variation analysis. The speech of the non-native speakers showed that different grammatical constraints from native speakers influenced the production of (ing). Males were shown to use the /in/ form more frequently than females, perhaps "reflecting a desire to accommodate to male native speaker norms rather than an overall native speaker norm" (Adamson & Regan 1991:1).

The present study does not attempt to assess the relevance of sociolinguistic or SLA approaches and instead seeks a holistic description of empirical data — a holistic

explanation that can only be achieved, due the nature of the data, by reaching out to various facets of the two fields.

1.4 The Korean American Community

Labov stated that "language is not a property of the individual, but of the community" (Labov 1989a:52) and that the "English language is a property of the English speech community" (Labov 1989a:2). The speech community consists of several overlapping sub speech communities so that an individual can belong to more than one sub community but still be a part of the larger speech community (Labov 1989a:2, Trask 1999:285). For instance, in the case of the Korean Americans in Philadelphia, an individual can be part of a bilingual Korean English speech community which in turn is part of the ethnic Asian speech community which is part of the Philadelphia speech community. The thread that weaves the speech communities together is 'interaction' within each speech community and across speech communities. Interaction is the means for linguistic transmission and for the acquisition and maintenance of community speech norms.

It is the notion of community which serves as the basis for the exploration of the speech used by such a community. This section examines the role of 'ethnicity' in determining the Korean American community and how this will linguistically translate into the foundation for a homogeneous Korean American speech community.

1.4.1 Korean Immigration to the United States

Koreans are described as relatively new immigrants to the United States (Kim 1981:3). They are also one of the fastest growing immigrant groups which have large populations on both the East and West coast. They are new in the sense that large scale immigration started after the Immigration Act of 1965 which took effect in 1967. Korean immigrant history is usually classified into three waves (Barringer 1989, Choy 1979, Han et al. 1990, Kim 1981, Kim & Patterson 1974, Park 1997, Portes & Rumbaut 1996). The first wave of Koreans refers to approximately 7,000 Korean laborers to Hawaii between 1903 and 1905 and about 1,000 picture brides. American missionaries played a decisive role in choosing who could immigrate prior to 1965 and chose those with a religious inclination. The Immigration Act of 1924 enacted a national origins quota and therefore severely restricted the number of immigrants from Asia as well as other parts of the world (Park 1997:9). The second wave, between 1950 and 1965, brought 6,500 Korean wives of US servicemen who were stationed in Korea and about 6,000 Korean students. The third wave came with the Immigration Act of 1965 and the Immigration and Nationality Act amendments of 1976 (Kim & Yu 1996:377).

The most significant characteristic of the 1965 Immigration Act was the elimination of a national origins quota and the instillation of a graded system which gave preference to family members of US citizens, resident aliens, and workers with needed skills (Goode & Schneider 1994:11, Park 1997:13). A large number of medical professionals entered at this time which set the stage for a group of immigrants which was controlled by economic, demographic, educational and familial factors (Kim 1981:46). On the other hand, the Immigration and Nationality Act amendments of 1976

limited the entry of professionals (Park 1997:15). This amendment is considered to have altered the character of Korean immigration because professionals and skilled workers were no longer a priority. However, the majority of immigrants still entered through family reunion visas. This tendency triggered what is called 'chain migration' which refers to immigrants sponsoring the immigration of family and friends to a country (Goode & Schneider 1994:137,261).

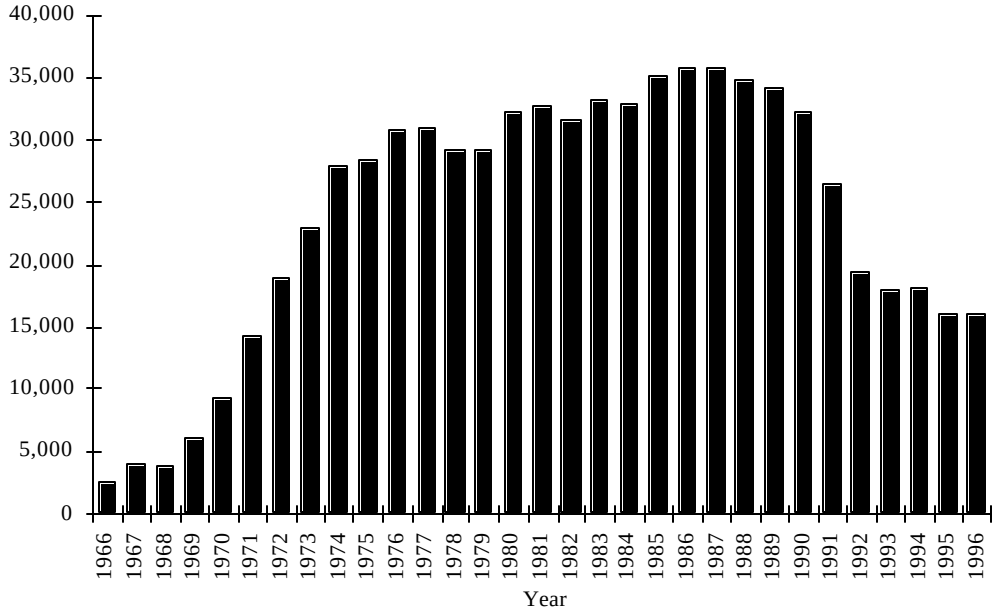
According to the US Immigration and Naturalization Service (INS 1997), Koreans were the seventh largest immigrating ethnic group from the years 1981-1996; and according to the 1990 US Census (US Census Bureau 1997), they comprised 11.6% of the total of Asian or Pacific Islanders in the US.[2] Table 1 shows the number of Koreans admitted to the US from 1948 to 1996.

(1) Table 1. Number of Korean immigrants admitted (INS 1994,1997)

Year	Number
1948-50	107
1951-60	6,231
1961-70	34,526
1971-80	267,638
1981-90	333,746
1991-96	111,727

These numbers show the increase and decrease of Korean immigrants to the US over the years while Figure 1. shows the most recent trends of Korean immigration to the US.

(2) Figure 1. Recent Korean immigration



Korean immigrants tend to be urban middle-class professionals or skilled blue collar workers. The majority of immigrants are from urban areas in Korea which indicates an urban-to-urban migration pattern (Kim 1981: 4-5). Koreans are also well-educated with the majority of immigrants being college graduates. Korean immigration is also characterized as professional and entrepreneurial migration. This “brain drain” in the originating country has been caused by the lack of jobs back home and the wealth of opportunity in the US. However, this pattern has resulted in ‘displacement’ or ‘downward mobility’ in terms of social class placement which forced Koreans into retail and service businesses which are not commensurate with their education and experience (Kim & Yu 1996:xix). Koreans are deemed rather successful immigrants who have sometimes been considered to have succeeded too quickly. The reason for this success has been attributed to "the means for economic self-establishment in the form of either skills or dollars” (Kim 1981:47).

As for the reasons why Koreans immigrate to the US, Kim (1981:9) isolates several push and pull factors. Push factors are those that seem to make emigration necessary and pull factors are reasons of appeal and desire to emigrate. In order to control population and the job market, the South Korean government encouraged immigration not only to the US but to Germany and other European destinations. The US has also been engaged in a American propaganda campaign which instilled images of the American dream and materialism after the Korean War. In a more causal sense, Park (1997:12) notes the 'American fever' Koreans have been constantly obsessed with which drove people to immigrate. Although, the majority immigrate due to familial ties and family reunification, the immigrants themselves cite opportunity for children's education, self-improvement, and a desire for a higher living standard as main reasons (Park 1997:34).[3]

1.4.2 Korean Immigrants as a Community

The Korean American community like other immigrant communities is a distinct hybrid of language and culture. American culture is adopted selectively while Korean culture is preserved (Park 1997:2). The concept of the community as it is described in sociological theory is depicted as a "human group with so broad a range of institutions, culture, and activities that individuals can live their full lives within its confines" (Kim 1981:7). A community also has a unique culture and shared values. In this sense, Kim (1981) justifies the Korean American community in New York City as a full-fledged emerging "ethnic community." Thus by segregating themselves from the mainstream American community and preserving ties with Korea, Korean Americans have developed their own

sense of a community (Hurh 1977, 1984, Kim 1977).[4] However, in terms of racial perceptions, Park (1997:140) found that Koreans in NYC assigned Asians a higher status than that of African Americans and lower than that of white Americans which is seen to reflect the notion of race.

Recently, a second generation of Koreans has emerged consisting of US-born children while third generation Koreans are almost non-existent. The generational classification of Koreans is very important in establishing an immigrant identity. The *il-se* (first generation) are those born in Korea who have immigrated as adults and the *i-se* (second generation) are US born descendants of Korean immigrants. A third category which has been deemed the *il-chom-o-se* (1.5 generation) or 'knee-high' generation (Park 1997:3), while not a clearly defined group, fills the gap between the first and second generation. The 1.5 generation widely refers to those who were born in Korea and came before completing high school although the 'knee-high' term appears to designate children of a younger age.[6] In addition, Park (1997:94) claims that Korean American culture is centered around women. She supports this claim by citing the vast numbers of wives' families immigrating compared to the husband's family and the presence of women in the workforce.[7]

As for citizenship, in 1952 The McCarran-Walter Act was passed which allowed East Asians to apply for US citizenship (Kim & Yu 1996:368). Acquiring citizenship is essential for political reasons and is the "first stage for any foreign minority that wishes to make itself heard" (Portes & Rumbaut 1996:115). However, the reasons for obtaining citizenship for Koreans are often pragmatic. Citizenship is necessary so the Koreans in the US can invite family members over on family reunification visas. Only a total of

5.8% of Koreans were naturalized in the period of 1976-1993 (Portes & Rumbaut 1996:116).

Korean American Enclaves

An ethnic enclave is defined as being a place where a group's culture, identity, and internal solidarity are preserved (Portes & Back 1985: cited in Park 1997:45). Such ethnic '-towns' as Chinatown are examples of enclaves. However, although there are perceived Koreatowns in large cities, these towns serve businesses purposes only and are not integrated with the residences of the Koreans. Koreans also have a strong desire to migrate to the suburbs which adds to the lack of a full scale Koreatown in the city.

Koreans, like other immigrant groups, settle in urban areas where labor and housing opportunities are abundant. Cities such as Los Angeles (Yu et al. 1982) and New York City serve as entry points for Koreans. Koreans were also the single largest immigrant group to arrive in the cities of Philadelphia and Baltimore in 1987 (Portes & Rumbaut 1996:41). However, Koreans are not prone to living in the same neighborhood their businesses are in. A large number of Koreans live in affluent suburbs which are predominantly white. An interesting fact is that Koreans have not yet established a single ethnic residential block in a particular neighborhood (Kim 1981:184).

Korean Organizations

Kinship is a large factor in the community. A vast number of the Korean small businesses are family-oriented with all employees being Korean. However, after the 1986 passage of the Immigration and Control Act, Korean business owners have hired non-Korean workers who are mainly African-American or Hispanic, depending on the ethnic demographics of the neighborhood the business is situated in.

It is organization-centered activities that are the locus of Korean American life (Kim 1981:185). Various associations are organized according to religion, politics, business, profession, recreational inclinations, veteran, and social/civic services (Kim 1981:209-210). Another organization which exerts much influence because it is based on money is 'gye' which is the Korean equivalent of a rotating credit association (Kim 1981:210). The details of gye are not mentioned here because of its complexity. In a gye, several people gather on a regular basis to save a certain amount of money. They then take turns using the lump sums of money which have been collected for large purchases such as to finance a business or education for their children.

The Christian church is the single largest organization in any Korean community. It is the principal place for worship as well as other secular socialization activities. Park categories three types of Koreans who go to church: those who go for reasons of convenience, born-again Christians, and critical church-goers (Park 1997:184). At church, a different social class and status are present among the Koreans from the mainstream American society. People can become deacons and part of a church hierarchy regardless of their line of work and educational attainment. Unlike Buddhist temples which are drenched in Korean culture and language, the church is a pure amalgamation of Korean and American values. In some aspects, the church is a small business which

provides financial support to other businesses as well as social networks. After six days of work, the Korean church is the only place which provides opportunities for social interaction. The church is the largest manifestation of Korean nationalism and culture and is even seen as a pseudo extended-family (Kim 1981:199).

Small businesses and Protestant Christianity appear to be the major characteristics of the Korean American identity (Park 1997:184). This identity is also separated by the degree of Koreanness and Americanization. The Korean Americans analyzed by Kim (1981:181) identified themselves primarily as Koreans. In general, the Korean immigrant community appears to be autonomous in nature. It is self-sustaining and self-contained due to patriotism and alienation from the mainstream American society.

Linguistic Consequences of Being an Immigrant

Koreatown, in any city with a large number of Korean immigrants, is mainly recognizable by the many store signs in Korean. Some stores deliberately display signs which say "English spoken here" (Portes & Rumbaut 1996:20) while other stores discourage non-Korean customers. Learning English is considered a basic step which opens doors to the larger community, education, jobs, health care, and citizenship (Portes & Rumbaut 1996:194). Language is also considered the "principal initial barrier confronting recent immigrants" (Portes & Rumbaut 1996:169).

Americanization ultimately depends on English proficiency. Accented English is not highly tolerated in the US as it is in European countries (Portes & Rumbaut 1996:194). A general historical pattern is that the native language of immigrants is lost by the third generation. (Portes & Rumbaut 1996:196,229-230). The first generation

naturally retains their native language, while the second generation acquires English as the language used in schooling and the society at large. The third generation then acquires English as their native language having parents who are almost native English speakers. English is seen as a prerequisite to social acceptance and integration. The first step for immigrants in adopting to society is acculturation which is the learning of language and culture whereas the final stage is considered assimilation.

80.8% of Korean Americans speak Korean at home while 63.5% do not speak English very well and 41.4% are linguistically isolated (1990 US Census). The following tables show the linguistic reality of Koreans in the US.

(3) Table 2. Korean spoken at home (persons 5 years and over) (1990 US Census)

Region	Number	Percentage
United States	626,478	100.0%
Philadelphia	5,712	0.9%

(4) Table 3. Ability to speak English for non-native speakers (1990 US Census)

Question asked on Census: "Does this person speak a language other than English at home?" "What is this language?" "How well does this person speak English—very well, well, not well, not at all"

English ability	US (N=31,844,979)		Koreans (N=626,478)	
very well	17,862,477	56.1%	242,939	38.8%
well	7,310,301	23.0%	195,120	31.1%
not well	4,826,958	15.2%	154,617	24.7%
not at all	1,845,243	5.7%	33,802	5.4%

(5) Table 4. Household language (Asian or Pacific Islander) and linguistic isolation

NOTE: A linguistically isolated household is one in which no person 14 or older speaks English at least very well. (1990 US Census)

Area	Total	Isolated	Not isolated
United States	1,718,359	520,504 (30.3%)	1,197,855 (69.7%)
Philadelphia	11,097	4,321 (38.9%)	6,776 (61.1%)
New York City	123,629	56,479 (45.7%)	67,150 (54.3%)

In the US, bilingualism has not traditionally been considered a virtue although it is the norm for the vast majority of people in the world. Rather, bilingualism has been seen as unstable and transitional, thus hindering complete assimilation and Americanization (Portes & Rumbaut 1996:219). Korean language sources are abundant in the Korean American community. The big cities have their own broadcasting stations which provide local news services and TV programming from Korea. There are also Korean radio stations, newspapers, and magazines. The internet has also made available direct access to Korean websites and Korea in general.

The 1st generation are native speakers of Korean with limited proficiency in English. The 1.5 generation are also native Korean speakers but have varying degrees of English proficiency which depends widely on what age they came to the US. The 2nd generation are native English speakers, usually with limited proficiency in Korean. They are often what is called “passive” or “receptive” bilinguals, which means their passive skills of listening and reading are better than their active skills of speaking and writing (Romaine 1989:10). This may be in part due to how child care is managed in a Korean family. Because the wife works, the wife’s mother or siblings are usually called over so

they can take care of the children (Park 1997:84). There is often communication breakdown because the grandparent generation speaks only Korean while the children usually only speak English. The elderly are more or less confined at home or at Korean senior centers which are usually run by local Korean churches or organizations.

Most parents consider English the key to the success of their children in society (Kim & Yu 1994:xix). The parents also linguistically rely on their children who they employ in their small businesses. Because the parents rely on their children, there is a tendency for the parents to lose authority over and respect from their children (Park 1997:83, Portes & Rumbaut 1996:239). However, the fear of "linguistic racism" (Park 1997:141) is real because the language barrier does hinder the job prospects of newly arrived Korean immigrants because it causes displacement of job skills and professional qualifications. In addition, the lack of English skills isolates Koreans from English dominant settings in society. On the other hand, the use of the immigrant's native language is a sign of ethnic and emotional solidarity. It is an identification marker for Koreans. In terms of native-English speakers, they are said to be highly intolerant of foreign accents and grammatical errors (Goode & Schneider 1994: 234). In Philadelphia, although there is no visible English Only movement, which is aimed at declaring English the official language of the US, the working-class at large is said to support one (Goode & Schneider 1994:234).

The church is a bilingual as well as bicultural organization which reflects Korean American society. The 1st and 1.5 generation attend Korean language services while the 2nd generation attends English services. The church also offers Korean language classes for the children of immigrants where Korean language as well as customs are preserved

and passed on. Dearman (1982: cited in Park 1997:190) states that "Korean churches are centers where the attempt to preserve language, social bonds, and customs central to Korean identity is very visible." In addition, Park (1997:197) speaks of a “religious language” that is used by the Koreans to express a common ground between Americans and themselves. In church, the use of the Korean language is promoted while the use of English is not which implies that Koreans are more likely versed in the religion of Christianity rather than English (Kim 1981:207).

1.4.3 Korean Americans in Philadelphia

Koreans were the largest group of immigrants in Philadelphia in 1985 (Goode & Schneider 1994:51). Although there was a flux of Korean immigration to New York City following the 1965 immigration law that eliminated quotas based on nationality, the bulk of immigration to Philadelphia began in the 1970s. The Koreans who came then were well-educated and were professionals who entered through occupational preference. Most could not engage in the original line of work they did in Korea and instead brought over capital to start small businesses such as retail stores or dry cleaners.[5] The Asian population in Philadelphia grew by 145% between 1980-1990. Korean have played a significant role, in addition to other immigrant groups, in revitalizing shopping strips and abandoned neighborhoods.

The majority of Korean businesses in Philadelphia originated in New York City. One of the first businesses to expand to Philadelphia was the wig industry in the early 1960s (Toll & Gillman 1995:66). In subsequent years, the businesses grew more diverse to include groceries, dry cleaning plants, and restaurants which mirrored those in New

York City. Although the businesses were located within city boundaries the owners did not necessarily live where they work (Goode 1997). Concentrated residential areas of Koreans are not particularly common other than in very large cities. Therefore, the linguistic experience of a typical Korean American would differ greatly depending on the concentration or dispersal of Koreans. Evidence that Koreans in Philadelphia are suburban bound compared to those residing in New York City is found in Table 5. New York City+ refers to the city of New York, Northern NJ, Long Island, and CT. Philadelphia+ includes the city of Philadelphia and the surrounding counties of Montgomery, Delaware, and Bucks.[8]

(6) Table 5. Residential patterns of Koreans (US Census Bureau 1997)

Area	Number	Percentage
New York City	71,225	83.64
New York City+	85,149	16.36
Philadelphia	7,282	42.08
Philadelphia+	17,303	57.92

Koreans are known for their ethnocentrism. In Philadelphia, Korean immigrants have their own Korean center. The Koreans also use language as a barrier to the outside society. The only English found in various sources of Korean immigrant literature is in the Korean American Friendship Society brochure which is an umbrella organization bridging various ethnic groups (Goode & Schnieder: 1994:86-87). In addition, as previously mentioned, the Korean church is targeted solely to Koreans and not the society at large.

The Koreans in Philadelphia were found to be suburban bound and centered on business enterprises. The small businesses do not foster interpersonal interaction and customer loyalty but self-service where interaction is minimal. These 'limited-access" Korean stores cater to Korean clients and not the surrounding community (Goode & Schneider 1994:155). Portes & Rumbaut (1996:133) attribute this to "nativist hostility" due to cultural and linguistic differences between the native population and immigrant business owners.

In terms of linguistic cohesiveness, of the 7,282 Koreans in Philadelphia, 5,712 state that the language spoken at home is Korean (1990 US Census). This indicates that 78.43% consider their home language Korean which is similar to the national figure of 80.8% reported of Koreans. The dominance of the home language is seen in one of the most significant and notorious incidents in the Philadelphia Korean community, dubbed the "sign incident" (Goode & Schneider 1994:189-192). In 1986, Korean merchants proposed that all street signs in the Olney area be in Korean. Olney is more of a business concentration of Koreans than a residential one and serves as an entry point for newly arrived Korean immigrants. The rationale for this was so Korean retailers from middle-Atlantic regions could easily find their way to the Korean sector of Philadelphia and so enable Philadelphia to become a hub for retailers. However, the residents of Olney became enraged that there was no prior discussion and consensus in the community over the signs. A major retaliation by the non-Korean Olney residents resulted in the removal of the Korean signs by the Koreans. Portes & Rumbaut (1996:133) attribute this to nativist hostility due to cultural and linguistic differences between the native population and immigrant business owners.

It is clear that Korean Americans in Philadelphia form a community in terms of ethnicity and language in that Korean is still the dominant language of use. However, the question of what role English plays in the community is left unanswered and therefore sets the stage for the present study.

1.5 Overview of the Dissertation

In general, this dissertation attempts to define the nature of English use in the Korean American speech community in Philadelphia. The extent of acquisition of three linguistic features of colloquial English is examined. The three features reflect general and regional characteristics of the English spoken in Philadelphia and in North America. This dissertation also investigates perceptions of English nativeness of Korean Americans by native English speakers and how and if these perceptions can be correlated with the production of the three linguistic features by the Korean Americans.

Chapter 1 has presented an overview of the theoretical background which serves as the foundation for the study and of Korean Americans as an ethnic community in Philadelphia. Chapter 2 provides the methodology used in the study and an in-depth discussion of the linguistic and social variables chosen for examination. Results from previous pilot studies and their impetus for the present study are also presented. Chapter 3 focuses on the linguistic feature of word medial /t/ flapping and the results of a multivariate analysis of the production of flapping in the Korean American subjects. Chapter 4 presents the results of a frequency analysis of discourse marker use and the manifestation of the Philadelphia short *a* pattern in the subjects. Chapter 5 discusses the variable of style in the speech of the Korean Americans. Chapter 6 presents the English

nativeness perception test which was administered to native English speakers. The results of the test are then correlated with social and linguistic features. Lastly, Chapter 7 offers a summary of the present study and implications for acquiring and teaching English as a second language.

NOTES

[1] William Labov has resisted the term 'sociolinguistics' because "it implies that there can be a successful linguistic theory or practice which is not social" (Labov 1972:xiii). However, the term is widely used and in some uses is subcategorized into macrosociolinguistics (sociology of language) and microsociolinguistics (interactionist sociolinguistics). The former includes issues such as language contact, choice, use, maintenance, and change at the societal level while the latter is based on face-to-face interaction.

[2] Before 1970, Koreans were included in the 'other Asian' category but in the 1970 US census Korean were counted as a distinct ethnic group for the first time. The 1990 census omitted questions about the nationality of parents (Portes & Rumbaut 1996:233). Broadly, the US Census Bureau uses the following terms to categorize race: 1) White, 2) Black, 3) American Indian, Eskimo, or Aleut, 4) Asian or Pacific Islander, and 5) Other race. The US Immigration and Naturalization Services (INS) started to sub-categorize ethnic groups within the category of 'Asian or Pacific Islander' in 1948.

[3] See Appendix A for additional facts about Korean Americans.

[4] Li (1982:123) found that ethnic residential segregation shows a positive correlation with the tendency to resist language shift.

[5] An article in Philadelphia magazine (1982) depicts the typical Korean immigrant in Philadelphia as being hard working middle class people looking for the American dream.

[6] The term 'knee-high' generation is only mentioned in Park (1997:3) and is used to refer to teenage immigrants who arrive with their parents. This does not appear to be a term widely used by Koreans.

[7] Park (1997:97) states that "if Korea is a country for men, America is for women."

[8] The data for Philadelphia city and Philadelphia county are identical. The geographical distribution based on the 1990 US Census.

CHAPTER 2

The Study

This chapter discusses the nature of the subjects selected for the study, methodology, and the relevant linguistic and social variables. Lastly, a summary of the results of previous pilot studies are presented which provide rationales for this study.

2.1 Methodology

This section discusses the procedures for subject selection and how the sociolinguistic interview was conducted.

2.1.1 The Subjects

The major goal in selecting subjects for this study was to faithfully represent the Korean American community in Philadelphia. For this reason, it was decided to construct a stratified sample, defined by Labov (1984:30) as a sample which selects "only those individuals whose sex, age, class, and ethnicity fill pre-specified cells to obtain representatives of all types." Drawing from this generalization, it was determined for the nature of the study that subjects first be stratified according to the factors of age and age of arrival in the US. These two factors were considered the most significant lines of stratification because the goal of the study is to examine the extent of English acquisition in a certain ethnic community.

Table 6 shows the pre-specified cells which were designated and how the cells were filled or not filled. The top row of the table indicates the age of arrival in the US. A discussion about the demarcations concerning age and age or arrival will be discussed in §2.3.2.

(7) Table 6. Demographics of subjects

Age	Sex	0	1 to 5	6 to 10	11 to 15	16 to 25	26 to 40	41+
18-30	m	3	3	3	3	3	3	x
	f	3	3	3	3	3	3	x
31-40	m	3	3	3	3	3	3	x
	f	3	3	3	3	3	3	x
41-50	m	x	x	x	x	3	2	0
	f	x	x	x	x	2	2	2
51-60	m	x	x	x	x	3	3	1
	f	x	x	x	x	0	2	0
61+	m	x	x	x	x	1	2	1
	f	x	x	x	x	1	1	3
Total	101	12	12	12	12	22	24	7

As can be seen from Table 6, due to immigration history and difficulty finding subjects, several of the cells could not be filled. For instance, it was extremely difficult to find any subjects who were born in the US and over the age of 40 due to the fact that such a person would be a rarity in light of recent immigration history. Therefore, the sampling reflects the overall nature of the Korean immigrant population at present.

Various procedures were adopted in order to fill the cells. Statistically speaking, the sample was not ramdom in that it was not possible to enumerate the Korean population as a sampling universe and then select individuals at random from it, as was done, for example, in the Montreal French study (Sankoff & Sankoff 1973:33). However, selection was made on the basis of approaching Korean churches and businesses

throughout Philadelphia, focusing especially on areas where Korean businesses are concentrated (Upper Darby, and the 5th and Olney area). Within these universes, the only selection criteria were those dictated by the sampling grid. Selecting individuals out of a geographical and associational base where Koreans are concentrated lent the greatest possible element of randomness to the selection of the sample. After initial contact with a subject was established, the subject was asked to introduce family or friends to the researcher. In particular, some of the subjects were key people due to the range of people they knew and were willing to introduce on the interviewer's behalf. In this sense, a loose social network was established which in turn provides evidence for the speakers to be considered a community.

The geographical area the subjects resided in was restricted due to the fact that one of the variables examined in the study was the acquisition of a dialectal feature of Philadelphia. Initially, only the subjects who lived within the Philadelphia city boundaries were considered, in order to maximize the possibility that they would be exposed to this local feature (Labov 1989a). However, as previously seen in Chapter 1, the subjects who had businesses or worked in the city did not necessarily reside in the same districts and were often found to be living in the suburbs of Philadelphia (Goode 1997, Toll & Gillam 1995, Warshaw 1982). To briefly summarize the residential patterns of Koreans, 7,282 Koreans were reported to be living in Philadelphia county (US Census Bureau 1997). However, when the surrounding counties of Montgomery, Delaware, and Bucks are added to this number, an increase to 17,303 Koreans occurs which in turn reflects the actual nature of the residential pattern of Koreans (US Census Bureau 1997). Therefore, 57.92% of Koreans live in the suburbs of Philadelphia as opposed to 42.08%

who actually live within city boundaries. Of the 101 subjects, 31 (30.69%) resided within the city of Philadelphia and 70 (69.31%) resided in the suburbs.

Due to the large number of the subjects (101), the subjects were classified according to age of arrival in the US and generation in general. The first classification according to age of arrival is seen in Table 7.

(8) Table 7. Group classification of subjects

Group	Age of arrival	Number of speakers
G1	0 years	12
G2	1-5 years	12
G3	6-10 years	12
G4	11-15 years	12
G5	16-25 years	22
G6	26-40 years	24
G7	41+ years	7
TOTAL		101

This classification was used in data analyses.

Korean Americans classify themselves into generations for social purposes. There is even a folk term *ilcemosey* '1.5 generation' referring to those immigrants who came to the US as children (cf. §1.4.2). This category is adopted here as well as other generational terms. The following categories for generation were considered in relation to the age of arrival in the US category.[1]

(9) Generational classification of subjects

1st generation

Born in Korea and arrived in the US after the age of 16.

1.5 generation

Born in Korea and arrived in the US between the ages of 6-15 years.

2nd generation

Born in the US of ethnic Koreans or born in Korea and arrived in the US before the age of 5.

All of the subjects were ethnic Koreans and of those who were married, only one was married to a spouse of non-Korean descent. The age of 16 was chosen as a cut off line because this is an age which can be considered the end of the critical age period of language acquisition (Johnson & Newport 1989). In addition, several of the 1.5 generation subjects in the study informally mentioned this age as a cut off point for their classification standards. In terms of the age of arrival in the US and generation, Table 8 shows the classification of the speakers.

(10) Table 8. Groups according to generation

Generation	Groups	Number of speakers
2nd generation	G1, G2	24
1.5 generation	G3, G4	24
1st generation	G5, G6, G7	53
TOTAL		101

On account of the previously mentioned measure of classification, the subjects in the study will be mostly addressed in terms of their age of arrival in the US group and generation. However, individual subjects will be mentioned according to their relevance to the discussion at hand.

2.1.2 The Sociolinguistic Interview

Labov (1984:32) cites ten goals of the sociolinguistic interview. Here, three of the goals most relevant to the study are stated.

(11) Goals of the sociolinguistic interview

> To elicit narratives of personal experience, where community norms and styles of personal interaction are most plainly revealed, and where style is regularly shifted towards the vernacular
>
> To isolate from a range of topics those of greatest interest to the speaker, and allow him or her to lead in defining the topic of conversation.
>
> To obtain specific information on linguistic structures through formal elicitation: reading texts and word lists.

The subjects were all asked for a face-to-face interview with the interviewer. Although in one of the goals of the sociolinguistic interview (Labov 1984:32) it is stated that the interview should be one to two hours in length, the majority of the subjects refused to talk for such a long time and complied to an average of half an hour. Their main reasons were that they were busy, but for more of the older subjects it was sensed that they felt they were being tested in some way. In addition, some of the subjects admitted their fear of speaking in English for such a long stretch of time as they never had spoken at such a length in English before. The interviewer attempted to convince the subjects that she couldn't speak Korean and could only converse in English but it was clear that the subjects thought she was at the least a passive bilingual who could

understand if not speak Korean. The interviewer also tried to "emphasize the position of an interviewer as a learner" (Labov 1984:40) and told the subjects that she was a student studying Korean immigrants.

The subjects were directly informed that the interview would be a candid recording and that their anonymity would be protected and ensured (Labov 1984:51-52). Although face-to-face interviews were preferred, in circumstances where meetings with the subjects could not be arranged telephone interviews were conducted.[2] Of the 101 speakers interviewed, 66 were interviewed face-to-face while 35 subjects were interviewed over the telephone. Some of the subjects refused to give their exact age so age was estimated in order to fill the subject sampling grid. The majority did not wish to disclose details about their former life in Korea before arriving in the US and their present life. In addition, some of the subjects showed hostility when asked about matters that were relatively personal. Therefore, as will be later discussed in §2.3.2, these difficulties affected and restricted the number of social variables in the study.

Several conversational modules (Labov 1984: 33-34) were chosen to elicit speech in the interviews. The modules of family and socializing were used almost uniformly across the subjects. However, it was found that such modules as 'danger of death' or 'dating' were not culturally appropriate for use with Koreans. Koreans show deference to strangers and do not converse with a stranger about personal matters or even remotely personal matters. Therefore, pilot interviews were conducted with three Koreans in order to determine a set of conversational modules which would be culturally appropriate.[3] It was concluded that modules should be different according to age and age of arrival. For instance, it was considered more appropriate to introduce the 'danger of death' module to

a younger person who arrived in the US at an early age than to a older person who arrived at a later age. In addition, it was found that people were willing to talk about their first impressions of the US upon arriving and on trips back to Korea for the first time after arriving. Therefore, these modules, specifically aimed at immigrants, were incorporated and used with all of the subjects. Of course, tangential shifting was accepted from the subjects and the linking of individual modules into a conversational network was attempted (Labov 1984:34).

The main part of the sociolinguistic interviews was aimed at eliciting the vernacular. However, in relation to the goal of obtaining specific linguistic information through tasks, the last portion of the interviews was devoted to three formal speech elicitation tasks. The tasks were the reading of a word list, the reading of a reading passage, and a semantic differential task. The nature of these tasks will be discussed in §5.1.1. Again, whether the tasks were feasible for non-native speakers to engage in was determined by the three pilot interviews previously mentioned. All three of the pilot interviewees were non-native speakers. None showed difficulties in the reading tasks but expressed difficulty concerning the semantic differential task which required them to define and compare the meaning of words. However, it was not deemed impossible to do and the pilot interviewees were more embarrassed about not being able to explain the meaning differences due to their English skills and continuously mentioned that they were more than capable of explaining in Korean but not as well in English.

2.2 Linguistic Features

This section examines the linguistic features selected for analysis in the study. The features are word medial /t/ flapping, discourse marker use, and short *a*. An in-depth discussion of the features will be presented later in relevant sections concerning their analysis.

