

# A Variationist Analysis of Locative Markers in Chengdu Dialect

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This paper studies the variation between the suffix *-tou*, a locative marker in Chengdu dialect spoken in Southwest China, and its standard Chinese counterpart *-mian*. This variation is subject to language contact. Participants who are more exposed to standard Chinese, either through mass media, job markets or advanced education tend to use *-mian*. It is shown that the standard Chinese form *-mian* has outnumbered *-tou* in terms of occurrence and has become the dominant locative marker in Chengdu dialect. Multivariate analysis implied by factor weight indicates that the variable use of locative markers in Chengdu dialect can be best explained through social constraints with a ranking of age > language attitude > education level. This variation between *-tou* and *-mian* shows possible competition between local solidarity and stance-seeking in language standardization, i.e., the change from above (Labov 1972), and helps to better our understanding of convergence and divergence in language contact from the perspective of morphological variation. To our knowledge this is the first study that systematically investigates the variation of Chinese locative markers.

## 0. Introduction

The national promotion of standard Chinese (Putonghua) has yielded a mixture of locative markers *-tou* and *-mian* in the speech community of Chengdu, a provincial city in Southwest China. Very few studies have yet been initiated on the variable use of locative markers. It has been taken for granted that *-tou* tends to serve as an informal way of denoting location whereas its counterpart *-mian* more often occurs in formal context. However, in some cases, *-tou* can be used in formal settings while *-mian* can also be heard in casual conversations.

This study attempts to fill the gap by conducting a variationist analysis of the suffix *-tou*, a locative marker in Chengdu dialect and its counterpart *-mian* in standard Chinese based on the variationist sociolinguistics paradigm. We aim to address the following questions: 1) what would be the social distribution of *-tou* and *-mian* like inside Chengdu as a speech community? 2) What could be the possible linguistic and social constraints that govern the distribution of *-tou* and *-mian*? Would different contextual styles imply a different pattern? Would it be impacted by factors such as age, gender, education level and language attitude? 3) Whether the promotion of standard Chinese nationwide could further stabilize the established picture of using locative markers or is it

possible that *-mian* rather than *-tou* would dominate the suffixal status of locatives in Chengdu dialect in the near future? Finally, what would be the possible reasons for these variations?

## 1. Research background

### 1.1 Chengdu as a speech community: the social background

Chengdu, located in mid-Sichuan Southwest China, serves as the capital of Sichuan province, and has developed into one of the most important economic, commercial, cultural and education centers in Western China. Chengdu enjoys a long history of over 2,300 years and has been known as one of the ancient cities in China. During the history, it has gone through several changes in its jurisdictions and has been shaped into an administrative landscape of 11 districts, 4 county-level cities and 5 counties, far expanded than its original 3 major districts (Jinniu district, Xicheng district and Dongcheng district) (see Figure 1). Resulting from modernization and constant influx of people, the population of Chengdu has increased from the initial several million to more than tens of million. According to the data from the 2010 census promulgated by the government, there would have been more than 12,000,000 inhabitants living in Chengdu by the end of 2015, with the population ranking the fourth nationwide only after Beijing, Shanghai, and Chongqing. Noticeably speaking, the number of people coming from other places has far surpassed that of those indigenous people in Chengdu given the fact that more than 80% people living in Chengdu have migrated from other cities in and outside Sichuan province. It is therefore not hard to imagine a great possible impact of the social change upon the use of Chengdu dialect.



Figure 1 *Administrative Landscape of Chengdu*

(Note: the inner Chengdu in the map stands for the five inner districts that have been mentioned above: Jinniu district, Wuhou district, Qingyang district, Jinjiang district and Gaoxin district. Except for Jinniu district, the other 4 districts came from the original Docheng and Xicheng district).

## 1.2 Chengdu dialect: the linguistic background

Chengdu dialect is known as one of the major dialects spoken in Sichuan Province. It belongs linguistically to a sub-branch of the Huguang dialect, which, together with Nanlu dialect, forms the so-called Sichuan dialect (Qie 2015:3). Sichuan dialect came into being due to the great wave of immigration during the Ming and Qing dynasty (1368-1644). At that time, many immigrants primarily from Hubei, Hunan, and Guangdong provinces flooded into Sichuan, bringing with them their languages. Given the political and economic prominence enjoyed by Chengdu as the provincial capital, Chengdu dialect has hence evolved into the representative Sichuanese Mandarin and is spoken mainly in the urban areas, i.e. the 5 central districts, and the eastern part of Chengdu such as Qingbaijiang and Jintang county. Moreover, the existence of Hakka Chinese and Hunan dialect also contributes to the already complicated picture of the language distribution inside the city.

