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VARIATION IN SUBJECT PRONOMINAL EXPRESSION IN L2 CHINESE

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This study investigates subject pronominal expression in second language Chinese and compares learner usage with patterns found in their first language. The results show that (a) overt pronouns are used more for singular, +animate subjects than plural, –animate ones; (b) switch in subject surface form favors overt pronouns; (c) English and Russian speakers use overt pronouns more than Korean and Japanese speakers; (d) statements favor overt pronouns most, followed by questions and then imperatives; (e) females use overt pronouns more than males; (f) conversations slightly favor overt pronouns, whereas narratives favor null pronouns; (g) higher proficiency learners across language groups use more null subject referents than do lower proficiency learners; and (h) nonspecific subject referents promote null subjects. Comparison results show that learner patterns are similar to those of their native speaker peers on most dimensions explored except that they tend to overuse overt pronouns. That is, the learners have acquired the subject pronoun use pattern in Chinese rather successfully but need to further develop their sociolinguistic competence regarding null pronoun usage.

Research on second language (L2) variation has been growing rapidly since the introduction of the variationist paradigm into SLA in the 1970s

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(e.g., Adamson, 1988; Bayley, 1994, 1996; Dewaele, 2004a; Dickerson, 1974; Geeslin & Gudmestad, 2010; Preston, 1996, 2000; Regan, 1996; Tarone, 1979, 1982, 1985, 2007; Tarone & Parish, 1988; Wolfram, 1985; Young, 1991). The variationist approach regards learner speech as a valid language system that provides a valuable resource to understand L2 acquisition within a social context. According to Romaine (2003), L2 variation studies have "marked an important paradigm shift in the field of SLA" from contrastive and error analysis to "the notion of SLA as a dynamic process characterized in terms of a variable and changing system over time" (pp. 409–410).

The sociolinguistic variable of subject pronominal expression is widely studied in languages such as first language (L1) Spanish and Portuguese (e.g., Ávila-Jiménez, 1996; Bayley & Pease-Alvarez, 1996; Cameron, 1993; Lira, 1982; Otheguy, Zentella, & Livert, 2007), which are inflectional languages. The rich agreement system in inflectional languages helps to identify null subjects (Jaeggli & Hyam, 1988), whereas noninflectional languages that lack agreement morphology are more discourse oriented (Huang, 1984). Indeed, most general interlanguage variation studies have focused on inflectional languages such as English (Bayley, 1994, 1996; Wolfram, 1985; Young, 1991), French (Dewaele, 1999, 2004a, 2004b; Mougeon & Rehner, 2001; Mougeon, Rehner, & Nadasdi, 2004; Regan, 1996; Rehner & Mougeon, 1999; Rehner, Mougeon, & Nadasdi, 2003; Sax, 2003), and Spanish (Geeslin, 2003; Geeslin & Gudmestad, 2010; Geeslin & Guijarro-Fuentes, 2006; Gudmestad, 2006, 2008). However, few variationist studies of subject pronominal expression have focused on Mandarin Chinese (hereafter Chinese)—a noninflectional language—as a L1 (Jia & Bayley, 2002; X. Li, Chen, & Chen, 2012), and none has focused on L2 Chinese. Most studies of this language feature in L2 Chinese fall under a principles and parameters framework (J. S. Chen, 2001; Jin, 1994; Wang, Lillo-Martin, & Best, 1992). This study, therefore, adds to our understanding of both Chinese as a second language (CSL) and interlanguage variation by utilizing the variationist paradigm to investigate the use of subject pronominal expression by CSL learners.

In Chinese, pronominal subjects may be expressed by a lexical pronoun or as null, as shown in the example in (1)[1]

(1) 他 没 学 过 汉语， Ø 一点儿 也 不 会 说 (Fen)
tā méi xué guò hànyǔ, Ø yīdiǎnr yě bù huì shuō
He not learn-EXP[2] Chinese, Ø a:little also not can speak
"He has never learned Chinese, and he can't speak it at all."

In (1), the first mention of the subject is expressed with a lexical pronoun, 他 "he," and the second mention of the same subject is omitted. However, because the omission of the lexical pronoun is not obligatory, the purpose of this study is twofold: One purpose is to examine subject

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pronoun use by high-intermediate and advanced CSL learners; the other is to compare learner patterns with Chinese L1 patterns (X. Li et al., 2012).[3] The research questions are the following:

1. What are the patterns of variation in CSL learners' subject pronoun use?
2. Are CSL learner patterns different from those of native speakers (NSs)? If so, how and why?
3. What are the effects of the following factors on CSL learners' subject pronoun use: (a) coreference, (b) subject person and number, (c) sentence type, (d) specificity of subject referent, (e) discourse context, (f) gender, (g) native language, (h) length of residence in China, and (i) proficiency level?

BACKGROUND

Interlanguage Variation Studies

The variationist paradigm in language study was pioneered by Labov (1963, 1966, 1972) with the basic assumption that variation in language use is highly systematic and characterized by "orderly heterogeneity" (Weinreich, Labov, & Herzog, 1968, p. 100). Drawing on the variationist or Labovian approach, in the 1970s, SLA researchers started to examine how and under what conditions L2 learners demonstrate variation in their interlanguage (or learner speech; Selinker, 1992) with the assumptions that (a) interlanguage is a valid language system and (b) L2 variation is also systematic (e.g., Dickerson, 1974, 1975; Tarone, 1979, 1982, 1983, 1985; Tarone & Parish, 1988; Wolfram, 1985).

So far, studies that examine variation in learner speech fall into two major strands. The first strand focuses on the acquisition of obligatory language structures in the target language (e.g., plural marking in English; see Young, 1991). The other strand looks at the acquisition of linguistic features in which NSs show variable use (e.g., deletion of the negative particle *ne* in French; see Regan, 1995, 1996; Rehner & Mougeon, 1999). Variable usage of obligatory structures is referred to as *vertical variation* (Corder, 1981) or *Type 1 variation* (Mougeon et al., 2004), whereas variable usage of variable structures is known as *horizontal variation* (Corder, 1981) or *Type 2 variation* (Mougeon et al., 2004). In learner production, Type 1 variation can be identified as grammatically correct or incorrect; however, Type 2 variation presents a much more complicated picture in which multiple—often cointeracting—factors come into play. Because learners need to learn not only to produce grammatically correct sentences but also to shift their speech styles according to the social context, knowledge of both types of variation is an integral part of L2 acquisition and the development of sociolinguistic competence. This study focuses on Type 2 variation—that is, the alternation between overt pronoun and null form in the subject position by CSL learners.

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According to Bayley and Regan (2004), research that investigates Type 2 variation in learner production centers around (a) whether or not learner patterns differ from NS patterns (and, if so, how and why), (b) what the acquisition process looks like, and (c) the effects of social and educational factors. A considerable number of studies have been conducted along this line of research and have demonstrated that, despite the complicated nature of the acquisition process, learner production of Type 2 variation is systematic and constrained by various linguistic, social, educational, and developmental factors (e.g., Bayley, 1996; Dewaele, 2004a, 2004b; Dewaele & Mougeon, 2004; X. Li, 2010; Mougeon et al., 2004; Regan, 1996; Rehner et al., 2003). The quantitative variationist research design (i.e., multivariate analysis) adopted by these studies is particularly well suited to L2 learner production because it can account for the effects of multiple factors relative to one another (Bayley, 2002).