2.2.1 Word Medial /t/ Flapping

As a measure of whether the Korean Americans have acquired the norms for North American English, word-medial /t/ flapping was chosen for examination. This process of lenition is a pervasive phenomenon in North American English which sets it apart from other varieties of English. In this study, it is considered an indicator of English nativeness in the speakers. Flapping in certain phonological contexts gives the speaker's English a native quality. On the other hand, the absence or incorrect placement of flapping is considered unnatural or an indicator to Americans of a foreign variety of English such as British English (Shockey 1984). However, whether the speaker learns English as a native or non-native speaker, the flapping rule is not taught overtly in school. In particular for non-native speakers, flapping is almost certainly acquired unconsciously with a tendency for the overgeneralization of this rule in contexts where flapping does not occur for native speakers.[4]

The flapping rule is dependent on stress and is posited as follows:

(12) Flapping rule (Kahn 1976:58)

$$/t/ \rightarrow [D] \;/\; [-cons] - \begin{matrix} \alpha\text{syllabic} \\ \alpha\text{-stress} \end{matrix} \alpha$$

The generalization [-cons] includes /l,n,r/. The analysis of flapping will be based on Kahn's generalizations concerning word-internal flapping (Kahn 1976:56-61,104-105). The envelope of variation in the study is the following phonological environments shown in Table 9.

(13) Table 9. Environments for word-medial /t/ flapping (Lee & Kobayashi 1997)[5]

	Environment	Example
1)	V' _ V	wa[D]er
1')	V' V _ V	nega[D]ive
2)	V'l _ V	shel[D]er
3)	V'n _ V	twen[D]y
4)	V'r _ V	par[D]y
5)	V' _ l	li[D]le

Tokens will be assigned to these categories for the purposes of GoldVarb analysis. A more detailed account of flapping and what factors are considered will be given in §3.1.

2.2.2 Discourse Marker Use

The second linguistic variable examined is the use of discourse markers. Discourse markers are defined as utterances which do not affect the propositional meaning of the sentence and have undergone semantic bleaching (Sankoff et al. 1997:195-6). Examples of such discourse markers in English are *well*, *you know*, *like,* etc. In addition, the scope of discourse markers will exclude hesitation forms such as *uh* and the use of discourse markers as hesitation indicators.

The study is concerned in particular with the use of discourse markers as characteristic of smoothly flowing speech production. The issues at hand are 1) whether the use of discourse markers is an indicator of native-like fluency, 2) whether there are different patterns of use in the speakers depending on their degree of English nativeness, and 3) whether there is a tendency to use particular discourse markers. In addition, the possibility of age grading as an influencing factor will be examined.

As discourse markers are not taught through formal instruction, it is speculated that the more exposure to native English speakers, the higher the frequency of use will be found among the Korean Americans. For the non-native speakers, the correct use of discourse markers will also indicate a high level of competence in English syntax as discourse markers enter into a construction syntactically (Sankoff et al. 1997:196). A more detailed discussion of discourse marker use will be given in §4.1.

2.2.3 Short a

Short *a* is examined in order to determine whether Korean Americans have acquired this particular regional feature. The main question is whether Korean Americans who are non-native or native English speakers acquire the appropriate regional short *a* pattern. It has been demonstrated that African Americans in Philadelphia (Henderson 1996) do not show the same pattern as white Philadelphians. In addition, studies on the acquisition of short *a* by children have found that age is a factor in acquiring the regional pattern (Payne 1980, Roberts & Labov 1995). However, the distribution of short *a* has not been studied in any ethnic Asians.

The lexical split of short *a* is a characteristic of the urban regions of the Middle Atlantic states (Labov 1994:334). The sound change involved in short *a* is the tensing of /æ/ to /æh/ and raising to [:, e: , i:] (p.334). In addition, short *a* is realized differently in Philadelphia and New York City. Therefore, the study will primarily focus on whether Korean Americans in Philadelphia acquire their particular regional pattern of short *a*.

The question at hand is whether Korean Americans have indeed acquired distinct regional patterns of short *a* —and if the speakers show the same distributions, whether a pan-Korean American realization (i.e., a non-regional standard) of the vowel exists. Short *a* will be further discussed in §4.2.

2.3 Linguistic and Social Factors

This section examines the specific linguistic and social factors chosen as independent variables for the quantitative analyses. A sociolinguistic variable is defined as being "one which is correlated with some nonlinguistic variable of the social context" (Labov 1972a:237). The variables presented here were included in the initial quantitative runs and were modified in subsequent runs.

2.3.1 Linguistic Factors

The linguistic factors considered to influence the rate of flapping are the phonetic environment of the flappable /t/ and the part of speech the /t/ is in.

Environment

Environment was divided along the lines of what the preceding and following segment of the /t/ is. Although the number of syllables of the word was not accounted for an exception was made in distinguishing an intervocalic /t/ in a second+ syllable. As an intervocalic environment is considered the core environment for flapping, this was further divided to determine whether the number of syllables is an influence or not.

- Categories: preceding /n/, preceding /l/, preceding /r/, following /l/, intervocalic /t/, intervocalic /t/ in second+ syllable

Part of Speech

Part of speech was classified according conventional grammatical categories. The entire repertoire of grammatical categories was considered. Noun was divided into noun and proper noun due to the tendency of not flapping a /t/ in a proper noun which is considered to be more formal. The category of verb was further divided into verb past tense and other verb. Past tense was singled out due to the large number of word medial /t/s preceding the past tense ending of -ed.

- Categories: noun, proper noun, verb, verb past tense, adjective, adverb, preposition

2.3.2 Social Factors

The independent social factors considered were: sex, age, age of arrival in the US, length of stay in the US, occupation, education, English education, and style.

Sex

Sociolinguistic studies have shown that in stable sociolinguistic stratification, men use a higher frequency of non-standard forms than women and that in the majority of linguistic changes, women use a higher frequency of the incoming forms than men (Labov 1990). Second language acquisition studies have shown that women generally perform better than men (Ellis 1994:202-204). Sex is predicted to be a significant factor.

- Categories male, female

Age

Three categories of age have been proposed. The median age of Koreans in the US is 29.1 years. The first age group is 18-25 years.[6] This age group, in particular, has several ramifications for this study, as they are the college years. Pilot interviews with Korean Americans revealed that the college years are when the most socializing with one's own ethnicity occurs. College is where specific ethnic groups bond through associations and segregate from other groups for social reasons. The second group is 26-45 years. This range covers the entrance into the work force. The last group is 45+ years. At this stage, the immigrant's or 2nd generation speaker's life is usually quite stable. Additional age groups are not relevant due to the recent history of Korean immigration.

- Categories: 18-25, 26-45, 45+

Age of Arrival in the US

Previous studies have shown that there is a 'sensitive period' or 'critical period' for language learning (Lennenberg 1967; cited in Ellis 1994:484). The category of age of arrival in the US is therefore crucial given the importance of the critical period and second language acquisition. For half of the 2nd generation speakers, age of arrival will be irrelevant since they are defined as being born in the US. Therefore, these speakers will be coded as 0. The following classifications reflect sensitive periods of language acquisition concerning age. The period of 19-25 years reflects the stage when people pursue further education after high school or when they directly engage in work. After this period, the age of arrival is marked in ten year intervals.[7]

- Categories: 0, 1-5, 6-10, 11-15, 16-18, 19-25, 26-35, 35-45, 45+

Length of Stay in the US

Length of stay in the US was chosen as a variable in order to determine whether any interaction exist between this variable and age of arrival in the US, length of stay also indirectly reflects the amount of interaction with native speakers of English the subjects were likely to engage in over the years. One of the criteria for subject selection was that the subjects had to have resided in the US for over two years. Thus, the classification

starts from two years. Length of stay was classified in five year intervals and calculated by subtracting age from age of arrival.

- Categories: 2-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31-35, 36+

Occupation

Occupation was considered as an indirect indicator of social class. Although a vast majority of Korean immigrants are small business owners, due to the relatively young age of the majority of the subjects this occupation was not dominant. The category of self employed was used to reflect small business owners. A subject was considered a professional if s/he graduated from a professional school (medical, law, business etc.). The category of student included baccalaureate and post-baccalaureate. Unemployed usually demarcated those subjects who were home makers or retired.

- Categories self employed, professional, office worker, non-office worker, student, unemployed

Education

The majority of 1st generation immigrants have received a high level of education in Korea and have a college degree.[8] In the case of the 1.5 generation, attaining levels of high education is difficult due to language barriers. The 2nd generation is able to take advantage of higher education, and it is well known that Asians and especially Koreans are academic high-achievers in the US (Lee 1994).

- Categories: high school, baccalaureate, graduate school, professional school

English Education

English education was considered in order to determine the effects of learning English as a Second Language (ESL) or English as a Foreign Language (EFL) (Johnson & Johnson 1998:134, Richards et al. 1992:123-124). ESL refers to "the role of English for immigrant and other minority groups in English-speaking countries" while EFL refers to "the role of English in countries where it is taught as a subject in schools but not used as a medium of instruction in education nor as a language of communication within the country." In addition to these two categories, subjects born in the US were considered native born speakers who have received neither ESL nor EFL instruction. In order to account for the circumstances of the 1.5 generation speakers additional categories were considered. Although compulsory English education in secondary schools was initiated in 1945 immediately after liberation from Japanese occupation, the Korean War (1949-53) disrupted the existing educational system, so that compulsory English education was actually established only in 1955. In addition, compulsory English education in primary school was established fairly recently (1997). Therefore in order to factor in the age and age of arrival of the subjects with English education, two other categories were added. One is the category of informal education, which designates those who arrived at an early enough age to have not had formal English instruction in Korea, have not had ESL instruction in the US, but have had informal English instruction through private tutoring

or supplementary institutions (Park 1997). The other category of none designates those who have not received EFL, ESL, or informal instruction.

- Categories: EFL, ESL, Native born, Informal English education, None

Style

Stylistic variation will be analyzed through tokens elicited from careful and casual speech (Labov 1966). The careful speech elicitation tasks used will be a word list, reading passage, and semantic differential task. Casual speech will be elicited from sociolinguistic interviews. The formal elicitation methods will include or attempt to elicit tokens of the linguistic variables of flapping and short *a*. However, the use of discourse markers will only be examined in casual speech. Style will be further discussed in §5.1.

- Categories: careful speech (i.e., word list, reading passage, semantic differentials), casual speech (i.e., spontaneous interviews)

Factors(s) Not Considered

Initially the factor of social class was considered. However, this factor was the most difficult to define especially in the case of Korean immigrants because social class is displaced upon immigration. Displacement refers to the upward or downward shift of a person's original social class. Of course, this happens across generations in non-immigrants but is a more salient characteristic of immigrants. In particular, the reason why downward displacement arises is because of the inability to productively utilize

professional skills acquired in the home country due to language performance. However, because the subjects were vague when discussing the various elements that would relate them to a certain social class, exact information could not be extracted. Most of the subjects were not willing to reveal what their former jobs were in Korea, what kind of home they lived in, and what the occupations of their parents were.[8] Therefore, the factor of social class is not considered due to the lack of accurate and reliable information and instead occupation was considered as a variable.[9] In addition, due to the religious nature of Korean immigrants, religious affiliation was at first considered. However, an overwhelming majority of Koreans interviewed attended church (84.15%).[10] Therefore, it was expected that the effect of this factor would not be significant so it was not included in the data analyses.

2.4 Methods of Analysis

This section discusses the various qualitative and quantitative methods utilized in data analyses.

2.4.1 Data Analysis

Data is extracted from the sociolinguistic interviews and the formal speech elicitation tasks. Tokens which fit the individual criteria of each of the three linguistic variables of word medial /t/ flapping, discourse marker use, and short *a* are considered and tallied. The data is then qualitatively and quantitatively analyzed.

All of the data is analyzed by measuring frequency of occurrence rates. The rates will be calculated differently according to each linguistic feature. However, the only

feature which a multivariate analysis can be conducted on is word medial /t/ flapping. In the analysis of word medial /t/ flapping where the feature could be assessed in terms of presence or absence GoldVarb 2.0 was the statistical tool used. GoldVarb is a multivariate analysis tool with the purpose to "separate, quantify, and test the significance of the effects of environmental factors on a linguistic variable" (Guy 1993:237). Each factor within each independent variable (called 'factor groups' in Varbrul analysis) is then given a weight which indicates whether that particular factor is significant or not in relation to the dependent variable. A weight above 0.5 is a factor which favors the application of the rule, while a value below 0.5 indicates a factor which disfavors the rule, and a value exactly equal to 0.5 is a factor which has no effect on the rule (Guy 1993:244). In addition, entire factor groups (independent variables) are tested for significance and may be discarded.

The formal speech elicitation tasks will be quantitatively analyzed by examining frequency rates. In addition, in the case of short *a*, a reliability test with a native English speaker will be conducted in order to reaffirm the presence or absence of the feature.

2.4.2 Perception Test

Perception tests are important because they mirror the social stratification of a speech community (Labov 1972a:158). A perception test (Graff et al. 1986) will be utilized in the study to determine native English speakers' perceptions of Korean Americans. It is clear that perceptions of accented English can have negative or positive implications for the speakers (Lippi-Green 1997).

Twenty-four of the Korean American subjects and six non-Korean distracters were recorded reading the identical reading passage from the formal speech elicitation task. The test was then administered to 100 native English speaking college students who were asked to rate them for nativeness. The results of the tests are quantified and correlations between the results of the subjective reaction tests and the quantitative results of the linguistic variables of word-medial /t/ flapping, discourse marker use, and short *a* will be examined. This analysis focuses on only the data from the 24 subjects in the test. An in-depth discussion of the perception test will follow in Chapter 6.

2.5 Pilot Studies

Results from several pilot studies served as an impetus for the present study. First, three pilot interviews were conducted with non-native speakers in order to determine appropriate conversational modules and to test formal speech elicitation tasks (cf. §2.1.2). Second, a small scale study on Korean and Japanese speakers showed that word medial /t/ flapping could serve as an adequate diagnostic for examining extent of second language acquisition and that perceptions of English nativeness could be accurately assessed. Third, studies on English discourse marker use showed that the three markers of *you know*, *like*, and *I mean* dominated in the speech of Korean Americans. In this section, the latter two studies are presented in depth, and how the results from these studies provide rationales for the present study are shown.

2.5.1 Studies on Word Medial /t/ Flapping

A small scale study was conducted on the English speech of Korean and Japanese speakers (Kobayashi & Lee 1999, Lee & Kobayashi 1997, 1998, 1999) in collaboration with Megumi Kobayashi.[11] This study examined 12 Korean speakers and 12 Japanese speakers, all stratified according to sex and generation. The purpose of the study was to show the manifestation of linguistic variables in the speakers, and to determine a correlation between one of the features and perceptions of nativeness.

The linguistic variables examined were word-initial /p,t,k/ aspiration, /z/ pronunciation, and word-medial /t/ flapping. The first two variables were chosen to reflect the influence of first language on English, while flapping was chosen as an indicator of English nativeness. The sociolinguistic variables chosen were ethnicity, native language, generation, age of arrival in the US, length of stay in the US, and sex. Age was not a factor since all of the speakers fell into the age range of 20-35 years. Tokens were elicited from both sociolinguistic interviews and formal speech elicitation tasks. The speech elicitation tasks were the reading of a word list, the reading of a passage, and a semantic differential task.[12]

The results from a GoldVarb 2.0 run showed that the extent of variation in word-initial /p,t,k/ aspiration and /z/ pronunciation was not significant across speakers Therefore, only the results from the GoldVarb 2.0 run on word medial /t/ flapping are presented here. For the run on flapping, selected linguistic and social variables thought to influence the presence or absence of word medial /t/ flapping were examined. The dependent variable in the study was the presence of a flapped /t/ and the independent variables are shown in Table 10. Table 11 shows the results from the run.

(14) Table 10. Variables considered in GoldVarb run

Variable	Factors
Preceding segment	vowel, /r/, /n/, /l/
Following segment	vowel, /l/
Stress	unstressed, primary stress, secondary stress, tertiary stress
Distance from stress	syllable immediately preceding, one syllable away, two syllables away, in the stressed syllable (as in *whatever*)
Grammatical Category	verb, noun, adjective, adverb
Speaker Category	1st gen. Korean, 1.5 gen. Korean, 2 gen. Korean, 1st gen. Japanese, 1.5 gen. Japanese, 2 gen. Japanese

(15) Table 11. Results of GoldVarb run

Factor group	Factors	Weight	%	Tokens
Generation	2 gen. J and K	0.61	98	195
	1.5 gen. J	0.98	98	39
	1.5 gen. K	0.22	82	65
	1 gen. K	0.50	58	42
	1 gen. J	0.14	25	20
Age of arrival	0-5 years	0.58	98	195
	11-15 years	0.93	95	57
	16-20 years	0.29	73	58
	21-25 years	0.25	44	45
	26+ years	0.23	19	6
Preceeding seg.	vowel	0.62	79	268
	[r]	0.35	75	44
	[n]	0.17	71	48
	[l]	0.05	20	1
Sex	Male	0.28	70	162
	Female	0.71	83	199

Linguistic factors such as following segment, stress, distance from stress, and grammatical category were not significant in the run. Of the social factors, age of arrival proved to be the most significant, followed by generation, and sex. Style and ethnicity were also not found to be significant.

A subjective reaction test was administered to native English speakers who were asked to identify the ethnic group, ethnicity, and nativeness of 32 speakers (24 speakers

and 8 distractors). The test included all the linguistic variables and consisted of five sentences from the reading passage task. The following are the questions on the test.

(16) Subjective reaction test

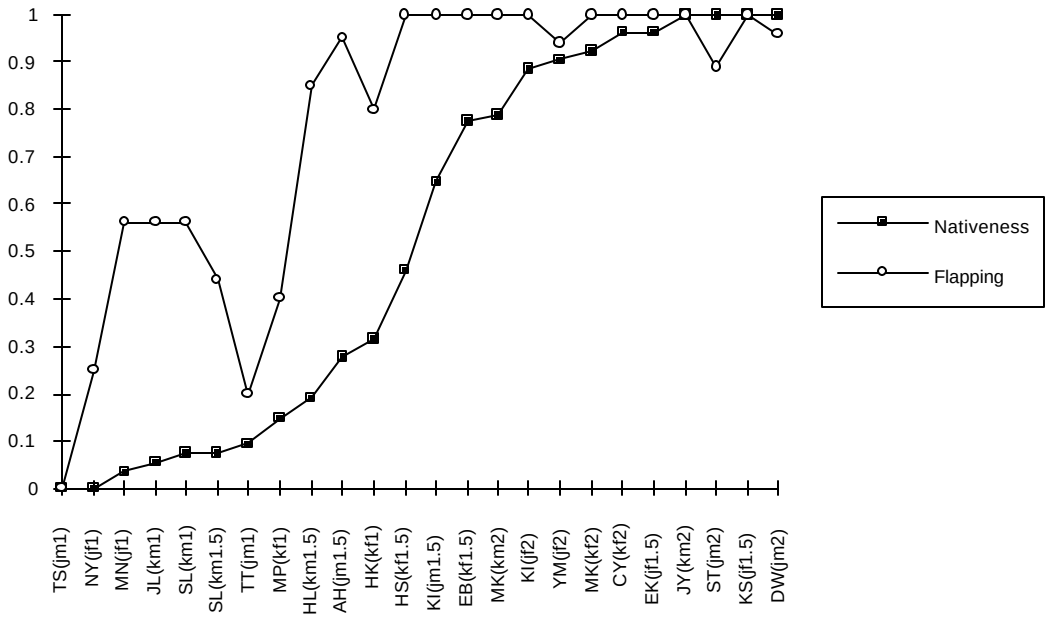
a. Does this speaker sound like a member of a certain ethnic group?

____ White	____ Black	____ Hispanic	____ Asian	____ Other
_ British	_ African-American	_ Cuban	_ Chinese	
_ American		_ Mexican	_ Japanese	
_ Don't know	_ African	_ Puerto Rican	_ Korean	
	_ Don't know	_ Don't know	_ Don't know	

b. Do you think this speaker is a native speaker of English? ____Yes ___ No

The results clearly indicated that nativeness of the speakers was accurately perceived by judges. Next, the frequency rates of flapping from the Korean and Japanese subjects were correlated with the nativeness judgments of the subjects. Figure 2 shows the results of the correlation.

(17) Figure 2. Correlation of flapping and nativeness in pilot study



A positive correlation was then found between the results of the subjective reaction test and the frequency of flapping from the reading passage.

The results from this particular study showed that it appears to be a general English feature such as word-medial /t/ flapping rather than first language interference such as word-initial /p,t,k/ aspiration and /z/ pronunciation that are indicators of the degree of English nativeness in a speaker. Word-medial /t/ flapping was found to be variably manifested across generations. In addition, the subjective reaction test showed that judges could accurately perceive the degree of English nativeness in the speakers but not the particular ethnicity. Although it is not only word-medial /t/ flapping but an amalgamation of features that judges perceived in judging nativeness, the study did show a relatively positive correlation between flapping and degree of nativeness.

In the GoldVarb run in the pilot study, several ramifications for the present study were found. First, the quantitative results showed that the social categories of 'generation' and 'age of arrival' overlapped, which slightly skewed the GoldVarb results.[13] Therefore, in the present study, generation is only considered as a generalized grouping measure while 'age of arrival in the US' and 'length of stay in the US' are considered valid factors. In addition, in the present study the categories of preceding and following segment are combined into the category of 'environment.' Although grammatical category was not found to be significant in this study, it is re-examined due to the high occurrence of flapping when the /t/ is followed by the past tense verb ending of -ed.

Furthermore, the questions in the subjective reaction test were modified in order to provide additional dimensions of assessment for nativeness in the present study.

Judges displayed difficulty in assessing specific ethnic sub categories. A broader classification of ethnicity is adopted in the present study. In short, the results of the pilot study indicate that it is feasible to look at the acquisition of general English features such as flapping and their correlation to nativeness perceptions.

2.5.2 Studies on Discourse Marker Use

A small scale study on discourse marker use in 12 Korean speakers was conducted (Lee In press). The data was taken from the previously mentioned pilot study of Korean and Japanese speakers. In the analysis of discourse markers, only those which occurred in the entire speech corpus were considered. The occurrences which were not included in the analysis were when the discourse marker was used for hesitation filler purposes.

In this study, the occurrence of a total of 11 different discourse markers was analyzed. Discourse markers which occurred fewer than five times in the entire speech corpus were discarded due to their very low frequency rate and because they tended to be isolated in one or two particular speakers. The 11 discourse markers are *you know, like, I mean, yeah, whatever, actually, something like that, so, right, I don't know,* and *I guess.* Table 12 shows the discourse markers analyzed across the 12 speakers in decreasing order of occurrence. The frequency rates of discourse marker used in the study were calculated by tallying the number of discourse markers used in a certain amount of time. In this case, discourse marker use in a period of thirty minutes was calculated.

(18) Table 12. Discourse maker use

Discourse Marker	Tokens	Percentage
you know	766	39.54
like	747	38.56
I mean	233	12.03
yeah	48	2.48
whatever	36	1.86
actually	25	1.29
something like that	22	1.14
so	21	1.08
right	19	0.98
I don't know	10	0.52
I guess	10	0.52
TOTAL	1937	100

As can be seen from the Table 12, *you know*, *like*, and *I mean* have the highest rates of occurrence. These discourse markers comprised 90.13% of the total amount of discourse markers in the data. The frequencies of occurrence of the data are presented in Table 13.

(19) Table 13. Use of the three markers

Speaker	you know	like	I mean	TOTAL
JY(m,1)	53	0	109	162
YS(m,1)	3	3	2	8
MK(f,1)	16	4	4	24
HA(f,1)	6	32	8	46
HB(m,1.5)	2	24	3	29
SW(m,1.5)	13	201	0	214
HJ(f,1.5)	105	245	21	371
EJ(f,1.5)	115	62	14	191
MW(m,2)	50	68	11	129
DJ(m,2)	276	8	32	316
CS(f,2)	31	58	17	106
MJ(f,2)	96	42	12	150
TOTAL	766	747	233	1746

Individual preferences were also examined to determine the extent of acquisition in the Korean speakers. Table 14 shows the results of the analysis.

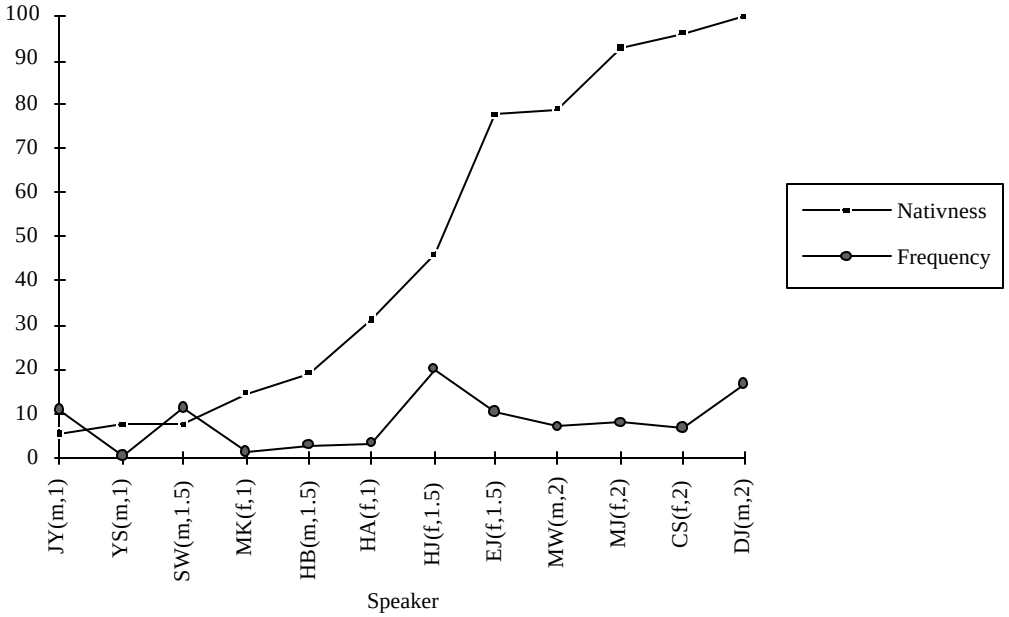
(20) Table 14. Discourse marker preference

Speaker	Generation	Sex	Preference
JY	1	m	I mean
YS	1	m	you know
MK	1	f	you know
HA	1	f	like
HB	1.5	m	like
SW	1.5	m	like
HJ	1.5	f	like
EJ	1.5	f	you know
MW	2	m	like
DJ	2	m	you know
CS	2	f	like
MJ	2	f	you know

All of the speakers showed preferences for either *you know* or *like* with the exception of one speaker. In addition to individual preferences, the social factors of sex and generation were analyzed. There were no significant differences concerning sex. Males used discourse markers 49.87% and females used 50.13%. However, in terms of generation, the 1.5 generation used the most discourse markers at 45.27%, with the 2nd generation at 38.61% and 1st generation at 16.12%.

As seen in the correlation of flapping and English nativeness, a correlation between discourse marker use and nativeness was also determined. The results of the same subjective reaction test seen previously were correlated with the frequency results of discourse maker use in the 12 Korean speakers. The results are shown in Figure 3.

(21) Figure 3. Correlation of discourse marker use and nativeness in pilot study



Although the correlation is neither as clear nor as positive as seen in the case of flapping, there seems to be a relative concurrent increase in discourse marker use and judgments of nativeness.

The results from this particular study show that non-native speakers do indeed variably acquire discourse marker use. The use of discourse marker use was also seen to show a relatively positive correlation with English nativeness perceptions. It is speculated that a broader range of speakers will yield a more positive correlation. The study also showed that discourse makers other than the three markers of *you know*, *like*, and *I mean* are not widely manifested in the Korean speakers. Therefore, only these three particular markers are considered in the present study. Analyses of individual preferences also focus on the use of the three discourse makers.

The calculation of frequency of occurrences in the pilot study was not adopted in this dissertation due to the difficulty of normalizing the time across a large number of

speakers. Therefore, a different approach is taken in the present study. Instead of using time as a measure, the number of words the interviewee uttered will be calculated, and the occurrence of the three discourse markers used by each individual is measured.

NOTES

[1] Due to the recent immigration history of Koreans, subsequent generations are now just emerging. Therefore, later generation speakers will all be classified as 'second generation' for sampling purposes. Although the term 'sesqui' was suggested by Eugene Buckley (p.c.), 1.5 generation will be used throughout the study. For 2nd generation speakers, Korean adoptees with non-Korean parents and offspring of mixed-race marriages were excluded.

[2] See Appendix B for the equipment used in this study.

[3] The three pilot interview subjects were not included in the present study.

[4] Interaction with native speakers is considered crucial. An account is given by one non-native speaker of English, who overgeneralized the flapping rule in the word 'mo[t]el.'

[5] This table was formulated also with the help of Stephanie Strassel and comments from Eugene Buckley. Kahn (1976:58) states that in environment 2) the production of /l/ must be non-consonantal to induce flapping. He also mentions that for most (but not all) speakers there is a tendency to maintain a consonantal pronunciation for /l/ and not flap.

[6] Speakers younger than the age of 18 are not considered in this study.

[7] Mendoza-Denton & Iwai (1993) used generation as a variable. Here, generation is used for explanatory purposes but not as a factor. Thompson (1991:187) used the variables of age at arrival in the US, length of residence in the US, years of education in English, and use of English in her study.

[8] Of Korean-Americans, 89.1% of males and 74.1% of females are high school graduates or higher (Info Pacific Communications Corporation 1997). In Korea, the number of women with college and higher educational backgrounds has been increasing: 2.4% in 1975, 3.6% in 1980, 5.2% in 1985, 8.3% in 1990, 13.1% in 1995 (Statistical Yearbook on Woman, 1998:106).

[9] This was suggested by Anita Henderson (p.c., November 18,1997) in a discussion of the problems of designating social class in African Americans: childhood social class can vary greatly from adult social class due to lack of opportunities in older generations.

[10] During the interviews, the interviewees were asked about their religious inclination. Of the 101 subjects, 16 did not declare a religion, one was Buddhist, 11 were Catholic, and 73 were Protestant Christian.

[11] The fieldwork for the pilot study was originally conducted in Ling 560 Study of the Speech Community, University of Pennsylvania.

[12] See Appendix C for the formal speech elicitation tasks used in the pilot study.

[13] Gregory Guy (p.c.) noted this in the GoldVarb results of the 1.5 generation speakers.

CHAPTER 3

Word Medial /t/ Flapping

This chapter explores the extent of acquisition of the word medial /t/ flapping rule in the speakers. Multivariate analyses are utilized to determine the effects of linguistic and social contexts on the application of the rule in the speakers. First, a description of the phenomena of word medial /t/ flapping is given.

3.1 Word Medial /t/ Flapping

Flapping is the reduction of an intervocalic consonant /t/. This process of lenition has been documented as far back as Jones (1909). Flapping is sensitive to factors such as stress and foot structure but not to word boundaries or morphological structure so that flapping only applies foot-internally (Carr 1999:105-106). Another term which is interchangeably used for flap is 'tap' depending on how phoneticians classify the articulatory movements involved (Crystal 1997:382, Trask 1996b:350).[1] The process of pronouncing a flapped /t/ is an alveolar tap where the "tongue makes a single tap against the alveolar ridge" (Ladefoged 1993:11).[2]

Flapping is the cause for phonemic ambiguity because a flapped /t/ occurs in the same context as /d/ in some lexical items. This in turn, produces homophones and neutralizes some lexical distinctions as seen in la[tt]er vs. la[dd]er (Geigerich 1992:226, Trudgill & Hannah 1994:42). So if words sound alike, "the hearer must rely on the

meaning of the sentence in order to know which is intended" (Prator & Robinett 1985:103).

The analysis here is based on Kahn (1976)'s generalization of the flapping rule.

(22) Flapping rule (Kahn 1976:58)

$$/t/ \rightarrow [D] \; / \; [-cons] \; - \; \begin{matrix} ?+syllabic? \\ ?-stress \; ? \end{matrix}$$

The generalization of [-cons] includes /l,n,r/.[3] The environments for flapping are seen in Table 15.

(23) Table 15. Environments for word-medial /t/ flapping (Lee & Kobayashi 1997)

	Environment	Example
1)	v' _ v	wa[D]er
1')	v' v _ v	nega[D]ive
2)	v'l _ v	shel[D]er
3)	v'n _ v	twen[D]y
4)	v'r _ v	par[D]y
5)	v' _ l	li[D]le

For native speakers of American English, flapping in environment 1) is almost categorical while 2)-5) show relative degrees of occurrence. In environment 1'), the secondary stress on the final syllable may make flapping less likely than in 1). In particular for environment 2), Kahn (1976:58) states that the production of /l/ must be non-consonantal to induce flapping and that for most (but not all) speakers there is a tendency to maintain a consonantal pronunciation for /l/ and not flap. He also comments that when /l/ is consonantal "if the tip of the tongue contacts the roof of the mouth in its articulation, flap seems to me to be simply impossible" (Kahn 1976:58).

The definition of flapping is at once broad and narrow. A consensus across the

various descriptions of flapping is that the core environment of flapping is an intervocalic /t/ (Giegerich 1992:226, Kahn 1976:58, Kreidler 1989:109, Prator & Robinett 1985:103). One of the peripheral environments of flapping which is often distinguished is the articulation of /t/ preceded by an /n/ which is referred to as a nasalized tap (Kreidler 1989:110, 1997:59). The flapping of /t/ preceded by an /l/ may seem questionable. Despite claims that the articulation of /t/ is a full stop rather than a tap (Kreidler 1989:11), evidence from speech shows that speakers do indeed flap in words such as 'multiple'.[4]

The occurrence of flapping is attributed to social factors as well as linguistic factors. Kriedler (1989:110) claims that "the speaker is likely to have the feeling that non-tapped consonants are right or better and so produces distinct consonants in circumstances where the social motivation is sufficiently strong" but if flapping is not socially motivated the linguistic environment is the cause. "Educated Americans" are said to make no difference between a flapped /t/ and a /d/ (Prator & Robinett 1985:103). As for the perception of flapping, Stevens (1972:76) claims that "most Americans believe that they always do make it and will usually deny, if challenged, that their pronunciation of e.g. *latter* and *ladder* is the same."

Another issue in flapping is the formality of the word. Kriedler (1989:111) states that "perhaps the more common the word and the more frequently it is used, the more likely that /t/ will be articulated as a tap, and, on the other hand, the more formal the speech the less likely is the tap pronunciation." He goes on to discuss the possibility that [t] is preferred in some social situations and lexical items and that a "phoneme can have socially determined variants" (Kriedler 1989:112). Trudgill & Hannah (1994:42) also

mention that a flapped [t] is consistently used by most speakers, "except in very formal styles where [t] may occur." Looking at a relatively objective means for determining the commonality of words, the Swadesh 200-word list includes three words which are subject to flapping: *dirty*, *rotten*, and *water* (Gudschinsky 1956: cited in Trask 1996a:408-409).[5] Of the three *water* is also part of the 100-word list.