As a variety of the northern Mandarin dialect group, Sichuanese, as well as Chengdu dialect, bears more resemblance to standard Chinese than southeastern Chinese varieties, but is still quite divergent in phonology, vocabulary, and even grammar. There are 21 initials (syllable onsets) and 36 finals (the remainder of syllable after the initial) in Chengdu dialect (He & Rao 2014). As regards the pronunciation and intonation, Chengdu dialect shares a lot of similarities with the standard Chinese such as the lightening of voiced initials. Both the rising tone, and the light level tone can be found except that several initials in standard Chinese do not exist in Chengdu dialect: [zh], [ch], [sh] and [r] (Yuan 1983: 23). Syntactically speaking, Chengdu dialect differs from the standard Chinese in that it contains some compound sentence patterns that are typically used by Chengdu people. For instance, “V Qi<sup>2</sup> Lai<sup>3</sup>”, meaning “getting to do something”, to name only a few. As for the word formation, Chengdu dialect is famous for its noun-noun reduplication words such as “Chou<sup>1</sup> Chou<sup>0</sup>”, meaning “drawer”, “Ba<sup>4</sup> Ba<sup>0</sup>”, meaning “yard” and meanwhile, there are some typical suffixes used widely in Chengdu dialect such as “-er<sup>3</sup>”, “-zi<sup>3</sup>” that are attached to the end of the nouns to alleviate the tone of words.

## 2. Landscape of Variationist Sociolinguistics

Since Gauchat's (1905) dialect study of the French vernacular in French-speaking Switzerland, the imperceptible linguistic change has prototypically made empirical observations of language change a conceivable reality (Hockett 1958: 439). The fundamental question of how a complex yet structured system used by people to communicate evolves has given birth to a broad field of study known as Variationist Sociolinguistics, also called Language Variation and Change (LVC).

Attempting to integrate language, culture and society, variationist sociolinguists are constantly trying to find out those linguistic elements that could mark the social and cultural aspects of people in a certain speech community. It refers to the study of the interplay between variation, social meaning and the evolution and development of the

linguistic system itself (Tagliamonte 2006). The LVC approach to analyzing language in use began in the 1960s (Labov 1963). Since then, thousands of studies have been conducted under this paradigm. It has been applied in multiple languages on multiple linguistic levels. (See Jin (2012) on Korean; (Levon 2012) on Hebrew; Watson (2000) Tagliamonte (2005) on different English varieties).

LVC was built initially on the study of phonological variation (Labov 1963). The study of sound changes, particularly vowels (Clarke, Elms & Youssef 1995), and chain shifts (Labov 1991, 1994) has become the most well studied area of this field. Variables such as (-ing) and (-t, d) are the most famous ones and have been studied widely in almost every accessible English speech community. Other linguistic variations such as morphological (e.g. Poplack & Tagliamonte (1994) on plural marking; Chapman & Skousen (2005) on the adjectival negative prefix in English; Nadasdi & Mougeon et al (2008) on lexical variation in L2 French; and Rosenbach (2014) on English genitive variation), syntactic (e.g. Mondorf (2011) on English resultative constructions) and even discourse-pragmatic variations (e.g. Andersen 2001; D'Arcy 2006) are also widely explored. As variation is inherent in language (Labov 1963), variation in word formation should not be unimaginative and unconceivable.

### 3. Choosing the linguistic variable

Variation occurs when there are more than two alternative ways of saying the same thing. Therefore, a linguistic variable refers to the alternation of forms, or “layering” of forms in language (Tagliamonte 2012). It can be morphosyntactic, phonological or lexical. The one and most important fact for linguistic variables is that they do not vary haphazardly but systematically, which hence renders the quantitative modelling, i.e., to correlate linguistic variation as the dependent variable with independent variables a possibility (Chambers 2003:17). These independent variables, often known as constraints, can be linguistic (discourse and prosodic) and social (social class, gender, age, language attitude, education level, style). Besides, linguistic variables can be further classified into indicators, markers and stereotypes<sup>1</sup> in terms of their relationships with social class (Labov 1972c: 237). An ideal linguistic variable should be 1) high in frequency in undirected natural conversations; 2) structural in the sense that the item is integrated into a larger system of functioning units; and 3) highly stratified so as to have ‘an asymmetric distribution’ over a wide range of age levels or other ordered strata of the society (Labov 1972c).