Existing studies of L2 variation have explored a variety of predictors of learners' use of variable structures in the target language, among the most common of which is the linguistic environment of the target variant. Other predictors include (but are not limited to) speaker gender (e.g., Adamson & Regan, 1991; Major, 2004), interlocutor ethnic identity (Beebe, 1977, 1980), task (Tarone & Parish, 1988), native language (e.g., Ghafarsamar, 2000), proficiency level (e.g., Sax, 2003), social network (e.g., Bayley, 1996), social class of the speakers (Mougeon & Rehner, 2001), length of residence in the target language environment (e.g., X. Li, 2010; Rehner et al., 2003), exposure to target language media (e.g., Mougeon & Rehner, 2001; Mougeon et al., 2004), educational input (e.g., Mougeon et al., 2004), interlocutor's ethnicity (e.g., Bayley, 1994; Young, 1991), and even speaker personality (e.g., Dewaele, 2004b; Dewaele & Furnham, 1999). In this section, my review focuses on the previous findings that are relevant to the current study—that is, how speaker gender, proficiency level, length of residence in the target language environment, and native language affect the acquisition of target language variation.

The effect of speaker gender on speech has been examined in many studies, and several studies have shown that female learners tend to produce more formal, standard language forms than male learners do (e.g., Adamson & Regan, 1991; X. Li, 2010; Major, 2004). Studies have also shown that learners go through a developmental language change process in that, as their proficiency level increases, their language use patterns become closer to NS patterns (Bayley, 1996; Ghafarsamar, 2000; X. Li, 2010; Sax, 2003). Additionally, a longer stay in the target language environment favors real-life NS patterns (Nagy, Blondeau, & Auger, 2003; Regan, 1995, 1996, 2004; Rehner et al., 2003; Sax, 2003; Thomas, 2004).

Whereas speaker gender, proficiency level, and length of residence tend to yield predictable results, previous studies have not reached a consensus on the effect of the L1 on the acquisition of Type 2 variation.

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For example, findings from studies of French L2 variation, which have investigated a number of syntactic, lexical, and phonological variables, have demonstrated the importance of the role that the learners' L1 plays on the acquisition of nativelike sociolinguistic variation in spoken French (Dewaele, 1999; Mougeon et al., 2004; Trevise & Noyau, 1984). In other studies, however, native language has played a relatively trivial role (see Ghafarsamar's, 2000, study of the acquisition of the contraction of auxiliary verbs, relative pronouns, and resumptive pronouns by Persian learners of English as a L2). X. Li (2010) studied L2 variation in the acquisition of the Chinese morphosyntactic particle *de* by high-intermediate and advanced learners from four native language backgrounds. Native language was found to play a trivial role in the use of L2 sociolinguistic variants when learners reached a relatively high proficiency level.

Variation of Subject Expressions in the L1 and L2

Studies of subject pronoun use in L1 Spanish and Portuguese have shown that subject person, number, and referent switch are the main linguistic factors that constrain subject expression (Ávila-Jiménez, 1996; Bayley & Pease-Alvarez, 1996, 1997; Bentivoglio, 1980, 1987; Cameron, 1992; Cameron & Flores-Ferrán, 2004; Flores-Ferrán, 2002, 2004, 2007; Otheguy et al., 2007; Silva-Corvalán, 1982, 1994). General patterns show that (a) singular subjects favor overt pronouns, whereas plural subjects favor null pronouns and (b) overt pronouns tend to be used when there is a switch in subject referent, whereas no switch favors null. Another factor that has been explored is specificity of the subject referent, with results varying between different varieties of Spanish (Ávila-Jiménez, 1996; Cameron, 1992; Flores-Ferrán, 2002, 2004; Otheguy et al., 2007). Cameron (1992) found that, in Puerto Rican Spanish, subject pronoun realization is associated more with nonspecific, second-person singular *tú* than with specific *tú*, but he found the opposite pattern in Madrilenian Spanish. Additionally, in Puerto Rican Spanish, subject nonspecificity favored an overt pronoun for second- and third-person singular subjects but favored a null pronoun for third-person plural subjects. The effect of specificity was only considered for second-person singular subjects in Otheguy et al. (2007). The results showed an effect for different levels of specificity among Spanish speakers in New York City from different regions (i.e., Caribbeans vs. mainlanders) and different generations (i.e., newcomers vs. those born and raised in New York). For newcomer speakers from the Caribbean, both specific and nonspecific subject referents favored overt pronouns; however, for newcomer mainlanders, nonspecific subject referents favored null pronouns, whereas specific

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subject referents were not significant. For those speakers who were born and raised in New York, specific subject referents favored overt pronouns for both Caribbeans and mainlanders, whereas nonspecific subject referents favored overt pronouns in Caribbean speakers but were neutral for mainlanders.

Jia and Bayley (2002) was the first variationist study of subject pronoun use in L1 Chinese, with a dataset comprising telephone conversations and teachers' classroom speech. On par with the findings in the aforementioned studies, the main constraints were subject person and number and switch in subject referent. Jia and Bayley also examined sentence type and found that overt subject pronouns were favored in statements but disfavored in questions and especially disfavored in imperatives. No significant effects were found for speaker gender or for verbal aspect. An important finding was the interaction between discourse context (i.e., conversations vs. classroom speech) and second-person subjects: Conversations strongly favored overt second-person plural subjects, and teacher speech favored overt second-person singular subjects. Jia and Bayley contended that expected forms in a discourse context —that is, the second-person plural form for classroom teacher speech and second-person singular forms in telephone conversations— tend to be omitted more. In other words, because the teacher often addressed the class as a whole, there was less need to overtly express second-person plural subjects in the classroom setting, whereas because only two speakers were in the telephone conversation, it was the second-person singular pronoun that was so often omitted in the telephone conversation context.

X. Li et al. (2012) examined subject pronoun use in L1 Chinese by 13 undergraduates and 7 university instructors. Data included conversations, elicited narratives, and instructor speech during classroom teaching. In line with previous studies, the researchers found that (a) singular subjects favored overt pronouns, whereas plurals favored null, and (b) referent switch favored overt pronouns, whereas no switch favored null. Statements favored overt pronoun realization, followed by questions and imperatives. Animate (+human) subjects and specific referents favored overt pronouns, whereas inanimate (–human) subjects and nonspecific referents favored null pronouns. Females tended to use pronouns more than males did. Additionally, students and instructors exhibited different patterns of subject pronoun use—especially along the dimension of subject person and number—with students strongly favoring second-person subjects and instructors favoring first-person subjects. Although the factor of discourse context did not reach significance, a reanalysis of the data showed that discourse played an important role in accounting for the difference between students and instructors.