Flapping is a feature that distinguishes British English, in which it is not considered to occur (Gramley & Paxtold 1992:339, Stevens 1972:76, Trudgill & Hannah 1994:41), from most overseas varieties of English, in which it occurs to a variable degree.[6] It is clearly a pervasive feature of North American English (Geigerich 1992:226, Ladefoged 1993:168, Kreidler 1989:110, Wolfram & Schilling-Estes 1998:47). However, flapping is not considered a feature of British English (Gramley & Paxtold 1992:339, Stevens 1972:76, Trudgill & Hannah 1994:41). The absence or incorrect placement of a flap can signal that the speaker does not speak the variety of English spoken in the US or is a non-native speaker of English. Whether the speaker learns English as a native or non-native speaker, the flapping rule is not taught overtly in school. Prator & Robinett (1985:103) offers advice for the English as a Second Language (ESL) student, "pronounce this special medial /t/ 'somewhat like a /d/,' without aspiration and very rapidly."

Studies of word medial /t/ flapping in native speakers have shown that flapping is indeed variable according to linguistic and social contexts. Woods (1991) examines flapping in Ottawa English by examining the effects of social class and style. He found that there was a considerable amount of social class differentiation with linear sequencing of the classes in terms of style (Woods 1991:136). Shockey (1984) examined long-term

accommodation in American subjects who moved to England. She argued that speakers were attempting to accommodate to British English in order to increase intelligibility and thus reducing the amount of flapping in their speech. Strassel (1998) examined two large speech copora and the effects of social factors. She found that there are no significant differences in flapping rates according to gender or education and that there appears to be regional patterning of flapping in the US (Strassel 1998:130, 132). She also found style to have an effect on flapping. Flapping was more evident in spontaneous speech than formal speech.

In this light, there have been no previous accounts of what factors condition variable flapping in both native and non-native speakers. This dissertation is therefore an attempt to provide such a description.

3.2 Multivariate Analyses

Analyses of word medial /t/ flapping production were conducted using GoldVarb 2.0. This statistical program examines the probability of the application of a variable rule, in this case the flapping rule. The 'heart' of a variable rule analysis is said to be "the estimation of the constraint effects and their significance" (Guy 1993:244). Here, the dependent variable is a flapped word medial /t/. The independent variables are divided into linguistic and social variables. The linguistic variables are the phonological environment of target /t/ and the part of speech of the lexical item the /t/ is situated in. The independent social variables are: sex, age, age of arrival in the US, length of stay in the US, occupation, education, and English education.[7]

A summary of the variables which were presented in Chapter 3 are as follows:

(24) The variables

Dependent variable	flapped word medial /t/	
Independent variables		
Linguistic variables		
Environment of /t/	preceding r	ex) par[t]y
	preceding n	ex) twen[t]y
	preceding l	ex) mul[t]iple
	following l	ex) li[tt]le
	intervocalic	ex) wa[t]er
	intervocalic 2nd syllable	ex) nega[t]ive
Part of speech	noun	
	proper noun	
	verb	
	verb past tense	
	adjective	
	adverb	
Social variables		
Sex	male, female	
Age	18-30, 31-40, 41-50, 51-60, 61+	
Age of arrival	0, 1-5, 6-10, 11-15, 16-25, 26-40, 41+	
Length of stay	2-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31-35, 36+	
Occupation	self employed, professional, office worker, non-office worker, student, unemployed	
Education	high school, college, graduate school, professional school	
English education	English as a foreign language, English as a second language, informal instruction, none, native born	

Regarding Table 15 which showed the environments of /t/, the intervocalic /t/ in a second syllable was distinguished due to the pilot study results mentioned in Chapter 1. However, the other environments which are based on the preceding and following segments of the /t/ do not distinguish mono- and poly- syllabic words. As for the part of speech variable, a noun was distinguished from a proper noun to examine whether the formality of the word influences flapping. For instance, a proper noun such as 'Clinton' may not be as frequently flapped as a common noun such as 'winter.'[8]

GoldVarb was run several times on the data. A binomial one step analysis, a binomial (SP) step-up/step-down analysis, and cross tabulations were conducted on all of the data. The data was also categorized in different ways in order to determine which runs were the most optimal. Therefore, only the most significant runs are included here.

3.2.1 Initial Runs

The initial runs included all of the linguistic and social variables previously mentioned. The data was analyzed according to different group classifications of the speakers. Three different GoldVarb analyses were conducted on the data. In these runs, the speakers were categorized into groups according to their age of arrival in the US. The groups are: G1 (0 years), G2 (1-5 years), G3(6-10 years), G4 (11-15 years), G5 (16-25 years), G6 (26-40 years), and G7 (41+ years). Therefore, the runs are divided into: 1) all group runs, 2) combined group runs, and 3) separate group runs. In the all group runs, all of the linguistic and social factors are treated as independent variables. In the combined group runs, speakers are classified according to generation. In the separate group runs, each of the seven age of arrival groups are treated individually.

3.2.1.1 All Groups

The first run was done on all of the groups (G1, G2, G3, G4, G5, G6, G7). In Table 16, the weights reflect the GoldVarb weights taken from the binomial one step analysis, the numbers are the total number of occurrences of that particular variable. The percentage reflects the frequency occurrence of a flapped /t/ in relation to the total number of tokens with a word medial /t/. The last column in the table which is labeled ‘Significance’ refers

to the results of the binomial (SP) step-up/step-down analysis which indicates which factor groups are significant.

(25) Table 16. Initial run on all groups[9]

Group	Factor	Weight	Number	Percentage	Significance
Environment					Yes
	preceding n	0.195	977	68%	
	preceding l	0.002	73	4	
	intervocalic	0.775	1819	94	
	preceding r	0.430	636	84	
	following l	0.818	584	96	
	intervocalic sec	0.336	1649	76	
Part of speech					Yes
	noun	0.500	2271	78	
	proper noun	0.533	376	74	
	verb	0.463	526	86	
	verb past tense	0.830	851	83	
	adjective	0.462	1206	89	
	adverb	0.442	508	90	
Sex					Yes
	male	0.460	2964	85	
	female	0.543	2774	80	
Age					Yes
	18-30	0.635	1903	90	
	31-40	0.500	2421	88	
	41-50	0.203	547	53	
	51-60	0.459	429	72	
	61+	0.371	438	66	
Age of arrival					Yes
	0	0.677	959	93	
	1-5	0.577	1029	93	
	6-10	0.593	741	93	
	11-15	0.513	604	91	
	16-25	0.554	1162	82	
	26-40	0.238	1091	56	
	41+	0.107	152	52	

Length of stay				Yes
2-5	0.494	278	71	
6-10	0.403	542	75	
11-15	0.343	740	68	
16-20	0.503	1171	86	
21-25	0.538	1217	88	
26-30	0.593	1025	88	
31-35	0.539	374	89	
36+	0.505	391	77	
Occupation				Yes
self employed	0.485	820	73	
professional	0.599	1286	81	
office worker	0.524	1190	82	
non-office worker	0.752	450	87	
student	0.357	1897	87	
unemployed	0.579	95	82	
Education				Yes
high school	0.728	185	82	
college	0.464	2642	79	
graduate school	0.589	1601	86	
professional school	0.429	1310	85	
English education				Yes
EFL	0.360	934	93	
ESL	0.686	934	93	
Informal	0.938	30	97	
None	0.620	926	85	
Native born	0.476	1988	93	

Input = 0.913 Total chi-square = 3180.1910
Log likelihood = -1740.692 Chi-square/cell = 2.1872

First the results from the linguistic factor groups are discussed. In the first factor group which was the environment of the flapped word medial /t/, flapping was most favorable when the /t/ was followed by a /l/ or when the /t/ was intervocalic. Flapping was least favored when the /t/ was preceded by an /l/ and when it was preceded by an /n/. Both of these preceding segments are liquids. In the second factor group of part of speech, flapping was most favored when the lexical item was verb with the past tense

ending (-ed). All of the other parts of speech showed similar probability weights for flapping.

Second, are the results of the social factor groups. In terms of sex, males showed less probability of flapping than females. However, the age group showed a relatively large envelope of variation with the 41-50 years age group showing a relative low weight at 0.203 and the 18-30 years age group showing the most probability at 0.635. In the age of arrival group, a steady progression can be seen: as the age of arrival increases the weights decrease. This can be interpreted as the older the speaker is when s/he arrives in the US the less likely s/he is to flap a word medial /t/. On the other hand, the length of stay group showed a difference in the range of weights of only 0.2. As for occupation, the non-office worker factor showed a relatively high weight as opposed to the student factor. In addition, education did not seem to show a large range of variation. Lastly, the results of the English education group show that those with informal English education showed the highest weight with those who had EFL instruction showed the lowest weight. All of the factor groups proved to be significant in the binomial (SP) step-up/step-down analysis.

The overall frequency rate of flapping was 82%. For the individual factor groups, in the environment group /t/ followed by a /l/ showed the highest rate with /t/ preceded by an /l/ showing the lowest rate. In the part of speech group, adverb showed the highest rate with proper noun showing the lowest rate. In terms of sex, males and females showed similar rate at the 80% level. In the age group, the 18-30 group showed the highest rate with the 31-40 group showing the lowest rate. The three factors of 0, 1-5, and 6-10 all showed 93% while the 41+ factor showed the lowest rate in the age of arrival group. The

length of stay group showed similar rates as well as the rest of the groups of occupation, education, and English education.

3.2.1.2 Combined Group Runs

The combined grouping reflects the generational category of the speakers. The division of the groups are: 2nd generation (G1 + G2), 1.5 generation (G3 + G4), and 1st generation (G5 + G6 + G7).

2nd Generation

The results of the initial GoldVarb run on G 1 and G2 (2nd generation) are as follows:

(26) Table 17. Initial run on 2nd generation

Group	Factor	Weight	Number	Percentage	Significance
Environment					Yes
	preceding n	0.082	330	79%	
	preceding l	0.002	21	10	
	intervocalic	0.874	668	100	
	preceding r	0.586	218	99	
	following l	0.610	241	99	
	intervocalic sec	0.255	510	93	
Part of speech					Yes
	noun	0.361	668	88	
	proper noun	0.677	72	94	
	verb	0.487	196	95	
	verb past tense	0.714	349	94	
	adjective	0.581	489	97	
	adverb	0.341	214	95	
Sex					Yes
	male	0.428	1111	92	
	female	0.591	877	95	

Age				No
18-30	0.443	887	92	
31-40	0.546	1101	95	
41-50	N/A			
51-60	N/A			
61+	N/A			
Age of arrival				No
0	0.527	959	93	
2-5	0.475	1029	93	
6-10	N/A			
11-15	N/A			
16-25	N/A			
26-40	N/A			
41+	N/A			
Length of stay				No
2-5	N/A			
6-10	N/A			
11-15	N/A			
16-20	0.495	130	96	
21-25	0.454	796	90	
26-30	0.525	634	95	
31-35	0.606	300	96	
36+	0.416	128	94	
Occupation				Yes
self employed	0.257	104	91	
professional	0.604	328	95	
office worker	0.566	403	97	
non-office worker	0.681	192	95	
student	0.427	961	91	
unemployed	N/A			
Education				No
high school	N/A			
college	0.630	669	96	
graduate school	0.415	882	92	
professional school	0.468	437	91	
English education				N/A
EFL	N/A			
ESL	N/A			
Informal	N/A			
None	N/A			
Native born	N/A			

Input = 0.982 Total chi-square = 381.444
Log likelihood = -322.736 Chi-square/cell = 0.9731

The 2nd generation showed results which in general were similar to the all group run except for a few factor groups. Like the all group run, in the environment group, an intervocalic /t/ was more favored for flapping than a /t/ preceded by an /l/. In the part of speech group, the highest weight was found in the verb past tense factor with the lowest rate in the adverb factor. As for sex, although it was significant in the step-up step-down procedure, males showed less probability of flapping than females. The only two age groups in the 2nd generation were 18-30 years and 31-40 years, and the only two relevant age of arrival groups were 0 years and 2-5 years. Although the factors were selected as significant, all of these factors did not show large differences. The length of stay group also shows similar weights. However, the two groups of occupation and education showed differences compared to the all group run. In the occupation group, professionals and non-office workers showed a relatively higher rate. As for education, the college factor showed a higher weight than the graduate and professional school factors. English education was non-applicable because all of the speakers were either native born or near native born.

In the binomial (SP) step-up/step-down analysis, the factor groups which were significant were environment, part of speech, sex, and occupation. The factor groups which were not significant were age, age of arrival, length of stay, and education.

In general, the 2nd generation showed high frequency rates for flapping at 93%. The lowest rate in an individual group (10%) was found in the environment group with the /t/ preceded by an /l/ factor. The highest frequency rate was found in the same

environment group with the intervocalic factor which showed an almost 100% (rounded up) rate of flapping.

1.5 Generation

The next combined grouping was G3 and G4 which comprises the 1.5 generation. The results of the initial GoldVarb run are shown in Table 18.

(27) Table 18. Initial run on 1.5 generation

Group	Factor	Weight	Number	Percentage	Significance
Environment					Yes
	preceding n	0.047	215	73%	
	preceding l	*			
	intervocalic	0.866	395	99	
	preceding r	0.289	132	94	
	following l	*			
	intervocalic sec	0.518	387	97	
Part of speech					Yes
	noun	0.600	469	94	
	proper noun	0.259	93	84	
	verb	0.520	130	96	
	verb past tense	0.747	173	96	
	adjective	0.240	189	88	
	adverb	0.273	75	95	
Sex					No
	male	0.420	537	92	
	female	0.573	592	93	
Age					No
	18-30	0.450	493	94	
	31-40	0.539	636	92	
	41-50	N/A			
	51-60	N/A			
	61+	N/A			
Age of arrival					No
	0	N/A			

1-5	N/A			
6-10	0.470	654	92	
11-15	0.541	475	94	
16-25	N/A			
26-40	N/A			
41+	N/A			
Length of stay				No
2-5	N/A			
6-10	0.471	69	93	
11-15	0.695	172	97	
16-20	0.477	756	93	
21-25	0.222	39	87	
26-30	0.457	93	90	
31-35	N/A			
36+	N/A			
Occupation				No
self employed	0.675	146	97	
professional	0.370	210	96	
office worker	0.434	353	90	
non-office worker	N/A			
student	0.559	420	92	
unemployed	N/A			
Education				Yes
high school	N/A			
college	0.553	499	93	
graduate school	0.272	259	90	
professional school	0.559	371	95	
English education				No
EFL	N/A			
ESL	0.443	543	95	
Informal	0.391	27	96	
None	0.561	559	91	
Native born	N/A			

* = knock-out or singleton
Input = 0.981 Total chi-square = 528.1743
Log likelihood = -191.849 Chi-square/cell = 1.7431

In the environment group, the factor /t/ preceded by an /l/ was recoded with /t/ preceded by an /n/ because preceding /l/ was a knock out group. Preceding /l/ was

combined with /n/ due to the fact that both are liquids. In this group, the 1.5 generation showed similar effects with the 2nd generation group with intervocalic /t/ showing the highest weight and /t/ preceded by an /n/ or /l/ with the lowest rate. In the part of speech group, verb past tense showed the highest weight with adjective showing the lowest weight. The factor groups of sex, age, and age of arrival showed similar weights. In the occupation factor group, self employed showed the highest weight and professional showed the lowest rate. As for education, professional school showed a relatively higher weight than graduate school. English education which is most relevant to the 1.5 generation showed similar rates across the factors.

In the binomial (SP) step-up/step-down analysis, the only factor groups which were significant were environment, part of speech, and education. The factor groups which were not significant were sex, age, age of arrival, length of stay, occupation, and English education.

Both the highest and lowest frequency rates were found in the environment group. The highest rate was in the /t/ preceded by an /r/ factor and the lowest rate was when the /t/ was preceded by a /n/. Overall, the 1.5 generation showed a 93% rate of flapping which was identical to that of the 2nd generation.

1st Generation

The 1st generation is comprised of G5, G6, and G7. The results of the initial GoldVarb run are shown in Table 19.

(28) Table 19. Initial run on 1st generation

Group	Factor	Weight	Number	Percentage	Significance
Environment					Yes
	preceding n	0.291	447	55%	
	preceding l	0.004	37	3	
	intervocalic	0.771	756	87	
	preceding r	0.440	286	68	
	following l	0.820	201	91	
	intervocalic sec	0.324	752	55	
Part of speech					No
	noun	0.501	1132	64	
	proper noun	0.565	206	63	
	verb	0.432	198	63	
	verb past tense	0.546	326	70	
	adjective	0.471	429	77	
	adverb	0.477	188	81	
Sex					No
	male	0.465	1255	75	
	female	0.536	1224	61	
Age					Yes
	18-30	0.842	457	82	
	31-40	0.557	608	70	
	41-50	0.241	547	53	
	51-60	0.446	429	72	
	61+	0.397	438	66	
Age of arrival					Yes
	0	N/A			
	1-5	N/A			
	6-10	N/A			
	11-15	N/A			
	16-25	0.690	1236	81	
	26-40	0.322	1091	56	
	41+	0.239	152	52	
Length of stay					Yes
	2-5	0.492	278	73	
	6-10	0.444	468	72	
	11-15	0.317	549	58	
	16-20	0.505	191	48	
	21-25	0.697	377	28	
	26-30	0.630	279	72	

31-35	0.376	74	59	
36+	0.600	263	68	
Occupation				Yes
self employed	0.515	536	61	
professional	0.531	718	70	
office worker	0.586	392	57	
non-office worker	0.805	258	81	
student	0.209	480	72	
unemployed	0.541	95	82	
Education				Yes
high school	0.577	143	77	
college	0.465	1436	66	
graduate school	0.661	450	71	
professional school	0.421	450	70	
English education				Yes
EFL	0.450	1860	64	
ESL	0.599	304	88	
Informal	N/A			
None	0.692	315	71	
Native born	N/A			

Input - 0.749 Total chi-square = 2107.2950
Log likelihood = -1117.254 Chi-square/cell = 2.9555

The results of the analysis on the 1st generation show that in the environment group, /t/ preceded by an /l/ had the lowest weight with /t/ followed by an /l/ the highest weight. As for part of speech, all the factors showed similar rates. Sex was not selected to be significant here. However, in the age group the envelope of variation was the largest with the 18-30 years factor showing the highest weight and the 41-50 showing the lowest weight. Although only three factors were relevant in the age of arrival category, the three groups showed a decrease in weight as the age of arrival increased. In the length of stay group, the 11-15 year factor showed the lowest weight with the 21-25 factor showing the highest weight. In occupation, non-office workers showed the highest weight with

students showing the lowest weight. The last two groups of education and English education showed relatively similar envelopes of variation.

In the binomial (SP) step-up/step down analysis, the significant groups were environment, age, age of arrival, length of stay, occupation, education, and English education. The only groups which were not significant were part of speech and sex.

The lowest frequency rate was in the environment group with the /t/ preceded by a /l/ showing 3%. The highest frequency rate was found in the English education group with the ESL factor at 88%. Overall, the 1st generation showed a low frequency rate of 68%.

3.2.1.3 Separate Groups

The seven groups (G1, G2, G3, G4, G5, G6, G7) were analyzed on an individual basis. The approach however, differs from the previous GoldVarb analyses. Here, only the significant groups which were determined from the binomial (SP) step-up/step-down analysis are considered. The GoldVarb weights in the following tables show the weights from the binomial (SP) step-up/step-down analysis and not the binomial one step analysis which were used in the previous analyses.

G1

In G1, age of arrival 0 years, the significant factor groups from the binomial (SP) step-up/step-down analysis were environment, part of speech, and education. The following are the relevant weights. Table 20 shows the results.

(29) Table 20. Significant factor groups in G1

Group	Factor	Weight
Environment	preceding n	0.102
	preceding l	N/A
	intervocalic	N/A
	preceding r	0.777
	following l	0.629
	intervocalic sec	0.580
Part of speech	noun	0.290
	proper noun	0.392
	verb	0.651
	verb past tense	0.621
	adjective	0.694
	adverb	0.478
Education	college	0.620
	graduate school	0.557
	professional school	0.372

Input = 0.974 Significance = 0.063
Log likelihood = -168.150

G2

The significant factor groups in the binomial (SP) step-up/step-down analysis for G2 were environment, part of speech, sex, and education. Table 21 shows the results.

(30) Table 21. Significant factor groups in G2

Group	Factor	Weight
Environment	preceding n	0.086
	preceding l	0.007
	intervocalic	0.843
	preceding r	0.500
	following l	0.696
	intervocalic sec	0.301
Part of speech	noun	0.460
	proper noun	0.632
	verb	0.502
	verb past tense	0.740
	adjective	0.418

	adverb	0.365
Sex	male	0.376
	female	0.661
Education	college	0.619
	graduate school	0.284
	professional school	0.737

Input = 0.975 Significance = 0.223
Log likelihood = -180.917

G3

The significant factor groups in the binomial (SP) step-up/step-down analysis for G3 were environment and education. Table 22 shows the results.

(31) Table 22. Significant factor groups in G3

Group	Factor	Weight
Environment	preceding n	0.065
	preceding l	N/A
	intervocalic	0.858
	preceding r	0.192
	following l	N/A
	intervocalic sec	0.585
Education	college	0.594
	graduate school	0.321
	professional school	0.588

Input = 0.972 Significance = 1.000
Log likelihood = -134.002

G4

The significant factor groups in the binomial (SP) step-up/step-down analysis for G4 were environment and part of speech. Table 23 shows the results.

(32) Table 23. Significant factor groups in G4

Group	Factor	Weight
Environment	preceding n	0.048
	preceding l	N/A
	intervocalic	0.838
	preceding r	0.413
	following l	N/A
	intervocalic sec	0.418
Part of speech	noun	0.478
	proper noun	0.220
	verb	N/A
	verb past tense	0.805
	adjective	0.222
	adverb	0.173

Input = 0.986 Significance = 0.080
Log likelihood = -69.997

G5

The significant factor groups in the binomial (SP) step-up/step-down analysis for G5 were environment, part of speech, age, length of stay, occupation, and English education. Table 24 shows the results.

(33) Table 24. Significant factor groups in G5

Group	Factor	Weight
Environment	preceding n	0.218
	preceding l	0.003
	intervocalic	0.819
	preceding r	0.337
	following l	0.944
	intervocalic sec	0.242
Part of speech	noun	0.511
	proper noun	0.638
	verb	0.673
	verb past tense	0.586
	adjective	0.315

	adverb	0.478
Age	18-30	0.722
	31-40	0.235
	41-50	0.501
	51-60	0.578
	61+	0.729
Length of stay	2-5	0.549
	6-10	0.310
	11-15	0.545
	16-20	0.925
	21-25	0.635
	26-30	0.392
	31-35	N/A
	36+	0.539
Occupation	self employed	0.383
	professional	0.399
	office worker	0.519
	non-office worker	0.900
	student	0.464
	unemployed	0.886
English education	EFL	0.461
	ESL	0.399
	Informal	N/A
	None	0.788
	Native born	N/A

Input = 0.906 Significance = 0.172
Log likelihood = -406.189

G6

The significant factor groups in the binomial (SP) step-up/step-down analysis were environment, age, length of stay, and English education. Table 25 shows the results.

(34) Table 25. Significant factor groups in G6

Group	Factor	Weight
Environment	preceding n	0.199

	preceding l	*
	intervocalic	0.742
	preceding r	0.421
	following l	0.787
	intervocalic sec	0.412
Age	18-30	0.743
	31-40	0.538
	41-50	0.159
	51-60	0.677
	61+	0.511
Length of stay	2-5	0.325
	6-10	0.655
	11-15	0.409
	16-20	0.603
	21-25	0.544
	26-30	0.702
	31-35	N/A
	36+	N/A
English education	EFL	0.475
	ESL	0.958
	Informal	0.411
	None	N/A
	Native born	N/A

Input = 0.599 Significance = 0.133
Log likelihood = -509.822

G7

The significant factor groups in the binomial (SP) step-up/step-down analysis of G7 were environment, part of speech, and occupation. Table 26 shows the results.

(35) Table 26. Significant factor groups in G7

Group	Factor	Weight
Environment	preceding n	0.598
	preceding l	*
	intervocalic	0.731
	preceding r	0.849

	following l	0.369
	intervocalic sec	0.144
Part of speech	noun	0.526
	proper noun	0.680
	verb	0.087
	verb past tense	0.077
	adjective	0.731
	adverb	0.529
Occupation	self employed	0.507
	professional	0.484
	office worker	0.111
	non-office worker	0.669
	student	N/A
	unemployed	N/A

Input = 0.482 Significance = 0.290
Log likelihood = -99.471

To summarize the results of the binomial (SP) step-up/step-down analysis of the seven individual groups, environment was the only factor group which was significant across all of the groups. The next significant factor was part of speech which was significant in five of the groups. Both of these factors are linguistic variables. Therefore, it can be concluded that in individual groups linguistic variables have a greater effect on the rate of flapping than the social factors (Preston 1991:33).

3.2.2 Modified Runs

A modified GoldVarb run was conducted in order to determine whether collapsing similar factors within the factor groups would show any significant differences from the initial results. Table 27 shows the recoding of the factors in the reanalysis of the data.

(36) Table 27. Recoding of factor groups

Factor group	Recoded factors
Environment	preceding n/l, intervocalic/second, preceding r, following l
Part of speech	noun/proper noun, verb/past tense, adjective, adverb
Sex	male, female
Age	18-30, 31-40/41-50, 51-60/61+
Age of arrival	0/1-5, 6-10/11-15, 16-25/26-40/41+
Length of stay	2-5/6-10, 11-15/16-20, 21-25/26-30, 31-35/36+
Occupation	self employed, professional, office/non-office worker, student, unemployed
Education	high school/college, grad./prof. school
English education	EFL/Informal/None, ESL, Native born

The slashes (/) in Table 27 show which factors were recoded. In the environment group, a preceding /n/ and a preceding /l/ were combined because both segments can be categorized as liquids. In the part of speech group, noun and proper noun were combined as well as verb and past tense verb. The age group was recoded to represent three age groups instead of five. The length of stay group was recoded into three groups in order to reflect the three generation categorization of the groups. The only recoded factors in the occupation group were the combining of office and non-office worker. In the education group, high school and college were merged as well as graduate and professional school. Lastly, in the English education group, factors were combined to show the differences among EFL, ESL, and native learning of English.[10]

Table 28 shows the results of the modified run of all the groups.

(37) Table 28. Modified run on all groups

Group	Factor	Weight	Number	Percentage	Significance
Environment					Yes
	preceding n/l	0.207	1050	63%	
	intervocalic/second	0.542	3468	60	
	preceding r	0.487	636	84	
	following l	0.813	584	96	
Part of speech					Yes
	noun/proper noun	0.467	2647	77	
	verb	0.543	1377	84	
	adjective	0.491	1206	89	
	adverb	0.578	508	90	
Sex					Yes
	male	0.525	2964	85	
	female	0.473	2774	80	
Age					Yes
	18-30	0.593	1903	90	
	31-40/41-50	0.464	2968	81	
	51-60/61+	0.419	867	69	
Age of arrival					Yes
	0/1-5	0.633	1988	93	
	6-10/11-15	0.687	1345	92	
	16-25/26-40/41+	0.291	2405	68	
Length of stay					Yes
	2-5/6-10	0.477	820	75	
	11-15/16-20	0.363	1911	79	
	21-25/26-30	0.606	2242	88	
	31-35/36+	0.561	765	83	
Occupation					Yes
	self employed	0.417	820	73	
	professional	0.562	1286	81	
	non-/office worker	0.495	1640	84	
	student	0.485	1897	87	
	unemployed	0.734	95	82	

Education				No
high school/college	0.528	2827	79	
grad./prof. school	0.473	2911	86	
English education				Yes
EFL/No/None	0.434	2816	93	
ESL	0.746	934	93	
Native born	0.468	1988	93	

Input = 0.889 Total chi-square = 1989.6681
Log likelihood = -2071.508 Chi-square/cell = 2.5806

Most of the factor groups did not show large envelopes of variation in the modified run compared to the initial run. However, one factor group which showed the most distinct difference was sex. In the initial run, females (0.543) slightly exceeded males (0.460). However, in the modified run, males (0.525) slightly exceed females (0.473). In addition, unlike in the initial run, the age group shows a steady progression with the probability of flapping decreasing as age increases. In the age of arrival group which reflects generation, the 1.5 generation showed the highest probability with 1st and 2nd generation following respectively. In the English education group, ESL showed the highest weight whereas in the initial run informal English education showed the highest weight. Other than the previously mentioned groups, the remaining groups showed similar weights. In the binomial (SP) step-up/step-down analysis of the modified run, only the education group was chosen as not significant. In the initial run, all groups were significant.

The frequency rates of flapping in the modified run show a somewhat different picture than what was seen in the initial run. The lowest rate was found in the environment group with the /t/ preceded by a /n/ or /l/ showing a 63% rate of flapping. On the other hand, several groups showed the highest rate of flapping at 93%. The factors

were 0 years and 1-5 years in the age of arrival group, and all three factors in the English education group. In addition, the groups of age and age of arrival both showed a decrease in frequency as age and age of arrival increased.

First Language Transfer?

The issue of first language transfer is briefly examined. Tables 29 and 30 display the consonant inventory of Korean and English respectively.

(38) Table 29. Korean consonant inventory (Kobayashi & Lee 1999)

Korean Consonants		Labial	Coronal	Palatal	Dorsal
Stops	*v-less lax*	p	t		k
	aspirated	p^h	t^h		k^h
	tense	p’	t’		k’
Affricates	*v-less lax*			t?	
	aspirated			$t?^h$	
	tense			t?’	
Fricatives	*v-less lax*		s	(?)	h
	tense		s’	(?’)	
Nasals		m	n		n
Liquids			l		
Semi-vowels		w		j	

(39) Table 30. English consonant inventory (Ladefoged 1997)

English Consonants		Labial	Coronal	Palatal	Dorsal
Stops	*voiceless*	p	t		k
	voiced	b	d		g
Affricates	*voiceless*			t?	
	voiced			d	
Fricatives	*voiceless*	f	s	?	h
	voiced	v	z		
Nasals		m	n		n
Liquids			r		
			l		
Semi-vowels		w		j	

While Korean has somewhat the equivalent of the English voiceless stop /t/, it does not possess the equivalent for the English voiced stop /d/. Korean /t/ is underlyingly unmarked for voicing while in English, /t/ is frequently aspirated under appropriate linguistic conditions. In terms of aspiration and Voice Onset Time (VOT), English /d/ is most like Korean /t'/. The speakers all showed articulation of a flapped English /d/ and did not show evidence of a different target form. This indicates that the differences in the Korean and English consonant inventories do not seem to impede the acquisition of a flapped /t/.

3.3 Summary and Conclusions

In general, the speakers show probabilistic acquisition of word medial /t/ flapping. It is clear that flapping is conditioned by linguistic as well as social factors. A GoldVarb analysis which assessed the factors affecting the application of the word medial /t/ flapping rule showed that some factors have relatively greater significance over other factors.

The initial multivariate analyses showed that for the speakers, all of the independent variables of environment, part of speech, sex, age, age of arrival, length of stay, occupation, education, and English education influence the rate of flapping in one way or the other. The largest envelopes of variation were seen in the groups of environment, age of arrival, and English education while the smallest envelope of variation was seen in sex. When the speakers were classified according to generation (G1-2=2nd generation, G3-4=1.5 generation, G5-7=1st generation) the results showed that due to the nature of the generations, different factors proved to be significant

according to generation. However, all of the generations showed that environment was a significant factor group while sex was irrelevant. Additional runs according to each age of arrival group (G1-7) showed that the significance of linguistic factors were greater than social factors (Preston 1991). The modified GoldVarb run on the speakers showed that there was not much difference when factors were regrouped to reflect different social combinations.[12]

In terms of frequency of the occurrence of flapping, the speakers showed an 82% rate of flapping which indicates that word medial /t/ flapping is indeed pervasive in the English use in Korean Americans. The 2nd and 1.5 generation showed frequency rates of 93% while the 1st generation showed a 68% rate of flapping. A steady decrease is shown in the frequencies of each age of arrival group: G1=93%, G2=93%, G3=92%, G4=94%, G5=81%, G6=56%, G7=51%. Age of arrival thus appears to have the strongest effect on the acquisition and use of flapping.[13]

NOTES

[1] Olive (1993:328) calls this a 'flapped stop.'

[2] Prator & Robninett (1985:190) call this phenomenon 'sandhi-form.'

[3] Laferriere & Zue (1977) conducted an acoustic study utilizing spectrographic analysis which provides evidence for the environments of /t/.

[4] Crystal (1997:382) refers to a tap "resembling a very brief articulation of a stop."

[5] Celce-Murcia (1996) uses the word "common" but does not offer substantial evidence that there are more "common" words where flapping occurs almost categorically.

[6] Flapping is found in Irish English, South African English, Australian/New Zealand English (Trudgill & Hannah 1994).

[7] Style was not analyzed in the GoldVarb run and will be included in future analyses.

[8] An analysis of individual words was not conducted and will be examined in further studies.

[9] All of the subsequent tables showing GoldVarb results are organized in the same way.

[10] While the GoldVarb weights which are based on probability were different, frequency rates are calculated in percentages according to occurrence. Therefore, the only difference in the frequency rates in the modified run would be the percentages of the combined factors in relation to the total.

[11] David Silva (p.c.) notes that mapping Korean /t, t', t^h/ to English /t, d/ is not all that straightforward. He draws on examples of how Korean renders English borrowings such as the word 'time,' in which the English /t/ can be either Korean /t/ or /t^h/.

[12] The modified run was based on the initial GoldVarb runs on socially driven combinations (e.g., generation). However, statistically driven combinations are speculated to show different results.

[13] The statistical analyses here should not be considered an exhaustive interpretation of the data. Although the immediate goals of the dissertation have been reached, clearly further statistical reduction and/or combination analyses need to be conducted in the future to present a more comprehensive picture.

CHAPTER 4

Discourse Markers and Short a

4.1 Discourse Marker Use

Discourse markers have been referred to by several different terms which reflect the different ways they are used (Fraser 1999:932). Brinton (1996:32) lists 34 items which she refers to as "pragmatic markers" but these include non-lexical items such as 'ah' and 'oh.' Such non-lexical utterances are usually defined as fillers or punctors and are seen as signs of hesitation (Vincent & Sankoff 1992:205). Here, the term 'discourse marker' is adopted because it is neutral and does not imply a particular function as seen in the terms 'hesitation' or 'filler.' Crystal (1997:119) defines discourse markers as "sequentially dependent elements which demarcate units of speech, such as *oh, well, I mean*. This definition stems from Schiffrin who posited discourse makers as being "sequentially dependent elements which bracket units of talk" (Schiffrin 1987:31). Fraser (1999:950) defines discourse markers as a "pragmatic class, lexical expressions drawn from the syntactic classes of conjunctions, adverbials, and prepositional phrases...They have a core meaning which is procedural, not conceptual, and their more specific interpretation is 'negotiated' by the context, both linguistic and conceptual." Sankoff et al. (1997:195-196) provides a comprehensive view of discourse markers which is more relevant to the purposes of this study.

