



Universiteit  
Leiden  
The Netherlands

## **The sociolinguistics of rhotacization in the Beijing speech community** Hu, H.

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# **Chapter 1      Introduction**

## 2 THE SOCIOLINGUISTICS OF RHOTACIZATION IN THE BEIJING SPEECH COMMUNITY

This introductory chapter will set the stage for the investigation of changes in form, frequency, and use of rhotacization in the Beijing speech community. It offers an introduction to the topic and context of this dissertation, as well as its focus and scope. Section 1.1 gives an overview of the dissertation. The social and phonetic framework of this study is introduced in Section 1.2. Section 1.3 presents the general and methodological research questions that will be answered in this study. Section 1.4 presents a chapter-by-chapter overview of this dissertation.

### 1.1 Overview

This dissertation reveals the social, attitudinal, and linguistic mechanisms behind language choices and change in postmodern urban China. More specifically, it investigates pronunciation norm formation in Beijing, the country's capital city. This can be distinguished in a mixed group of speakers under four normative forces: urbanization, Standard Chinese, native dialects, and the expression of belonging. First, since the 1980s, Beijing has been experiencing rapid urbanization and an increased influx of internal migrants. This massive population movement brings speakers with different dialect backgrounds and linguistic practices into daily contact. Second, Standard Chinese plays an increasingly important role in urban language life, due to the nationwide language policy of promoting Standard Chinese, as well as the intelligibility needs in social and economic life. Third, for both local Beijing native speakers and migrants, there is the added effect of, as well as possible allegiance to, their local urban or non-urban dialect or regiolect. Fourth, it turns out that the urban speakers are also subject to normative forces of a more personal nature, which are sometimes at odds with the national norm. Not only does the importance of speaking Standard Chinese prompt its widespread use, speakers at the same time also have the desire to fit into the local urban community and build their own linguistic identity.

To shed light on the impact of the various normative forces on pronunciation norms, the postvocalic *r* in Mandarin Chinese (the branch of the Sinitic language family that Standard Chinese belongs to), known as a salient sociolinguistic marker, is taken as the linguistic focus in this dissertation. The frequency, variation, and change of this *r* by local native Beijingers as well as migrants from various regions in China is described, and the social and linguistic constraints, as well as attitudinal effects, on its use and change are also investigated. Through examining the sociolinguistics of postvocalic *r*, this dissertation aims to reveal the linguistic outcome of the interplay between mass migration, Standard Chinese, native dialect, and individual language choices.

## 1.2 Social and phonetic framework

### 1.2.1 Urbanization, migration, and language change

Urbanization is a pervasive and rapidly growing process in which a population massively shifts from rural areas to urban areas, and towns and cities form or increase in size. For most of human history, the majority of people across the world lived in rural areas. However, this situation has shifted dramatically, particularly in recent decades. In the 1950s, no more than 30% of the world's population lived in cities. In 2007, the urban population overtook that in rural settings, for the first time in human history. Today, urban growth has accelerated dramatically, especially in developing countries. It is estimated that more than 55% of world's population now lives in urban areas (Ritchie & Roser, 2018; United Nations, 2018).

China, one of the biggest developing countries, has been undergoing rapid urbanization and dramatic social changes since the Open Door Policy and economic reforms of the 1980s. The proportion of the population that is urbanized has been steadily increasing over the past decades. The total urban population in China rose from 36% in 2000 to around 63.9% in 2019, according to the 7th Population Census conducted in 2020. The city of Beijing has also been experiencing rapid urban growth and an influx of internal migrants since the 1980s. Beijing is the second largest city in China. In 2020, the total population in Beijing was estimated at about 21.9 million, of which 8.4 million consists of the permanent migrant population; the proportion of Beijing's population that is urbanized is about 87.5%.