Studies of subject pronoun use in the L2 are very rare. Polio (1995) investigated null pronoun use in both subject and object positions by

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learners of Chinese from two native language backgrounds (i.e., English and Japanese) and compared these results with P. Chen's (1986) NS results. The data were collected from the retelling of *The Pear Story* (Chafe, 1980).[4] Polio found that learners used null pronouns less frequently than did NSs and that learners' use of zero pronouns increased with proficiency level. Learners were also found to overuse full noun phrases (NPs) relative to NSs, and, like NSs, learners tended to use zero pronouns for nonhuman referents. In an attempt to account for these findings, Polio discussed such production constraints as pause, clarity, and input. Speakers sometimes seemed to use pronouns such as 他 (*tā* "he") to pause and plan their next utterance. It is also possible that learners overused full NPs or explicit pronouns for the sake of clarity or that these forms are marked—and thus more salient—compared to null forms (therefore allowing the learner to keep track of referents more easily). Finally, Polio proposed that the input that the learners received from their teachers also might have contributed to the learners' pattern of pronoun use. Native language, however, was not found to have a significant effect on subject pronoun expression.

Abreu (2009) investigated the use of subject pronominal expressions in Spanish by L1 Puerto Rican Spanish speakers, bilinguals of English and Spanish of Puerto Rican heritage, and advanced English-speaking learners of Spanish. Data were collected through sociolinguistic interviews. The results showed that learners produced overt subject pronouns at a much lower rate than NSs. Abreu stated that there were different findings in existing research regarding the rates of subject pronoun use in different varieties of Spanish. Consequently, this finding provided little information about subject pronoun use in L2 Spanish. She also found that the use of subject pronominal expressions by all three groups had similar constraints, which included switch reference and priming. Additionally, because the study showed that speakers use subject pronouns not only for pragmatic effects but in other contexts as well (e.g., repetition priming, which is a part of psycholinguistic processing), she contended that the grammar explanations of subject pronoun use (only for contrast or emphasis) in Spanish textbooks need to be revised.

Geeslin and Gudmestad (2010) elicited data via sociolinguistic interviews to investigate subject expression in the speech of 16 Spanish NSs and 16 L1 English–L2 Spanish learners. Geeslin and Gudmestad found that, for both groups, null subjects were the most frequent forms, followed by full NPs and personal pronouns. Native speakers used slightly more overt subjects (full NPs plus personal pronouns) than did learners: Specifically, male NSs used null subjects more frequently than female NSs, whereas female NSs used personal pronouns more frequently than male NSs. However, no difference was found among learners for speaker gender, study abroad experience, or length of study.

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METHOD

Data

This study is part of a larger project that investigates the use of sociolinguistic variants by both Chinese NSs and CSL learners. As previously mentioned, Chinese NSs' use of subject pronouns is presented in X. Li et al. (2012), and this study compares CSL learner production with Chinese NS results. The data were collected in spring 2006 from 23 high-intermediate and advanced CSL learners (females, n = 13; males, n = 10) at Dongbei and Dongfang universities in Harbin, China.[5] The learners' proficiency levels were determined not only by class placement but also by my own classroom observations and discussion with the instructors (due to the fact that class placement alone could not reveal the complete picture). In certain cases, although the students started at the beginning-level classes and then progressed to the advanced levels, their actual proficiency level could be considered high-intermediate. There were also cases in which some high-intermediate students requested to enroll in advanced classes to challenge themselves. The learners came from four different native language backgrounds: English, Russian, Korean, and Japanese. The data come from two sources: casual, conversation-style interviews and elicited narratives. Table 1 presents the demographic information of the participants.

Each learner was interviewed by the author twice, with each interview lasting about 45–60 min and with approximately 10 weeks between interviews. Therefore, a total of approximately 38 hr of CSL learner conversational speech was collected. To enhance the casual nature of the exchange, the interviews took place on the second floor of the students' residence hall, where they usually met with their friends or tutors. Topics covered in the conversations were those with which the speakers were familiar and about which they felt comfortable talking. This included their hobbies, traveling experiences, favorite place in China, favorite teacher, and favorite book, among others. The interviewer had recourse to a question protocol for guidance, but very often the conversation was either student led or was a follow-up discussion on a particular topic. Following each first interview, the participants were asked to watch *The Pear Story* (Chafe, 1980) and then retell it in Chinese. The author acted merely as a listener.

Variables

The variables included in this study are informed by the literature on Chinese linguistics and existing studies of subject pronominal expression. According to C. N. Li and Thompson (1981), the third-person subjects for nonhuman referents in Chinese are rarely used except when they are

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Table 1. CSL learner participants: Demographic characteristics

Pseudonym	Age	Gender	Country of origin	Native language	Prior Chinese learning (months)	LoR (months)	Chinese proficiency
Ren	22	F	Korea	Korean	0	12	Advanced
Nan	24	F	Korea	Korean	6	18	Advanced
Zhu	24	M	Korea	Korean	0	48	Advanced
Xuan	25	M	Korea	Korean	0	11	Intermediate
Gui	31	M	Korea	Korean	18	8	Advanced
Cheng	30	M	Korea	Korean	12	7	Intermediate
Suo	25	F	Russia	Russian	66	5	Advanced
Ye	25	F	Russia	Russian	0	48	Advanced
Ta	21	F	Russia	Russian	18	7	Advanced
Ya	22	F	Russia	Russian	24	6	Advanced
Ni	21	F	Russia	Russian	30	7	Advanced
Ma	24	F	Russia	Russian	0	6	Intermediate
Ann	30	F	Britain	English	0	25	Intermediate
Wen	40	M	Australia	English	30	30	Intermediate
Fen	29	M	Australia	English	18	30	Advanced
Long	29	M	U.S.	English	0	48	Advanced
Liang	25	M	Australia	English	36	6	Intermediate
Liu	29	F	Australia	English	6	48	Advanced
Mei	22	F	Japan	Japanese	30	6	Advanced
Chi	23	F	Japan	Japanese	0	18	Intermediate
Zhuang	22	F	Japan	Japanese	36	3	Intermediate
Lu	33	M	Japan	Japanese	0	13	Intermediate
Cun	33	M	Japan	Japanese	0	21	Intermediate

Note. LoR = length of residence (in China).

required syntactically. Therefore, animacy (+/–human) is conflated with person and number, such that third-person singular and plural are each split into separate +animate and –animate categories. In his discussion of empty pronouns in different languages, Huang (1984) claimed that subject drop in Chinese sometimes actually functions as topic drop and that "the distribution of a zero subject pronoun is closely tied to the presence or absence of a potential antecedent rich enough in content (Agreement or an actual NP)" (p. 557). He further explained that, in languages with a rich agreement system such as Spanish and Italian, the agreement helps to identify the null subject, whereas in languages without agreement such as Chinese and Japanese, the null subject is identified by a NP in a superordinate clause. This discussion is relevant to one of the prominent features in Chinese—namely, topic chain (W. Li, 2004, 2006)—in which a subject coreference may occur in the preceding clause as an object, as a fronted topic, or in other sentence positions, even though there is a switch in subject referent. Therefore, regarding treatment of coreference in this study, if there is a switch in the subject referent from the one in the preceding clause, it is coded as *switch* and, if not, as *no switch*. Additionally, if the underlying entities of the subjects in two adjacent clauses are the same, it is coded as *same underlying* (as shown in example [2]), or, if they partially overlap, it is coded as *partial overlap* (as shown in example [3]).