(40) Properties of discourse markers

1. They do not enter into construction syntactically with other elements of the sentence.

2. The propositional meaning of the sentence does not depend on their presence.

3. They are subject to semantic bleaching as compared with their source forms.

4. They undergo greater phonological reduction than their source forms.

5. They are articulated as part of smoothly flowing speech production. This criterion excludes the hesitation forms 'uh' ... that generally signal word searches.

Studies of native English speakers have shown that the use of discourse markers is a pervasive feature of colloquial English (Jucker 1993, Miller & Weinert 1995, Schiffrin 1982, 1985, Watts 1989). Discourse markers are found in languages such as English, Japanese, and German (Jucker & Ziv 1998). French appears to have almost identical discourse markers as found in English. The most frequently used discourse markers in Anglophone Montreal French speakers are *tu sais* 'you know,' *alors* 'so,' and *comme* 'like' (Sankoff et al. 1997:191).

Discourse markers are often 'semantically bleached' or 'desemanticized' (Vincent & Sankoff 1992:206, Sankoff et al. 1997: 196). This implies that the semantics of the word has been completely erased so that the word is devoid of any meaning it originally possessed and does not acquire another meaning (Sankoff et al. 1997:197). Therefore, it is often difficult to locate equivalent lexical items or translate discourse markers into another language (Brinton 1996:34). This is seen in French *la* 'there' and *bon* 'good' which do not have counterparts in English discourse marker use (Sankoff et al.

1997:191). The lack of translation equivalents may present acquisitional difficulties to the non-native speaker who encounters them because s/he may become confused and not realize that they do not affect the overall meaning of the utterance they are located in.

Previous studies have also examined the syntactic distribution of discourse markers and their multi-functions (Schiffrin 1987 among others). Discourse markers are considered "independent of syntactic organization (i.e., they are not attached to sentences)" (Gramley & Paxtold 1992:236). Therefore, markers such as *you know* and *like* can occur freely within a sentence at boundaries which are difficult to identify (Schiffrin 1987:32). Concerning the function of discourse markers, they are often regarded as having a verbal filler function which provides the speaker with linguistic planning time.[1] Some other functions of discourse markers are to serve as a boundary in discourse or to denote new or old information (Brinton 1996:37-38). As for particular use of makers, *like* is considered "particularly suited to conversation," *you know* "can appear so frequently in conversation that its use by some speakers is apt to be stigmatized but those who do not use it at all are uncommon," and *I mean* is "useful in repair situations" (Schourup 1985: 61, 94).

The effects of social variables and social evaluations have also been a focus in discourse marker studies. Holmes (1986) examined the functions of *you know* and sex differences. She found that although linguistic hedging devices are regarded as a women's language form, in the case of *you know* no significant differences were found (Holmes 1986:14). It was negative stereotypes of women which fueled perceptions that women use discourse markers more than men. To add to our understanding of the negative stereotyping of discourse marker use, Watts (1989) surveyed perceptions of

discourse marker use. He found that discourse marker use was viewed negatively but that the speakers were unaware that they themselves used discourse markers (Watts 1989:203). In this light, discourse markers are stigmatized and even regarded as a sign of dysfluency (Schourup 1985:94).

One of the first studies of the acquisition of discourse markers in bilingual speakers is Sankoff et al. (1997). Discourse marker use in 17 French-English bilinguals was analyzed by examining the rate of use, patterning, and choice of markers. The study found that there was a considerable amount of variation in individual repertoires and frequency of use in both languages. Discourse marker use was considered indirect evidence of face-to-face interaction with native speakers and indicators of integration. According to Sankoff et al. (1997:193):

> Discourse markers are of particular interest because they constitute an aspect of the language not taught in school. Because they are not subject to explicit instruction, they are likely to be an accurate indicator of the extent to which a speaker is integrated into the local speech community. That is, only L2 speakers with a high degree of contact with native speakers will master the use of discourse markers.

The use of discourse markers is entirely optional and is not a linguistic feature that must necessarily be acquired. However, a higher frequency of discourse marker use is an indicator of fluency in a speaker (Sankoff et al. 1997:191).

With the implications of Sankoff et al. (1997) taken into consideration, the present study examines discourse marker use in Koreans acquiring English as a second language as well as ethnic Koreans who are native English speakers.

4.1.1 Overall Discourse Marker Use

The analysis of discourse markers is limited to spontaneous speech. Therefore, the data reflects the speech taken from 98 of the 101 speakers in the study. As previously mentioned in §2.5.2., analysis focuses on the three discourse makers of *you know*, *like*, and *I mean* because of their dominance in speech.[2] The following examples taken from the subjects, show the use of the three discourse markers.

(41) Legend: **B**=target, *I*=other maker, [ ]=other function

<u>you know</u>

And *so*, and, **you know**, **you know**, people saying, **you know**, just, **you know**, you are Korean, but you can't even speak Korean, and **you know**, what is that? And *like*, **you know**, just general negative attitude...

<u>like</u>

But for her, she wants to go to **like** a loud bar where there's **like** a lot of young kind of **like** *you know* [like] a frat party [like] atmosphere you know.

<u>I mean</u>

...I vividly remember **I mean** my grandfather. He was very kind but anyway he passed away and I I I just **I mean** reminded **I mean I mean** the death reminded me the the **I mean** the life, what is the life?

The presence of discourse markers is measured in terms of frequency rates. The rate of discourse marker use was measured by taking the total number of words uttered by each speaker and dividing it by the number of particular utterances of each particular discourse

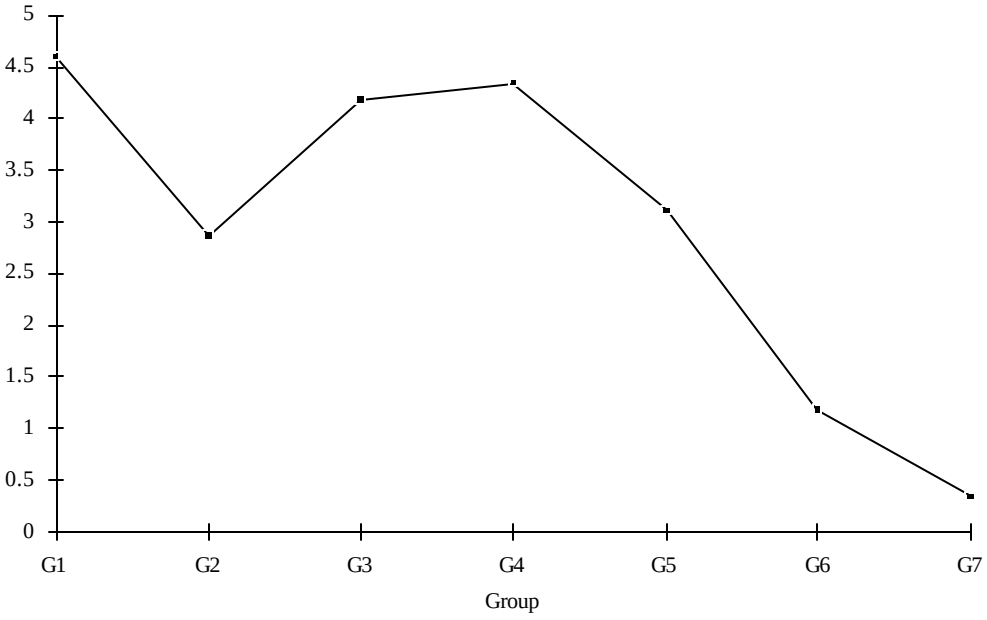
maker or the total number of tokens for all three discourse markers. Word count was used as a measure due to the difficulty of normalizing a time period across the speakers.[3] General use is shown according to age of arrival in the US. Table 31 shows the results of the analysis of the use of the three markers.

(42) Table 31. Overall discourse marker use

Group	Words	you know	like	I mean	Total
G1	54693	408	1996	112	2516
%		16.21	79.33	4.45	4.6
G2	52668	463	202	115	1513
%		30.6	61.79	7.6	2.87
G3	37107	448	971	138	1557
%		28.77	62.36	8.86	4.19
G4	31640	455	792	128	1375
%		33.09	57.6	9.3	4.34
G5	57769	661	933	213	1808
%		36.55	51.6	11.78	3.12
G6	52316	303	110	208	621
%		48.79	17.71	33.49	1.18
G7	8064	27	0	1	28
%		96.42	0	3.57	0.34
Total	294257	2765	5004	915	9418

The use of discourse markers is relatively low across all of the groups. This is due to the method of measurement used here which utilized the number of words uttered. Despite the low frequency rates, a pattern can be seen across the groups. This pattern is more clearly seen in Figure 4.

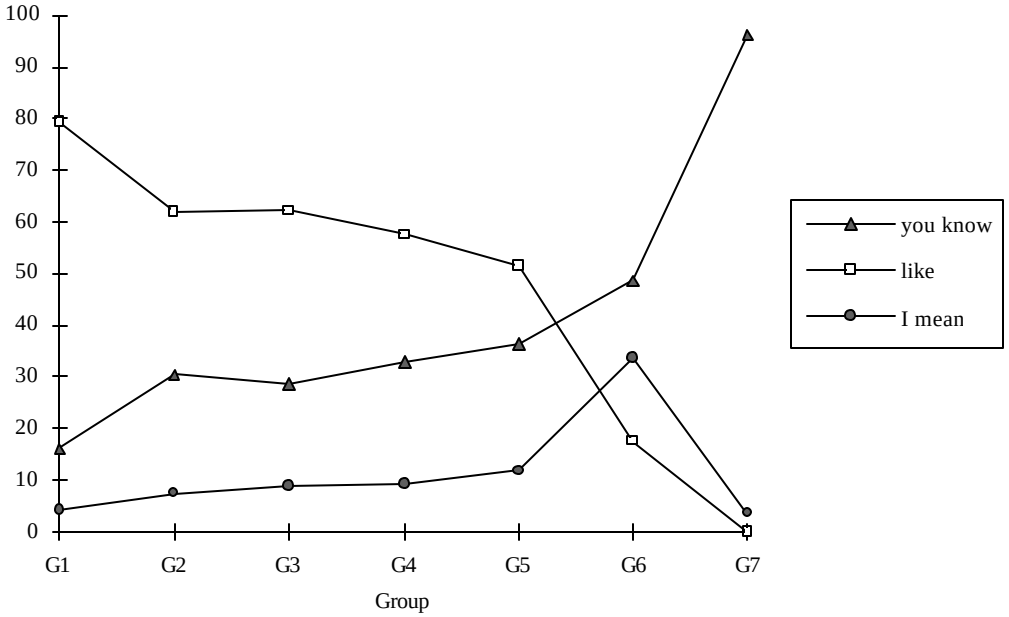
(43) Figure 4. Overall discourse marker use



With the exception of G2, there is a steady decrease in the use of discourse markers as the age of arrival increases. The G7 group shows the lowest use while G1 shows the highest. The G2 group may be aware that discourse marker use is negatively stigmatized and may avoid such use. Looking at individuals, the G2 group has speakers who are more educated in terms of post-graduate schooling and thus has more speakers who are professionals as opposed to the G1 group. Therefore, education and occupation could perhaps have an effect on use in these two groups which are considered to be at the native end of the nativeness continuum.

Next, Figure 5 shows overall use in each of the three markers.

(44) Figure 5. Overall discourse marker use according to particular marker



The use of a particular discourse marker shows interesting results. *I mean* is the least used of the three markers, with *you know* and *like* following respectively. *Like* appears to be favored by the early age of arrival groups as opposed to *you know* in the later groups. The groups which comprise the 1.5 generation (G3, G4) show steady rates of use of all three discourse makers.

4.1.2 Social Variables

The social variables analyzed in accordance with discourse marker use are generation, sex, and age. These three variables are speculated to show relatively greater effects on use than the other social variables.

4.1.2.1 Generation

Generational differences are examined in the particular use of each marker and the total of all three markers. Results of the analysis of the 2nd generation are shown in Table 32.

(45) Table 32. Discourse marker use in 2nd generation

Group	Words	you know	like	I mean	Total	%
G1	54693	408	1996	112	2516	4.6
G2	52668	463	202	115	1513	2.87
Total	107361	871	2198	227	4029	3.75
%		0.81	2.04	0.21		

An intra-generational analysis shows that G1 and G2 are similar but differ significantly in the use of *like*. The high rate of *like* in the G1 group renders this discourse marker as having the highest rate in use in the 2nd generation. Overall, discourse marker use is 3.75%.

The results from the 1.5 generation are shown in Table 33.

(46) Table 33. Discourse marker use in 1.5 generation

Group	Words	you know	like	I mean	Total	%
G3	37107	448	971	138	1557	4.19
G4	31640	455	792	128	1375	4.34
Total	68747	903	1763	266	2932	4.26
%		1.31	2.56	0.03		

Surprisingly, the 1.5 generation shows a higher overall rate than the 2nd generation at 4.26%. Similar to the 2nd generation, *like* is the discourse marker used the most. Next, the results of the 1st generation are shown in Table 34.

(47) Table 34. Discourse marker use in 1st generation

Group	Words	you know	like	I mean	Total	%
G5	57769	661	933	213	1808	3.12
G6	52316	303	110	208	621	1.18
G7	8064	27	0	1	28	0.34
Total	118149	991	1043	422	2457	2.07
%		0.83	0.88	0.35		

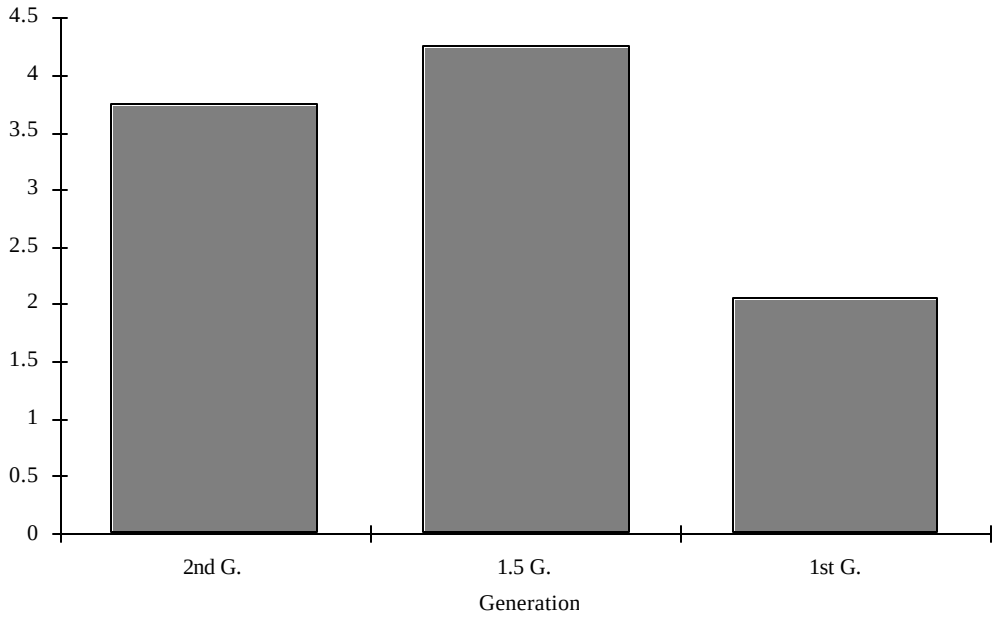
As can be seen, the 1st generation shows the lowest rate of discourse maker use at 2.07%. Here, *like* is again the discourse marker that is used the most.

Table 35 and Figure 6 show a comparison of the three generations.

(48) Table 35. Overall discourse marker use according to generation

Gen.	Words	you know	like	I mean	Total	%
2nd Gen.	107361	871	2931	227	4029	3.75
1.5 Gen.	68747	903	1763	266	2932	4.26
1st Gen.	118149	991	1043	422	2457	2.07
Total	294257	2765	5737	915	9418	3.2
%		0.93	1.94	0.31		

(49) Figure 6. Overall discourse marker use according to generation



The 1.5 generation shows the highest rate of use with the 2nd generation and the 1st generation following respectively. Next, Figure 7 shows the results of generational differences according to particular discourse marker.

(50) Figure 7. Particular discourse marker use according to generation

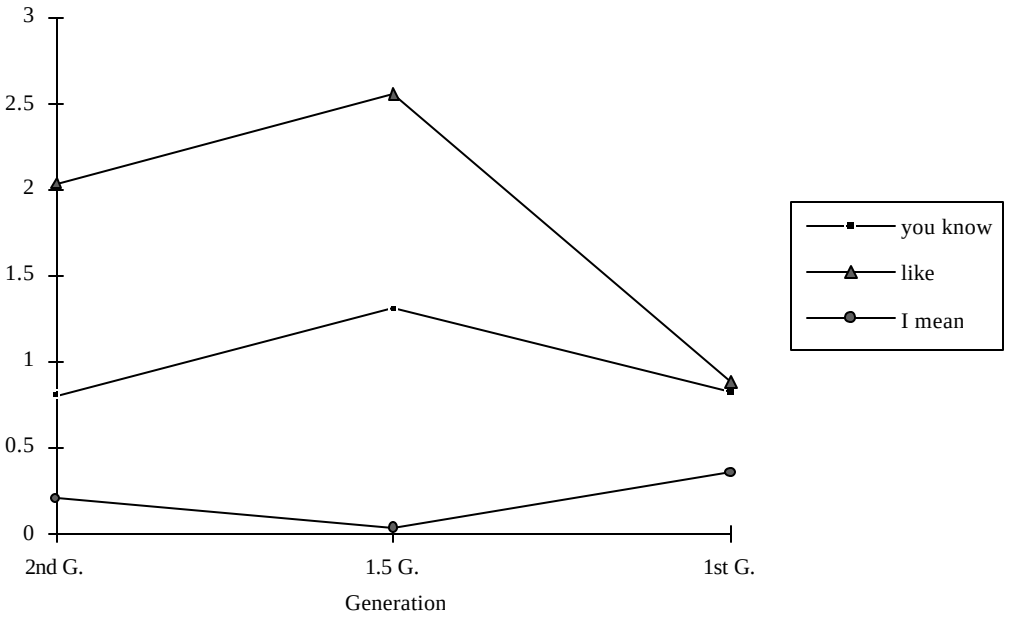


Figure 7 shows that while *like* is used the most in all three generations, *I mean* is used the least. In addition, the rates of *you know* and *I mean* show relatively steady rates across the generations as opposed to the use of *like.*

4.1.2.2 Sex

Sex is examined in order to determine whether the speakers show any differences in use. The interaction of sex and age of arrival in the US is analyzed in order to examine the overall use of discourse markers according to sex. First, male use is shown in Table 36.

(51) Table 36. Discourse marker use in males

Group	Words	you know	like	I mean	Total	%
G1	29343	277	1381	72	1730	5.89
G2	29221	305	248	38	591	2.02
G3	18441	273	296	71	640	3.47
G4	10977	124	173	13	310	2.82
G5	31106	246	423	140	809	2.60
G6	25088	154	0	160	355	1.41
G7	2714	21	0	1	22	0.81
Total	146890	1400	2521	495	4457	3.03
%		0.95	1.71	0.33		

The overall use in males is 3.03%. Males also use *like* the most with *you know* and *I mean* following respectively. Males also show a general decrease in use as age of arrival increases. Table 37 shows the analysis of female use.

(52) Table 37. Discourse marker use in females

Group	Words	you know	like	I mean	Total	%
G1	25350	131	615	40	786	3.10
G2	23447	158	687	77	922	3.93
G3	18666	175	675	67	917	4.91
G4	20663	331	619	115	1065	5.15
G5	26663	415	510	73	999	3.74
G6	27228	149	69	48	266	0.97
G7	5350	6	0	0	6	0.11
Total	147367	1365	3175	420	4961	3.36
%		0.92	2.15	0.28		

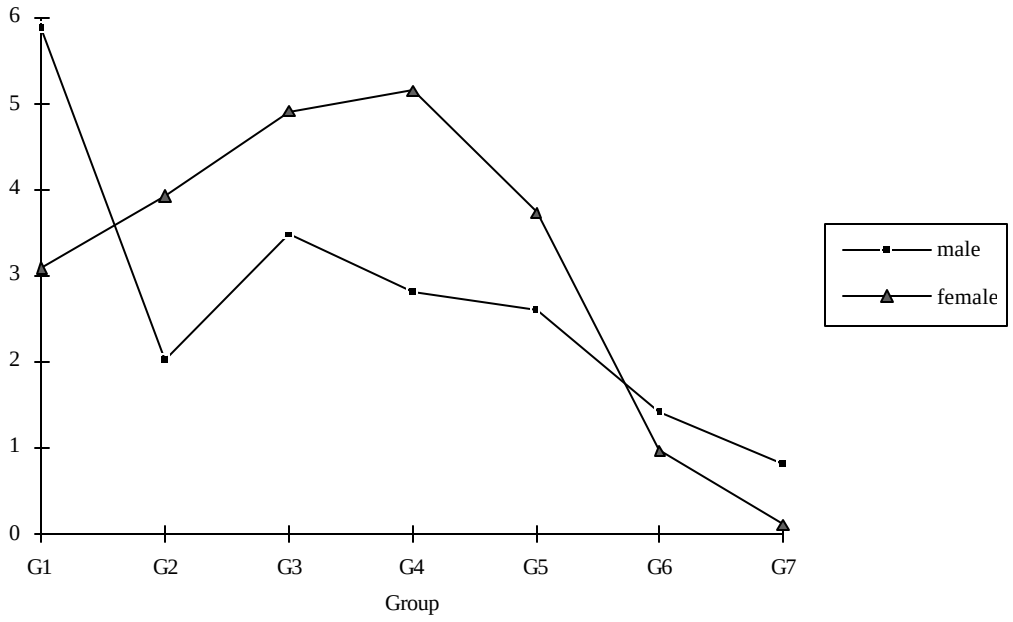
The overall discourse marker use in females is 3.36% which does not show much difference from the males. Similar to the males, females also use *like* the most with *you know* and *I mean* following respectively. However, the females do not show a steady decrease in discourse marker use according to age of arrival group as do the males. The females in G4 show a relatively high frequency rate than females in other groups.

A comparison of males and females is shown in Table 38 and Figure 8.

(53) Table 38. Overall discourse marker use according to sex

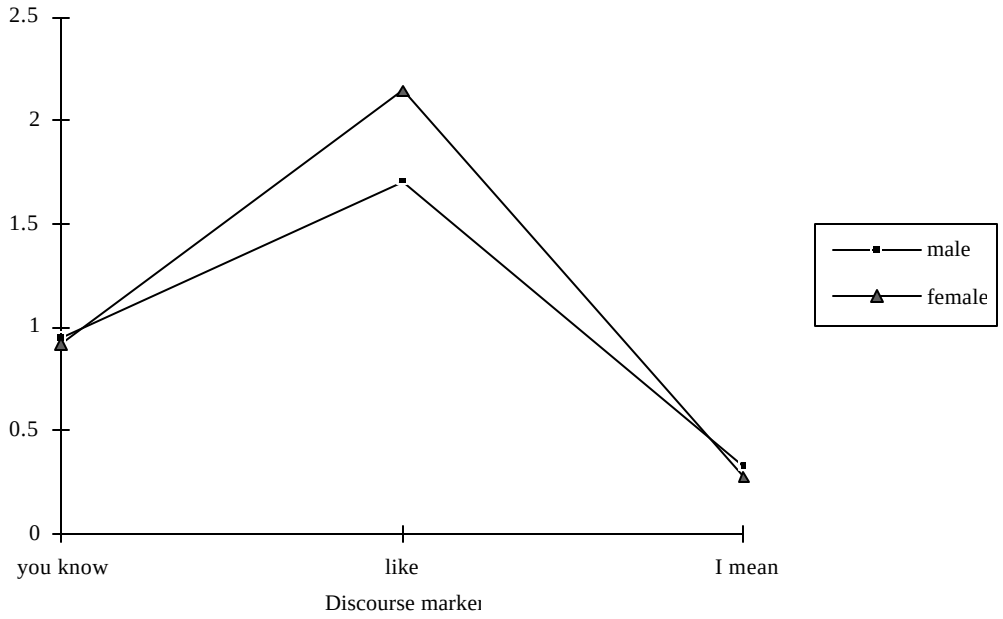
Sex	Words	you know	like	I mean	Total	%
Male	146890	1400	2521	495	4457	3.03
Female	147367	1365	3175	420	4961	3.36
Total	294257	2765	5696	915	9418	3.2

(54) Figure 8. Overall discourse marker use according to sex



The interaction between sex and age of arrival shows that males and females both show a decrease in use as age of arrival increases. In the four groups, G2-5, females show a relatively higher rate than males. Males show a higher rate in either end of the continuum in the G1, G6, and G7 groups. Next, Figure 9 shows the effects of sex on each individual marker.

(55) Figure 9. Particular discourse marker use according to sex



Sex differences do not seem to be apparent in terms of particular use. Males and females show similar rates in the use of *you know* and *I mean* but females show a slightly higher rate of use in *like.* In general, sex does not seem to influence discourse marker use.

4.1.2.3 Age

The interaction of age and age of arrival in the US is examined in this section. Not all of the groups displayed a wide range of age. G1-4 are comprised of speakers who are all under the age of 41 while on the other hand, G7 does not have any speakers under the age of 41. Only G5 and G6 show varied ages in the speakers. The age groups are divided into three groups: 18-30 years, 31-50 years, and 51-61+ years. First, Table 39 shows the youngest age range of 18-30 years.

(56) Table 39. Discourse marker use in 18-30 age range

Group	Words	you know	like	I mean	Total	%
G1	24148	182	839	55	1076	4.45
G2	28320	268	512	51	831	2.93
G3	20312	230	637	94	961	4.73
G4	15763	245	562	75	882	5.59
G5	14283	76	450	57	583	4.08
G6	13258	79	102	35	216	1.62
Total	116084	1080	3102	367	4549	3.91
%		0.93	2.67	0.31		

The overall rate of use in the 18-30 age range is 3.91%. *Like* is the predominant discourse maker used in this age group with *you know* and *I mean* following. *Like* is used the most in G1 and the least in G6. Table 40 shows the results for the 31-50 age range.

(57) Table 40. Discourse marker use in 31-50 age range

Group	Words	you know	like	I mean	Total	%
G1	30545	226	1157	57	1440	4.71
G2	24348	195	423	64	682	2.80
G3	16795	218	334	44	596	3.54
G4	15877	210	230	53	493	3.10
G5	18691	274	346	71	691	3.69
G6	14983	129	2	159	290	1.93
G7	25943	280	143	64	487	1.87
Total	147182	1532	2635	512	4679	3.17
%		1.04	1.79	0.34		

This age group shows a lower rate of use than the 18-30 group at 3.17%. All three discourse markers show low rates of use and similar to the 18-30 group, *like* is used the most. Speakers in the later age of arrival groups show a relatively low rate compared to those in the early age of arrival groups. Next, Table 41 shows the results of the oldest age groups.

(58) Table 41. Discourse marker use in 51-61+ age range

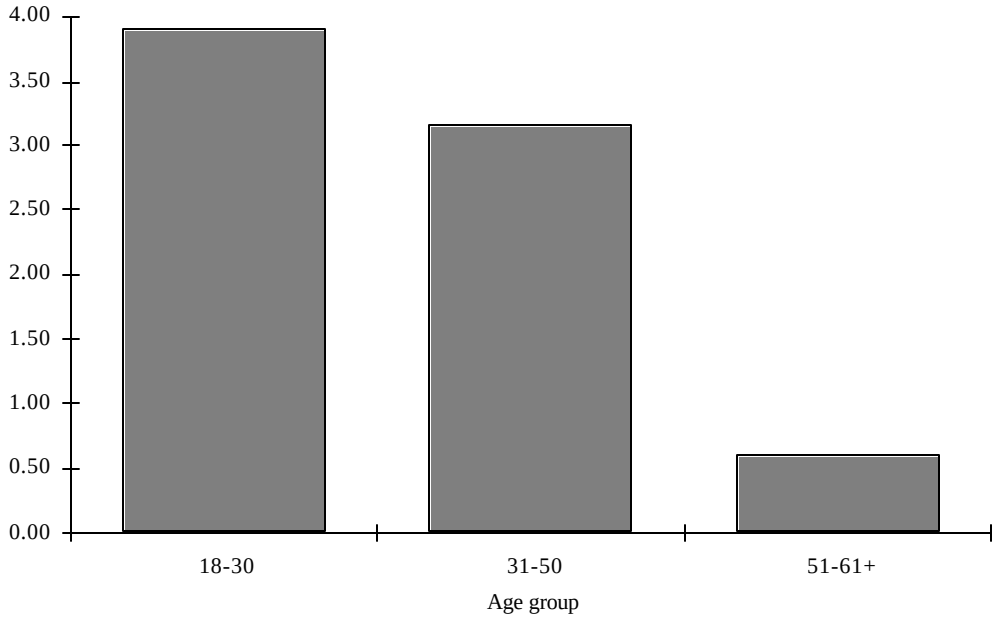
Group	Words	you know	like	I mean	Total	%
G5	13194	88	0	28	116	0.87
G6	12985	42	0	7	49	0.37
G7	4812	23	0	1	24	0.49
Total	30991	153	0	36	189	0.60
%		0.49	0.00	0.11	0.60	

The 51-61+ group shows the lowest overall rate of use at 0.60%. This group is the only one that uses *you know* the most and shows no use of *like.* This result could be perhaps evidence of generational change (Labov 1994:84) in the use of *like.*[4] Table 42 and Figure 10 offers a comparison of all three age groups.

(59) Table 42. Overall discourse marker use according to age

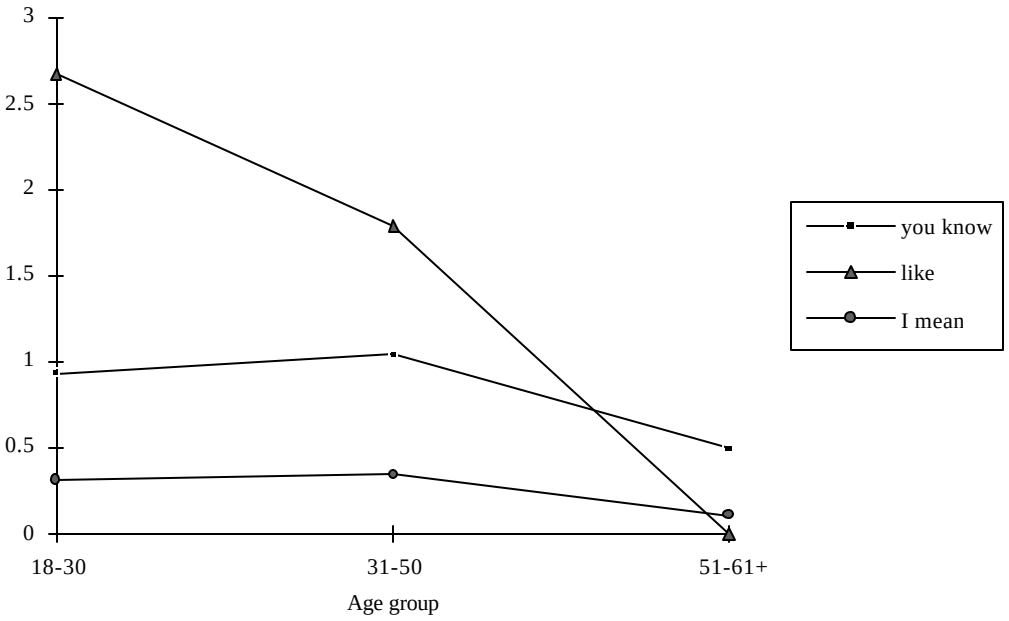
Age	Words	you know	like	I mean	Total	%
18-30	116084	1080	3102	367	4549	3.91
31-50	147182	1532	2635	512	4679	3.17
51-61+	30991	153	0	36	189	0.60
Total	294257	2765	5737	915	9417	3.20

(60) Figure 10. Overall discourse marker use according to age



The 18-30 age range shows the highest rate of use with a decrease in rate as age increases. The 51-61+ age group shows a significantly low rate of use. Use according to particular marker is seen in Figure 11.

(61) Figure 11. Particular discourse marker use according age



Like shows the largest envelope of variation in use while *you know* and *I mean* show similar rates across the groups.

4.1.3 Interaction

Further effects of the interaction of variables is analyzed. While §4.1.2 presented the interaction of age of arrival with generation, sex, and age, further analyses of interaction between factors are presented here. Table 43 shows the interaction among the variables.

(62) Table 43. Interaction of variables in discourse marker use

G	Gen.	Sex	Age	Words	you know	like	I mean	Total	%
G1	2nd	M	18-30	13461	127	340	42	509	3.78
			31-50	15882	150	1041	3	1194	7.51
		F	18-30	10687	55	499	13	567	5.30
			31-50	14663	76	116	27	219	1.49
G2		M	18-30	18194	217	185	28	430	2.36
			31-50	11027	88	63	10	161	1.46
		F	18-30	10126	51	327	23	401	3.96
			31-50	13321	107	360	54	521	3.91
G3	1.5	M	18-30	10002	124	208	55	387	3.86
			31-50	8439	149	88	16	253	3.02
		F	18-30	10310	106	429	39	574	5.56
			31-50	8356	69	246	28	343	4.10
G4		M	18-30	4169	24	117	7	148	3.55
			31-50	6808	100	56	6	162	2.37
		F	18-30	11594	221	445	68	734	6.33
			31-50	9069	110	174	47	331	3.64
G5	1st	M	18-30	8328	37	202	42	281	3.37
			31-50	13025	159	221	75	455	3.49
			51-61+	9753	50	0	23	73	0.74
		F	18-30	5955	39	248	15	302	5.07
			31-50	17267	338	262	53	654	3.78
			51-61+	3441	38	0	5	43	1024
G6		M	18-30	5312	21	41	8	70	1.31
			31-50	10809	94	0	147	241	2.22
			51-61+	8967	39	0	5	44	0.49
		F	18-30	7946	58	61	27	146	1.83
			31-50	15264	88	8	19	115	0.75
			51-61+	4018	3	0	2	5	0.12
G7		M	51-61+	2714	21	0	1	22	0.81
		F	31-50	3252	4	0	0	4	0.12
			51-61+	2098	2	0	0	2	0.09
Total				294257	2766	5737	888	9391	3.19
%					0.93	1.94	0.30		

Micro-analyses of interaction are presented in the subsequent sections.