In Chinese, the suffix *-tou* has several grammatical roles. It can be a nominal suffix, e.g. *kan-tou* (look-head) ‘being worth watching and appreciating’. Besides, the suffix *-tou* can also be a locative marker as in *shang-tou* (up-head) ‘on top of’. In

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<sup>1</sup> “A linguistic variable is referred to as an indicator if it correlates with social class, but does not vary by style. Linguistic variables are “markers” when they exhibit both class differences and stylistic stratification. Linguistic stereotypes are linguistic variables that are overtly recognized and often these features are highly stigmatized” (Tagliamonte 2012).

## LI: CHENGDU DIALECT

Chengdu dialect, there are two types of *-tou* when it functions as a locative marker: the categorical *-tou*, i.e., the dialectal usage of *-tou*, and the non-categorical *-tou*. The categorical *-tou* can be attached to substantive nouns of location without locative particles such as *wu-tou* (house-head) ‘inside the room’. In this sense, *-tou* serves as the abbreviated form for *li-tou* (inside-head) ‘inside’. Chengdu people are inclined to add *-tou* directly to all kinds of place nouns, be it a mono-morphemic localizer or a localizer complex. Words such as *wu-tou* (house-head) ‘inside a room’ or *xuexiao-tou* (school-head) ‘inside the school’ are all abbreviated equivalents to their complete forms *wu li-tou* or *xuexiao li-tou* where *-tou* directly follows the localizer *li* (meter) ‘inside’. Quite a number of examples of such dialectal expressions regarding the usage of locative marker *-tou* could be found in one of the earliest textbooks on Chengdu dialect written by a Canadian missionary (Kilbon 1917). Even though Tai (1987) has claimed that before Sui dynasty, suffix *-tou* was mainly discovered after place nouns and did not extend its use to follow other nouns until Tang dynasty, mystery still remains as to whether the categorical *-tou* in Chengdu dialect exactly forms in the period of Sui.

In standard Chinese, however, no expressions such as *wu-mian* (room-face) is allowed. Locative markers have to be attached to localizers. Mono-morphemic localizers with markers therefore are more likely to emerge as *li-mian* (inside-face) ‘inside’, *wai-mian* (outside-face) ‘outside’. These forms should be more frequently used than their dialectal counterparts *li-tou* (inside-head) ‘inside’, *wai-tou* (outside-head) ‘outside’ in those public settings such as conference rooms, schools or on mass media. Variation only exists between *wu-li-tou* and *wu-li-mian*, i.e., localizer-*tou*. A more detailed comparison concerning the interchangeable use of locative markers between Chengdu dialect and standard Chinese can be seen as follows in Table 1.

Table 1 *Potential (-tou, mian) variable*

Meaning	Chengdu dialect	standard Chinese
“on/above”	shang <sup>213</sup> /kau <sup>45</sup> tou <sup>21</sup> (“up/tall-tou”)	shang <sup>4</sup> mian <sup>0</sup> (“up-mian”)
“below”	xia <sup>213</sup> tou <sup>21</sup> (“down-tou”)	xia <sup>4</sup> mian <sup>0</sup> (“down-mian”)
“front”	qian <sup>213</sup> tou <sup>21</sup> (“front-tou”)	qian <sup>2</sup> mian <sup>0</sup> (“front-mian”)
“back”	hou <sup>213</sup> tou <sup>21</sup> (“behind-tou”)	hou <sup>4</sup> mian <sup>0</sup> (“behind-mian”)
“inside”	li <sup>42</sup> /hou <sup>13</sup> tou <sup>21</sup> (“inside-tou”)	li <sup>3</sup> mian <sup>0</sup> (“inside-mian”)
“outside”	wai <sup>213</sup> tou <sup>21</sup> (“outside-tou”)	wai <sup>4</sup> mian <sup>0</sup> (“outside-mian”)

The variation between *-tou* and *-mian* can be interpreted in terms of variable rules under the LVC paradigm because it meets the three criteria for a variable rule analysis (Sankoff 1986:3), which has validated the rationale and feasibility behind this study: 1) the variable phenomenon is basically derived from the speaker’s choice between the two variants (i.e. use or ellipsis of the locative markers) in his/her performance; 2) A choice

of either inclusion or ellipsis is not immediately predictable from looking at a variety of possible relevant contextual information such as phonological environment, style, and socio-demographic characteristics of the speaker or other participants; 3) The speaker's choice is not based on a random application of optional rules, but seems to recur with some regularities and tendencies in the raw speech data.

In ideal cases where there involves no language variation and change, it is assumed that people should distinguish these two variants in different settings and among different people. However, in Chengdu the promotion of standard language has gradually made us hear both *-tou* and *-mian* on various occasions, formal and informal. Since linguistic variables must be alternatives within the same grammatical system which have the same referential value in running discourse (Sankoff 1988a: 142-143), the variation between *-tou* and *-mian* indicates a potential variable that might shed light upon a possible ongoing language change.