(2) Author:
你 喜欢 吃 什么?
Nǐ xǐhuān chī shénme?
You like eat what
"What do you like to eat?"
Long:
在 东北, 我 最 喜欢 吃 炖 菜
Zài dōngběi, wǒ zuì xǐhuān chī dùn cài
PREP northeast, I most like eat stew dish
"In the northeast, I like the stewed dishes the most."

(3) 我们 觉得 太 贵 了。然后, 我 说, "算了, Ø不 买 了。" (Mei)
Wǒ men juéde tài guì le. Ránhòu, wǒ shuō, "Suànle, Ø bù mǎi le"
I PL think too expensive CRS. Then, I say, "Never:mind, Ø not buy CRS."
"We thought it was too expensive. Then, I said, 'Nevermind, I don't want it.'"

If the subject is mentioned in the object position, fronted topic, or other positions in the preceding clause, it is coded as *object → subject* (as shown in example [4]), *fronted topic* (as shown in example [5]), or *other → subject* (as shown in example [6]).[6]

(4) 他 们 一直 看 着 我, 所以 我 有 点 不好意思。 (Ren)
Tā men yīzhí kàn zhe wǒ, suǒyǐ wǒ yǒu diǎn bùhǎoyìsi
He PL all:the:time look DUR I, so I have a:little embarrassed
"They were looking at me all the time, so I was a little embarrassed."

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(5) 那个 骑自行车 的 小孩儿，他 正在 经过 那个地方 (Nan)
Nàgè qí zìxíngchē de xiǎoháier, tā zhèngzài jīngguò nàgè dìfāng
That ride bike ATT child, he DUR pass:by that place
"The child who was riding a bike was passing by."

(6) 他们 的 退休金 很 少， 所以 他们 没 办法 (Ye)
Tā men de tuìxiūjīn hěn shǎo, suǒyǐ tā men méi bànfǎ
He PL GEN pension very little, so he PL no method
"They have very little pension, so they had no other choice."

C. N. Li and Thompson (1981) claim that subject referent specificity is also a factor that influences speakers' choice of overt versus null subjects. So, when a subject refers to a specific entity, it is coded as *specific*, and, when it has a general denotation, it is coded as *nonspecific*. Previous studies have shown that sentence type affects Chinese NSs' use of subject pronouns (Jia & Bayley, 2002; X. Li et al., 2012). Therefore, sentence type is included as one of the factor groups such that I may compare CSL learners' subject pronoun use with that of NSs' in this dimension.

In sum, the independent variable in this study is presence or absence of subject pronouns (i.e., overt vs. null). The dependent variables are person, number, and animacy of the subject (i.e., first-, second-, or third-person singular or plural, or third-person +/–animate); coreference (i.e., switch, no switch, same underlying, partial overlap, fronted topic, object → subject, or other → subject); specificity (i.e., specific vs. nonspecific); sentence type (i.e., declarative, question, or imperative); speaker gender (i.e., male vs. female); discourse context (i.e., conversation vs. elicited narrative); native language (Russian, English, Korean, or Japanese), proficiency level (high-intermediate vs. advanced) and length of residence in China (1, 2, 3, or 4 years).

Analytical Approach and Coding

As mentioned earlier, this study is identified with the sociolinguistic variationist approach, which is concerned with understanding the underlying systems of language varieties governed by linguistic and social factors as well as by characteristics of individual speakers (e.g., Bayley, 2007; Dewaele, 2004a; Dickerson, 1975; Labov, 1966, 1972; Tagliamonte, 2006; Tarone, 1982, 1983, 2007; Young, 1991). Logistic regression is the analytical approach most widely used in variation studies to tease apart the multiple factors that come into play and their relative strengths. The assumptions that underlie the adoption of logistic regression as the analytical approach for interlanguage variation studies are that (a) variation in learner speech, like variation in any language, is influenced by

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not one but multiple constraints and (b) these constraints can be analyzed quantitatively (i.e., according to the principles of quantitative modeling and multiple causes as discussed in Young & Bayley, 1996). So far, the VARBRUL program, which is a specialized application of logistic regression and was designed to handle natural speech data, is what most variation studies use (for detailed information, see Bayley, 2002; Tagliamonte, 2006; and Young & Bayley, 1996). Specifically, this study utilized the computer program GoldVarb X for Windows (Sankoff, Tagliamonte, & Smith, 2005). The program provides the results of a frequency analysis as well as factor weights that indicate the relative effect strengths of different factors. A factor weight above .50 indicates a favoring effect, and a factor weight below .50 indicates a disfavoring effect.

The data were first transcribed, and all of the actual and potential occurrences of overt and null pronouns in subject position were coded by a researcher. A second researcher then rechecked the first researcher's codings, and, finally, a third researcher (the author) examined all the discrepancies. The second and third researchers discussed the discrepancies until they reached consensus on the coding decision. All three researchers are Chinese NSs and experienced coders of Chinese speech data. The interrater reliability between the final version of codings and the ones done by the first researcher reached 91%.

Coding Exclusions

The coding exclusions were as follows: (a) any subject pronoun in a false start was excluded; (b) if a subject pronoun was repeated, it was only coded once; and (c) cases in which a subject pronoun is obligatory or prohibited—such as those found in formulaic expressions (see example [7] and example [8]) or pivotal pronouns in serial verbal constructions (see example [9])—were excluded.

(7) 你 好。
Nǐ hǎo
You good
"Hello."

(8) 谢谢。
Xièxiè
Thank:thank
"Thank **you**."

(9) 他 们 不 让 我 在 这儿 学习。
Tā men bù ràng wǒ zài zhèr xuéxí
He PL not let I PREP here study
"They do not allow **me** to study here."

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RESULTS

A multivariate analysis of 13,345 tokens extracted from two interviews revealed that all of the variables investigated reached significance. The overall rate of subject pronoun use was 59.4%, with an input value of .60. Subject person and number and referent switch proved to have the strongest effects, followed by sentence type, native language, length of residence in China, gender, discourse context, proficiency level, and specificity.

Table 2 displays the detailed results. Following standard variationist practice (Tagliamonte, 2006; Young & Bayley, 1996), those factors within groups that were not significantly different or that were linguistically—or theoretically—justified to be grouped together were combined; these collapsed factors are indicated with an asterisk in Table 2. For example, the effect of a 3-year residence was not significantly different from that of a 4-year residence, so these two were collapsed into a single 3-to-4-year factor. Because factors with weights above .50 tend to favor overt pronouns, and those with weights below .50 tend to favor null pronouns (i.e., disfavor overt), unless stated otherwise, the application value (i.e., the default dependent variable against which all factors are measured) was set as overt pronoun.