4.1.3.1 Generation and Sex

First, the interaction between generation and sex is examined. Table 44 and Figure 12 show the results.

(63) Table 44. Interaction of generation and sex

Gen.	Sex	Words	you know	like	I mean	Total	%
2nd	M	58564	582	1629	83	2294	3.91
	F	48797	289	1302	117	1708	3.5
1.5	M	29418	397	469	84	950	3.22
	F	39329	506	1294	182	1982	5.03
1st	M	58908	421	464	301	1186	2.01
	F	59241	570	579	121	1271	2.14

(64) Figure 12. Interaction of generation and sex

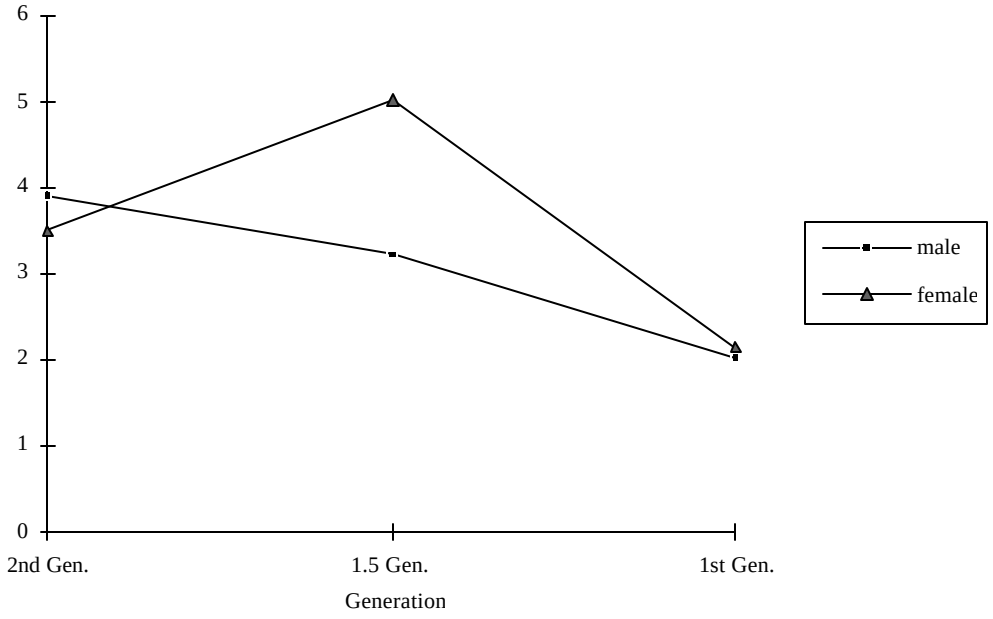


Figure 12 shows that 1.5 generation females use discourse markers the most and 1st generation males show the least use. In addition, while males show a steady decrease in use according to generation, females do not.

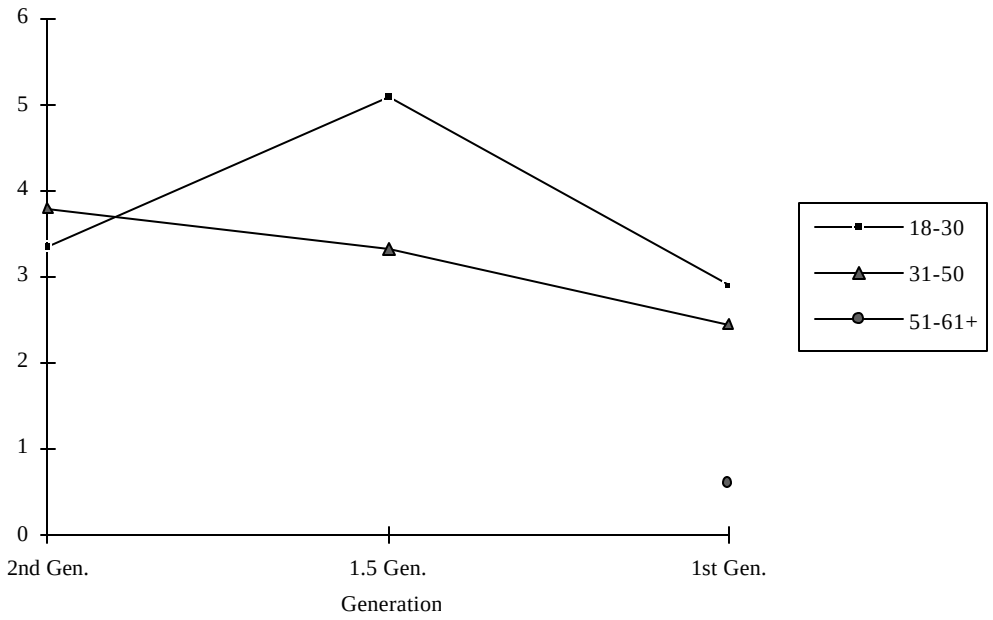
4.1.3.2 Generation and Age

The interaction between generation and age is examined. Table 45 and Figure 13 show the results of the analysis.

(65) Table 45. Interaction of generation and age

Gen.	Age	Words	you know	like	I mean	Total	%
2nd	18-30	52468	450	1351	106	1907	3.63
	31-50	54893	421	1580	94	2095	3.81
1.5	18-30	36075	475	1199	169	1843	5.10
	31-50	32672	428	564	97	1089	3.33
1st	18-30	27541	155	552	92	799	2.90
	31-50	59617	683	491	294	1469	2.46
	51-61+	30991	153	0	36	189	0.60

(66) Figure 13. Interaction of generation and age



Interestingly, the results of the age analysis almost mirror the results of the sex analysis. Here, the 18-30 age group shows the highest rate in the 1.5 generation with the lowest rate seen in the 51-61+ age group in the 1st generation. The 1.5 generation appears to possess speakers who regardless of sex or age show high rates of use.

4.1.3.3 Sex and Age

Lastly, the interaction of sex and age is examined. Table 46 and Figure 14 show the results.

(67) Table 46. Interaction of sex and age

Sex	Age	Words	you know	like	I mean	Total	%
M	18-30	59466	548	1093	182	1825	3.06
F	18-30	56618	530	2009	185	2724	4.81
M	31-50	65990	740	1469	257	2466	3.73
F	31-50	81192	792	1166	228	2187	2.69
M	51-61+	21434	110	0	29	139	0.64
F	51-61+	9557	43	0	7	50	0.52

(68) Figure 14. Interaction of sex and age

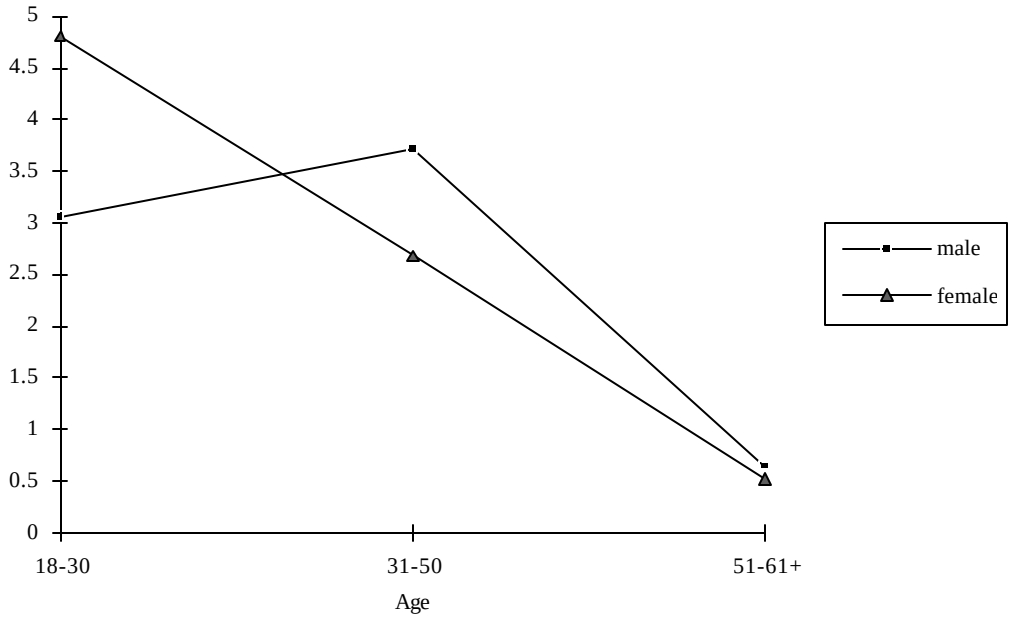


Figure 14 shows a different picture of discourse marker use than what was seen in previous analyses of interaction. Males show a sharp decrease in use while females in the 31-50 age range show the highest rate of use.

4.1.4 Discourse Marker Preference

Preference in the choice of discourse marker use was investigated in Sankoff et al. (1997). In this study, five particular markers were used by 13 or more of a total of 17 English-French bilingual subjects (Sankoff et al. 1997:213). In English, the speakers showed a preference for *you know* followed by *like*. Preferences are analyzed here in order to determine what patterns of choice both non-native and native English speakers have. Preference is measured by tallying the number of speakers who used each particular marker according to social variables. Table 47 presents the results according to age of arrival.

(69) Table 47. Discourse marker preference according to group

Group	you know	%	like	%	I mean	%	none	%	Total
G1	3	25.00	9	75.00	0	0.00	0	0.00	12
G2	4	33.33	8	66.66	0	0.00	0	0.00	12
G3	2	16.66	10	83.33	0	0.00	0	0.00	12
G4	4	33.33	8	66.66	0	0.00	0	0.00	12
G5	12	54.54	9	40.90	1	4.54	0	0.00	22
G6	13	59.09	2	9.09	4	18.18	3	13.63	22
G7	5	83.33	0	0.00	0	0.00	1	16.66	6
Total	43	43.87	46	46.93	5	5.10	4	4.08	98

Overall, *like* showed the highest frequency with *you know* following but the difference in the rates of the two discourse markers is very small. *I mean* showed a significantly low frequency. This result was also confirmed in terms of age of arrival group, *like* was

dominant in four groups, and *you know* in three groups. The G6 and G7 groups possess speakers who show a preference for neither. Next, preference according to social variables is analyzed. Table 48 shows the preferences according to generation.

(70) Table 48. Discourse marker preference according to generation

Gen.	you know	%	like	%	I mean	%	none	%	Total
1st	30	60.00	11	22.00	5	10.00	4	8.00	50
1.5	6	25.00	18	75.00	0	0.00	0	0.00	24
2nd	7	29.16	17	70.83	0	0.00	0	0.00	24
Total	43	43.87	46	46.93	5	5.10	4	4.08	98

In the first generation, *you know* shows the highest frequency but in the 1.5 and 2nd generations *like* is used the most. As seen in the age of arrival analysis, *I mean* only occurs in the 1st generation and not in the 1.5 and 2nd generations. Table 49 shows preference according to sex.

(71) Table 49. Discourse marker preference according to sex

Sex	you know	%	like	%	I mean	%	none	%	Total
Male	27	52.94	21	41.17	3	5.88	0	0.00	51
Female	16	34.04	25	53.19	2	4.25	4	8.51	47
Total	43	43.87	46	46.93	5	5.10	4	4.08	98

Males show preference for *you know* while females show preference for *like.* This finding is interesting because sex does not seem to affect overall use of all three markers but is seen in the particular use of an individual marker. In addition, the speakers who showed no preference are all females. Table 50 shows preference according to age.

(72) Table 50. Discourse marker preference according to age

Age	you know	%	like	%	I mean	%	none	%	Total
18-30	5	13.88	30	83.33	0	0.00	1	2.77	36
31-50	25	54.34	16	34.78	4	8.69	1	2.17	46
51-61+	13	81.25	0	0.00	1	6.25	2	12.50	16
Total	43	43.87	46	46.93	5	5.10	4	4.08	98

Preference for *you know* is found in the 31-50 and 51-61+ age groups, while *like* is the marker of choice for the 18-30 age group. The frequency rate of *you know* was particularly high in the 51-61+ age group with *like* showing a similarly high rate in the 18-30 age group. *I mean* does not dominate in any of the social demarcations.

First Language Transfer?

Like English and other languages, Korean possesses discourse markers (Park 1998). A survey of 10 native Korean speakers was conducted in order to assess the state of discourse markers in Korean. All of the informants were asked for their intuitions about Korean discourse markers in general. While discourse markers exist, it appears that Korean discourse markers mainly serve as hesitation fillers. The informants also claimed that no equivalent structures which represent the function of discourse markers as defined in the present study could be found in Korean. This leads to the speculation that Koreans will not completely acquire the full array of discourse markers or will acquire a particular discourse marker and generalize its use, which was seen above.

A sampling of Korean discourse markers is given in (x). The literal translations are provided as the lexical items undergo semantic bleaching and lose their original meanings when used as discourse markers.

(73) Sampling of Korean discourse markers

kulssey 'well,' *kunteymaliya* 'but let me say,' *isscana* 'it exists,' *ceki* 'there'

The informants were also asked to translate English discourse markers found into Korean. The results showed that only *well* 'kulssey' and *you know* 'alcana' could be directly translated. In the analysis of discourse marker use, the high frequency of *you know*, *like*, and *I mean* indirectly indicate that the Korean speakers acquire a completely different repertoire of discourse markers than what they possess in their native language.

4.1.5 Summary and Conclusions

It appears that the use of discourse markers is acquired by all of the speakers to a certain extent. The use is also dictated by social factors of which age of arrival seems to be the most significant and sex the less significant factor. Preferences for particular discourse markers show slightly different results though.

In general, the speakers showed a relatively low frequency rate in the use of the three discourse markers of *like*, *you know*, and *I mean*. The classification of the speakers according to age of arrival showed that G2 used discourse markers the most. In terms of generation, the 1.5 generation showed the highest rate. Contrary to some studies as well as general impressions, there were no differences in sex. The particular marker of *like* which is highly stigmatized to be a women's language form was used equally among the males and females. However, age seemed to have more effect on discourse marker use with the younger speakers showing a higher rate than the older ones. The use of *like* was also significantly higher in younger speakers as well. The interaction of social factors

showed that 1.5 generation females, and 1.5 generation speakers 18-30 years, and females 18-30 years showed the highest use of discourse markers.

Preference for certain markers showed varying results. Overall, *like* was the preferred marker of choice at 46.93% with *you know* following at 43%. The 1st generation showed a preference for *you know* and both the 1.5 and 2nd generation showed preferences for *like.* Although, no difference in sex was seen in frequency rates, males showed a preference for *you know* and females showed a preference for *like.* The youngest speakers were the only ones to show a preference for *like* while the other age groups showed a preference for *you know*.

4.2 Short *a*

Short *a* is "one of the most complex phonological distributions known form a geographic, social, and linguistic standpoint" (Labov 1989a:4). Short *a* refers to the lexical split of short *a* into tense [ae] and lax [aeh] in dialects in the Mid Atlantic states of the US. The short *a* system is also complex because it shows grammatical and lexical conditioning as well. In the "northern cities" area west of New England (or Inland North area from northern New York State west to Illinois and Minnesota), all short *a* words are fronted and raised. In cities such as New York City and Philadelphia, the specific short *a* pattern uniquely defines such areas (Trager 1930, Ferguson 1975:259).

In New York City, short *a* is tensed before all voiceless fricatives and voiced stops, but only before anterior nasals (Labov, Yaeger, & Steiner 1972:47-52, Labov 1994:520). The Philadelphia dialect differs in that the restricting feature [+anterior] applies to all consonants but that there is tensing before the voiced stops in only the three

words of *mad, bad,* and *glad*. Figure 15 shows the consonants following short *a* that condition tensing in Philadelphia vs. New York City (Labov 1994:520).

(74) Figure 15. Consonants that condition tensing of short *a* (Labov 1994:520)

p	t	c	k
b	d	j	g
m	n	*Philadelphia*	n
f	s	s	*New York City*
v	z	z	
	l	r	

Note that in Figure 15 the dotted line indicates exceptions of *mad, bad, glad* in Philadelphia.

The Philadelphia core pattern is more easily explained as follows:

(75) Philadelphia short *a* system (Labov 1989a:44-45, Roberts & Labov 1995:102)

Short *a* = The tensing of /æ/ to /æh/ and raising to [: , e: , i:]

1. Short *a* is tense before nasals and before front voiceless fricatives, with the following exceptions:

   in weak words whose only vowel is schwa, it is almost always lax;

   in words with the initial short *a* before voiceless fricatives, it is lax in uncommon words (e.g., *aspirin, ascot*);

   in proper names with syllable-initial short *a* before nasals (e.g., *Anna*), it is variably lax; and

in abbreviations of stems where short *a* is followed by an intervocalic consonant (e.g. *math* or *exam*), it is lax.

2. Short *a* is tense in the words, *mad, bad*, and *glad*, but lax in the intuitively obvious fourth member of this set, *sad*.
3. Short *a* is tense before nasals followed by the diminutive *-ie* and occasionally before voiceless fricatives plus *-ie*. It is also tense in some words before intervocalic /r/ (e.g., *parent*).

The Philadelphia short *a* pattern is unique and is "uniform across social classes, ethnic groups, and family and friendship networks" (Labov 1989a:2). Labov's (1980, 1989a) findings show that short *a* is consistent in the white community but that acquisition is affected by race. In a study done of middle-class African-Americans in Philadelphia, Henderson (1995) found that native Philadelphians did not acquire the complex short *a* pattern that is distinctive in the area. In fact, the data suggest that these African-Americans were becoming more different in that younger blacks tended to use a pattern least similar to that shown by whites as described in Labov (1989a). Because the African-Americans in this study were heavily integrated into the white community of Philadelphia (through either residential, educational, or social means), Henderson theorizes that it may be psychological segregation which bars them from complete membership in the Philadelphia speech community.

Payne (1980) examined the acquisition of phonological features of the Philadelphia dialect in children.[5] The question raised in her study was "how can one determine if the Philadelphia core rule is being learned and how much of it is learned at

any point in time?" (Payne 1980:159). The subjects were between the ages of 8-20 years, and were in the process of acquiring a second dialect. Payne used the following categories in order to assess the degree of learning of the Philadelphia dialect.

(76) Degrees of learning (Payne 1980:150)

1. *acquired*

   the child has acquired the Philadelphia variable in a way that matches local patterns

2. *partially acquired*

   this indicates that although the child uses the Philadelphia variable part of time, he also uses the non-Philadelphia variable part of time. For example, for the variable (ay), a child who has partially acquired the Philadelphia norm may pronounce the word 'fight' as [feit] part of the time and [fait] the rest of the time.

3. *not acquired*

   the child has not acquired the variable at all

Payne found that although other variables of the Philadelphia dialect were easily acquired the short *a* pattern wasn't. The following summarizes her findings.

(77) Payne's findings (Payne 1980:174)

1. The phonetic variables are acquired with greater ease than the short *a*.
2. It is in fact very rare for a child to acquire the Philadelphia short *a*.

3. Unless a child's parents are locally born and raised, the possibility of his acquiring the short *a* pattern is extremely slight even if her were to be born and raised in King of Prussia.

One of Payne's more important findings is that the threshold of acquiring short *a* appeared to be age eight in the subjects. This "critical turning point" (Payne 1980:157) is based on the period where peer influence overrides parental influence. According to Payne, in order to completely acquire the short *a* pattern "a child needs to learn not only the phonetic conditioning of the short *a* distribution but also the grammatical conditioning and lexical exceptions" (Payne 1980:156).

Another study which investigated the acquisition of the Philadelphia short *a* by children is Roberts & Labov (1995). The subjects were 17 children ages three to four. What is interesting about this study is that the parents of the children were part of an earlier study by Labov (1989a). Therefore, the focus was on generational transmission of short *a* —in other words, whether the children showed similar distribution patterns of short *a* as their parents. The results from this study showed that children were indeed acquiring the community norms of use and were active participants in the on-going sound change associated with short *a*. In addition, the three to four age level appeared to be the critical period for acquisition in this case (Roberts & Labov 1995:110).[6]

Trager (1930:396) noted that "foreigners have difficulty in learning the sound (short *a*) tending to replace it by a sound like that of *e* in *bet*, or occasionally by the *o* in *hot* (as pronounced in the United States, unrounded)" and that "the present tendency of native speakers seems to be lie in the direction of the former change, but only under

special circumstances." The latter part alludes to the complexity of the short *a* system as it is manifested today. Thus, the present study is one of the first to examine the acquisition of the Philadelphia short *a* pattern in non-native speakers of English and in an ethnic Asian speech community. The next section presents an analysis of the speakers along the lines of the short *a* acquisition studies of Payne (1980) and Roberts & Labov (1995).

4.2.1 Analysis

An analysis of the presence of the short *a* pattern in the speakers was conducted initially through a reliability test. The reliability test was conducted with Anita Henderson, a native of Greater Philadelphia. The test was an impressionistic rating of the tokens and not an acoustic vowel analysis. This method proved valid in that the pronunciation of /a/ was easily distinguishable as tense or lax. The reliability test was conducted on a sampling of ten speakers who were chosen on the basis of probability of acquisition of the short *a* pattern. The ten speakers were all chosen from those who arrived in the US before the age of 16. In addition, the ten speakers chosen were those considered most likely to show raising of /a/ due to their background. An initial examination of their spontaneous speech was used as a basis of selection. The reliability judgments of both Anita Henderson and the researcher showed almost 100% agreement. It was determined that none of the ten speakers showed manifestation of the short *a* pattern in their speech.

Another reliability test was conducted with Anita Henderson on the formal speech elicitation task results of five speakers. Although the presence of raising was sporadically

found, the specific core pattern of Philadelphia short *a* was not. An in-depth analysis of the short *a* pattern in formal speech is seen in Chapter 5.[7]

The researcher then examined spontaneous speech obtained through the sociolinguistic interviews through impressionistic analyses. It was concluded that none of the 1st generation speakers showed traces of the raising of short *a*. Therefore, the investigation was limited to the 1.5 and 2nd generation speakers or rather those speakers who arrived in the US before the age of 16. This also limited the age of speakers to under the age of 40 years.

Three lexical items—*mad, bad, glad*—were examined as the raising in these words distinguish the Philadelphia pattern from other dialects. All of the second generation speakers (24 speakers) and only the 1.5 generation (5 speakers) speakers who displayed raising of /a/ in the formal speech elicitation tasks were selected. The results are shown according to group (G1, G2, G3-G4) in Table 51.

(78) Table 51. Use of short *a* in 'mad, bad, glad'

		G1			G2			G3-4	
Word	No.	Pattern	%	No.	Pattern	%	No.	Pattern	%
mad	4	1	25.00	1	0	0.00	6	1	16.66
bad	11	1	0.09	45	9	20.00	10	2	20.00
glad	5	0	0.00	2	0	0.00	4	0	0.00
Total	20	2	10.00	48	9	18.75	20	3	15.00

Next, a specific word was selected in order to investigate whether any raising of /a/ was present in the speakers. The word chosen was *man* because of the informality of the word and because it is a word that is likely to appear in everyday conversation or overheard

(e.g., "Hey man!").[8] Again, the 24 speakers of the G1 and G2 group, and the five speakers from the G3-4 groups were examined. The results are tabulated in Table 52.

(79) Table 52. Use of short *a* in 'man'

		G1			G2			G3-4	
Word	No.	Pattern	%	No.	Pattern	%	No.	Pattern	%
man	2	1	50.00	15	4	26.66	2	0	0.00

Although 'man' is a common word as can be seen from Table 52, it did not occur frequently in spontaneous speech.

In all of the words of *mad*, *bad*, *glad*, and *man* although the speakers showed sporadic use of the Philadelphia short *a* pattern, they showed regularity in that the target phonetic variant for them was a lax /a/ in these instances. This implies that the speakers may have acquired a non-regional variety of English, not the specific regional feature, or that they may have partially acquired the short *a* pattern according to certain phonetic environments.[9]

First Language Transfer?

The possibility of first language transfer from Korean in the five non-native English speakers is briefly examined. (80) and (81) show the vowel systems of Korean and English.

(80) English and Korean vowels

English: (i) I (e) æ (u) (o) a

Korean: i e æ i u o a

Note: Tense vowels in English are placed in parenthesis.

(81) Table 53. English and Korean vowels inventories

	Front				Central		Back			
	unrounded		rounded		unrounded		unrounded		rounded	
	E	K	E	K	E	K	E	K	E	K
HIGH										
tense	i								u	
lax	I	i						i		u
MID										
tense	e								o	
lax		e								o
LOW										
tense										
lax	æ	æ					a	a		

Unlike English, Korean has no tense or lax distinction among vowels (Sohn 1994). However, the non-acquisition of short *a* in the speakers may indicate that the speakers are either not aware that the pronunciation of /a/ is variable and is tensed in certain contexts or if they are aware that they consciously acquire what they perceive to be a non-regional form of English (lax /a/).

4.2.2 Summary and Conclusions

The speakers in this dissertation who are a combination of native and non-native speakers of English show that although they reside in Philadelphia, they have not acquired the dialect feature of short *a*. This also indirectly implies that the speakers do not take part in the sound change which is in progress in Philadelphia (Labov 1994:195). Instead, the speakers appear to be aware of a non-regional form of English and are acquiring the norms for that variety.

The results of reliability tests on the speakers show that the tensing and raising of short *a* is sporadically present in only the speakers who arrived in the US at an early age. Subsequent analysis of spontaneous speech confirm this and the non-acquisition of the short *a* pattern. An additional analysis of the lexical exceptions of *mad, bad,* and *glad* characteristic of the Philadelphia short *a* pattern, show that the speakers have not acquired these exceptions either. It is speculated that the speakers may not be aware of the lexical exceptions and may be prone to tense an /a/ in a commonly used word such as *man*.

NOTES

[1] It seems that there is ceaseless debate about what the exact functions of discourse markers are. Positions in discourse analysis/pragmatics studies differ considerably from those of computational linguistic approaches (Gregory Ward p.c.).

[2] Although the analysis of discourse markers here is limited to frequency analysis and not distribution, the function of the three markers are assumed to be as follows according to Schourup (1985).

like when speakers frequently find themselves in the position of having to formulate what they have to say without time for the considered eloquence possible when they are hunched over a manuscript (p.61)

you know checks with a positive expectation on the correspondence between what the speaker intends to convey and what the addressee can grasp in regard to what the speaker has just said or is about to say (p.141)

I mean used to indicate that what the speaker has said and what the speaker has in mind to express are not well indicated (p.147)

[3] Length of time was not an appropriate measure because of the difference in the speed of speech for native vs. non-native speakers.

[4] According to Labov (1994:84) "individual speakers enter a community with a characteristic frequency of a particular variable, maintained throughout their lifetimes; but regular increase in the values adopted by individuals, often incremented by generations, leads to linguistic change for the community."

[5] Labov (1989b:85) states that "children acquire at an early age historically transmitted constraints on variables that appear to have no communicative significance."

[6] In his study, Labov (1989b:96) considered the ages 4-9 the active period for acquisition.

[7] Results of the raising of short *a* in certain words was also found in the formal tasks analyses but not the core Philadelphia pattern.

[8] In follow-up questions after the interview, the speakers were asked whether they were aware of the Philadelphia dialect. The ones who answered yes based their answers on lexical observations such as the use of 'yo' rather than on phonological ones.

[9] Some remaining questions concerning the speakers are: Do speakers ever show use of the tense variant?, If so, are any of the speakers regular in its use? It is speculated that the speakers might acquire a partial pattern of tensing before nasals that is characteristic of a much wider geographical region than Philadelphia.

CHAPTER 5

Style

5.1 Style

Style refers to the increasing formality or awareness of how an individual is speaking in addition to what is being said. Labov states that "there are no single style speakers" (1972a:208) and that "styles can be arranged along a single dimension, measured by the amount of attention paid to speech" (1984:29). The stylistic dimension is usually divided into the classifications of casual versus careful speech. Jones (1909:4) called the two extremes of style colloquial and formal with "various shades between the two extremes." The speech needed in order to conduct systematic analyses is the vernacular, where minimum attention is paid to speech (Labov 1984:2929). Vernacular in other words is "from the participant's point of view the least marked for special features whether linguistic or social" (Sankoff 1980:54). The above can be summarized as principles in addition to the Observer's paradox.

(82) Principles (Labov 1974:112-113, 1984:29)

Principle of style shifting: there are no single-style speakers

Principle of attention: styles can be ordered along a single dimension, measured by the amount of attention paid to speech.

Vernacular principle: that the style which is most regular in its structure and in its relation to the evolution of the language is the vernacular, in which the minimum attention is paid to speech.

Principle of formality: any systematic observation of a speaker defines a formal context in which more than the minimum attention is paid to speech.

The observer's paradox: to obtain the data most important for linguistic theory, we have to observe how people speak when they are not being observed.

In casual speech which is the closest to the vernacular (Labov 1966:90), attention to the forms of speech is minimal. On the other hand, careful speech is that often found in an interview where the subject is aware of the formal situation.

(83) Speech styles (Labov 1966:90-101)

1) Casual speech	: attention to speech is minimal : closest to vernacular
2) Careful speech	: found in interview situation : formal speech
cf.) Spontaneous speech:	used in excited, emotionally charged speech

In addition to these two speech styles are controlled styles such as the reading of a passage, the reading of a word list, and a semantic differentials task. The reading of a word list is considered one end of the formal stylistic continuum, with the reading passage following and the semantic differentials at the other end of the continuum. In the semantic differentials task, the speaker's attention is intentionally diverted from pronunciation by asking for the differences in meaning between a pair of words. Thus, casual speech is usually obtained through sociolinguistic interviews which are face-to-

face interviews. However, careful speech is usually elicited through formal elicitation tasks. The relation between context and style is illustrated in a simplified schema.

(84) Schema (Labov 1966:100)

Context:	Informal	?	Formal
Style:	Causal	?	Careful/Spontaneous

Stylistic variation is said to "derive from social variation" and is considered "less sharp" than social variation (Labov 1972a:314). In other words, "stylistic context can be ordered along a single dimension according to the amount of attention paid to speech so that we have stylistic as well as social stratification" (Labov 1972a:237). In this sense, Labov (1966) established style as an independent variable. A sample of the linguistic variables which were examined in relation to style and social class were (r), (eh), (oh), (th), (dh) (Labov 1966:222). However, one of the most widely cited variables in Labov's study is (ing) which is considered a stable sociolinguistic marker (Labov 1966:280, 1972a:238). The styles Labov (1966) examined were casual speech, careful speech, and reading style in relation to social class. Results of his study showed that style was stratified according to social class.

Although other approaches to style such as Audience Design (Bell 1984) and Accommodation Theory (Giles & Powesland 1975) have emerged, the main tenet of the arguments remain the same as Labov (1972a) and only the identification of stylistic components differ.[1] According to Labov (1972a:109), whether we consider style a continuum or not "[style] must be approached through quantitative methods." Thus the

methodology used in analyzing stylistic variation here will follow Labov's quantitative approach to the stylistic continuum.

5.1.1 Formal Methods

The formal methods used in the present study are a word list, a reading passage, and a semantic differential task. The semantic differential task refers to a formal speech elicitation task where the speaker's attention is intentionally diverted from pronunciation by asking for the differences in meaning between a pair of words which include the target segment (Labov 1984:43).[2]

The first task which is a word list is presented here.[3]

(85) Word list

1.	par**t**y	11.	li**tt**le	21.	cl**a**ssical
2.	beg**a**n	12.	m**a**d	22.	shel**t**er
3.	liber**t**y	13.	sen**t**ence	23.	c**a**mera
4.	iden**t**i**t**y	14.	nega**t**ive	24.	ci**t**y
5.	in**t**ernational	15.	beau**t**iful	25.	gl**a**d
6.	b**a**d	16.	**a**ctress	26.	wa**t**er
7.	ba**tt**ery	*17.	motel	27.	m**a**n
8.	s**a**d	18.	d**a**nce	28.	comput**e**r
9.	in**t**erested	19.	ban**a**na	29.	l**a**ugh
10.	r**a**n	20.	individuali**t**y	30.	sal**t**y

As can be seen from the list, there are 16 words which have a word medial /t/ and 13 words which have an /a/. The lexical exceptions of *mad*, *bad*, and *glad* found in the Philadelphia pattern of short *a* are all included in the list. Number 17, the word 'motel,' was included in order to test whether non-native speakers would incorrectly flap the /t/.

Next, is the reading passage. The reading passage was designed in order to include as many words which had a word medial /t/ or the short *a* pattern as possible.

(86) Reading passage

> I've lived here for half of my twenty years. My dad wanted me to move right after I graduated. I'm glad I managed to find a local university where I could study classical music. I think the city fits my personality.
>
> In Center City, I like shopping at the computer shop and a pretty little place that sells beautiful clothes. Yesterday, I saw a shirt that I wanted to wear to a party I was planning to attend on Saturday but I didn't have enough cash. For entertainment, I like eating at international restaurants and I just began to take dance lessons. The instructor always looked mad but he laughed a lot. I became pals with him.
>
> The only negative things about the city are the bad tap water and the crime. A man was beaten because he interrupted a demonstration for equality and liberty. But I'd rather live here than out in the valley.

In the reading passage, there are 25 words which have a word medial /t/ and 16 words which have the potential for the raising of /a/. As seen in the word list, the lexical exceptions of short *a* in *bad*, *mad*, and *glad* in Philadelphia are present.

The final task was the semantic differential task. The subjects were given six pairs of words and were asked to first read the pair and then explain the differences in meaning. The six pairs are shown in (x).

(87) Semantic differential task

1.	ham	spam
2.	bad	mad
3.	tap water	spring water
4.	computer	typewriter
5.	man	guy
6.	identity	personality

Here, a total of 7 occurrences of word medial /t/ (two in the word 'identity') and five occurrences of /a/ are seen.

5.2 Data Analyses

Data from the formal speech elicitation tasks were collected from all 101 subjects. However, spontaneous speech was collected from 98 speakers. The data analyses is arranged according to task and focuses on the frequency rates of occurrence of word medial /t/ flapping. The social factors examined are age of arrival in the US (G1=0, G2=1-5, G3=6-10, G4=11-15, G5=16-25, G6=26-40, G7=41+), sex (male, female), and age (18-30, 31-40, 41-50, 51-60, 61+). As seen previously in Chapter 4 a few speakers showed the raising of /a/ in a small number of words but none displayed possession of the Philadelphia short *a* pattern. The same results were found in short *a* in the tasks. Therefore, only a brief account is given of the short *a* pattern in terms of stylistic variation and none concerning the formal elicitation tasks. Note that discourse marker use could not be assessed through the tasks and is therefore omitted from the discussion here.

