

English Loan Words in Mandarin Chinese: Phonology vs. Semantics

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Abstract

The lexical stock of any given language includes words borrowed from other languages.¹ In cases of intensive, sustained language contact, lexical borrowing almost inevitably occurs between the prestige language, or the language belonging to the dominant culture, and the language belonging to the less dominant culture. While words are typically imported with the purpose of filling lexical gaps, to describe new technologies and concepts, prestige borrowing is not limited to unfamiliar words alone.² Some languages have taken to using English loanwords to the extent that they are even replacing native equivalents in casual conversation.³ Although much research has been done to observe the phenomenon of borrowing, little research has been done to understand lexical borrowing in China, which also has had extensive contact with the English language and sustains a large bilingual population of English and Mandarin Chinese speakers. Due to its character-based writing system, input words from foreign languages must be adapted either phonetically or semantically to create a suitable output word (e.g., phonetically adapted *qiǎokèlì* for “chocolate,” or semantically adapted *pínkùnxìàn* for “poverty line”). The most preferred loan words tend to be those that most resemble native Chinese words, and as a result even loan words that initially take the form of phonetically adapted outputs are usually replaced in time by a semantically adapted, more Chinese-sounding equivalent output word.⁴ To explore the question of whether Chinese speakers may show a preference for semantic adaptations in spite of the prestige that English carries, 43 Chinese students were given a 4-part online survey created to ascertain (1) their level of exposure to the English language and to English-speaking culture, (2) their linguistic preferences between loan words and native Chinese equivalents, (3) their preferences between semantically adapted loan words and phonetically adapted loans, and (4) their preferences between semantic adaptations and phonological adaptations of nonce words. The results indicate that speakers generally prefer phonologically adapted loan words.

Keywords: Loan Words, Language Borrowing, Mandarin Chinese

1. Introduction

Linguistic borrowing is the adaptation by one language of lexical material from another language to its own morphological, syntactic, and phonological patterns.⁵ Various features of language (such as phonology, morphology, and syntax) can be borrowed, but this paper will focus specifically on lexical borrowing, or the borrowing of words. Borrowing most often occurs during instances of language contact, in which words are borrowed from the language of the more socially dominant culture (also referred to as the “prestige language”) into that of the dominant culture. This type of borrowing is usually limited to unfamiliar words needed to describe an influx of new technologies, expressions, or concepts from the outside world.⁶ The donor language thus functions as a “mediator of modernism”, or as a “window on the world” to the benefit of speakers of the recipient language, who consequently come to associate it with wealth, power, and international prestige. The utilization of material from the donor language is

perceived as a symbol of social status and international prestige within the society of the recipient language, especially by those who use it with the hopes of generating more lucrative life and career opportunities.^{7,8}

In the last century, English has emerged as the strongest *lingua franca*, or a medium of international communication, serving as the world language of pop culture, communication, world publishing, conferences, politics, entertainment, science, technology, and air traffic control.^{9,10} Following China's reopening to the outside world and implementation of economic reforms in the late 1970s, new ideas and practices from the West began to stream into Chinese society by means of the English language.¹¹ Over 80% of recent loans borrowed into Mandarin Chinese are derived from English, particularly American English, demonstrating the pervasiveness of the English language and English language culture within China.¹²

2. Language Typology

English and Mandarin Chinese represent different language types and belong to unrelated language families. English is a Germanic language of the Indo-European language family while Mandarin Chinese is from the Sinitic branch of the Sino-Tibetan language family.¹³ Mandarin is an analytic language, in which sentences are composed of a sequence of free morphemes, each with meaning and function by itself. In contrast, English “developed from a synthetic language with many inflectional affixes to a more analytic one with very few”.¹⁴ Here, bound morphemes attach to free morphemes to produce words composed of several meaningful morphemes, which cannot stand alone. Additionally, Mandarin Chinese is a tonal language, in which each syllable is assigned one of four tones, or a neutral tone.¹⁵

2.1 Syllable Structure

The syllable structure of Mandarin does not allow for consonant clusters: in Mandarin, morphemes are always monosyllabic, with the longest possible morpheme structure represented by (C)(G)V(N) (for example, *zhuāng*, a common Chinese surname), where C represents a consonant, G a glide, V a vowel, and N a nasal, and the only obligatory component is the vowel nucleus, or the part of the syllable with the greatest resonance. The vowel nucleus also contains the tone, if one is present.¹⁶ On the other hand, English allows for syllable structures of a single syllable word as lengthy as (C)(C)(C)V(C)(C)(C)(C) (e.g., *strengths*, which consists of two morphemes: the noun ‘strength’ and the plural ‘s’). The only possible non-vowel coda sounds in Mandarin are [n] and [ŋ], while English allows for any number of final consonant sounds, only with the exception of [h].¹⁷ These differences in syllable construction further complicate the process of adapting new (often longer) words from English to Mandarin.