The results demonstrate several noticeable patterns. Singular and +animate subjects tend to be associated with overt pronouns, whereas plural and –animate ones are associated with null pronouns. Switch in subject surface form favors overt pronouns, and no switch favors null. Statements and questions slightly favor overt pronouns, whereas imperatives favor null. English and Russian speakers tend to pronominally realize subjects more often than Korean and Japanese speakers. A 2-year residence in China favors null pronouns, longer residence favors overt, and 1-year residence favors neither. Females tend to use overt pronouns more than males do. Conversations slightly favor overt pronouns, and narratives, null. Intermediate learners tend to use overt pronouns more than advanced learners do. If the subject referent is specific, overt pronouns tend to be used, but if nonspecific, the null form is used more.

DISCUSSION

Native Language

Accounting for the role of L2 learners' prior linguistic knowledge (i.e., their native language) is acknowledged to be an important part of SLA theories and an area of focus that provides a better understanding of the L2 learning process. As Bayley (2007) notes, one of the advantages that the variationist approach offers for SLA research is "a clear

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Table 2. Subject pronoun use by CSL learners

Factor group	Factor	Weight	% presence	*N*
Person and number	3rd sg (+animate)	.63	68.3	2,020
	2nd sg	.61	68.4	819
	2nd pl	.57	64.5	76
	1st sg	.55	62.4	6,878
	3rd pl (+animate)	.46	55.0	1,650
	1st pl	.44	56.2	1,179
	3rd pl (–animate)	.31	45.1	113
	3rd sg (–animate)	.02	5.5	619
Coreference	Fronted topic	.91	85.1	201
	Object → subject	.71	64.6	393
	Partial overlap	.70	78.3	423
	Other → subject	.70	71.5	295
	Switch	.63	71.3	5,328
	Same underlying	.37	51.7	1,091
	No switch	.35	46.3	5,623
Sentence type	Statement	.50	59.5	13,063
	Question	.40	57.3	255
	Imperative	.23	41.7	36
Native language	English	.56	64.8	3,979
	Russian	.52	63.0	4,240
	Korean	.46	54.1	4,014
	Japanese	.37	45.8	1,121
LoR (in China)	*3, 4 years	.55	65.5	4,286
	1 year	.50	59.6	7,325
	2 years	.37	43.4	1,743
Speaker gender	Female	.54	60.6	7,112
	Male	.46	58.0	6,242
Discourse context	Conversation	.50	59.5	12,881
	Narrative	.42	56.9	473
Proficiency level	Intermediate	.54	57.7	3,194
	Advanced	.49	59.9	10,160
Specificity	Specific	.51	60.2	10,928
	Nonspecific	.47	55.8	2,426
Total		.60	59.4	13,354

Note. LoR = length of residence; chi-square/cell: 1.61, Log likelihood: –7,793.34, $p < .05$; asterisks (*) indicate combined factors.

way to study the effects of language transfer" (p. 136). As previously discussed, prior research efforts into the effect of the native language on the acquisition of sociolinguistic variation have yielded inconsistent results. On the one hand, some studies have found that a learner's L1 plays an important role, in that learners transfer the L1 counterparts of the target structure in their production (Dewaele, 1999; Mougeon et al.,

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2004; Trevise & Noyau, 1984). On the other hand, studies have found that the L1 does not influence learners' production of sociolinguistic variants in a significant way (Dewaele, 1998; Ghafarsamar, 2000; X. Li, 2010).

The CSL learners in the current study come from four different native language backgrounds: English, Russian, Korean, and Japanese. Although, according to prescriptive grammars, English does not allow null subjects, in spoken English, the null form does occur in subject position, even if it is a very rare phenomenon (Harvie, 1998). Russian, Korean, and Japanese are all null subject languages.[7] As a result, we would expect that L1 English speakers would be more likely to use overt subject pronouns, whereas Russian, Korean, and Japanese L1 speakers should favor null subjects. The results showed that learners' L1 does indeed have a significant effect on subject pronominal expression in L2 Chinese; English (factor weight = .56) and Russian (.52) speakers favor overt pronouns, whereas Korean (.46) and Japanese (.37) speakers favor null. If Russian is a null subject language, what accounts for this slight favoring effect?

I contend that the effect of the native language on subject pronoun use in L2 Chinese depends not only on whether or not the L1 is a null subject language but also on the extensiveness of null subject use in the L1. According to Zdorenko (2009), the rate of null subjects in Russian speech is 29%, and it is not a feature of all genres and registers. Null subjects are much more common in Korean; for example, when adults talk to children, they tend to use null subjects about 60%[8] of the time, versus 69% in adult-adult conversations (Kim, 2000). The discrepancy between these two contexts reinforces the concept that overt subjects are linked to clarity, as adults may desire to be more careful in making their speech to children clear (see also the baby talk register discussed in Ferguson, 1964). It may also be the case that adult-adult conversation contains more complex sentences—with more subordination—than adult-child conversation. In Japanese, the null subject rate in adults' speech to children is about 68% (Nakayama, 1996, as cited in Kim, 2000),[9] and the rate would be expected to be even higher in adult-adult conversations. Therefore, Japanese speakers tend to use overt subject pronouns the least, followed by Korean speakers, then Russian speakers, and finally English speakers. Therefore, the results of this study seem to mirror native language rates of overt pronoun expression, which suggests that the pattern of subject pronoun use in the learners' native languages may be transferred to their use of L2 Chinese. Indeed, other studies (e.g., Jegerski, VanPatten, & Keating, 2011; Tao & Healy, 2005) also showed that the learners' preexisting referential strategies persist—even when they reach an advanced L2 proficiency level—and may pose a major barrier to nativelike performance in L2 use.

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Length of Residence

The results of the current study showed that learners who stayed in China for 3 or 4 years are the most likely to use overt pronouns, and those who have stayed for 2 years tend to use the null form. Because the sociolinguistic norm for NSs tends toward omission of subject pronouns, this finding goes against what has been found in previous studies: that a longer stay in the target language environment promotes acquisition of NS patterns (e.g., Regan, 2004; Sax, 2003). I suggest caution when interpreting this result because the length-of-residence factor group overlaps with native language; that is, six out of seven learners with a 3-to-4-year stay are English and Russian speakers, whereas three out of four learners with a 2-year stay are Japanese speakers. As the effect of native language showed, English and Russian speakers favor overt pronouns, and Japanese speakers favor null. Thus, it is very likely that the effect of native language overrides the effect of length of residence. To further explore this, the factor groups of native language and length of residence were combined (see Table 3), and the results indicated that the effect of native language was much stronger than the effect of length of residence. Therefore, a more balanced dataset is needed in future research to further explore the effect of length of residence.

Gender

Although not very robust, the effect of speaker gender[10] in this study reached significance, as females are more likely to use overt pronouns than males. A possible explanation for this difference has to do with speech clarity. Some studies have shown that women are more careful to adopt a clearer language style (e.g., Tannen, 1986; Wulf, Dudis, Bayley, & Lucas, 2002). X. Li et al.'s (2012) study of subject pronoun use by Chinese NSs also showed that females tend to use overt pronouns more

Table 3. The effect of native language and length of residence

LoR; native language	Factor weight	% presence	# of tokens
3-4 years; R, E	.61	67.2	3,753
1 year; R, E	.52	61.1	4,466
1 year; K	.49	60.2	2,312
4 years; K	.47	53.8	533
2 years; K/1–2 years; J	.31	43.9	2,290

Note. R = Russian; E = English; K = Korean; J = Japanese; chi-square/cell: 1.58, Log likelihood: –7,779.20, $p < .05$.