5.2.1 Word List

The first analysis of the word list examined two versions of the word list. WL refers to the word list in its entirety and WL-l refers to the word list minus the two words of 'shelter' and 'salty' where the /t/ is preceded by an /l/. The extremely low frequency of flapping in this environment in the speakers prompted the omission in order to provide a

more accurate analysis of flapping.[4] The word list in analyzed according to age of arrival in the US, sex, and age. The results of both WL and WL-l are given in Table 54.

(88) Table 54. Frequency of flapping in the word list

Variable	Factor	WL	WL-l
Group	G1	72.39	82.73
	G2	67.70	77.37
	G3	66.14	75.59
	G4	67.01	76.29
	G5	52.72	60.06
	G6	43.22	49.39
	G7	34.82	39.79
Sex	male	59.02	57.09
	female	67.37	65.24
Age	18-30	65.91	75.20
	31-40	62.49	71.40
	41-50	36.91	48.50
	51-60	36.94	49.40
	61+	40.27	50.20

As can be seen from Table 54 there is a steady decrease in WL and WL-l as the age of arrival increases so the gap between G1 and G7 is almost 40% for both lists. There is almost a 12% difference in terms of sex with females showing a higher rate of flapping in both lists than males. In terms of age, flapping shows a bit of a U-shaped curve in that there is a decrease in flapping up till the age group of 41-50 but then flapping starts to increase in the 51-60 and 61+ age groups. In subsequent analyses which include the word list, WL-l will be used and not WL.

5.2.2 Reading Passage

The results of the analysis of the reading passage are shown in Table 55.

(89) Table 55. Frequency of flapping in the reading passage

Variable	Factor	Percentage
Group	G1	94.66
	G2	90.66
	G3	89.33
	G4	88.18
	G5	73.59
	G6	56.50
	G7	37.71
Sex	male	77.53
	female	74.88
Age	18-30	87.03
	31-40	82.88
	41-50	52.30
	51-60	50.00
	61+	50.30

As can be seen from Table 55 patterns similar to the one seen in the word list are found. The rate of flapping decreases as age of arrival increases and females flapped more than males. However, in the category of age a steady decrease is seen in flapping as age increases.

5.2.3 Semantic Differential Task

The results of the analysis of the semantic differential task is seen in Table 56.

(90) Table 56. Frequency of flapping in the semantic differentials

Variable	Factor	Percentage
Group	G1	94.45
	G2	89.21
	G3	96.52
	G4	92.91
	G5	72.63
	G6	65.28
	G7	42.00
Sex	male	78.14
	female	80.58
Age	18-30	93.90
	31-40	87.34
	41-50	42.20
	51-60	42.10
	61+	46.00

The results show that again there is a steady decrease in flapping as age of arrival increases. However, the G3 group shows the highest rate of flapping at 96.52%. As for sex, females again show a higher rate than males but the margin is less than 2%. The results for age show that flapping decreases but that the oldest group of 61+ shows a higher rate of flapping that the 41-50 and 51-60 age groups.

5.2.4 Spontaneous Speech

While all of the 101 subjects completed the formal speech elicitation tasks, not all of the speakers could engage in spontaneous speech. Two speakers in the age of arrival group of 26-40 and one speaker from the 41+ age of arrival group were not able to do a sociolinguistic interview due to their lack of communicative skills in English. Therefore, the analysis of spontaneous speech was taken from a total of 98 speakers. The results are shown in Table 57.

(91) Table 57. Frequency of flapping in spontaneous speech[5]

Variable	Factor	Percentage
Group	G1	93
	G2	93
	G3	93
	G4	91
	G5	82
	G6	56
	G7	52
Sex	male	85
	female	80
Age	18-30	90
	31-40	88
	41-50	53
	51-60	72
	61+	66

The results show that similar to the results of the formal speech elicitation tasks, the rate of flapping decreases as age of arrival increases. However, regarding sex, females show an overall lower rate of flapping than males. A generalization concerning age is difficult to reach due to the 41-50 age group showing the lowest rate at 53% and the 61+ age group showing a lower rate than the 51-60 age group.

5.3 Stylistic Variation

Stylistic variation is analyzed by examining the data in two ways. First, style is examined according to the social variable at hand. Then, the data is presented so that the social variable is examined according to style. As will be seen in the following figures, a somewhat different interpretation of the data can be reached according to the different vantage points. In addition, an analysis of short *a* is given although only a few speakers

exhibited the raising of /a/. Spontaneous speech results of short *a* are not provided due to the lack of its presence as previously seen in Chapter 4.

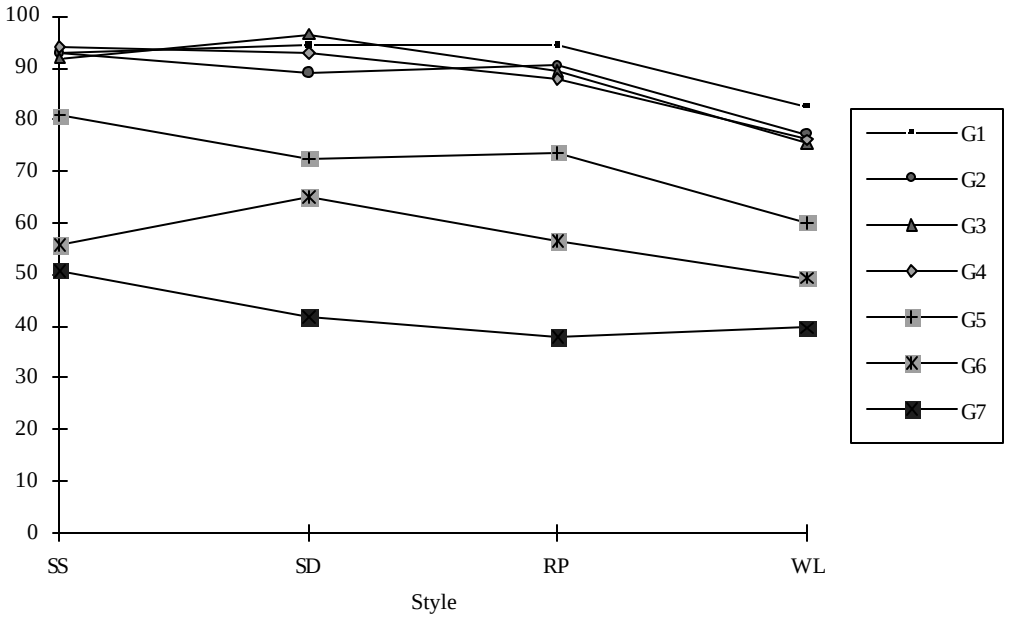
5.3.1 Style and Age of Arrival

Style is analyzed in relation to age of arrival group. The results of the analysis are shown according to each linguistic feature.

Flapping

Figure 16 and 17 show stylistic variation in relation to age of arrival. First, Figure 16 shows that for most of the groups, stratification exists with spontaneous speech showing the highest frequency of flapping.

(92) Figure 16. Stylistic variation of flapping according to age of arrival



As can be seen, almost all of the groups show stylistic variation with the word list at one end of the continuum and spontaneous speech at the other end. It is somewhat surprising to note that G2 which is the category for 0-5 years patterns with G3 (6-10 years) rather than with G1 which were speakers born in the US. Another interesting outcome was that G2, G3, and G4 showed almost identical patterns.

(93) Figure 17. Age of arrival according to stylistic variation in flapping

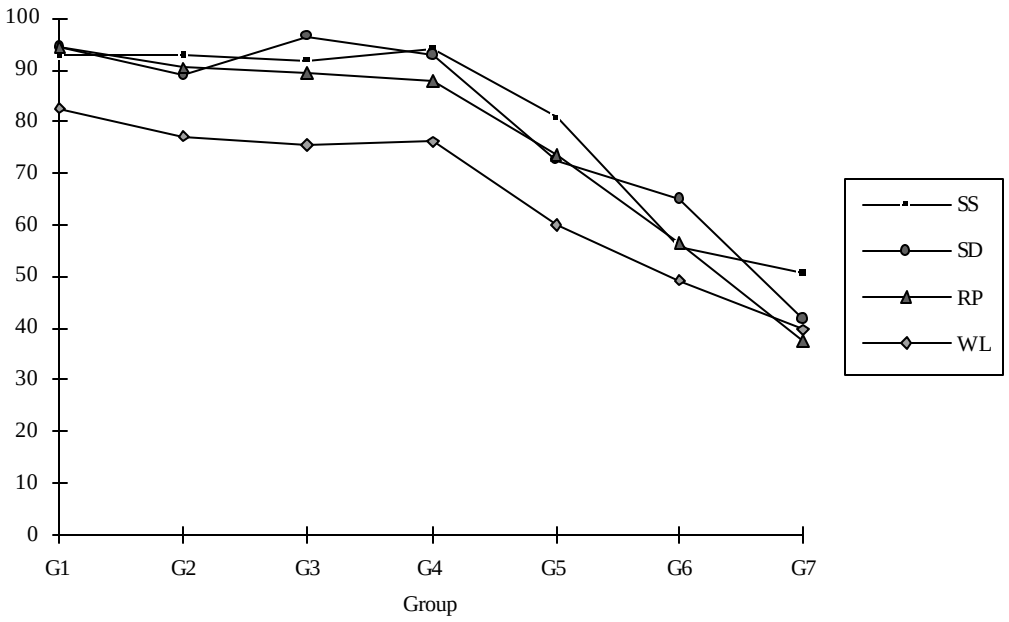
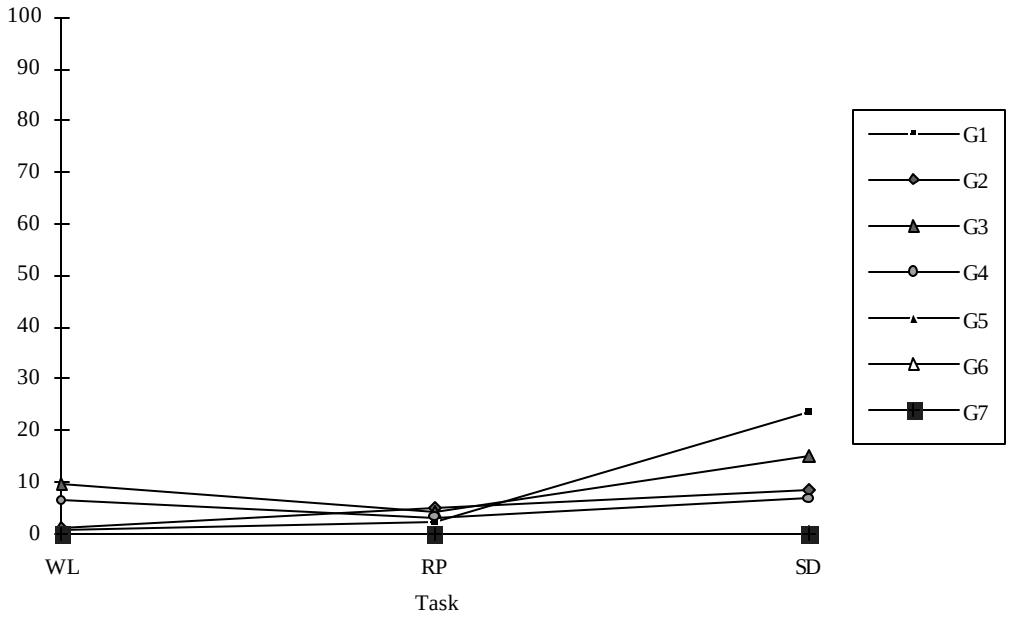


Figure 17 shows a comprehensive view of the individual task analyses seen in the preceding section. As can be seen, there is a steady decrease of flapping along the tasks as the age of arrival increases. This is seen in all of the four styles.

Short a

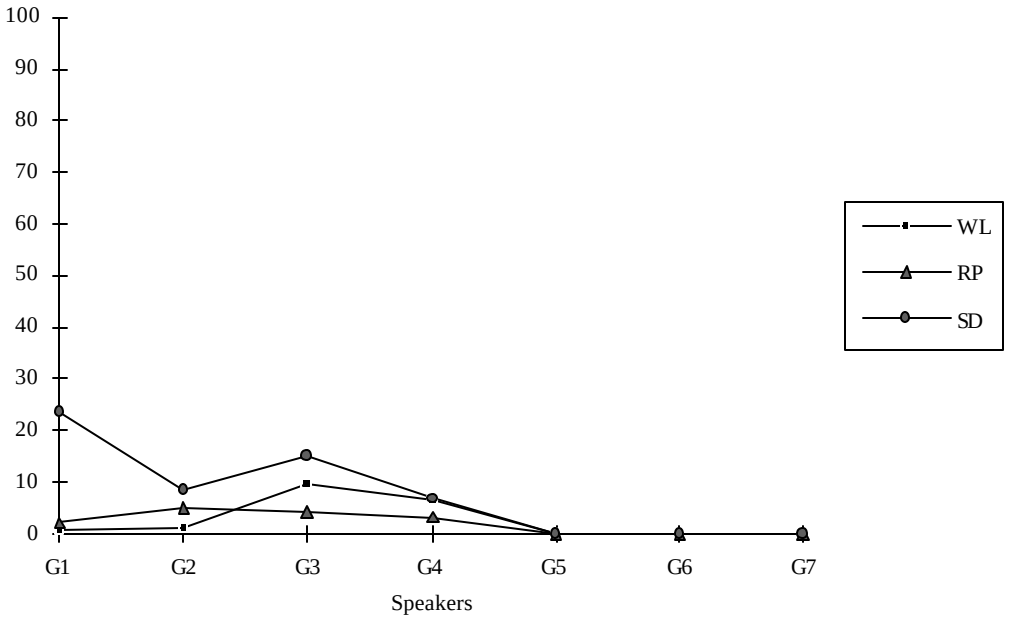
Figure 18 displays the results of the formal speech elicitation tasks concerning the short *a* pattern. As can be seen, the occurrence of the raising of /a/ is extremely low and limited. Several of the groups do not show the manifestation of the Philadelphia short *a* pattern at all.

(94) Figure 18. Stylistic variation of short *a* according to age of arrival



As can be seen from Figure 18, the short *a* pattern is not present in all of the groups. In fact, the pattern is only seen in G1, G2, G3, and G4. Also, there is no clear pattern which follows the stylistic continuum. There was only one native English speaking Korean who showed the short *a* pattern to a certain degree. This was also the speaker who flapped the words 'salty' and 'shelter' in the word list. Next, Figure 19 shows the interaction of age of arrival and style.

(95) Figure 19. Age of arrival according to stylistic variation in short *a*



The non-acquisition of the short *a* pattern across the groups can be more clearly seen in Figure 19. The three groups of G5, G6, and G7 show no occurrences of the Philadelphia short *a*.

5.3.2 Style and Sex

Stylistic variation is analyzed according to sex and vice versa. Previous analyses have not yielded significant differences concerning sex. Of the 101 speakers, 52 were male and 49 were female.

Flapping

Sex differences do not seem to play a significant role in the acquisition of flapping. Figure 20 shows that the differences in sex across the four styles are minimal.

(96) Figure 20. Stylistic variation of flapping according to sex

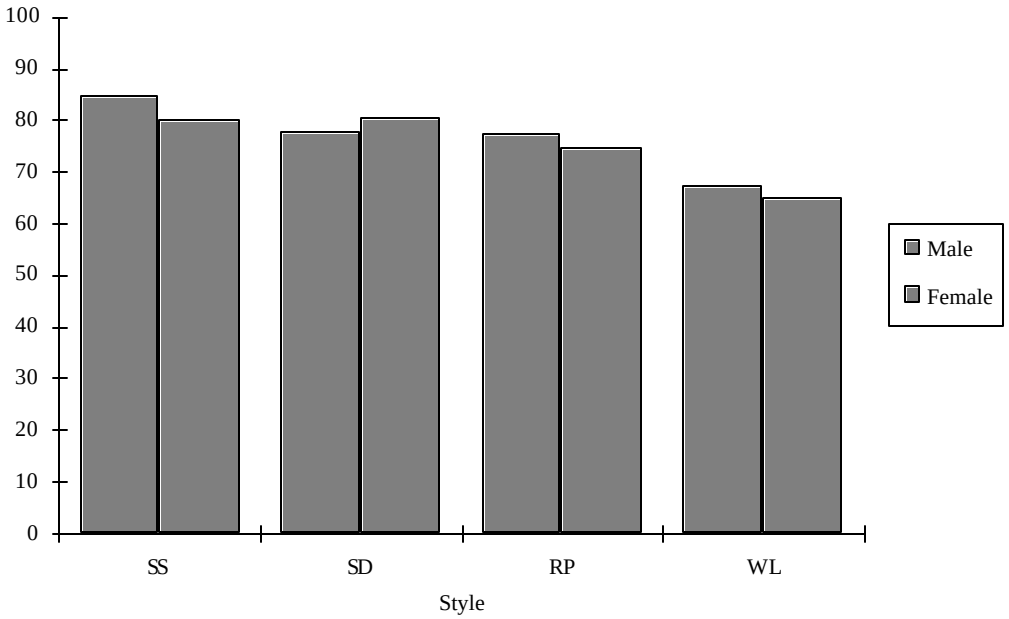


Figure 20 shows little differences according to sex. Males and females pattern alike in all of the styles. On the other hand, there is a slight increase in the rate of flapping along the stylistic continuum in both males and females. Next, Figure 21 shows a different picture.

(97) Figure 21. Sex according to stylistic variation in flapping

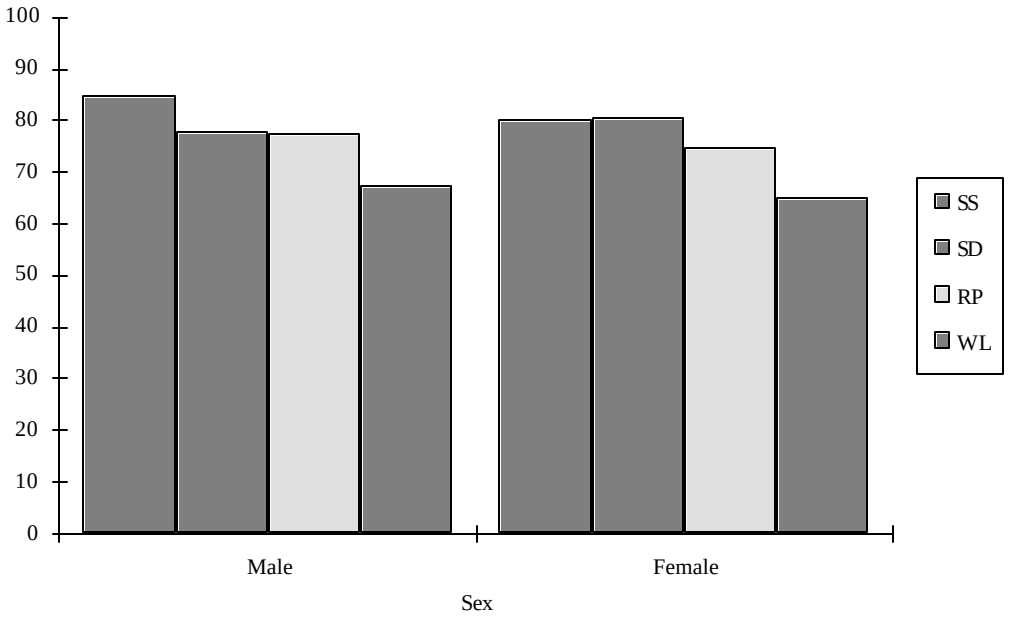
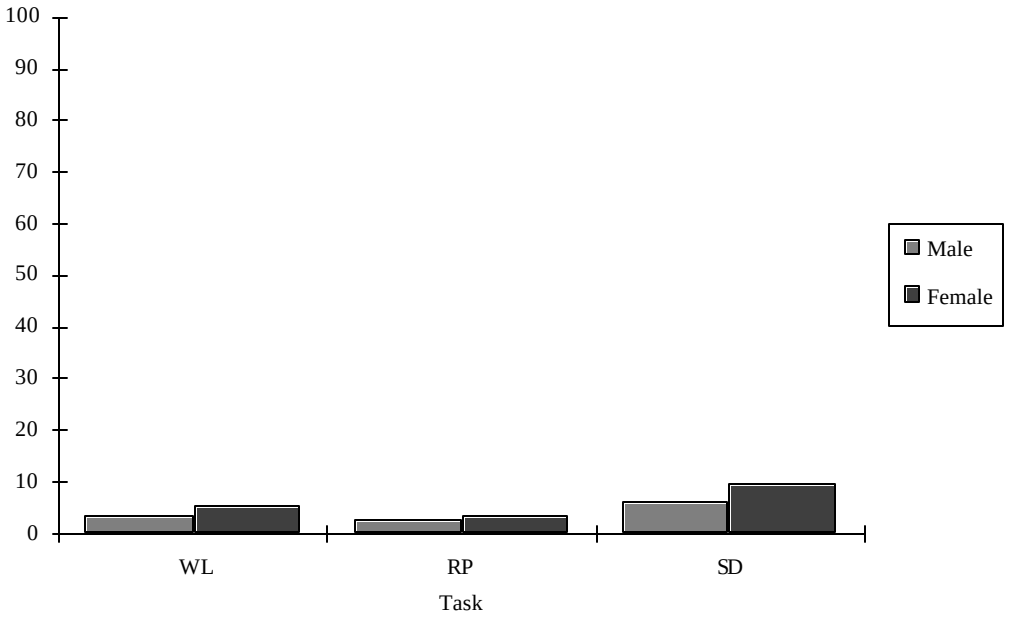


Figure 21 shows that sex does not appear to affect the rate of flapping in individual tasks as well.

Short a

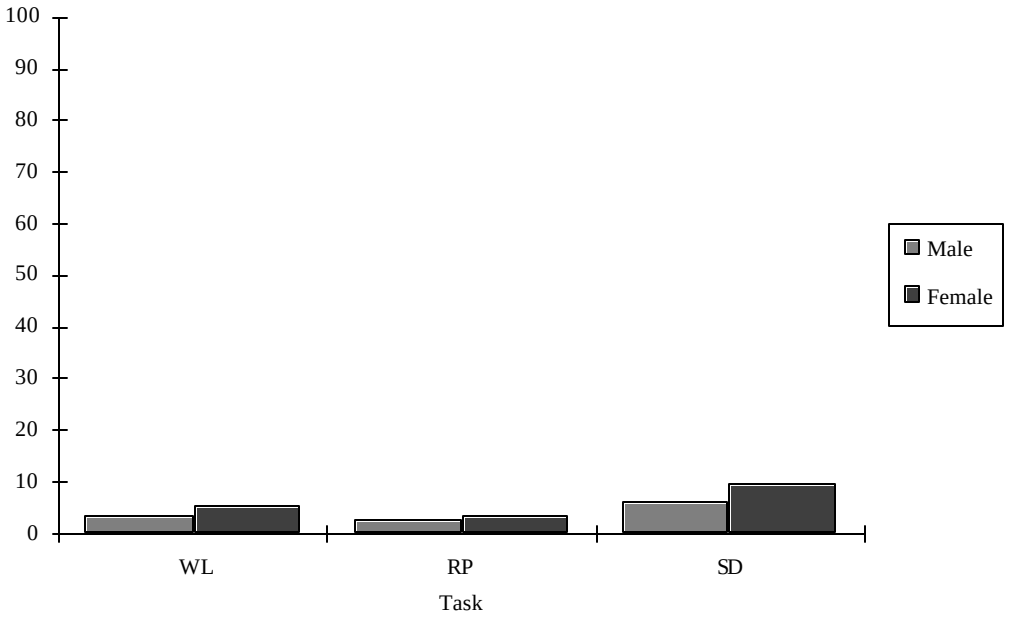
Similar to the results found with flapping and sex, stylistic variation according to sex is not significant. Figure 22 shows little difference between males and females.

(98) Figure 22. Stylistic variation of short *a* according to sex



In the case of the short *a* pattern and sex, again there are no substantial differences. And like the previous analyses of the short *a* pattern, it is present the most in the semantic differentials task. Next, Figure 23 is given.

(99) Figure 23. Sex according to stylistic variation in short *a*



Again, Figure 23 supports the finding that sex does not influence either the rate of flapping or presence of the short *a* pattern in the speakers.

5.3.3 Style and Age

Lastly, style in accordance to age is examined. As will be seen, age shows a different dimension that was seen with age of arrival.

Flapping

Age relatively shows an effect on the rate of flapping. The results of the analysis is shown in Figure 24.

(100) Figure 24. Stylistic variation of flapping according to age

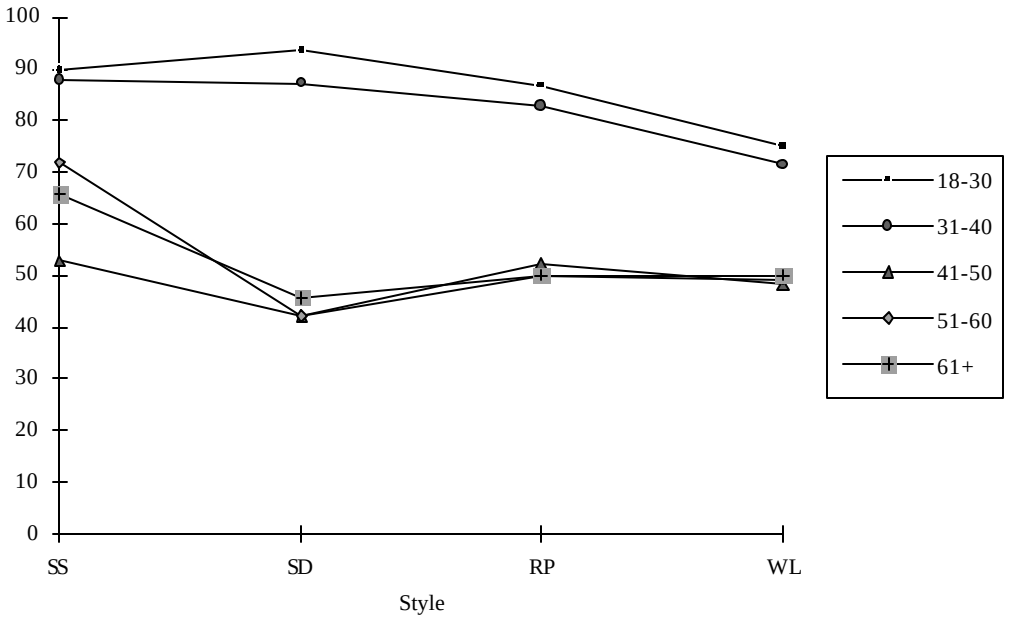
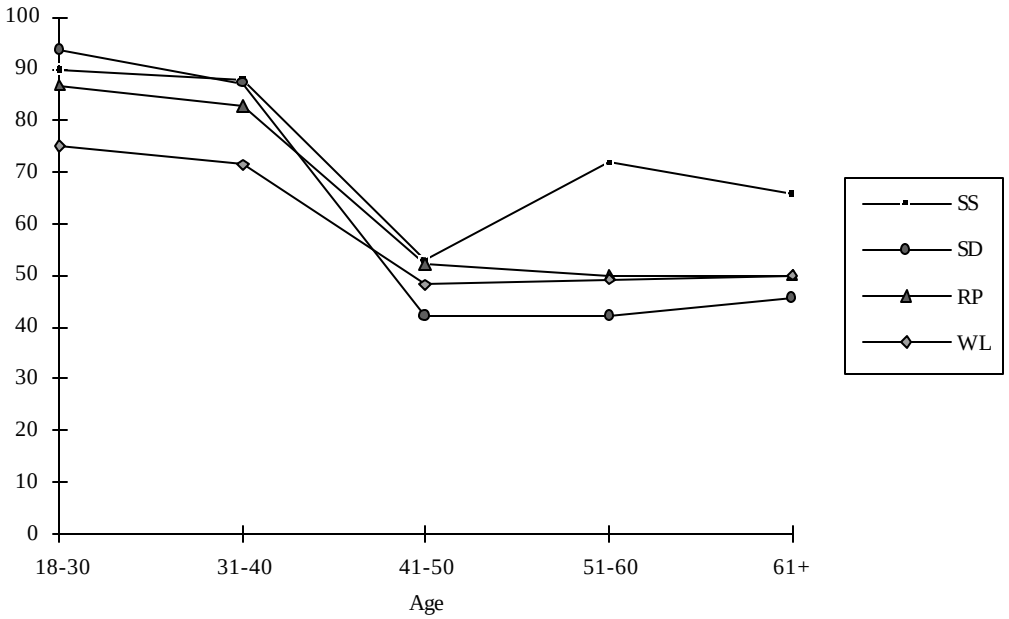


Figure 24 shows that all groups show an increase along the stylistic continuum. Here, it is interesting to note that the 18-30 group almost identically patterns with the 31-40 group while the remaining groups also pattern in similar ways.

In Figure 25 all of the tasks appear to pattern together across the age groups.

(101) Figure 25. Age according to stylistic variation in flapping



There is a significant decrease in the rate of flapping between the 31-40 age group and the 41-50 age group. On the other hand, the 51-60 age group shows a sudden surge in the style of spontaneous speech.

Short a

The short *a* pattern was not found to be manifested in all of the age groups. In fact, only the two youngest age groups of 18-30 and 31-40 years showed random occurrences of the pattern.

(102) Figure 26. Stylistic variation of short *a* according to age

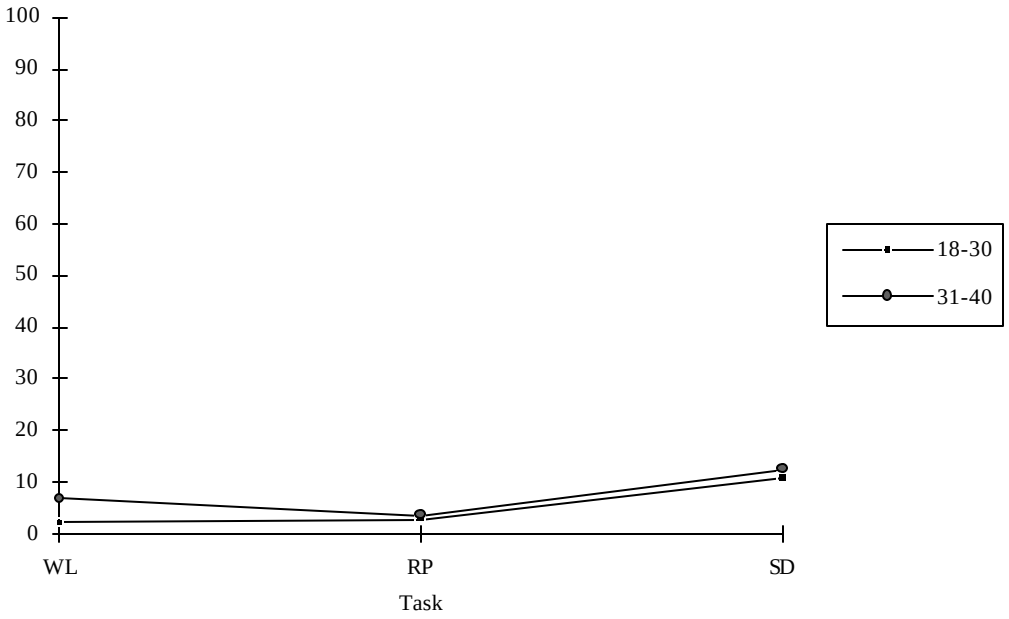
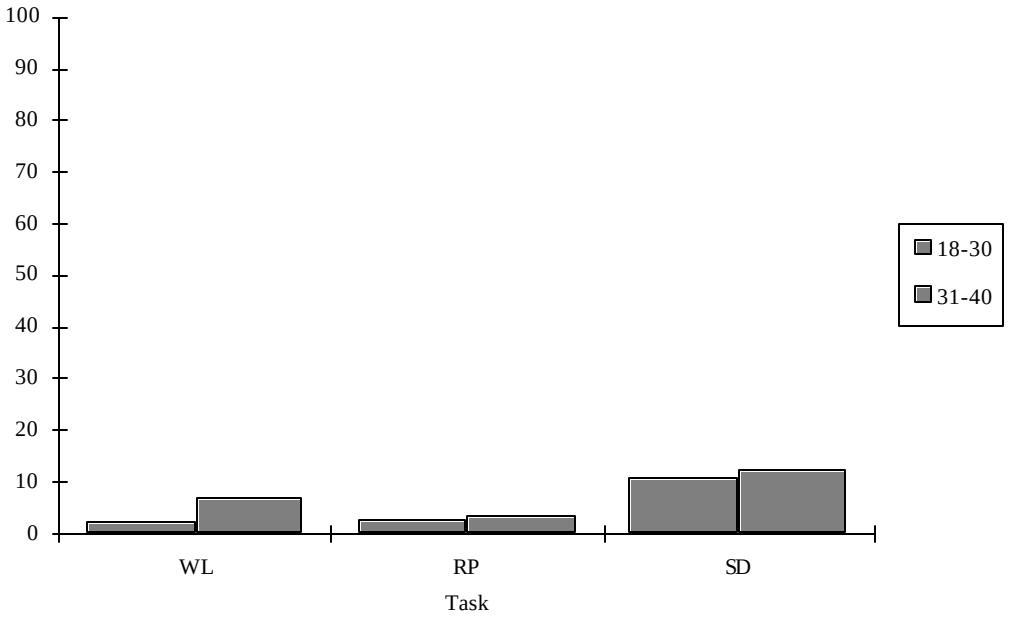


Figure 26 shows that again the results for the short *a* pattern are rather sporadic but like the previous analysis of age of arrival, the pattern is present more in the semantic differentials task than the other tasks.

Figure 27 confirms that age does not show large differences.

(103) Figure 27. Age according to stylistic variation in short *a*



The largest margin is seen in the word list however; the differences are minimal in the reading passage and the semantic differentials.

5.4 Summary and Conclusions

Style was examined in the use of word medial /t/ flapping and the short *a* pattern. The formal style elicitation tasks included the reading of a passage, a word list, and a semantic differential task. These formal styles were compared along with results obtained from spontaneous speech. In general, stylistic variation was evidenced in the speakers. This indicates that like native speakers, the non-native English speakers in the dissertation are aware of style and how it effects the occurrence of linguistic features.