Since late 20th century, Western cities have been experiencing the social trend of postmodernity, paralleling the process of globalization, urbanization, and migration; cities in the East, including in China, are also experiencing developments that resemble and parallel those in any other nation in the world (Dirlik & Zhang, 2000; Lim, 2013). It is suggested that a postmodern society typically develops in a very large urban setting, where millions of people from different ethnic, linguistic, and cultural backgrounds live together. Moreover, postmodern societies are highly individualistic, and thus the concerns of the individual are more important than before (Lim, 2013; tutor2u, 2020). Specifically, there is an increased diversity of personal identities; specifically, there is an increased diversity of personal identities, as well as culture and language choices. It is believed that China and its rapid social and economic development, as well as the individuals and communities in its urban settings, are exposed to postmodernity and have inevitably been influenced (Dirlik & Zhang, 2000; Horner, 2015; Lim, 2013; Ning, 1997). Since the 1980s, more than ever before in the country's history, Chinese urbanization has brought people from different ethnicities, cultures, and language backgrounds into close social contact. Moreover, China has been playing a central role in the increasing globalization of the last decades. For this reason, post-modernists argue that these massive social changes lead to increased "decentralization," "cultural

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diversity,” and “some emerging or renewed sense of locality, individuality, and diversity” in China (Dirlik & Zhang, 2000).

Sociolinguistically, cities have been spectacular places where social and linguistic innovations originate and develop (Smakman & Heinrich, 2017), as language change usually occurs as a consequence of social changes and social contact between people. It is suggested that the establishment of Western sociolinguistics in the 1960s was inspired by the language of the cities, especially variationist sociolinguistics, which studies language variation and change in the urban communities of the United States and Europe (Smakman & Heinrich, 2017). The theory and approach of variationist sociolinguistics were subsequently extended to numerous other urban communities across the world.

In the past two decades, sociolinguistics and phonetics have jointly contributed to some variationist sociolinguistic studies, in which modern phonetic methods and instrumental techniques are employed in the quantitative analysis of language variation and change. The notion of sociophonetics has emerged as a new linguistic field. In addition, due to the rapid urbanization and dramatic social changes, language life in urban settings, in particular in developing countries, has been very different from that in the 19th century, when urbanization occurred in Western countries. The city is more diverse than it used to be, with people coming into contact on a daily basis with both local people and migrants with different ethnic beliefs, cultural backgrounds, behavioral norms, and language practices. In response to the new changes in large urban areas, urban sociolinguistics and the sociolinguistics of globalization are developing into important research paradigms, aiming to examine language life in cities and to adapt sociolinguistic approaches to language life in large urban settings (Smakman & Heinrich, 2017).

##### 1.2.2 The *r*-sounds

The class of *r*-sounds is known by the term rhotics (Lindau, 1985). Rhotics are a common feature in the world languages. One or more forms of the *r*-sounds can be found in 75% of all human languages (Maddieson, 1984). For example, in some European languages, such as Dutch, German, Danish, and Swedish, two, three, or more rhotic sounds can be identified and distinguished from each other (Van de Velde & van Hout, 2001). Rhotic sounds have always intrigued linguists, due to their diversity in articulation, their effect on the adjacent vowel, their salience in perception, and their sensitivity to various types of prestige.

Phonetically, rhotics cover a wide range of places and manners of articulation, and almost all parts of the mouth are used in their articulation. The class comprises many variants, such as trills, taps, and flaps, fricatives, approximants, and vocalic realizations. In the International Phonetic Alphabet (IPA), symbols comprised of different forms of the letter ‘r’ are employed to represent the members of *r*-sound class, namely, r, ɾ, ɹ, ʀ, ʁ, ʂ, ʐ, ʄ, ʝ, ʎ, ʟ, ʠ, ʡ, and ʢ. The *r*-sounds bear many common phonetic characteristics. For example, most of them are voiced, and the dental-alveolar area is the most used place of articulation

(Lindau, 1985). Phonologically, the *r*-sounds form a heterogeneous group, as they behave similarly and act as a class in phonological rules. For example, they usually occupy the same place in the consonant system and in the syllable structure of different languages. Above all, the rhotics are defined by their phonological uniformity, rather than their “articulatory or auditory property” (Lindau, 1985; Maddieson & Ladefoged, 1996; Sebregts, 2015).