#### 4. Method

##### 4.1 Participants

A total of 40 native speakers of Chengdu dialect (Male 19; Female 21) participated into this study. All of them were contacted through a social network approach, i.e. the 'friend of a friend' (Milroy 1980). They have been living in the urban areas of Chengdu since they were born. Given their residence area, daily language use as well as cultural tradition that has been inherited, they should belong to the same speech community (Bloomfield 1933; Hockett 1958; Lyons 1970; Hudson 2000). Since the jurisdiction of Chengdu has extended to many counties, we confined our sampling to people from the 9 major districts that have been formed in a considerable period of time in history (Jinjiang district, Qingyang district, Jinniu district, Wuhou district, Chenghua district, Wenjiang district, Xindu district, Longquan county and Qingbaijiang district).

In our study, most of the 40 participants came from Jinniu district, one of the three oldest districts. Only a few came from Xindu and Qingyang district. Out of the consideration of the status quo of the population in the city and the high fluidity of people that has led to the severe unbalanced distribution and loss of the indigenous people as well as the feasibility of the project, we chose to set our standard for participants as who were born in Chengdu and had no previous experience of living in places beyond Sichuan. Resorting to the norm of stratified random sampling (Milroy and Gordon 2003: 30) conducted in sociolinguistic studies, all of the participants were stratified according to their gender, age and education level (see Table 2):

Table 2 *Stratified random sampling of participants*

	Female			Male		
	Low	Medium	High	Low	Medium	High
15-20	0	6	0	0	5	0
20-30	0	1	6	1	1	2
>35	5	2	1	7	3	0

All the participants were divided into 3 groups due to their age discrepancies on the ground that the number of females and males were balanced: people aged between 15 and 20 formed Group 1 (Mean age: 17.8), Group 2 consisted of people whose age was between 20 and 30 (Mean age: 25.1), and people aged more than 35 years old were included into Group 3 (Mean age: 53.7), with one aged 36, nine aged 40 to 50 and eight aged more than 50. Among all the participants, the youngest one was 17 years old while the oldest was aged 74. At the same time, since the education level might be positively related to the proficiency of standard Chinese, which could further influence the use of Chengdu dialect, therefore, the education level of the participants has been taken into account as a potential factor in the process of stratified sampling. As shown in the table above, “Low” stands for “a low level of education”, i.e. those whose highest education refers to the junior high school or below. Following the same rationale, “Medium” (a medium level of education) refers to those who are high school graduates. “High” (a high level of education) represents those who have studied at college or higher-level. If a participant went to high school for only 2 years and did not finish his/her 3<sup>rd</sup> year study, his/ her education level would still be described as “medium”.

No participant aged between 15 and 20 received higher education because at their age they were supposed to go to either middle or high school. Besides, with the implement of the 9-year compulsory education program in China and the drastic reduction in illiteracy, the number of city residents who stopped receiving education after they were graduated from primary school has been diminishing dramatically.

In addition, a monolingual speaker of Mandarin Chinese, a native speaker of Beijing dialect was interviewed as our baseline to validate this contact given that Beijing dialect has been considered as the primary dialectal source for standard Mandarin (Li 1957). We observed that he did not use the locative marker *-tou*.

## 4.2 Data collection

Sociolinguistic interviews (Labov 1972c), picture descriptions, and question-answering pairs were employed as primary means for data collection, followed by a questionnaire scoring the language attitude of the participants. We made reference to both Labov’s (1966) model of elicitation and Briggs’ (1986) model of open-ended conversation for eliciting relevant data.

### 4.2.1 Sociolinguistic interview

Sociolinguistic interview was adopted to elicit as much spontaneous speech as possible. During the interviews, Chengdu dialect was used only. All the interviews were recorded through voice recorder. And all the participants were informed in advance that their talking would be recorded during the whole interview but would only be used for the sake of research. The interviews were conducted in places chosen beforehand by the

participants based on their convenience, either at their home or the interviewer's home or some public places where the quality of the recording could at least be guaranteed. To ease the anxiety and tension caused by the recording device, the recorder was kept out of the sight of the participants during the whole process. To ensure the continuity and stability of narratives, each individual interview lasted at least for 40 minutes. In the end, most of the recordings we obtained lasted between 1 and 1.5 hours.