Overall, the results of the stylistic analysis of flapping show that the rate of flapping decreases as age or arrival of the speakers increases. There are slight differences in sex where females show a higher rate than males in the formal tasks but not in spontaneous speech. As for the age of the speakers, the younger speakers show a steady

decrease across styles but the older speakers do not show a specific pattern. Analyses of each form of speech show similar results as the overall analysis with age of arrival in the US showing the most apparent pattern. The analysis of the short *a* pattern does not show patterns that can be generalized due to the sporadic presence of this feature in the speakers.

NOTES

[1] In accommodation theory, speakers shift their speech in accordance to their addressees. Audience design distinguishes and ranks audience roles according to the relationship with the speaker.

[2] The first utterance of each target word in the semantic differential task was discarded because the speakers tended to consciously read the words once before offering definitions.

[3] The speakers were not asked to read the numbers.

[4] As previously mentioned in Chapter 3, a /t/ preceded by an /l/ can be but is not commonly flapped.

[5] The percentages were taken from the GoldVarb run. Therefore, the numbers are rounded off.

CHAPTER 6

Perceptions of Nativeness and Linguistic Production

6.1 The English Nativeness Perception Test

A complete and holistic characterization of acquisition can only be obtained by investigating both the dimension of production and perception. Production is usually measured by quantitative means such as examining frequencies of occurrence of a particular linguistic feature. Perceptions on the other hand are assessed by tests. Labov (1972:158) states that perception tests are important because they mirror the social stratification of a speech community. The kind of evaluation of variables Labov refers to are subjective reaction tests (Labov 1966, Graff et al. 1986): the elicitation of evaluative behavior that is subject to quantitative measurement.

The subjective reaction test (Labov 1966:410-412) in its original form asked respondents to imagine themselves as a personnel manager interviewing people. They were asked to listen to the recordings of the subjects and rate them on a scale which ranked suitability for certain occupations. This job scale reflected a scale which started at perfect speech correlating to the best job (e.g., television personality) and terrible speech correlating to the worst job (e.g., factory worker). Through the judgments of the personalities or social attitudes of a recorded series of speakers, the test sought to elicit reactions to prestige and stigmatized variables (Labov 1966:405).

Graff et al. (1986) designed a test which measured white and black speakers' reactions to phonological markers that were ethnicity specific. They utilized synthesized speech which was digitally controlled so that the pronunciation of the front vs. non-front nucleus in the vowels /aw/ and /ow/ differed. Raising of the nucleus of (aw) as in the words 'out' and 'house' are considered part of the language change occurring in Philadelphia among white speakers and not black. Therefore, the different pronunciations of the features showed that "evidence from both production and perception in the community...indicates that these two vowels are recognized by white and black alike as markers of their respective speaking styles" (Graff et al. 1986:57).

Labov's subjective reaction tests were essentially a "linguistic adaptation" of Gardner & Lambert's (1959, 1972) 'matched guise' tests (Labov 1984:44). A matched guise is a test designed to measure the language and social attitudes toward a group of speakers. In the original matched guise test, French-English bilinguals were recorded on a tape reading the same passage once in French and once in English. The speakers were rated according to characteristics such as intelligence and likeability. The goal of the test was to determine whether the same speakers would be rated differently according to the language used in different 'guises.'

Lambert et al. (1968) utilized the matched guise technique in order to assess the roles of attitudes and motivation in second-language learning. The study is based on the social-psychology theory of language learning in which according to Lambert et al. (1968:473):

> An individual successfully acquiring a second language gradually adopts various aspects of behavior which characterize members of another linguistic-cultural group. The learners' ethnocentric tendencies and his attitudes toward the other group are believed to determine his success in learning the new language. His

> motivation to learn is thought to be determined by his attitudes and by his orientation toward learning a second language.

The study found that English-speaking American students learning French had negative stereotypes of French-speaking people and that this hinders them in "orientating themselves favorably" to the people who speak the language they are learning (Lambert et al. 1968:488). The work of Lambert has been extended to attitudes towards language variation as well (Bouchard Ryan & Giles 1982).

In this light, the recent work on perceptual dialectology by Preston (Preston 1986, 1989, 1993b) has shown that folk linguistics can help "build a more complete and accurate picture of the regard for language use and variety within a speech community" (Preston 1993b:375). Non-linguist respondents are able to recognize regional speech areas but use their own means of assessing speech differences that are not linguistic in nature. Some regions are rated positively as being 'standard, regular, normal, and everyday' while other regions are rated negatively as speaking poor English, while only a few are 'very distinguished, high-falutin', and snobby' (Preston 1993b:344-345). Although the exact identification of what these perceptions are based on cannot be determined it is clearly the result of community based consensus.

The matched guise test and the subjective reaction test both provide evidence that people are aware of the consequences of how you speak, a finding that can be summed up in the following axiom:

(104) General axiom of sociolinguistic structure (Labov 1972a:249)

> The correlate of regular stratification of a sociolinguistic variable in behavior is uniform agreement in subjective reactions towards that variable.

Thus, the relationship between production and perception is a dimension that needs to be explored in order to provide an accurate and holistic description of language in use.

While it is clear that perceptions of accented English can have negative or positive implications for the speakers (Lippi-Green 1997) there have been very few studies which have examined how to gauge 'foreign accented English' (Bouchard Ryan et al. 1977 among others). Although reactions or perception judgments are based on a combination of various factors and cannot be accounted for unless interaction of several factors is taken into consideration, the perception test shows that despite these obstacles, perceptions can be accurate. The test presented here shows that the concept of 'English nativeness' is a valid one and that it can be quantitatively measured.

6.1.1 Test Design

This section discusses the test design and methodology of the English nativeness perception test. The validity of such a test was seen in previous pilot studies presented in §2.5. The test is designed in order to assess the notion of 'English nativeness.' Nativeness refers to the degree of how native the English speech of a speaker sounds. In short, the test was comprised of taped recordings of subjects reading an identical passage. The test was then administered to native English speakers who judged how native the subjects

sounded by answering a series of questions. The following presents a detailed discussion of the test procedures.

First, a portion of the reading passage which was part of the formal speech elicitation tasks was selected. The reading mode was chosen in order to maximally eliminate the influence of intonation and other prosodic factors as well as the influence a certain topic may have.[1] Having speakers recorded reading the same passage also provides the listeners with a means to distinguish variation in identical words. The portion that was selected is presented in (x).

(105) Selected portion of reading passage

> The only nega**t**ive things about the city are the b**a**d tap wa**t**er and the crime. A m**a**n was bea**t**en because he in**t**errupted a demonstration for equali**t**y and liber**t**y. But I'd r**a**ther live here than out in the v**a**lley.

The last three sentences of the reading passage task were chosen due to the high concentration of words which included a word medial /t/ and an /a/. There are six words which possess a word medial /t/ and four words which possess the potential environment for the raising of /a/.

The basic questions on the test were designed to inquire about English nativeness as a binary (yes, no) feature and the degree of English nativeness according to a scale. The following presents the results of a pre-test which tested the initially formulated questions.

6.1.2 A Pre-Test

A test which included all 101 speakers in the study was not considered feasible due to the time length constraints of the test. Therefore, a pre-test which consisted of a sampling of the speakers was administered to 10 people. Table 58 shows the subjects who were included in the pre-test.

(106) Table 58. Demographics of subjects in the pre-test

Age of Arrival	Age	Male	Female
0	18-30	1	1
	31-40	1	1
1 to 5	18-30	1	1
	31-40	1	1
6 to 10	18-30	2	2
	31-40	2	2
11 to 15	18-30	2	2
	31-40	2	2
16-25	18-30	2	2
	31-40	2	2
	41-50	2	2
	51-60	0	0
	61+	1	1
26-40	18-30	1	1
	31-40	1	1
	41-50	1	2
	51-60	1	1
	61+	1	1
41+	41-50	0	1
	51-60	1	0
	61+	0	1
Total	52	25	27

As can be seen, almost all of the cells were represented. The questions asked on the pre-test were formulated as follows:

(107) Pre-test questions

1) Do you think this person is a native speaker of English?
Yes No Not sure

2) How native does this person's English sound? (0=Non-native, 5=Native)

1	2	3	4	5
Non-native				Native

For the first question, three answers were provided. The second question which assessed degree of English nativeness was measured on a 5-point scale. One was considered one end of the nativeness scale (non-native) and five was the other end (native).

Of the ten people who took part in the pre-test, five were non-native speakers and five were native speakers of English.[2] All of the five non-native speakers were native Korean speakers.[3] Results from the pre-test served as the basis for a selection of representative speakers for the actual test. The results showed that the ten test takers could accurately distinguish native from non-native speakers. However, answers to the second question were not as accurate. Twenty-four speakers who were both accurately judged in nativeness and degree of nativeness were selected for the actual perception test. The distribution of the 24 speakers used as stimuli in the perception test is shown in Table 59.

(108) Table 59. Distribution of speakers in the pre-test

Age of Arrival	Age	Male	Female
0	18-30	0	1
	31-40	1	1
1 to 5	18-30	1	1
	31-40	1	0
6 to 10	18-30	1	1
	31-40	2	2
11 to 15	18-30	1	1
	31-40	1	1
16-25	18-30	0	0
	31-40	1	0
	41-50	1	1
	51-60	0	0
	61+	0	0
26-40	18-30	1	0
	31-40	0	0
	41-50	0	1
	51-60	1	0
	61+	0	1
41+	41-50	0	0
	51-60	0	0
	61+	0	1
Total	24	12	12

As can be seen, an even number of males and females were selected as well as at least one subject from each age of arrival group. All of the age groups were represented by at least one speaker. In addition, speakers who made errors in reading or pronunciation were excluded as well as those recordings which were not clear.

In order to provide a distraction and prevent listeners from realizing that all of the speakers are ethnic Korean, six distractors (three males, three females) were included in the test. Of the six distractors, two were Caucasian, two were African-American, and two were Hispanic. The two Hispanic speakers were non-native English speakers while the

remaining speakers were all native English speakers.[4] Table 60 shows the demographics and order of the speakers on the tape.

(109) Table 60. Order of speakers on the pre-test

Speaker	Sex	Age of Arrival	Age	Note
S1	f	41+	61+	
S2	m	26-40	51-60	
S3*	f	N/A	N/A	Caucasian
S4	m	26-40	18-30	
S5	f	11-15	31-40	
S6	m	16-25	31-40	
S7*	f	N/A	N/A	Hispanic
S8	m	6-10	31-40	
S9	f	11-15	18-30	
S10	m	1-5	18-30	
S11	f	0	18-30	
S12	m	16-25	41-50	
S13	f	6-10	31-40	
S14*	m	N/A	N/A	African-American
S15	f	16-25	41-50	
S16*	m	N/A	N/A	Hispanic
S17	f	26-40	41-50	
S18	m	1-5	31-40	
S19	f	6-10	18-30	
S20*	m	N/A	N/A	Caucasian
S21	f	0	31-40	
S22	m	11-15	18-30	
S23	f	1-5	18-30	
S24	m	6-10	18-30	
S25*	f	N/A	N/A	African-American
S26	m	6-10	31-40	
S27	f	26-40	61+	
S28	m	0	31-40	
S29	f	6-10	31-40	
S30	m	11-15	31-40	

S=speaker, f=female, m=male, N/A=non-applicable, *=distractor

Results of the pre-test as well as feedback from the test-takers led to a revision of the test questions. The second question which asked judges to assess the degree of English nativeness had used the term 'non-native' at one end of the scale. The test-takers suggested that this term be changed to 'foreign' in order to avoid confusion over what 'non-native' was intended to designate. In addition, it was not deemed necessary to provide in parenthesis after the second question what the numbers '1' and '5' meant. After discussions with the test-takers, although a question about ethnicity was omitted from the pre-test, it was suggested that inquiring about ethnicity would not pose any difficulties. However, the question about ethnicity used in the previous pilot study (cf. § 2.5) was considered too detailed in that the judges were asked not only to identify the general ethnic category but the specific ethnic category as well. Therefore, only broad ethnic categories relevant to the categorization used in the US were considered when formulating the question.

6.1.3 Administering the Test

The actual test was administered to a total of 111 university students. The instructors of the classes the test was taken in were asked to directly administer the test by playing the tape and handing out questionnaires.[5] This was to prevent any influence the ethnicity of the researcher (Korean) would have on the respondents. The test was strictly voluntary. In order to assess a general profile of the judges the following questions were asked.[6]

(110) Questions asked of the judges

Sex: ____ male ____ female

Age: _____

Ethnicity: ____ African-American ____ Asian
____ Caucasian ____ Hispanic

Are you a native speaker of English? ____ Yes ____ No

Place of birth: _____

Where have you lived? _____

Do you have any friends who are non-native speakers of English?
____ None ____ A few ____ Some
____ Many ____ Almost all

The categories listed in ethnicity were identical to the ethnic categories on the test. In addition, those judges who answered 'No' to the question of whether they were a native speaker of English were excluded from the analysis. Of the 111 respondents, 11 were excluded because they were non-native speakers of English. The demographic backgrounds of the 100 judges are given in Tables 61-64..[7]

(111) Table 61. Sex of the judges

Sex	Number
male	28
female	72
Total	100

(112) Table 62. Age of the judges

Age	Number
17	5
18	44
19	29
20	10
21	8
22	1
blank	3
Total	100

(113) Table 63. Ethnicity of the judges

Ethnicty	Number
Asian	16
Caucasian	77
African American	2
Hispanic	3
blank	2
Total	100

(114) Table 64. Friends of the judges

Friends	Number
none	14
a few	48
some	18
many	17
almost all	2
blank	1
Total	100

NOTE: blank=omitted answers

72% of the judges were females and 44% were eighteen years old. The majority at 77% were Caucasian and 48% had a few friends who were non-native English speakers.[6]

The following shows what instructions were given to the judges.

(115) Instructions

> You will hear 30 speakers on a tape reading the same passage. Some are native English speakers and some have foreign accents. Please circle or check each answer. Please wait until you have finished listening to the speaker to answer the questions. Also, please make sure you are on the right number.

The reading passage

> The only negative things about the city are the bad tap water and the crime. A man was beaten because he interrupted a demonstration for equality and liberty. But I'd rather live here than out in the valley.

The reading passage was provided so that test takers could review what was recorded by the subjects on the tape and because the first speaker on the tape was also a non-native

English speaker. The following shows the revised and modified questions which were given on the actual perception test.

(116) Questions on perception test

1) Do you think this person is a native speaker of English?
Yes No Not sure

2) How native does this person's English sound?

1	2	3	4	5
Foreign				Native

3) What ethnicity do you think the speaker is?
____ African-American ____ Asian
____ Caucasian ____ Hispanic

As can be seen, the ethnic categories in the third question directly match the categories given in the question which assessed the profile of the judges.

6.2 Results of the Perception Test

Results of the perception test administered to the 100 students were tabulated using SPSS Version 9.0. Descriptive statistical analyses focusing on means analysis were conducted. In this section, the answers to each question were calculated according to their respective rates. The following shows the scale used to calculate rates.

(117) Scale used for rating

Question 1.	Nativeness:	yes = 1, no = 0, not sure = 0.5
Question 2.	Degree of nativeness:	1, 2, 3, 4, 5

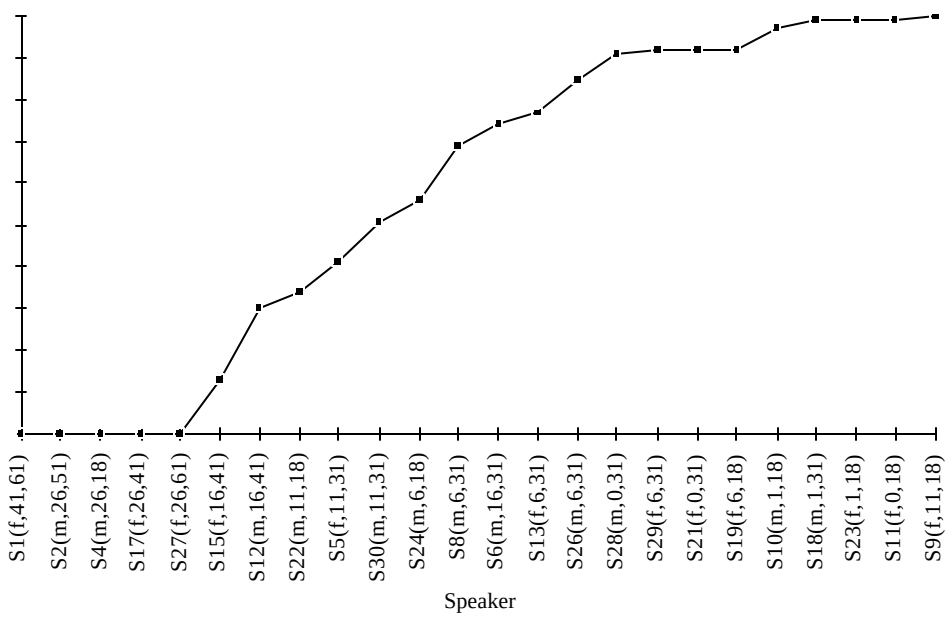
First, the results of Question 1 (nativeness) and Question 2 (degree of nativeness) are given in Table 65. The speakers in Table 65 are ranked according to nativeness.

(118) Table 65. Results of nativeness and degree of nativeness analyses

Speaker	Nativeness	Degree
S1 (f,41,61)	0.00	1.29
S17 (f,26,41)	0.00	2.24
S2 (m,26,51)	0.00	2.29
S27 (f,26,61)	0.00	2.70
S4 (m,26,18)	0.00	2.92
S15 (f,16,41)	0.13	2.74
S12 (m,16,41)	0.30	3.38
S22 (m,11,18)	0.34	3.56
S05 (f,11,31)	0.41	3.69
S30 (m,11,31)	0.51	4.00
S24 (m,6,18)	0.56	3.89
S8 (m,6,31)	0.69	4.05
S6 (m,16,31)	0.74	4.33
S13 (f,6,31)	0.77	4.46
S26 (m,6,31)	0.85	4.53
S28 (m,0,31)	0.91	4.77
S29 (f,6,31)	0.92	4.80
S19 (f,6,18)	0.92	4.83
S21 (f,0,31)	0.92	4.91
S10 (m,1,18)	0.97	4.83
S23 (f,1,18)	0.99	4.94
S18 (m,1,31)	0.99	4.99
S11 (f,0,18)	0.99	4.98
S9 (f,11,18)	1.00	4.93

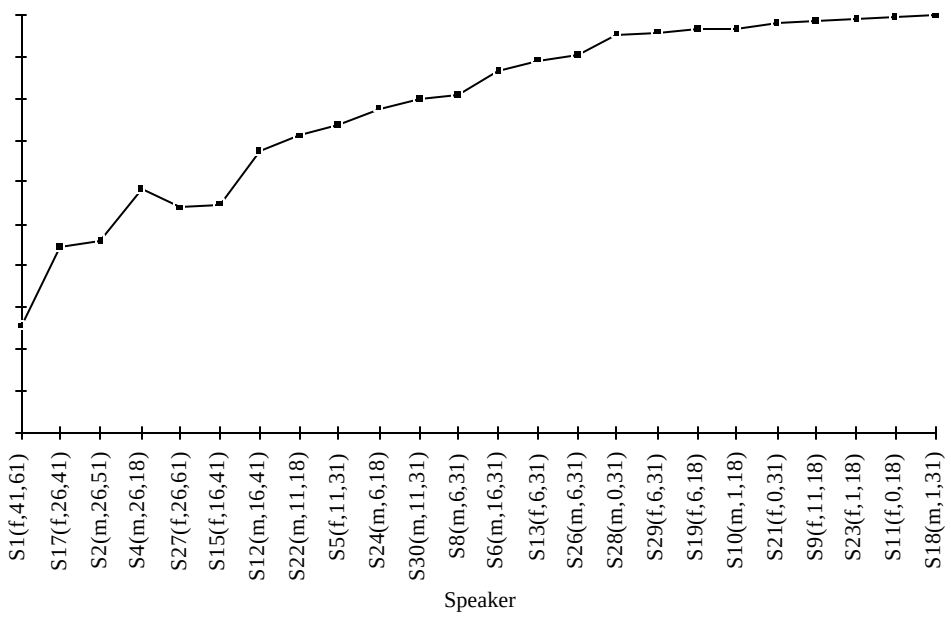
Figure 28 shows how the speakers were ranked according to nativeness. It is interesting to note that S9 who was considered a native English speaker by all of the judges was not a native born speaker but a speaker who arrived in the US in the 11-15 age of arrival group. However, the degree of English nativeness of this speaker was not the highest. The other speakers appear to have been all accurately judged native or non-native with regard to their age of arrival in the US.

(119) Figure 28. English nativeness of the speakers



Next, Figure 29 shows how the speakers ranked according judgments of their degree of English nativeness. The speakers are in the same order as in Figure 28.

(120) Figure 29. Degree of English nativeness of the speakers



Like the results of nativeness, Figure 29 shows that there is a steady progression in the degree of nativeness as the age of arrival in the US decreases. So, native born speakers or speakers who came to the US at a relatively early age are judged native while those who came at a later age are judged to be non-native.

The results of the analysis of how the ethnicity of the subjects were judged are shown in Table 66. The speakers are ranked according the category of Asian and the numbers reflect the absolute percentage of respondents who chose each category.

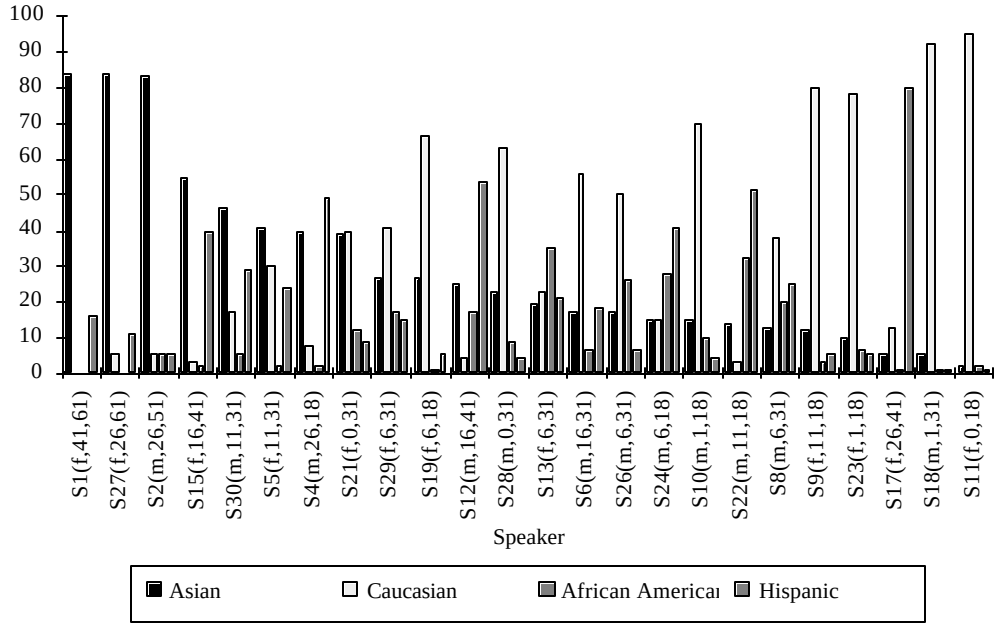
(121) Table 66. Results of ethnicity analysis

Speaker	Asian	Caucasian	African-American	Hispanic
S1 (f,41,61)	84	0	0	16
S27 (f,26,61)	84	5	0	11
S2 (m,26,51)	83	5	5	5
S15 (f,16,41)	55	3	2	40
S30 (m,11,31)	46	17	5	29
S5 (f,11,31)	41	30	2	24
S4 (m,26,18)	40	8	2	49
S21 (f,0,31)	39	40	12	9
S29 (f,6,31)	27	41	17	15
S19 (f,6,18)	27	66	1	5
S12 (m,16,41)	25	4	17	54
S28 (m,0,31)	23	63	9	4
S13 (f,6,31)	19	23	35	21
S6 (m,16,31)	17	56	7	18
S26 (m,6,31)	17	50	26	7
S24 (m,6,18)	15	15	28	41
S10 (m,1,18)	15	70	10	4
S22 (m,11,18)	14	3	32	51
S8 (m,6,31)	13	38	20	25
S9 (f,11,18)	12	80	3	5
S23 (f,1,18)	10	78	7	5
S17 (f,26,41)	5	13	1	80
S18 (m,1,31)	5	92	1	1
S11 (f,0,18)	2	95	2	1

Only four speakers out of 24 were judged to sound Asian over 50%. While native born speakers were judged to be Caucasian, non-native speakers were more likely to be judged Hispanic or African-American.

Figure 30 shows how ethnic identification was perceived in the subjects.

(122) Figure 30. Ethnic identification of the speakers



The scale is ordered according to the increasing rate of Asian identification of the speakers. Again, the subjects at the end of the scale who were judged to be Asian were non-native and the subjects at the other end of the scale were perceived to be Caucasian with mixed judgments in-between.

In order to examine specific ethnic identification, judgments of Asian and Caucasian identity were individually considered. Figure 31 is a scattergram which shows judgments of Asian identity plotted against judgments of nativeness.

(123) Figure 31. Judgments of Asian identity

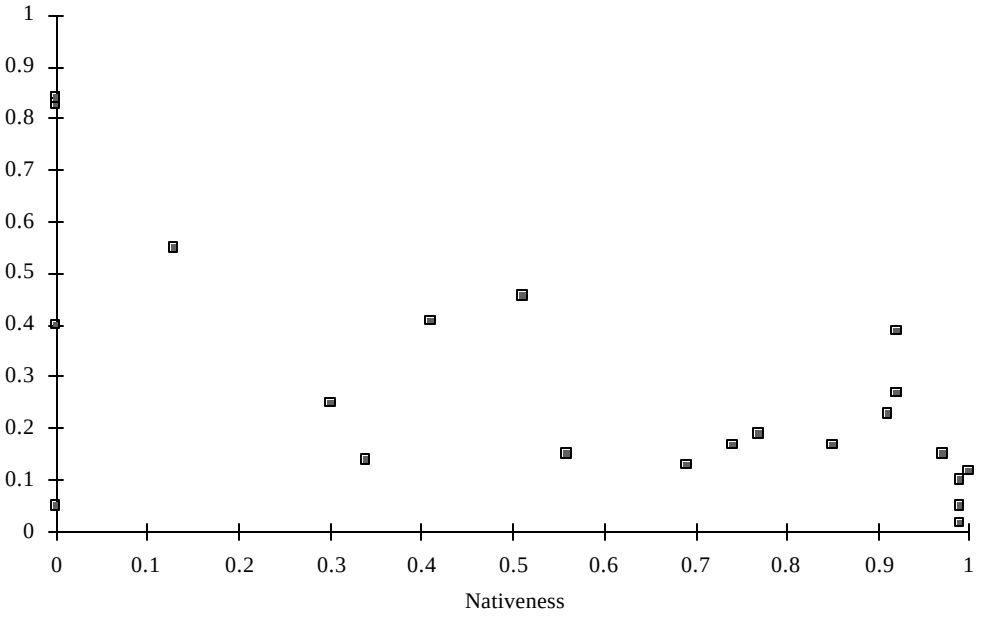
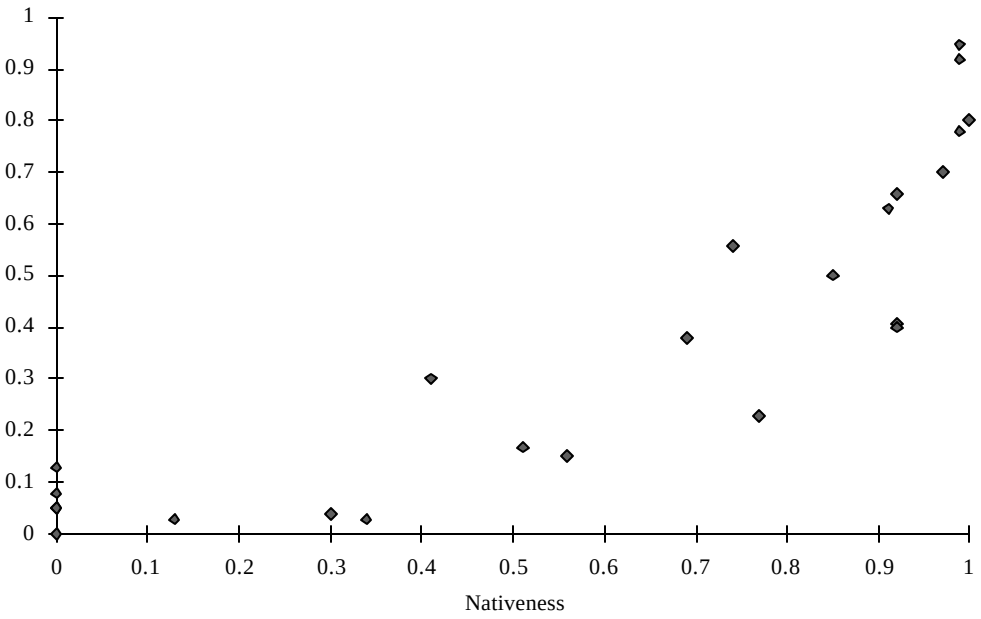


Figure 31 shows a weak relationship between judgments of nativeness and judgments of Asian identity. Goodness of fit of the correlation was computed by measuring the coefficient of determination r^2 measure.[8] In Figure 31, $r^2 = 0.44$ which indicates a low degree of correlation. Next, Figure 32 shows the relation between judgments of Caucasian identity and nativeness.

(124) Figure 32. Judgments of Caucasian identity



Unlike Figure 31, Figure 32 shows a strong relationship between judgments of nativeness and judgments of Caucasian identity. The judges seem to have a bias toward thinking of native English speaking Koreans as Caucasian. In Figure 32, $r^2 = 0.76$ which indicates a high degree of correlation.

6.3 Correlating Production and Perception

This section examines possible correlations between the perceptions of English nativeness obtained through the English nativeness perception test and the production of linguistic features. Data taken from the 24 speakers who were subjects in the perception test is analyzed. In terms of the rates of nativeness and ethnicity, absolute values which correspond to the number of respondents who chose a particular answer on the perception test are used in the correlation analyses. Rates for nativeness are calculated in terms of how many respondents answered 'yes' and rates of ethnicity are assessed as to how many

answered ‘Asian.’ For degree of nativeness which was originally a five-point scale, a percentage was calculated by multiplying the degree score by 20.

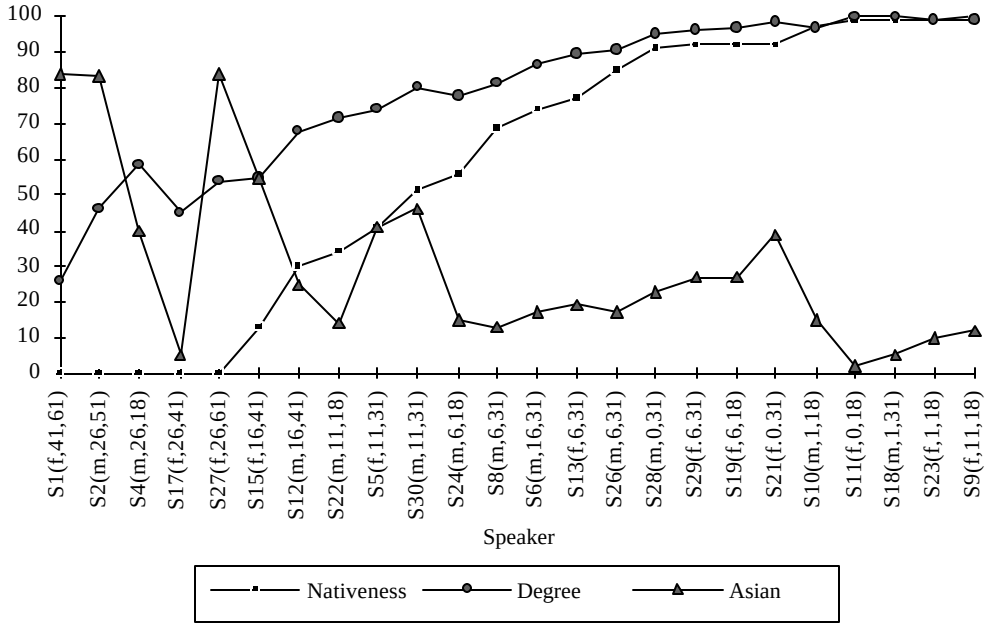
6.3.1 Nativeness, Degree, and Ethnicity

First, a correlation among perceptions of nativeness, degree of nativeness, and ethnicity is investigated. Table 67 and Figure 33 show the results. The speakers are ranked according to nativeness.

(125) Table 67. Nativeness, degree, and ethnicity

Speaker	Nativeness	Degree	Asian
S1 (f,41,61)	0.00	25.80	84.00
S2 (m,26,51)	0.00	45.80	83.00
S4 (m,26,18)	0.00	58.40	40.00
S17 (f,26,41)	0.00	44.80	5.00
S27 (f,26,61)	0.00	54.00	84.00
S15 (f,16,41)	13.00	54.80	55.00
S12 (m,16,41)	30.00	67.60	25.00
S22 (m,11,18)	34.00	71.20	14.00
S5 (f,11,31)	41.00	73.80	41.00
S30 (m,11,31)	51.00	80.00	46.00
S24 (m,6,18)	56.00	77.80	15.00
S8 (m,6,31)	69.00	81.00	13.00
S6 (m,16,31)	74.00	86.60	17.00
S13 (f,6,31)	77.00	89.20	19.00
S26 (m,6,31)	85.00	90.60	17.00
S28 (m,0,31)	91.00	95.40	23.00
S29 (f.6.31)	92.00	96.00	27.00
S19 (f,6,18)	92.00	96.60	27.00
S21 (f,0,31)	92.00	98.20	39.00
S10 (m,1,18)	97.00	96.80	15.00
S11 (f,0,18)	99.00	99.60	2.00
S18 (m,1,31)	99.00	99.80	5.00
S23 (f,1,18)	99.00	98.80	10.00
S9 (f,11,18)	100.00	98.60	12.00

(126) Figure 33. Correlation of nativeness, degree of nativeness, and ethnicity



As can be seen from Figure 33, nativeness and degree of nativeness show a positive correlation. The rates of both nativeness and degree of nativeness show a concurrent increase. Ethnicity is expected to show the opposite of nativeness and degree of nativeness which it does by showing that the more native a speaker is perceived, the less likely they are perceived to be Asian, and the more likely they are to be perceived Caucasian. An interesting finding is the one speaker, S17 (f,26,41), who does not show a high propensity of sounding Asian, shows low rates of nativeness and degree of nativeness.