Many studies on rhotics in Western languages have been conducted in the fields of phonetics and sociolinguistics. For example, the voiced approximant /ɹ/ in American English is the most prevalent form, the tongue shapes of which range between the “bunched” and “retroflex” (Alwan et al., 1997). In Standard British English, the final schwa can be believed to be an *r*-vocalization. In Standard Dutch, both the place and manner of articulation of rhotics are so diverse that almost all variants of rhotics in the world languages can be observed in the urban accents of Dutch (Sebregts, 2015; Smakman, 2006; van de Velde & van Hout, 1999). Russian rhotics and laterals are classified as the liquids, since they have similar articulatory and phonetic features and have similar positions in syllables. The two contrastive rhotic consonants, namely the non-palatalized trill /r/ and the palatalized trill /rʲ/, as well as two laterals, are contrastive in word-initial, intervocalic, heterogenic medial coda, and word-final contexts. In Spanish, the allophonic variants of rhotics, alveolar trill /r/ and alveolar tap /r̄/, can be found, while there is a wide range of variants of the syllable-initial trill /r/, which differ in articulation and the number of lingual contacts (Bradley & Willis, 2012). In the domain of sociolinguistics and sociophonetics, especially variationist sociolinguistics, variation and change in rhotics is also investigated. For example, one of the most well-known sociolinguistic studies—Labov’s (1963) study on the social stratification of *r* in New York—looked at the variation of *r* in that city. Schützler (2010) studied the coda-*r* in Scottish Standard English using sociophonetic methods. Sankoff & Blondeau (2007, 2010) investigated the change in the two canonical variants—[r] and [R]—in different phonological contexts in Montreal French. Sebregts (2015) investigated all the variants of /r/ in Dutch.

In Mandarin, postvocalic *r*, rhotics or rhoticity, is called *ér-huà* in previous studies of Standard Chinese and Beijing Mandarin. Though rhotacization in Mandarin shows some phonetic similarities with the *r* sounds in Western languages, functionally, rhotacization in Mandarin has a number of interesting properties. First, unlike similar sounds in other languages, rhotacization in Mandarin usually functions as *r*-suffixation, which has morphological and lexicological functions. For example, in certain words, the *r*-suffix functions as a diminutive suffix. In other contexts, it can distinguish lexical meanings, and in yet others, it has stylistic effects. Second, rhotacization is realized by raising the tongue tip towards the backside of the upper teeth while pronouncing the syllable rime, on the position of the syllable coda. In addition, instead of co-existing with one or more different *r*-sounds, the rhotacization in Standard Chinese and Beijing Mandarin has only one recognized member, which is the voiced approximant /ɹ/. Thus, the variants of rhotacization are usually not distinct from each other, though speakers may show articulation differences

when pronouncing rhotacization. Finally, rhotacization is interesting from a sociolinguistic perspective, because of its association with the speech of the capital city of Beijing, with repercussions for how it is perceived by others. As a result of all this, rhotacization in Mandarin, unlike the *r*-sounds in many other languages, should be studied from several different angles at the same time, namely, from the phonetic, lexical, morphological, and sociolinguistic/sociophonetic perspective.

Overall, this dissertation is conducted in the social context of rapid urban growth and the influx of internal migrants to Beijing. As mentioned earlier on, three other normative forces—Standard Chinese, native dialects, and the expression of belonging—are also considered to be important social factors. This dissertation adopts the approach of sociolinguistics and phonetics to explore the sociolinguistic mechanism in language choices and language change, as well as the language attitudes of postmodern individuals in larger urban areas. The linguistic focus of this study is postvocalic *r* or rhotacization in Mandarin in the Beijing speech community.

### 1.3 Research questions

In order to reveal the effects of normative forces on language choices and change in postmodern China, I investigate the formation of pronunciation norms for rhotacization and address the interplay of language varieties, language users, and language attitudes in Beijing. I present naturalistic and spontaneous speech data collected from both native Beijing speakers and migrants from rhotic areas as well as from non-rhotic areas in China, across different age groups. Moreover, by means of semi-structured interviews, I also investigate the language attitude towards the use and users of rhotacization, its users, and the relevant language varieties.