Each participant was encouraged to take an active part by telling stories that suited their own personal interests. Each interview began with some general introduction of the interviewer, after which some open questions were asked based on their preferences such as “have you ever had any nightmares?” or “have you ever been in danger?”. Inquiries concerning their basic information were also made in the interview.

The possibility of observing people as if they were not being observed is the essential task of sociolinguistic fieldwork (Tagliamonte 2015: 104). In order to avoid the “observer's paradox” (Labov 1972b: 209), i.e. to guarantee each conversation could reflect the natural-occurring speech of the participants. Not only the questions asked were tailored to suit different types of people with different personalities, the form of interviews conducted was also adjusted for data collection. If the participant was the friend of the interviewer, the interview was carried out between the interviewer and participant; if two participants were friends, both of them would participate into the same interview in a form of group interaction on a free-talk mode, with the interviewer mainly doing some recording and observation, if necessary, offering topics for discussion. If the participants were familiar with some friend of the interviewer, this friend would interview the participant on behalf of the interviewer. At last, the recording of more than 40 hours was collected and qualified as our data for further analysis.

#### *4.2.2 Picture description*

The dimension of formality reflects the extent to which the speaker pays attention; ‘styles can be ranged along a single dimension, measured by the amount of attention paid to speech’ (Labov 1970). Therefore, to further investigate the impact of style variation on the daily use of locative markers, participants were also required to describe an assigned picture apart from the first part of story-telling. The picture depicts a room where a table, a lamp and some toys are put in different places, which means that the participant would have to describe the exact location of each object in order to finish this task and in their descriptions, multiple tokens of locative markers would then be elicited.

#### *4.2.3 Question-answering pairs*

After the picture description, we questioned our participants about the relative location of the subject involved in another 9 pictures with simple drawings, while the participants only needed to answer our questions with one sentence. For instance, for the questions in the format of “where is ‘A’”, the participant should answer as “‘A’ is at...”. Four pictures aimed for interference, which suggests that participants did not need to use



either *-tou* or *-mian* to form locative markers. From the free interview to picture description and finally to question-answer pairs, the language style becomes more formal, which according to Labov indicates the increasing attention attached to the language used in these tasks on part of the participants (Labov 1963). The impact of the standard Chinese could also possibly be sensed throughout. Nevertheless, due to the fact that some senior participants failed to understand the second and third task, we lacked some data from the picture description and question-answer pairs.

#### 4.2.4 Questionnaire on language attitude

Language attitudes refers to those toward different languages, dialects, accents and speakers. Language attitude to some extent could reflect both positive and negative attitudes held by the members from a speech community towards the language used inside the community as well as their willingness to get involved into the community affairs (Guo 2013: 406). It is hence reasonable to argue for the important role played by language attitude for the individual linguistic behaviors and even the development and death of languages (Xu 2006: 80). Fairly speaking, language attitude serves as a window to better understand the status quo of a certain language.

After the interview, all the participants took an online survey of 30 questions concerning their language attitude towards Chengdu dialect. The questionnaire was not arranged until the end of the interview given that the questions asked in the questionnaire might intervene the interview, since participants might become more conscious of wording their utterances as they were able to figure out our research purpose (Michol & James 2010). All the questions were presented in a form of multiple choice for the purpose of time saving except that two questions about name and birthplace needed to be filled out manually. We tried to examine the bonding showed by the participants according to their preferences to speak Chengdu dialect or Putonghua and the degree of willingness to live in and work for the local community. To make sure the questions were answered accurately, some of the crucial questions would again be mentioned during the interview in case there would be any inconsistencies in information provided.

### 4.3 Data processing

All the data was transcribed into local and standard Chinese. To guarantee the validity of spontaneous speech, neither the beginning nor the final 15 minutes were transcribed. Besides, we excluded three exceptions: 1) those sentences where neither *-tou* nor *-mian* was used e.g., *Ta zai wu li-Φ* (She at house inside) ‘She is at home’; 2) the token that was repeated for the purpose of clarification; 3) tokens embedded with other locative markers such as *-fang* or *-bian*, such as *Gou zai zhuo zi de xia-fang* (Dog at table DE under-LOC) ‘The dog is under the table’.<sup>2</sup> Meanwhile, for those cases in which two

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<sup>2</sup> Tokens that involve locative markers such as *-fang* or *-bian* were so rare so that we did not include in our data analysis.

locative markers appeared as reduplication in one sentence, we counted them as only one qualified token. A collection of 1,636 tokens with *-tou* and *-mian* was extracted and coded for both linguistic (grammatical function and contextual styles) and social factors (language attitude, gender, age and education).