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than males do. The CSL learners in this study may, to some extent, notice the difference in subject pronoun use by male versus female NSs, which may consequently affect their choice of subject pronoun expression. The female learners may attempt to mitigate misunderstanding or confusion by using more overt pronouns. Additionally, the results showed that instructors use overt pronouns more often during teaching; the learners may thus notice the style difference and consider instructors' speech as more standard or correct. In particular, female learners may adhere more to standard and formal forms of speech, which has also been documented in other studies (e.g., Adamson & Regan, 1991; X. Li, 2010; Major, 2004). However, it is important to note that learners' subject pronoun use in terms of gender has not been interpreted with the standard-nonstandard yardstick for two reasons: (a) There is no literature, to date, on the social meanings of subject pronoun use by Chinese NSs and CSL learners (nor is it the target of the current study), and (b) the definition and measure of standard language forms is a controversial issue (e.g., What is standard language? Should the grammar book be considered as the standard or should the actual performance of NSs be considered as the standard?). These topics are well beyond the scope of the present investigation. Regarding the difference between the subject pronoun expression in male versus female learners, I speculate that these learners notice the speech styles of both their NS peers and their instructors and view instructor speech as the norm they need to follow; it may be that female learners do so more often than males. Furthermore, the group constellation in the four native language groups is not well balanced. For example, the Russian group only has female learners, whereas the Korean and English groups have two females and four males. To yield a more complete picture of how subject pronouns are used by CSL learners, more well-balanced learner groups need to be included in future studies.

Discourse Context

This study showed that overt pronouns were used at a slightly higher rate in conversations than in elicited narratives. My speculation is that, in the elicited narrative, *The Pear Story* (Chafe, 1980), there are a limited number of nominal entities. Consequently, speakers have a limited selection of NPs and thus have more opportunities to omit them in the subject position. When the learners retold the story, the presence of the interviewer, who had shared knowledge with the speakers, might also have encouraged the omission of subjects because it would not affect the understanding of their narration. However, elicited narratives represent a much smaller portion of the dataset than the conversations

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(i.e., 473 pronominal tokens in narratives and 12,881 in conversations), and the effect of discourse context, although significant, is not large. Future research should explore the effect of discourse context by using a more balanced dataset as well as additional discourse-related dimensions such as formal versus informal contexts.

Proficiency Level

The results showed that less proficient learners tend to use overt pronouns at a greater rate than highly proficient speakers. This finding accords with previous studies (e.g., Ghafarsamar, 2000; Sax, 2003) that have found that, as learners' L2 proficiency increases, their pattern of target language use more closely approximates that of NSs. However, because the learners in this study are all rather advanced, the effect of proficiency is not very robust.

Native Speaker versus CSL Learner

To situate these results within a conception of acquisition and development of sociolinguistic competence, the learner results were compared with X. Li et al.'s (2012) results on the learners' NS peers (see Table 4). The overall use of subject pronouns by both groups was tabulated and a chi-square test was conducted. The result indicated that the overall rates by learners and NSs are significantly different, with learners using explicit pronouns more than NSs, $\chi^2(1, N = 17{,}675) = 723.19$, $p < .001$. Chi-square tests were not conducted for every variable because they can only compare frequencies. As such, most of the variables would be significant due to the large difference between the overall rates by learners and NSs. For example, the factor weights of the variable no switch in the factor group coreference for learners and NSs are the same (.35), which means that the likelihood that these two groups of speakers will use subject pronouns when there is no switch between the two adjacent subject referents is the same. However, their frequencies are significantly different, χ^2 $(1, N = 7{,}951) = 353.48$, $p < .001$. Thus, I compared the VARBRUL weights of learners and NSs, which would tell us the strength of each factor relative to other factors in the same factor group. In general, the learners' pattern of subject pronoun use is similar to that of their NS peers in most of the dimensions examined, except for the factor group coreference. Discourse context did not reach significance in X. Li et al. (2012), and the difference between conversation and narrative in the learner data is not very robust, so it is not included in this comparison.

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Table 4. Subject pronoun use by Chinese NSs vs. CSL learners

	Learners			Native speakers		
Factor group	Factors	Weight	%	Factors	Weight	%
Person and number	3rd sg (+animate)	.63	68.3	*2nd sg	.79	64.1
	2nd sg	.61	68.4	2nd pl		
	2nd pl	.57	64.5	3rd sg (+animate)	.57	37.3
	1st sg	.55	62.4	1st sg	.50	37.7
	3rd pl (+animate)	.47	55.0	1st pl	.38	30.5
	1st pl	.44	56.2	*3rd pl (+animate)	.33	21.9
	3rd pl (–animate)	.31	45.1	3rd sg (–animate)		
	3rd sg (–animate)	.02	5.5	3rd pl (–animate)	.13	9.1
Coreference	Fronted topic	.91	85.1	Partial overlap	.77	57.9
	Partial overlap	.71	78.3	Switch	.68	52.3
	Object → subject	.70	64.6	Other → subject	.64	44.5
	Other → subject	.70	71.5	Same underlying	.63	50.5
	Switch	.63	71.3	Object → subject	.62	41.7
	Same underlying	.37	51.7	Fronted topic	.56	30.5
	No switch	.35	46.3	No switch	.35	23.6
Sentence type	Statement	.50	59.5	Statement	.50	35.8
	Question	.40	57.3	Question	.33	45.2
	Imperative	.24	41.7	Imperative	.19	33.3
Speaker gender	Female	.54	60.6	Female	.53	38.6
	Male	.46	58.0	Male	.47	33.0
Specificity	Specific	.51	60.2	Specific	.51	36.5
	Nonspecific	.47	55.8	Nonspecific	.43	31.8
Total		.60	59.4		.34	35.9
	p = .014			p = .023		

Note. Asterisks (*) indicate combined factors.

As with NSs, learners are generally more likely to use overt pronouns for singular and +animate subjects, but null pronouns are used for plural and –animate subjects. Both groups slightly favor overt pronouns for statements, followed by questions and imperatives. Within both groups, specific referents slightly favor overt pronouns (and nonspecific referents favor null), and females are more likely to use overt pronouns than males, although the specificity and gender differences are not very robust. See Table 4 for a breakdown of NS versus CSL subject pronoun use.

With regard to coreference, the main difference between learners and NSs lies in two factors: fronted topic and same underlying. The factor weights obtained from the multivariate analysis showed that, although learners treat fronted topic as the most favoring environment for overt pronoun use (.91), fronted topic only slightly favors overt pronouns for NSs (.56). Crucially, for learners, fronted topic is the most overt-favoring coreference factor, whereas, for NSs, only no switch favored null more than did fronted topic. When the underlying entities of two adjacent subjects are the same, learners are also likely to use null subjects more (.37), but NSs tend to use explicit pronouns (.63). However, the frequencies of overt pronoun use for same underlying entities by learners (51.7%) and by NSs (50.5%) are not vastly different. The difference in input values might be due to the high overall rate of overt pronoun use by learners.