I address three key issues in the study of language choice and language attitude. The first is the interplay of language varieties, language users, and language attitudes. The second is the social stratification of rhotacization in the speech community of Beijing. The third is constituted by the linguistic and social constraints on the variants of rhotacization.

The main research questions addressed in this dissertation are:

- (1) What are the urban speakers' attitudes towards rhotacization, Beijing Mandarin, Standard Chinese, and the users of these varieties in Beijing, under the constraints of normative forces?
- (2) How is rhotacization socially stratified in the urban speakers' naturalistic and spontaneous speech?
- (3) How do linguistic and social constraints affect the variation, variants, and change of rhotacization?

In addition to these three general issues, two methodological issues are investigated in this study: (1) the collection and analysis of naturalistic and spontaneous speech by both native and migrant speakers; and (2) the pre-categorization of the target rhotacized rime according to its own linguistic features. The three general research questions and the two methodological issues will be briefly introduced in the following subsections.

### 1.3.1 The interplay of language varieties, language users, and language attitudes

The first research question mentioned above underlines the first goal of this dissertation: to reveal the interplay between language varieties, language users in the case of rhotacization, and language attitudes.

“Sociolinguists use a range of methods to analyze patterns of language in use and attitudes towards language in use” (Meyerhoff, 2011). Language attitude and language variation cannot be treated separately, as they are related to each other (Giles & Coupland, 1991). Language attitude is considered to be one of the “consequences of language variation” (Giles & Rakić, 2014) and thus plays an important role in language variation and change (Garrett, 2010; Garrett et al., 2003; Labov, 1984; Smakman, 2018). People’s attitudes towards language in use are usually formed by assessing the use and users of certain language varieties and accents, and this could in return influence their own use of language. Both social and linguistic factors have an effect on the construction of language attitudes. For example, nonstandard accents, comprehensibility, and (non)standardization are believed to play a role (Giles & Rakić, 2014). However, previous studies have usually focused either on language choice, on language variation and change, or on the attitude towards language variants and its users. Though language attitude, as the main focus of study, can be found in many sociolinguistic studies in which language attitude is examined in different respects (Smakman & Heinrich, 2017), not many studies have examined speakers’ attitudes towards the use and users of linguistic variants while investigating the variation and change of the linguistic variable in question.

The focus of the current attitudinal study lies on the lay viewpoints of and attitudes towards language varieties and users in postmodern Beijing. More specifically, it examines the interplay of language variables (rhotacization), language varieties (Beijing Mandarin and Standard Chinese), Beijing inhabitants (the users of the varieties: local Beijingers and migrants), and social changes (urbanization and migration). The phonetic system of Standard Chinese is based on that of Beijing Mandarin but lacks some of its features, such as the extensive use of rhotacization, which is a salient characteristic of Beijing Mandarin. Due to the promotion of Standard Chinese in China, the use of dialect, as well as the use of dialect features, such as rhotacization, is becoming increasingly limited. Moreover, internal migrants with different dialect backgrounds establish daily social and language contact with each other in Beijing. These urban speakers establish their local identity and at the same time also generate opinions on and



judgments concerning each other and their language. Through this attitudinal study, we hope to gain a better understanding of language choice and language variation, what the different speakers are thinking, why they think that way, and what kind of language outcome their attitudes may bring. In particular, it provides us insight into the interplay between language choice and change in rhotacization, as well as the formation of pronunciation norms, which are investigated in Chapters 4, 5, 6, and 7 of this dissertation.

### 1.3.2 The social stratification of rhotacization

The second research question mentioned above highlights one of the main goals of this dissertation: to identify the effects of social factors on language choice and language change in Beijing. More specifically, we will examine the social stratification of rhotacization in the Beijing speech community and its change in quantity and quality. This issue is also closely related to an important methodological issue: what types of data from what speakers in the community should be examined? These are important issues that will be explored in this study.