- (1) *Ta jiu shi zai wu-li-tou gei wo zhufan naxie ma.*  
 she just is at home-inside-**loc** for me cook those particle.  
 ‘She just does some cooking for me at home’. (01/ F/Z/ 037) <sup>3</sup>
- (2) *Zhuozi Shang-mian shi wugui.*  
 table on-**loc** is turtle.  
 ‘There is a turtle on the table’. (01/F/K/035)
- (3) *Yu zai yugang li-mian.*  
 fish at fish-tank inside-**loc**.  
 ‘The fish is inside the fish tank’. (01/F/W/045)

All of these factors were analyzed with Goldvarb 2.0 (Sankoff, Tagliamonte, and Smith 2012), which was built upon multivariate logistic regression.

## 5. Results and discussion

### 5.1 Descriptive results of language attitude.

Since our goal in this research is to determine the effect of language attitude on people’s linguistic behavior, specifically—preferences for locative markers, we expect that those participants with more positive language attitude would differ linguistically from those speakers with negative language attitude, that is, people who personally cling to Chengdu speech are more likely to display higher frequencies of the local linguistic forms in their language pool, i.e. the variant *-tou*.

We began by scoring between 1 and 5 each informant’s response to each question in the questionnaire, with 1 representing the least engagement in the local community while 5 standing for the maximum involvement, and 2 to 4 implying an intermediate or mixed response in the continuum (e.g. hate-1, dislike-2, unsure/both are acceptable-3, like-4, love-5). For instance, in terms of the question on ‘which language do the informants prefer to use on daily occasions’, those who responded “Chengdu dialect” received a score of 5, and the response saying “standard Mandarin” gained a score of 1 since it suggests a less inclination towards the vernacular Chengdu speech. Those replies ranged in the continuum would be scored from 2 to 4, with 3 indicating vague answers like “don’t know”.

We added up the scores of total 30 questions and arrived at a language attitude index score for each informant. It turned out that the score for language attitude ranged from 61 to 85, with a mean score of 75.82, as shown in Figure 2. Despite personal

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<sup>3</sup> 01: Informant Number; F: Female; Z: Sociolinguistic interview; 037: Sentence Number

differences in terms of their language attitudes, no participant said that he/she hated to live in Chengdu. Meanwhile, nobody disagreed on the language policy of promoting standard Mandarin nationwide and almost every participant considered it an indispensable living skill to speak Putonghua. Pearson tests proved considerable correlation between the language attitude and frequency of *-tou* (Correlation =.512,  $P < 0.001$ ).

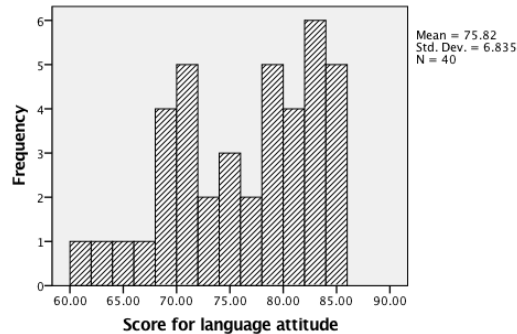


Figure 2: Score for language attitude

## 5.2 Results based on a variable rule analysis

Several results have been obtained based on variable rule analysis. First, *-tou* occurs with a frequency of 42.8% and *-mian* accounts for 57.2% in our data, indicating that both suffixes were commonly used in Chengdu while the standard Chinese form *-mian* has outnumbered the local variant *-tou* and come to dominate.

Table 3 summarizes the linguistic factors that would contribute to the use of *-tou* in Chengdu dialect: indicated by the factor weight, contextual style played a major role in the diffusion of *-tou* and *-mian*, with *-tou* being negatively related with formal styles, i.e. casual interview or narrative telling favored the vernacular *-tou* while picture description and question-answering pairs favored the standard variant *-mian*. Even though there exists a slight difference between the picture description and question-answering pairs as regards the use of *-tou*, it is not as significant as the variation between the most informal and formal end. As for the grammatical role, time adverbial has become the primary grammatical function that governs the distribution of *-tou*. The claim proposed by Chao (2011) that *-tou* in the compound form *hou-tou* is used more in a spatial meaning than in a temporal sense thus has been reversed. Our data has presented a higher frequency in instances where *-tou* has been used for denoting time adverbial than its role for place adverbial. Moreover, even though contextual style has displayed a stronger effect (range=37, compared with 27 for the grammatical role), it is not decisive, for we normally consider one constraint to be the main effect when the range of the factor group exceeds 50 (Walker 2010).