To explore the difference found in fronted topic, I reexamined the data and found that there are two conditions for fronted topic—namely, double-subject structures (see example [5]) and other topic-comment (T-C) structures (see example [10]):

(10) 语法 方面， Ø 还 没 感觉到 Ø 有 很大 的 进步。 (Xuan)
Yǔfǎ fāngmiàn, Ø hái méi gǎnjuédào Ø yǒu hěndà de jìnbù
Grammar aspect, Ø still not feel Ø have very:big ATT progress
"I don't feel that I have made much progress in grammar."

Both learners and NSs categorically use overt pronouns for double-subject structures, which account for 82.1% of learners' fronted topic utterances but only 23.7% of NSs'. In contradistinction, learners and NSs exhibit a similar pattern of pronoun use in other T-C structures (i.e., both groups had predominantly higher rates of null pronouns in other T-C structures; learners: 72.2% [26/36] vs. NSs: 91.1% [41/45]). Although, together, the CSL learners produced more than three times as many tokens as the NSs (i.e., 13,345 as compared to 4,321), both groups actually use fronted topic at very similar rates (i.e., CSL: 1.5% vs. NSs: 1.4%). Learners' greater use of overt pronouns in fronted topic environments can be directly traced to a greater rate of double-subject structures in their speech. This is not surprising if we assume that learners may attend more carefully to getting their message across than do NSs, due to the fact that repetition of the topic entity in subject position adds a degree

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Table 5. Use of fronted topic by CSL learners and native speakers

	CSL learners			Native speakers		
Pronoun form	Double subject	Other T-C	Total	Double subject	Other T-C	Total
Overt pronoun	165 (82.1%)	10 (5%)	175	14 (23.7%)	4 (6.8%)	18
Null	0	26 (12.9%)	26	0	41(69.5%)	41
Total			201			59

Note. T-C = topic-comment. The values in parentheses represent percentages of overt pronoun and null pronoun use in double subject and other T-C sentence structures by learners and native speakers.

of referential clarity. In other words, this result shows that learners have acquired the subject-in-fronted-topic structures successfully. However, as expected, NSs are able to manage discourse relatively more skillfully than learners by exhibiting more omissions of subjects that have already been mentioned in the topic position. For a summary of these results, see Table 5.

In terms of overall subject pronoun use, learners tend to use overt subject pronouns at a much higher rate than their NS peers (see Table 6 and Figure 1). This is in line with findings from other studies in that learners are more likely to use overt forms in optional contexts. In L2 Chinese, learners were found to overuse the target forms in optional environments such as the aspect marker *le* (Duff & Li, 2002), the morphosyntactic particle *de* (X. Li, 2010), or overt pronouns (Polio, 1992, 1995). Studies of other L2s, such as French, also found that learners tend to overuse optional forms such as the preverbal negation particle *ne* (Rehner & Mougeon, 1999). This phenomenon can be partially attributed to factors of clarity and accuracy that learners would like to achieve in their speech. In optional contexts, learners may choose to overtly express the pronoun to clearly indicate the nominal referent and cause less confusion. Furthermore, they still need time to further develop their sociolinguistic competence so as to fully acquire the target pattern of sociolinguistic variation and to achieve NS performance.

Table 6. Subject pronoun use by CSL learners, Chinese students, and Chinese teachers

Subject pronoun use	CSL learners	Chinese students*	Chinese teachers*
Overall frequency (%)	59.4	35.9	58.9
Input value	.60	.34	.58
# of tokens	13,354	4,321	4,186

Note. Asterisks (*) indicate that the Chinese native speaker data come from X. Li et al. (2012).

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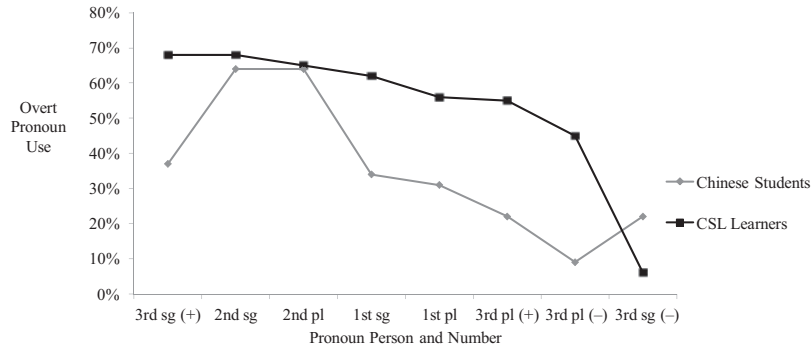


Figure 1. Frequency of subject pronoun use by CSL learners and Chinese students.

If we consider the teacher results from X. Li et al. (2012), we also find that the learners' pattern of subject pronoun use is very similar to that of teachers (see Table 6). As previously mentioned, the seven teachers in X. Li et al. (2012) were all language teachers (i.e., either teachers of English as a foreign language, $n = 3$, or of CSL, $n = 4$); the four CSL teachers were actually the teachers of the participants in this study. Half of the participants did not have any previous Chinese learning experience before coming to China; the other half did, and the length of their experience varied. Although the learners' previous Chinese teachers' input rate of subject pronoun use is unknown, this result at least suggests that teachers' input may play an important role in learners' acquisition of the variability of pronominal subjects in Chinese because learners tend to consider teacher speech as the standard form and may adhere more carefully to its style (X. Li, 2010). In fact, several previous studies have demonstrated an effect of teachers' input on learners' acquisition of target language variation (X. Li, 2010; Mougeon & Rehner, 2001; Mougeon et al., 2004).

CONCLUSION

In general, CSL learners' use of pronominal subjects is subject to the same linguistic and nonlinguistic constraints that have been examined in other studies, with the two primary predictors of subject person and number and reference switch. Additionally, because the learners in this study are rather advanced, their pattern is similar to their NS peers' on most dimensions explored, except that the learners tend to overuse overt pronouns. These results indicate that these learners have acquired the subject pronoun usage pattern in Chinese rather successfully but still need more work on using null pronouns to develop

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more fully their sociolinguistic competence and to achieve nativelike performance.