Language choice, language variation, and change in rhotacization in Mandarin is under-researched in the fields of dialectology, phonetics, and sociolinguistics. Before the notion of sociolinguistics was for the first time officially introduced in China in the 1980s (Y. Chen, 1980, 1983), it was mostly the linguists' job in the field of traditional dialectology and Chinese phonology to record and study regional varieties and their changes (M. Zhou, 2009). Though sociolinguistics as an independent subject was later established in China, the methodology and paradigms of Chinese traditional dialectology are still playing a part in the sociolinguistic studies of Chinese languages (M. Zhou, 2009). For example, fieldworkers tend to enter a speech community and look for participants who are mostly (old) local native speakers, the materials used are usually pre-selected single words, and the studies usually aim at recording speech in order to determine the phonemes and other phonetic properties.

Due to the dramatic social changes in Beijing since the 1980s, Chinese linguists noticed that the rhotacization in Beijing Mandarin was undergoing change. The early stage of so-called sociolinguistic studies on rhotacization focused mostly on the use or non-use of the *r* sound in a number of specific words usually rhotacized by Beijing native speakers (Y. Hu, 1987) and on the sound/phonemes of some controversial rhotacized rimes among elderly Beijingers (T. Lin, 1982; T. Lin & Shen, 1995; D. Sun, 1991). The "by-product" of such studies showed that the frequency of rhotacization was decreasing. In these studies, some social factors, such as the gender, age, and ethnicity of the speakers, were considered. However, although these studies employed some methods of Western sociolinguistics, they were conducted without an explicit sociolinguistic framework or methodology (M. Zhou, 2009). Although a few more recent studies on change in rhotacization (e.g., Peng 2002, 2003, 2004) claim the adoption of (variationist) sociolinguistic theory, rhotacization data were mostly elicited

from written materials, namely Beijing-flavored literature and Beijing local newspapers and magazines across different times. This raises the question as to whether rhotacization that appears in written materials can be considered to reliably reflect its variation and change, as well as speakers' choices. It is unclear how in this approach one can investigate how the sound of rhotacization actually changes in the community and how social and linguistic factors affect it.

There are a handful of sociolinguistic studies examining rhotacization in the speech of Beijing native speakers. For example, the rhotacization used by anchors in Beijing local TV programs (Peng, 2003) and the frequency of rhotacization and its trends based on a Beijing speech database established in the 1980s (C. Zhou, 2005, 2006). In Jing (2005) and Wang (2010), speakers were asked to read aloud a number of chosen words or other materials provided, to examine the presence or absence of rhotacization of particular words and possible differences across the speakers. However, studying rhotacization in the media or in read-out material is unlikely to lead to worthwhile results, as rhotacization is usually identified as an oral, informal, and changeable speech phenomenon (Cao, 2004; Qian, 1995; L. Wang, 2005), rather than a written and formal linguistic object, especially in Beijing Mandarin.

The general conclusion is therefore that in previous sociolinguistic studies on rhotacization and its change, the naturalistic and spontaneous speech of Beijing native speakers was not properly examined. What is more, only the speech of Beijing native speakers was investigated. Obtaining naturalistic speech and eliciting the targeted variable in it is an important goal in sociolinguistics (Meyerhoff et al., 2011; Schilling, 2013). That is, obtaining everyday colloquial speech in ordinary and informal interaction is necessary to maximally collect the variants of the variable examined. Such naturalistic data have been employed in variationist studies in particular. Thus, in the case of rhotacization in Mandarin, which is a particularly informal feature of speech and one that is subject to change, as mentioned above, eliciting it in natural speech would yield the full range of variability. Furthermore, in the context of urbanization and migration, people in Beijing are in constant contact with both local people and migrants. Thus, observing the use of rhotacization by migrants and non-native speakers in everyday interactions is as important as its use by native speakers. After all, they are all members of the Beijing speech community, and their language behavior affects the way the other members of the speech community use and change rhotacization. Thus, in this dissertation, rhotacization will be examined in naturalistic and spontaneous speech of both Beijing native speakers (of different ages) and migrants, both quantitatively and qualitatively.