Table 3 *Linguistic factors contributing to the use of -tou in Chengdu dialect*

## LI: CHENGDU DIALECT

Total N: 1636			
Input: .390			
		%	N
<b>Contextual Style</b>			
Narrative	.609	52.6	602
Picture description	.294	21.2	52
Question answering	.234	19.0	47
<i>Range:</i>	<b>37</b>		
<b>Grammatical Role</b>			
Spatial adverbial	.420	35.3	421
Temporal adverbial	.698	63.9	290
<i>Range:</i>	<b>27</b>		

Among social variables, the overall hierarchy of constraints (Tagliamonte 2006) implied by the relative factor weight indicates that age acted as a major social constraint, which impacted the distribution of *-tou* more than language attitude and education level. Statistically, adolescent females with a mean age of 17 years old and middle-aged males were more likely to use the Chengdu dialectal suffix *-tou*. By contrast, participants in their twenties, either female or male, tended to use the Mandarin variant *-mian*. This reflects that age has exceeded gender in terms of their influence on the distribution of *-tou* and its Mandarin counterpart *-mian* in the Chengdu speech community.

Moreover, our data displays an age grading pattern (Labov 1994: 84). Age grading refers to a systematic phenomenon in language use as people of different ages use language differently simply because they are at different stages in their life. The V-shaped age distribution indicated by factor weight as shown below in Figure 3 that both the youngest and oldest speakers in our sample are inclined to use *-tou* more frequently reflects a classic pattern of age grading (Downes 1984: 191). It works as if when people are in their working age, societal pressure, job advancement and child rearing come to the fore, they are likely to become more conservative (Tagliamonte 2012) and thus are most likely to recognize the society's speech norms and use the fewest vernacular forms (Holmes 1992).

Table 4 *Social factors contributing to the use of -tou in Chengdu dialect*

Total N: 1636			
Input: .390			
		%	N
<b>Age &amp; Gender</b>			
Adolescent Female	.836	51.4	149
Adolescent Male	.609	35.2	117

## LI: CHENGDU DIALECT

Young Female	.289	31.4	112
Young Male	.203	28.0	52
Middle-aged Female	.366	52.6	159
Middle-aged Male	.665	68.2	122
Range:	<b>63</b>		
<b>Education level</b>			
<=junior high school	.629	59.5	207
<=high school	.370	37.2	346
<=college	.699	42.9	158
Range:	<b>33</b>		
<b>Language attitude</b>			
Positive	.777	63.6	419
Negative	.303	29.6	292
Range:	<b>47</b>		

In our data, the vernacular form, i.e. the suffix *-tou* shows the lowest percentage among people who are in their twenties, suggesting the role played by the linguistic market as the standard form, i.e. *-mian* is much preferred in the working environment, given that Putonghua has become the main working language nationwide. As for those who are the youngest and the oldest in our sample, social pressure reduces as they are still in school or out of the workforce, rendering the non-prestigious form resurface (Cheshire 2005: 1555; Downes 1998: 24; Labov 1994: 73).

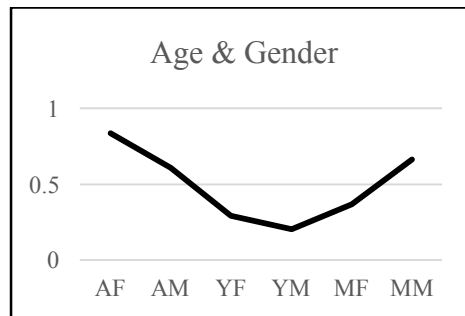


Figure 3 *The age & gender effect in the distribution of -tou*

(Note: AF=Adolescent Female; AM=Adolescent Male; YF=Young Female; YM=Young Male; MF=Middle-aged Female; MM=Middle-aged Male; the y-axis represents the factor weight of the constraint; this figure shows the correspondent factor weight showed by each social group).

It is fair to say that positive language attitude caused *-tou* to occur with higher frequency (63.6%) than *-mian*. By contrast, negative language attitude guaranteed only a 29.6% usage of *-tou*. This variation suggests that language attitude plays an important role in the dynamics of language change (Preston 2003).

Finally, education level turned out to be the least significant factor in determining the distribution of *-tou* and *-mian*. Informants at both high and low level preferred to use *-tou*. Because the interviewers were of the same age and had maintained personal connections with these informants, the strong bias of informants in higher education towards the vernacular language rather than the standard form might be caused by an

## LI: CHENGDU DIALECT

inter-speaker variation, i.e., speakers tend to use more vernacular variants when talking with peer groups than with an unfamiliar interviewer (Fasold 1972). While for those who have low level of schooling, they are less likely to be exposed to standard language in a systematic way, hence resulting in a comparatively higher percentage of the local variant.