Two of the findings in this study merit additional consideration. One is the role of the native language on the acquisition of target language variability. The effect of native language on L2 learning is an issue that SLA researchers have explored for decades (e.g., Gass & Selinker, 2008; Ghafarsamar, 2000; Kellerman & Sharwood-Smith, 1986; Odlin, 1989). The transfer hypothesis states that prior linguistic knowledge may have positive as well as negative influences on L2 learning. Positive transfer occurs when the native language helps L2 learners to have a general understanding of language and provides various linguistic hypotheses on which they can draw when acquiring a L2. Conversely, negative transfer (or interference) may also occur in the process of L2 learning when the native language misleads L2 learners to form incorrect hypotheses and causes nontargetlike interlanguage use. As mentioned earlier, the effect of the L1 on L2 variation has yielded inconsistent results (Dewaele, 1999; Ghafarsamar, 2000; X. Li, 2010; Mougeon et al., 2004). For example, in my earlier study of the acquisition of the Chinese morphosyntactic particle *de* (的) by the same group of learners (X. Li, 2010), native language did not reach significance. Although Japanese and Korean have a particle that is similar to *de* (though with fewer functions), Japanese and Korean learners had similar rates of *de* use as Russian and English speakers. In this study, however, the L1 played a strongly significant role in the learners' acquisition of subject pronoun use in Chinese, although the extensiveness of the structure usage in the L1 determines the pervasiveness of the null subject in L2 production. Therefore, the role of the L1 in the acquisition of sociolinguistic variation is not dichotomous in nature; that is, it is not the case that the native language either does or does not affect learners' acquisition of Type 2 variation. Rather, the L1 does not have a uniform effect on L2 variation, as L2 variation depends on many factors, including—but not limited to—(a) the nature of the target structure, (b) whether or not the L1 has a counterpart to a given L2 sociolinguistic variable and how the structure is used variably in the L1, (c) learners' proficiency level, and (d) with whom the learners interact regularly. What becomes more important, then, is to examine when, under what conditions, and how the L1 does or does not play a role in affecting L2 variation.

The other important finding is the role of teachers' input in learners' L2 variation. This study corroborates previous findings that learners' acquisition of target language variability is influenced by their teachers' speech (X. Li, 2010; Mougeon & Rehner, 2001; Mougeon et al., 2004). In this study, the teachers might have adopted a more careful register—including clearer speech—while teaching, and so they might attempt to avoid confusion by overtly supplying information regarding the subject reference. As the results showed, the learners were following their

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teachers' speech styles and patterns in that they tended to use subject pronouns more often than necessary. In many cases, language teachers would like their students to follow what they say, but they may prefer otherwise in this case. This finding then raises the question of what teachers can do to help learners further develop their L2 sociolinguistic competence and use of nativelike variability. It may be rather difficult and unnatural for many teachers to adopt a more casual register during teaching and to talk as if they were interacting with their friends. Because teachers are unlikely to supply this necessary input, it may be helpful to provide or encourage more interactions between learners and their NS peers. Merely leaving the task to learners themselves and asking them to interact with NSs, however, may be insufficient and inefficient; learners could end up taking a long time to develop their sociolinguistic competence and to reach nativelike performance.

As a result, I support the claims made by some SLA scholars (e.g., Lyster, 1993; Mougeon & Rehner, 2001; Mougeon et al., 2004) who assert the necessity of designing teaching materials specifically targeting L2 variation and explicit instruction on sociolinguistic variables. I envision the use of authentic natural NS speech as the baseline or theme of these teaching materials as well as designing exercises or activities that direct learners' attention to how NSs use the target structures in optional contexts (and under various conditions). Inviting NSs into language classrooms to interact and discuss sociolinguistic variants with learners is also a good strategy not only to provide more opportunities for learners to interact with target language users but also to offer a NS viewpoint on the use of target language variables. However, these instructional materials will require a serious, systematic research foundation to lay out the NS patterns of variability. Careful planning and design are also needed to assess how instructors can present and teach variable structures in a way that is both accessible and learnable for students and, at the same time, manageable for teachers.

FURTHER INQUIRY

This study examined the use of subject pronominal expressions by CSL learners. Because Chinese allows null objects in addition to null subjects and because both subjects and objects can be expressed as full NPs in addition to overt or null pronouns, future interlanguage variation studies of null pronouns in L2 Chinese may want to include an investigation of how full NPs are used in subject positions (in addition to overt or null pronouns), how objects are expressed, and how subject and object expressions compare. Surely, NS data are needed as the baseline for future study. Studies along these lines will add to our understanding

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of the variability of subject and object expression in both native and L2 Chinese as well as the development of sociolinguistic competence in L2 acquisition.

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NOTES

1. All of the examples used throughout the article are drawn from the data of the present study. The speaker's name (pseudonym) is indicated in parentheses following each example.

2. Transcription abbreviations are defined as follows: ATT = attributive (*de*), CRS = currently relevant state (*le*), DUR = durative aspect (*zhe*, *zài*), EXP = experiential aspect (*guò*), GEN = genitive (*de*), PL = plural (*men, xiē*), and PREP = preposition (*zài*). This information is taken from C. N. Li and Thompson (1981).

3. This study and X. Li et al. (2012) come from the same larger research project, which investigates sociolinguistic variation in Chinese L1 and L2 speech. The dataset in X. Li et al. (2012) is comprised of the speech of 13 Chinese college students and 7 teachers. Four of the teacher participants in X. Li et al. (2012) are the teachers of the CSL learners in this study. The variables examined in X. Li et al. (2012) were linguistic and social factors including subject person and number, coreference, specificity, sentence type, age, occupation, gender, and discourse context. Because one of the main purposes of the current study is to compare with X. Li et al. (2012), most of the variables explored in the two studies are the same. Age and occupation are not relevant to the current study and are thus excluded, whereas factors of native language, length of residence in China, and proficiency level are added.

4. *The Pear Story* is a 6-min silent film with a simple plot developed by Professor Wallace Chafe in the mid-1970s for language data collection. Usually, the speakers are shown the video and then asked to tell the story orally or in written form. In the present study, the speakers were invited to orally retell the story after watching the video.

5. These university names are pseudonyms.

6. Double-subject constructions are also included in this category. I follow C. N. Li and Thompson (1981) and treat double-subject constructions as a topic-subject relationship: "The topic is the definite noun phrase that is what the sentence is about, and the subject is the noun phrase in a 'doing' or 'being' relationship with the verb" (C. N. Li & Thompson, 1981, p. 93).

7. Russian is a null subject language (see Grenoble, 2001; Kibrik, 1996; Seo, 2001; Zdorenko, 2009), although this is not a feature of all genres and registers. Zdorenko (2009) showed that null subjects are used more often in informal unscripted conversations than in written Russian.

8. This is an average of the numbers (55–65%) provided in Kim (2000).

9. This is an average of the numbers (62–74%) provided in Nakayama (1996, cited in Kim, 2000).

10. Gender is a variable that researchers have explored at length in both L1 and L2 use (e.g., Adamson & Regan, 1991; Eckert, 1989, 2000; Eckert & McConnell-Ginet, 1992, 2003; Hu, 1991; Labov, 1990; Langman, 2004; Major, 2004; Shen, 1987; Zhang, 2005). The general patterns that many scholars (e.g., Adamson & Regan, 1991; Major, 2004) have described are that (a) females are more sensitive to standard or formal language forms and are more likely to use them, and (b) males tend to use more informal and nonprestigious language forms to show masculinity. Many other researchers (e.g., Eckert, 1989, 2000; Zhang, 2001, 2005) argue that interpretation of gender variation in language use needs to consider the interaction of gender with a wide variety of other social factors in language use. I support the notion that caution is needed for interpreting gender difference in L2 variation as gender dichotomy because L2 acquisition and use is highly variable, and there are many other factors that have not been explored in this study that may interact with speaker gender. Further studies are needed to answer these questions.

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