### 1.3.3 Linguistic and social constraints on rhotacization

The third research question mentioned at the beginning of this section foregrounds another important goal in this study: to identify the social and linguistic constraints on the formation of pronunciation norms. This issue is also related to an important methodological question: How should these linguistic

and social constraints be investigated? Concerning the linguistic constraints in particular, apart from the common internal factors like vowel height, vowel type, stress, syllable context, and so forth, are there other internal linguistic factors constraining the variation of rhotacization?

A main empirical task of variationist studies is to correlate linguistic variation as the dependent variable with the independent linguistic factors (Chambers, 2008). Tagliamonte (2012) suggests that variationist sociolinguistics presumes both the constraints of possible social factors and the presence of linguistic factors that constrain language use. Linguistic factors can be categorized into different types based on linguistic characteristics. The three main categories are phonetic and phonological, lexical, and grammatical. Examining the linguistic constraints and their effects on the language variable under consideration is usually taken as a critical component in the study of language variation and change (Cheshire & Fox, 2009; Tagliamonte, 2012; J. Zhang, 2014).

This study intends to investigate the effect of linguistic (e.g., segmental, suprasegmental, and lexical) constraints, as well as social constraints on language choices and on variation in rhotacization in Mandarin.

Above all, this dissertation investigates speakers' attitudes towards both the use and users of rhotacization, Beijing Mandarin, and Standard Chinese in Beijing. Together with the quantitative and qualitative analysis of speakers, language choices and change in rhotacization, this study intends to present a picture of speakers' attitudes toward a salient sociolinguistic marker and how pronunciation norms are formed, under the constraints of normative forces in postmodern Beijing. It also aims to provide a context in which one can "compare what people think they are doing with what they actually are doing" (Meyerhoff, 2011).

#### 1.4 Chapter-by-chapter overview

This dissertation consists of eight chapters. This current chapter, Chapter 1, presents an introduction to the research topics, the social and phonetic framework, and the research questions addressed in this study.

Chapter 2 introduces the linguistic and social background for the present research in detail, namely, rhotacization in general, in Beijing Mandarin, and in Standard Chinese; the Beijing speech community, urbanization, and migration are also further elaborated upon. In addition, it looks at previous studies about rhotacization in Beijing Mandarin and Standard Chinese, especially in the domains of phonetics, sociolinguistics, and dialectology. The nationwide language standardization policy of promoting Standard Chinese is also introduced. The goal of this literature study is to draw a picture of what phonetic and grammatical features rhotacization have, how rhotacization, Beijing Mandarin, and Standard Chinese are related, and in what social context the changes in rhotacization occur.

Chapter 3 describes the methods employed to collect the data. It introduces the research design with respect to data collection, including the criteria for selecting the participants, the procedures for recruiting them, speech recording and other procedures, and the methods used to collect natural speech. Furthermore, some related issues in data collection are also clarified.

Chapter 4 investigates the language attitudes of the urban speakers in Beijing towards the use and users of rhotacization, Beijing Mandarin, and Standard Chinese, in particular towards the use and imitation of rhotacization and the advantages/disadvantages of using and imitating it.

Chapter 5 and Chapter 6 investigate speakers' language choices concerning rhotacization in terms of frequency, from two different perspectives. These two chapters are structured in the same way. Chapter 5 presents the results of the rhotacization frequency in general and analyzes the differences that were found across speakers from different social groups. In Chapter 6, the frequency of rhotacization types is further examined, and the differences between the groups are also statistically tested.

Based on the results of Chapter 5 and 6, Chapter 7 examines the most frequently used rhotacized rime acoustically, obtains its variants across groups of speakers and presents the linguistic and social constraints on the formation of pronunciation norms for the rhotacized rime.

Chapter 8 discusses the results and presents the conclusions of the present research, its significance, and the direction of future work.