6.3.2 Nativeness, Flapping, and Discourse Marker Use

Second, the correlation between perceptions of nativeness and the production of linguistic features is examined. Tokens of the two linguistic features of word medial /t/ flapping and discourse maker use is taken from analyses of spontaneous speech in the

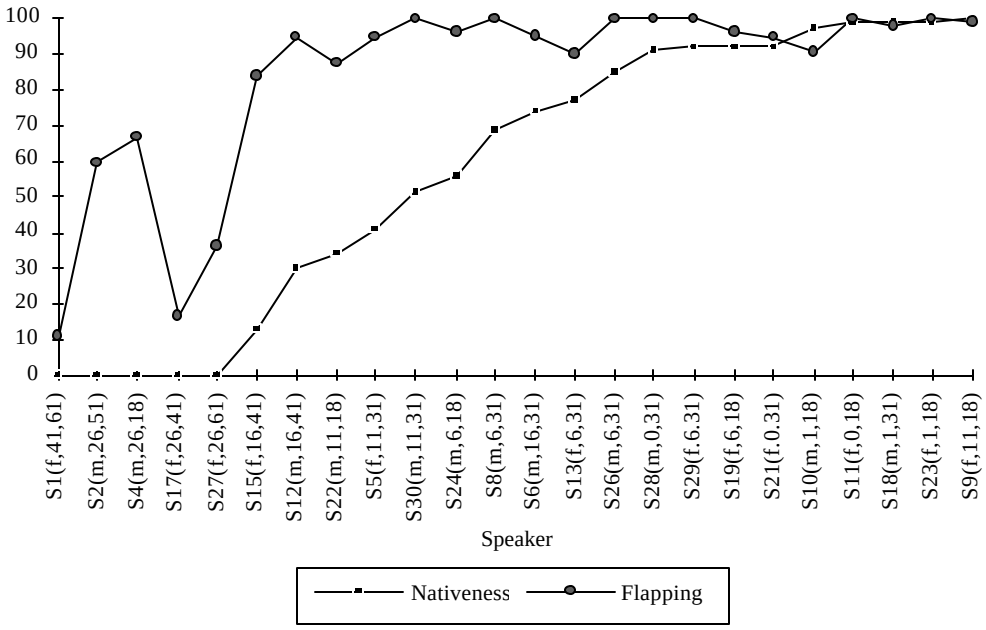
sociolinguistic interviews. Table 68 shows the frequency rates of each feature. The speakers are ordered according to nativeness scores.

(127) Table 68. Nativeness, flapping, and discourse marker use

Speaker	Nativeness	Flapping	Discourse marker
S1 (f,41,61)	0.00	11.11	0.00
S2 (m,26,51)	0.00	59.45	0.33
S4 (m,26,18)	0.00	66.66	1.22
S17 (f,26,41)	0.00	16.80	0.80
S27 (f,26,61)	0.00	36.36	0.17
S15 (f,16,41)	13.00	83.87	5.46
S12 (m,16,41)	30.00	94.44	1.42
S22 (m,11,18)	34.00	87.50	3.92
S5 (f,11,31)	41.00	94.44	2.61
S30 (m,11,31)	51.00	100.00	4.12
S24 (m,6,18)	56.00	96.42	3.94
S8 (m,6,31)	69.00	100.00	6.96
S6 (m,16,31)	74.00	95.12	2.38
S13 (f,6,31)	77.00	89.85	1.72
S26 (m,6,31)	85.00	100.00	2.77
S28 (m,0,31)	91.00	100.00	2.15
S29 (f.6.31)	92.00	100.00	7.47
S19 (f,6,18)	92.00	96.07	4.70
S21 (f,0,31)	92.00	94.64	1.46
S10 (m,1,18)	97.00	90.59	1.66
S11 (f,0,18)	99.00	100.00	7.19
S18 (m,1,31)	99.00	97.95	1.99
S23 (f,1,18)	99.00	100.00	5.80
S9 (f,11,18)	100.00	98.75	8.66

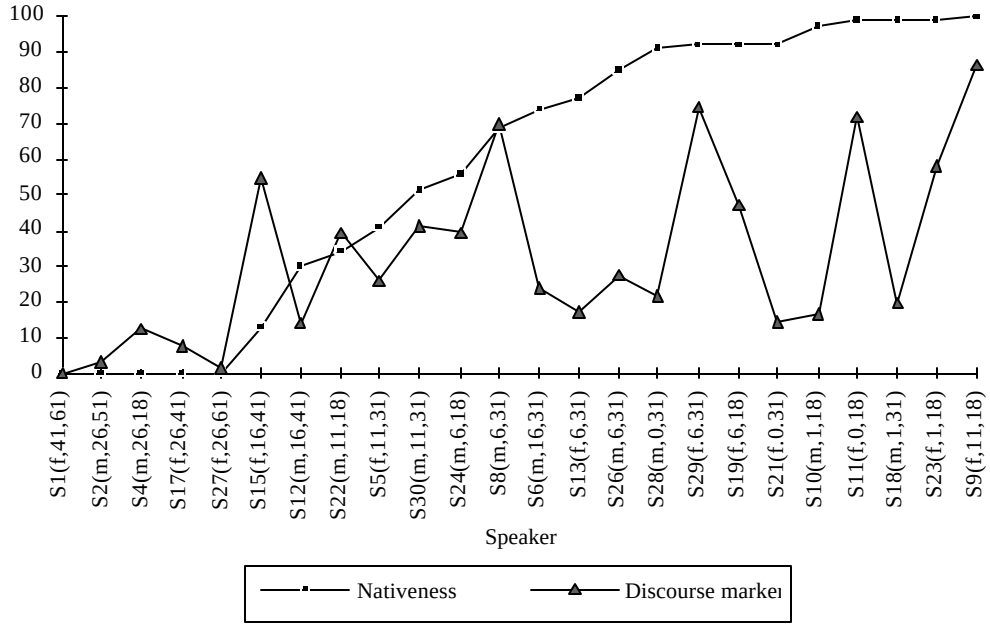
First, Figure 34 shows the correlation of nativeness and flapping.

(128) Figure 34. Correlation of nativeness and flapping



As can be seen from Figure 34, perceptions of nativeness and flapping show a positive correlation. The subjects who flap the most are also perceived to be more native and vice versa. There is however a discrepancy concerning two speakers whose rates of flapping are relatively high in relation to their rate of nativeness. These two speakers are S2(m,26,51) and S4(m,26,18). Next, Figure 35 shows the correlation of nativeness and discourse marker use.

(129) Figure 35. Correlation of nativeness and discourse marker use



In Figure 35, the percentage rates of discourse marker use were multiplied by ten (scaled to 100) in order to provide a clearer picture of how use correlates with nativeness.[9] Figure 35 shows that progression of discourse marker use somewhat correlates positively with nativeness. It is evident that a number of speakers show a relatively high frequency of discourse marker use than other speakers who show similar degrees of nativeness. The speakers toward the non-native end of the graph show a more steady increase of discourse marker use than the speakers toward the native end.

To recapitulate, the frequency of occurrence of both word medial /t/ flapping and discourse marker use increase in tandem with judgments of nativeness to a certain degree.

6.4 Summary and Conclusions

The English nativeness perception test demonstrated that native speakers could accurately assess the degree of English nativeness of the Korean American subjects. The judgments of nativeness in terms of both categorical and degree perception showed that direct correlations between the perceptions existed. The judges' perceptions of the race of each speaker were not as accurate which indicated that although the judges could distinguish a 'thick' Asian accent they could not distinguish ethnic accents in speakers who fell in between the extremes of native and non-native. Overall, the speakers showed a higher degree of English nativeness as their age of arrival in the US decreased. Nevertheless, a few speakers showed deviances from the pattern which are attributed to individual differences in language learning.

The mapping of the production of the linguistic features and the perceptions of English nativeness showed positive results. First, the production of flapping showed that an increase in flapping positively correlated to the linear progression seen in nativeness perceptions. Second, the use of discourse markers showed a similar increase but not as clearly as the pattern seen with flapping. Both flapping and discourse markers simultaneously show an increase as nativeness increases. This finding suggests evidence that the acquisition of general English features corresponds to how native a speaker sounds. Nevertheless, one must be careful not to assign undue importance to the features singled out for study here. It is their correlation not their absolute contribution to the assignment of nativeness which is shown here.

NOTES

[1] Labov (1966:407) used a reading passage as well.

[2] Special thanks goes to the test takers: Atissa Banuazizi, Seung-yeon Chang, Anne Charity, Eun-jung Kim, Chung-Hye Han, Na-Rae Han, Anita Henderson, Eon-suk Ko, Christine Moisset, and Tara Sanchez.

[3] In order to see whether Koreans could better discern a Korean accent in English, the same test was administered to 100 Korean college students but not analyzed for the present study.

[4] An analysis of the distractors in the test is not included in this study.

[5] Special thanks goes to the teaching assistants who administered the test to their recitation classes: Atissa Banuazizi, John Bell, Cassandre Creswell, and Amanda Seidl.

[6] See Appendix D for the first page of the perception test.

[7] The test was administered to students in a college where there is a disproportionate number of females.

[8] r^2 is commonly used to measure the goodness of fit of a regression line. r^2 is a means of measuring "the proportion or percentage of the total variation in Y explained by the regression model" (Gujarati 1995:77).

[9] Figure 35 is proportionate to a graph which plots discourse marker values on a secondary y axis with the maximum value at ten.

CHAPTER 7

Korean Americans as Speakers of English

Immigrants clearly undergo language shift across generations. A 'shift of language' occurs when "the immigrant does not stay in a settlement of others from his own country, and especially if he marries outside his original nationality, he may have no occasion at all to use his native language" (Bloomfield 1933:55). Clyne (1972:201) furthers this point by including culture and rules of communication as determining factors in assimilation. Socially, in order to advance in society or even become "fully American" immigrants are pressured to "adapt themselves to the language and culture of the host country as quickly as possible" (Fishman 1966:276). There are pragmatic and practical motivations for immigrants to become "Anglicized" (Veltman 1983:41). There are other reasons for language maintenance and loyalty (Fishman 1966). Weinreich (1963:277) suggests that language loyalty is strongest among groups which occupied "the highest social positions before immigration" which indirectly refers to the social displacement experienced by immigrants.

A common pattern among immigrants to the US is that the first generation are speakers whose native language is the language of the country they originated from. The second generation are speakers who acquire English as a native language and are bilingual or passive bilingual speakers of their parent's native language and English. A complete eradication of the first generation's native language typically occurs in the third

and subsequent generations where language shift completes its run. This three-generation shift has been documented in real time as well as apparent time (Macias 1989:14, Li 1982:114-115).

Language maintenance is often an indicator of resistance to ethnic assimilation and a means for differentiation among immigrant groups (Li 1982:110). An ethnolinguistic identity is formed which occurs as a consequence of an inter-group rather than an intra-group distinction (Giles & Johnson 1987:69). A relevant statement on language shift is found in Gumperz (1982:57) who states that "learning to be effective in everyday communication on the part of culturally and linguistically distinct immigrants is both a function of actual exposure to the new language and of the networks of associations that speakers form in the new setting." This can be generalized to describe an ethnic speech community as well. The acquisition of the second language immigrants are immersed in depends on interaction which exposes them to second language input and community norms of language use.

This dissertation has attempted to provide a description in real time of the nature of English as used in the Korean speech community of Philadelphia. It is apparent that language shift is indeed occurring as the extent of English acquisition increases dramatically across generations.

7.1 Summary and Conclusions

The following offers a summary of the conclusions reached in this dissertation. The issues and topics explored are presented with relevant discussions.

Speech Community

This dissertation has described the state of the speech community of Korean Americans by examining the variation in the use of English. All of the speakers are part of the Korean American community through various means of membership or association. They associate with fellow Koreans and therefore are exposed to the speech of one another. In terms of language dominance, the 1st generation are all native speakers of Korean, the 1.5 generation tend to be bilingual with some Korean dominant but most English dominant, and the 2nd generation are English dominant although some may have passive competence in Korean. It is clear that in-group interaction as well as out-group interaction takes place. Although comparative studies of other communities (e.g., other ethnic Asian communities) are necessary in order to provide evidence for distinctiveness, the dissertation is a first step towards that direction.

Word Medial /t/ Flapping

The analysis of the use of word medial /t/ flapping shows that it is a feature speakers seem to be aware of whether they are native or non-native speakers of English. The relative significance of the linguistic and social factors considered which affect the occurrence of flapping indicates that flapping is conditioned by a vast array of factors. However, a breakdown of the subjects according to age of arrival and generation showed that different factors played different roles. Given the critical period, the influence of adolescent peer groups, and the results of the pilot study, age of arrival in the US appears to be the most significant factor. Flapping was shown to be variably manifested across

the speakers so that non-native speakers were shown to flap the least and native speakers to flap the most.

Discourse Markers

Both native and non-native English speakers in the study displayed acquisition of discourse marker use. Of the three discourse markers of *you know*, *like*, and *I mean*, *you know* and *like* were used considerably more than *I mean*. The effects of generation and age were evident but not the effects of sex. The results showed that males and females have similar rates of discourse marker use. In addition, younger speakers had higher frequency rates of discourse marker use than older speakers. Speakers also showed preferences for the use of a particular marker. The younger speakers showed a preference for *like* while the older speakers showed a preference for *you know*.

Short a

The results indicate that the Korean American speakers do not possess the Philadelphia short *a* pattern. The raising and tensing of /a/ is present but sporadically and is isolated in speakers who are native or near-native English speakers. The acquisition of a non-regional form does not necessarily mean that the speakers are aware of a standard variety of English. Instead it can serve as an indication that first generation immigrants, in this dissertation Koreans, do not acquire features specific to local dialects when acquiring English as a second language.

Style

The presence of stylistic variation shows that the subjects possess patterns of word medial /t/ flapping which are similar to native speakers. Previous studies of style in SLA where the stylistic shift is "often between a native and nonnative variant rather than two native ones" (Beebe 1988:49) accounted for learners pronouncing words correctly in isolation but mispronouncing in context. However, the stylistic variation found in the speakers in this dissertation, indicates that stylistic shift occurs between two native variants: flapped /t/ and unflapped /t/. Therefore, the results provide a description of both native and non-native speakers who do possess stylistic variation, and that they understand the stylistic significance of the variants in obeying the same stylistic constraints as native speakers.

Perceptions

The English nativeness perception test provides evidence that perceptions of nativeness can not only be obtained but that they are accurate as well. The degree of nativeness was also correctly perceived but the identification of the ethnic background of the test speakers was not. This indicates that people are unable to distinguish an Asian accent from other ethnic accents although they can distinguish a foreign accent from native speech.

Correlation of Production and Perception

One of the most important findings in this dissertation is the correlation between linguistic production and social perception. The results of the English nativeness

perception test and the results of word medial /t/ flapping and discourse marker use in the speakers showed that positive correlations exist. An increase in the production of the linguistic features directly corresponds to how native English-like the speakers sound.

Other

The results presented in this dissertation provide an indirect link between critical age effects and language acquisition. The factor of age of arrival in the US was utilized in order to test such age effects. This factor proved significant in that speakers who arrive at an early age acquire more general and regional features than those who arrive at a later age.

7.2 Implications for Acquiring and Teaching English

To teach or not to teach is the critical question. This holds especially true in the case of colloquial features such as the general and regional features examined in this dissertation. These features are not taught explicitly through formal education to either native or non-native English speakers. In this light, the following question can be posed: If native speakers use a feature, is it worthwhile to teach it to non-native speakers although the feature may serve no purpose but to enhance colloquial speech and to sound native-like? What if the feature is not taught through formal instruction to either native or non-native speakers but is a characteristic of colloquial speech? These kinds of features are not grammatical in nature and do not serve any functional purpose. However, they are pervasive in colloquial discourse and serve the purpose of distinguishing spoken language from written language. Furthermore, some of the features are rule-governed.

Such features and their rules are not taught and are usually acquired in naturalistic acquisition settings though face-to-face interaction with native speakers of the language.

Another question is how to integrate the teaching of nativeness in English in a foreign language environment. In an English learning situation where there is limited access to native English speakers, learners do not have exposure or access to community norms. This implies that the learners cannot deduce on their own from various input from native speakers any type of generalized patterns of language. In this particular case, learners cannot naturally deduce generalized rules of language use. What they will be hearing will be patterns of use that are unique and perhaps varied according to the individual instructor—whatever patterns their instructors (or the few native speakers they are exposed to) possess.

Word Medial /t/ Flapping

Unlike other colloquial features, flapping is found in instructional materials for the teaching of pronunciation (Prator, Jr. & Robinett 1985, Weinstein 1982).[2] Celce-Murcia et al. (1996) is an attempt to address flapping and the rule that governs this phenomenon in the absence of native speaker interaction. The flapping rule in Celce-Murcia et al. (1996:71) is characterized as follows:

(130) Americans normally voice and flap any medial /t/ that:

1. comes at the beginning of an unstressed syllable
2. occurs between voiced sounds

Although this is an extremely simplified version of the flapping rule compared to the flapping rule posited by Kahn (1976), it still presumes that the instructor and learner know what a 'voiced sound' is. The terms 'allophone' and 'unaspirated' (Celce-Murcia et al. 1996:71) are also used which both assume that even the instructors have knowledge of linguistic terminology. In addition, the rule also does not give a completely accurate picture of the environments of flapping. The learners cannot deduce where flapping does not occur. This may lead to overgeneralization in a variety of contexts.

Celce-Murcia et al. (1996) also presents exercises which look at flapping for learners. Their exercises focus primarily on intermediate to advanced learners. The learners are asked to deduce the flapping rule from various words with different environments of occurrence. This deductive method appears to be somewhat difficult in that it is assumed that the learners possess the ability to linguistically analyze patterns of stress and phonetic values of each sound in the word the flapped /t/ is situated in. The following is one exercise that is modified and adopted from Celce-Murcia et al. (1996:71) for the purposes of this paper.

(131) How is /t/ pronounced differently in the following pairs?

	Flapped	Unflapped
1.	for<u>t</u>y	four<u>t</u>een
2.	a<u>t</u>om	a<u>t</u>omic
3.	ma<u>tt</u>er	mas<u>t</u>er

The exercise requires beginner students to analyze the words and for advanced students to deduce the flapping rule. It is clear that not all the possible environments are given for

flapping so students will deduce an incorrect rule which will not be exhaustive of flapping environments. An alternative would be to provide relevant words for all possible contexts where flapping occurs.

The fact that flapping can neutralize semantic differences should also be introduced. For instance, flapping in the word 'latter' would neutralize the pronunciation of the word to sound like 'ladder.' In this case, in order to avoid a communication error it should be pointed out that in certain contexts the word 'latter' should be not be flapped. In addition, flapping can cause misspellings as well because /t/ can be misrepresented by /d/ and vice versa (Luselsdorff 1986:108-109). It appears that a fully encompassing presentation of flapping is lacking in language learning materials and that regardless of the learner's proficiency level the rule should be taught explicitly.

A brief survey of flapping in existing dictionaries shows that flapping is an optional and not obligatory phenomenon within the domain of prescriptive norms. The purpose of Kenyon & Knott's *Pronouncing Dictionary of American English* (1953) is "to show the pronunciation of cultivated colloquial English in the United States." Although the dictionary includes mention of dialectal features, they do not acknowledge a flapped /t/ and do not provide a symbol for one. Jones' *English Pronouncing Dictionary* (1997: 15th Edition of Jones 1917) provides both British RP and American pronunciations of words. This dictionary does provide a phonetic symbol of a flapped /t/ with a diacritic. As for British RP pronunciation an examination of the *Collins Cobuild E-Dictionary on CD-Rom* which provides sound files of lexical entries shows that flapping is completely absent. Bilingual dictionaries of English-Korean also do not provide the alternative pronunciation of a flapped /t/.[3]

This brief survey of flapping in teaching materials and dictionaries again shows that flapping is a pervasive feature of speech in the English spoken in the US. What this dissertation shows is that it is also an indicator of nativeness as well.

Discourse Markers

Discourse marker use is difficult to describe in pedagogical terms because there are extremely few texts that refer to them. A survey of English conversation texts used to teach English to non-native speakers shows no reference at all to discourse markers.[4] Returning to the issue of stigmatization of discourse marker use as seen in Watt (1989) mentioned previously in §4.1, negative stereotypes are indeed generated. However, for non-native learners of English, the function of discourse markers must be taken into consideration. The question is: Are discourse markers just another colloquial aspect of speech or do they serve a particular function for non-native speakers which differs from that of native speakers?

It is clear that to a beginner learner of English, discourse markers can impede listening comprehension. Discourse markers such as *you know* are relatively opaque in meaning compared to *like* which is relatively transparent. English learners may become confused at the use of *like* as a discourse marker which does not contribute to the overall meaning of the utterance it is in. In addition, the rise of *like* as a quotative indicator among young people may also cause confusion on the part of the English learner. Therefore, the use of *like* and the semantic bleaching it has undergone should be taught through instruction because of its everyday functions regardless of whether discourse markers are prescriptively sanctioned or not.

Short a

The issue of teaching a dialectal feature is entangled with the issue of whether a standard form of language exists. In this dissertation, the term 'standard' has been deliberately avoided and the term 'non-regional variety' was used instead. The word 'standard' evokes strong opinions as well as emotions due to the connotations and implications it possesses. 'Standard' has been interchangeably used with 'good' and 'correct' while 'non-standard' is used with 'bad, vulgar, and not English' (Bloomfield 1933:48, Kenyon & Knott 1953:xv).[5]

Bloomfield discusses the stigmatization of the use of non-standard forms and for the language learner, standard forms are "registered in grammars and dictionaries and presented in text-books to foreigners who want to learn our language" (Bloomfield 1933:48). According to Jones (1909:3):

> It is thought by many that there ought to exist a standard, and one can see from several points of view that a standard speech would have its uses. Ability to speak in a standard way might be considered advantageous by some of those whose home language is a distinctly local form of speech; if their vocations require them to work in districts remote from their home locality, they would not be hampered by speaking in a manner differing considerably from the speech of those around them. A standard pronunciation would also be useful to the foreign learner of English.

Dialects have also contributed to the debate about non-regional varieties of a language. Again, Jones (1909:3-4) summarizes the situation which still holds true today as follows:

> But though attempts have been made to devise and recommend standards, it cannot be said that any standard exists. Londoners speak in one way, Bristolians in another, Scotsmen in several other ways, and so on. American speech too (of which there are many varieties) is very different...A person may speak with

> sounds very different from those of his hearers and yet be clearly intelligible to all of them, as for instance when a Scotsman or an American addresses an English audience with clear articulation. Their speech cannot be described as other than 'good.'...A dialect speaker may speak 'well' or 'badly.'... The sounds of his dialect are, it is suggested, neither good nor bad intrisincally. They are adequate for communicating with others speaking the same dialect, unless he mumbles his words.

English has been called an 'international language' and the two main standard varieties of English are considered to be British RP English and North American English (Trudgill & Hannah 1993:1-2, Stevens 1992:32). Some countries also show preference for a certain global variety of English. For instance, Korea shows a preference for North American English over British RP English.[6] The spread of English has also been described in terms of concentric circles. The inner circle refers to countries where "English is the first or dominant language", the outer circle refers to countries where "English has a long history of institutionalized functions and standing as a language of wide and important roles", and the expanding circle refers to countries in which "English has various roles and is widely studied but for more specific purposes" (Kachru 1996:78-79).[7] In short, "English provides a cross-cultural and cross-linguistic indicator of change and acculturation" (Kachru 1994:134).

With the above taken into consideration, the teaching of a global variety and the teaching of a dialect are indeed controversial. The question being whether 'standard English' is the only target for non-native speakers (Glowka & Lance 1993, Goldstein 1987). The articles in Shores (1972) by various researchers show that other than being unable to distinctly define what variety of English should be taught, learning and teaching problems arise due to the lack of awareness of "temporal, regional, and social variations" (Shores 1972:xv).[8] Although raising awareness at first blush does not appear to be a

significant pedagogical achievement, if only consciousness of language variation due to linguistic and social reasons were raised, foreign learners of English would not be biased towards the notion of 'standard English' (Temple Adger 1997). Linguistic variation could be introduced as a means to assist learners in understanding that not only English but all languages are in a state where change and variation co-exist. Regional variation could also assist learners who reside in parts of the US where dialectal features are the community norm.

Other Colloquial English Features

Kenyon & Knott (1953:xvi) consider colloquial pronunciation as:

> The conversational and familiar utterance of cultivated speakers when speaking in the normal contacts of life and concerned with what they are saying, not how they are saying it. ...The variant pronunciations of the same word frequently shown will often reflect the different styles of the colloquial....It is of course true that the majority of words in general use are the same for colloquial as for formal language, and are pronounced alike in both styles.

While the presence of colloquial features has been studied in native English speakers, there have been few studies on the acquisition of such features in non-native English speakers.

Some of the more prominent colloquial features that have been studied are r-dropping (Labov 1966), t,d deletion (Guy 1980), -ing/-in variation (Wald & Shopen 1981), and a vast array of dialectal features. The fact that variation exists in such features and that speakers embody this variation has not been a central concern in the teaching English. However, knowledge of variation could assist advanced learners of English in stepping over the threshold to near-native like proficiency. It is not just native speakers of

a particular language but all speakers of any language who show variation in their everyday speech. In this sense, variation is a very definitive aspect of using a language.

ESL vs. EFL Teaching

The predicament of teaching non-functional and unnecessary but colloquial features is especially acute where a language is taught as a foreign language. For instance, English is taught as a second language and a foreign language depending on the environment the learners are situated. English as a Second Language (ESL) means that learners are in an English-speaking environment and have access to native English input. On the other hand, English as a Foreign Language (EFL) implies that the learners are in a non-English speaking environment where the learner's native language is not English (Richards et al 1992:123-124). Then how and why should language learners acquire colloquial features?

In an EFL context where there is little exposure to native English speakers, a rule like flapping can only be learned consciously whereas in an ESL context the rule could to a certain extent be acquired unconsciously. In the case of the flapping rule, where a concrete linguistic rule exists, the issue of whether to teach the rule overtly or have learners deduce the rule appears to be debatable. It is clear that flapping as well as other features should be acquired because it gives a speaker not only a native-like quality to their speech but identifies them as a North American English speaker. Discourse markers and dialectal features such as short *a* are also dependent on exposure and input from native speakers. Furthermore, acquisition of these as well as other features enables learners to understand the native speakers they hear.

Kachru (1992:54) proposes four "mutually non-exclusive ways to discuss the form and function of English." They are as follows:

(132) Form and function of English (Kachru 1992:54)

1. Acquisitional:	first language, second language, foreign language
2. Sociocultural:	transplanted, non-transplanted
3. Motivational:	integrative, instrumental
4. Functional:	national ("link") language, international language

In this paradigm, the learning of general and regional features would no doubt fall under the rubric of 'acquisitional.' However, if the features are indeed characteristic of the particular variety of North American English, then the sociocultural, motivational, and functional rubrics come into play as well in both an EFL setting and in an ESL setting.[10]

7.3 Further Avenues of Research

While the immediate goals of the dissertation have been achieved, there are clearly additional issues and questions that warrant further investigation.

Research on other dialectal features in order to determine whether immigrants do indeed acquire a non-regional variety of English that they perceive to be a standard form is essential.[9] There is some belief that perhaps a pan-Asian variety of English exists in the US as well although there is not enough supporting evidence to make such a claim as of yet. Perhaps studies of immigrants in communities where dialects are dominant over non-regional forms will yield evidence.

In order to assess the degree of integration, an integration index needs to be developed. Such an index can be used to assess the interaction and involvement of speakers with their speech community. Thompson (1991:187-188) used a survey which asked subjects to rate themselves on the following factors: use of English, importance of English for work, importance of having a good accent, use of strategies to improve pronunciation, pro-American orientation, preference for American culture, impressions of American people, ability to mimic, musical ability, ear-mindedness, global speaking proficiency in English, and extroversion (personality inventory measure). These diagnostics all provide a means to measure integration which can enhance the importance of face-to-face interaction in language acquisition.

Maturational effects on language learning is a crucial issue in second language learning studies and has not received justice in this dissertation. The acquisition of general and regional features in child SLA vs. adult SLA are sure to yield interesting results. The effects of social factors will also differ due to the different social spheres children and adults function in. In relation to age, instructed vs. naturalistic acquisition and how it pertains to colloquial features needs to be examined.

Lastly, in order to claim that a variety of English that can be referred to as Korean American English exists and that Korean Americans form a speech community, an inter-group comparison needs to be made.[11] The study of the linguistic features in this dissertation can be replicated in other ethnic speech communities to provide evidence for the distinctiveness of the Korean American community. In fact, there have been few studies conducted on the presence of word medial /t/ flapping and discourse marker use in native English speakers although short *a* has been extensively studied.

This dissertation has attempted to address the subtleties of second language acquisition and the sociolinguistic factors which influence acquisition. The above mentioned avenues were beyond the scope of this dissertation but are further contributions needed in order to provide a holistic description of the Korean American speech community. Obtaining native-like proficiency is the ultimate goal of language learners and the means to do so are to acquire native speech community norms.

NOTES

[1] Fishman (1966:15) notes that "the two processes of de-ethnization and Americanization and cultural-linguistic self maintenance are ubiquitous throughout all of American history."

[2] Flapping across word boundaries was not considered in this study. However, Weinstein (1982) is an English teaching text which focuses on word boundary flapping as seen in the text's title *'Whaddaya say?'*

[3] The dictionaries examined were for:

English: *American Heritage Talking Dictionary, Cambridge Dictionary of American English, Collins Cobuild E-Dictionary, and Merriam-Webster's Collegiate Dictionary*

English-Korean: *Dong-A's Prime English-Korean Dictionary, Kumseong Newace English-Korean Dictionary, Minjungseorim's Essence English-Korean Dictionary, and Si-sa Elite English-Korean Dictionary*

Note that Korean-English dictionaries do not provide English pronunciation.

[4] The English conversation texts examined were *Interchange* and *Vistas.*

[5] Issues of what the official language of a country should be as well as language planning stem from the issue as well.

[6] Jae-Keun Lee (p.c.) at the Korea Institute of Curriculum Evaluation provided this information.

[7] The US is in the inner circle and Korea in the expanding circle. This corresponds to ESL and EFL situations. The expansion of the internet can also be described as Englishization.

[8] Several articles in this volume as well as Labov (1972) focus on African American Vernacular English (AAVE) and how and why it should be accepted as a systematic variety of English. Issues concerning AAVE are not included here.

[9] Initially an English features perception test was designed and pre-tested to see how speakers react to contexts where variation exists. For example, the test tested the presence vs. absence of dialectal features, flapping and discourse markers. However, due to design difficulties and difficulties encountered interviewing due to reluctance of the subjects, the test was abandoned.

[10] Although a discussion of 'instructed' vs. 'naturalistic' language acquisition is extremely relevant here, it is beyond the scope of this dissertation. The stance taken here is that a phenomenon such as flapping, which is rule governed, should be taught so the rule and the environments where the rule is applied is explicitly taught. Instruction which is not explicit can lead learners to overgeneralize the use of a feature in contexts where it does not occur.

[11] Examining the effects of first language transfer in immigrants is a means of distinguishing ethnic groups as well. Transfer was only briefly mentioned concerning the three linguistic features examined in this dissertation. Further analyses much be conducted in order to assess the nature and extent of such transfer.

APPENDIX

A. Additional Facts about Korean Americans

The following facts are compiled from: *1990 US Census*, *1998 INS annual report*, *Pacific Communications Corp*., and *Gibson & Lennon (1999)*.

?? Korean Americans are the fifth largest group of Asian Americans in the US.

?? Of the top ten countries of birth, South Korean ranked 7th, and in terms of foreign-born immigration Korea ranked 8th.

?? The median age of Korean immigrations is 29.1 years and the number of males (3,886) and females (4,539) entering are similar.

?? In terms of professional migration, South Korea ranked 7th at 72.7% with 89.1% of males and 74.1% of females being high school graduates or higher and 46.9% of males and 25.9% of females having a BA.

?? There are more than 69,000 businesses owned by Koreans, who have an average household income of $37,825, 12% higher than the national average.

B. Equipment

?? Optimus® 33-3013 Omnidirectional Tie Clip Microphone

?? Sony® TC-142 Three-head Cassette-Corder

?? Sony® TCM-R3 IC Repeat Cassette-Corder

?? Sony® CFD-222 CD Radio Cassette-Corder

?? Radio Shack® TRC-200 Phone Cassette Recorder

?? Panasonic® RR-830 Standard Cassette Transcriber

C. Formal Speech Elicitation Tasks Used in Pilot Study

Note: The tasks have been partially reproduced and reflect the portions where the target segments were located. [ ]=target segment

1. Reading passage

> This guy hacked into his fist and pulled a handkerchief from his back pocket to wipe his hand and his mouth. I asked him if he wan[t]ed some tea. He nodded. I put on wa[t]er. When I came out he was si[tt]ing inside one of the bays, examining its laptop compu[t]er.
>
> *Adopted from: Lee, Chang-Rae. 1995. Native Speaker. New York: Riverhead Books.*

2. Word list

personali[t]y	quar[t]er
individuali[t]y	tap wa[t]er
liber[t]y	spring wa[t]er
anxie[t]y	wri[t]er

3. Semantic differentials

personali[t]y	individuali[t]y
liber[t]y	free
anxie[t]y	nervousness
wri[t]er	author
tap wa[t]er	spring wa[t]er

D. English Nativeness Perception Test

INFORMATION ABOUT YOURSELF

Sex: ____ male ____ female

Age: _____

Ethnicity: ____ African-American ____ Asian

____ Caucasian ____ Hispanic

Are you a native speaker of English? ____ Yes ____ No

Place of birth: _____

Where have you lived? _____

Do you have any friends who are non-native speakers of English?

____ None ____ A few ____ Some

____ Many ____ Almost all

INSTRUCTIONS

****

You will hear 30 speakers on a tape reading the same passage. Some are native English speakers and some have foreign accents. Please circle or check each answer. Please wait until you have finished listening to the speaker to answer the questions. Also, please make sure you are on the right number.

****

THE READING PASSAGE

The only negative things about the city are the bad tap water and the crime. A man was beaten because he interrupted a demonstration for equality and liberty. But I'd rather live here than out in the valley.

Number 1

1) Do you think this person is a native speaker of English?

Yes No Not sure

2) How native does this person's English sound?

1	2	3	4	5
Foreign				Native

3) What ethnicity do you think the speaker is?

____ African-American ____ Asian

____ Caucasian ____ Hispanic

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