We drew from our data the most favorable environment for *-tou* to occur: adolescent females > positive language attitude > high-level education > temporal adverbial > middle-aged males > low-level education > narrative setting > adolescent males > place adverbial > mid-level education > middle-aged females > negative language attitude > picture-description setting > question-answering pairs > young females > young males. That is, an adolescent female with positive language attitude towards Chengdu dialect is most likely to use *-tou* as the locative marker in her daily speech. It can also be discerned that social factors have displayed stronger effects than linguistic factors on the distribution of *-tou* inside the Chengdu speech community. Although Chao (2011) remarks that the suffix *-mian* is less common than *-tou*, our study proves a possible ongoing language change with the increasing use of *-mian*.

Grammaticalization has been understood as the evolution of lexical items into grammatical forms and the process of content words into functional apparatus of the grammar (Tagliamonte 2012). Heine (1991) mentions four primary grammaticalization mechanisms in terms of different linguistic levels: de-semanticization (loss of semantic content); extension (generalization of forms to new contexts); de-categorization (loss of morphological or morphosyntactic information) and erosion (loss of phonological features). Historical linguistic facts tell us that the grammaticalization of *-tou* started initially from its lexical meaning of 'head'. The competition between *-tou* and *-mian* in Chengdu dialect as alternatives of locative markers provides evidence for the stage of 'layering', i.e. the coexistence of the emerging forms with an already existing layer of functionally equivalent ones (Hopper and Traugott 1993).

As the marker *-tou* undergoes the longitudinal grammaticalization from a lexical morpheme to a locative marker and then to a discourse function element for the sake of speech fluency, some forms stand out, allowing meaning extension. For instance, the sub-variant form "hou-tou" can not only act as a locative marker to denote spatial and temporal relations but also has become a discourse marker to connect the flow of speech. In this sense, it always emerges as a combination of *ranhou* 'then' and *hou-tou* 'behind', where *hou-tou* sounds semantically weak in terms of its original sense as the locative marker to denote time and place. Therefore, we observed a gradual weakening of the early association of *-tou* with location and a shift of its role in temporal contexts and as a discourse connector. This also explains the high frequency of *-tou* to express temporal sense in our data.

Kiparsky (1982) proposes that the interpretation of a compound or a stem-affix combination should be subject to one restriction that the resulting meaning should not have been already expressed by an existing lexical item. Since the result of every stage of derivation is a lexical item, the output of a lexical rule may not be synonymous with an

existing lexical item. This is called the “Avoid Synonymy” principle. In this case, if an existing word covers the entire meaning range of the derived word, we get complete blocking. We therefore extend its feasibility by arguing that two synonymous morphemes avoid the same social context. In this sense, if two lexical forms share the same grammatical function and meaning, they tend to differ in their social connotations. For instance, both *shang-tou* and *shang-mian* mean “on top of”. Nevertheless, they work under different contextual constraints and are preferred by different social groups with different language attitudes. In this sense, synonyms are avoided.

Language convergence and divergence refers respectively to an increase and decrease in similarities between dialects in language contact (Hinskens, Auer & Kerswill 2005). The promotion of standard language is irreversible. The convergence of Chengdu dialect towards the standard Chinese, i.e. the increasing use of *-mian* implies its partial giving up of local features to the incoming prestigious form, i.e. the change from above (Labov 1972), while its divergence from standard Chinese by keeping its categorical use of *-tou* displays the local solidarity on part of Chengdu people.

## 6. Conclusion

Since Chao (2011) remarks that the suffix *-mian* is less common than *-tou*, our study proves an ongoing language change with an increasing use of *-mian*. This study contributes to the variationist sociolinguistic literature with evidence from the Chinese dialect. It concludes that the Labovian paradigm (Labov 1966) successfully accounts for the variation of suffixes in Chengdu dialect: the vernacular form *-tou* coexists with the standard form *-mian* as patterned heterogeneous locative markers. Speakers in Chengdu have access to both codes. This proves that the Chomskyan asocial linguistics is fundamentally incomplete to account for all the linguistic facts in reality, proposing the study of language in its social contexts. It is also shown that social factors have surpassed the linguistic constraints in governing the distribution of *-tou* (Age & gender > language attitude > contextual style > grammatical function). Moreover, the persistence of both categorical *-tou* and the non-categorical *-tou* embodies possible competition between solidarity and stance-seeking in language standardization and helps to better our understanding of the convergence and divergence in language contact (Wolfram & Thomas 2002) with morphological evidence from a non-European language.

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