2.2 Orthography

The respective orthographies of English and Chinese are also very different. English uses an alphabetic writing system, whereas Chinese uses pictographic characters to represent a single, self-contained meaning and single-syllable pronunciation.¹⁸ In other words, English letters represent sound (to a certain extent, excluding the many silent letters found in English spellings), while Chinese characters represent both sound and meaning. This means that, while English sounds can be represented by select Chinese characters with corresponding pronunciations, those characters will invariably convey a particular meaning that is typically incongruous with the intended meaning of the loan word, as illustrated in Table 1 of the following section.

3. Methods of Borrowing

Owing to the twofold property of Chinese characters, two primary methods of borrowing are utilized to import foreign words into Mandarin Chinese: transliteration and equivalent translation.¹⁹ These two methods correspond with the pronunciation of Chinese characters (phonological adaptation) and the meaning of Chinese characters (semantic adaptation), respectively.

3.1 Phonological Adaptation: Transliteration

Transliteration is the process by which Chinese characters with pronunciations that most approximately resemble the syllables of the English input word are put together to create a word that sounds like English, but has an unrelated meaning as expressed by the characters themselves, as shown in Table 1.²⁰ While transliterated loans sound similar to the original English input, the characters used to represent them appear to Chinese readers as a “semantically...jumbled mismatch of Chinese characters that [make] no sense,” which can cause confusion for those who are accustomed to intuiting the meanings of characters through their visual rather than phonemic components.²¹

Table 1. examples of transliterated loan words

| <i>English Input</i> | <i>Chinese Output (Characters/Pīnyīn)</i> | <i>Character-by-Character English Translation</i> |
|----------------------|---|---|
| Bus | 巴士 / bāshì | cling to-scholar |
| Copy | 拷贝 / kǎobèi | beat-shellfish |
| Email | 伊妹儿 / yīmèir | he-younger sister-(diminutive suffix) |
| Modern | 摩登 / módéng | rub-scale |
| Microphone | 麦克风 / màikèfēng | wheat-gram-wind |

Pīnyīn is a modern system of transcription of the Mandarin pronunciation of Chinese characters (as opposed to Cantonese or some other dialect, which all share the same written Chinese characters) that uses Roman alphabet letters and lexical tone transcriptions. It is taught to both non-native speakers and to Chinese first graders in order to provide a stronger grasp of the tones, phoneme segmentations, and phoneme combinations represented by Chinese characters.²²

3.2 Semantic Adaptation: Equivalent Translation

Equivalent translation describes the combination of Chinese characters that, while not corresponding to the sounds of the input English word, do more or less convey the intended meaning of the original word, as shown in Table 2.²³ It has been suggested that, while many loan words initially enter Mandarin Chinese from English as transliterations, their ultimate adaptations will be in the form of an equivalent translation.²⁴ This has shown to be the case with the majority of words borrowed from English in the 1920s following the May Fourth Movement in China, an anti-imperialist, cultural and political movement brought about by student demonstrations in Beijing over China’s weak response to the conditions imposed upon it by the Treaty of Versailles. These events also coincided with a period of intensive contact with the West, during which there was an increased effort to learn from the models of Western civilizations. The result was that Chinese language and culture were extremely influenced by these cultures and languages they sought to emulate.²⁵ These words, which include examples such as “bank,” “democracy,” “science,” “cement,” “telephone,” “grammar,” “violin,” “seminar,” and “mister,” are now permanently embedded in Mandarin Chinese vocabulary in the form of equivalent translations.²⁶

Table 2. examples of equivalent translations

| <i>English Input</i> | <i>Chinese Output (Characters/Pīnyīn)</i> | <i>Character-by-Character English Translation</i> |
|----------------------|---|---|
| Ice cream | 雪糕 / xuěgāo | snow-cake |
| Internet | 网络 / wǎngluò | net-net |
| Lavatory | 洗手间 / xǐshǒujiān | wash-hand-room |
| Microphone | 话筒 / huàtǒng | speech-tube |
| Pet | 宠物 / chǒngwù | favor-thing |

4. Phonology vs. Semantics

In Mandarin Chinese, there are only about 420 morphemes if the tonal variation created by the four-tone system is ignored. The phonological and morphological constraints described in Section 2 above impose many limitations on phonetically transcribing foreign words into Chinese, especially from languages like English that allow for many more consonant clusters.²⁷ Another factor that restricts the adaptation of loanwords is the fact that, as mentioned above, each character represents one morpheme and already contains some intrinsic meaning. This often results in a transliterated output that compromises the full capacity for phonetic fidelity in favor of conveying a more appealing written meaning, even if that meaning is not relevant to that of the original input word.²⁸ The process of transliteration seems to pose too many obstacles to constitute an efficient means of word borrowing, whereas equivalent translation enables the core significance of a word to be borrowed in a way that better conforms to the morphological patterns of Mandarin Chinese and to the ingrained reading habits of literate Chinese speakers as informed by the several-thousand year-old cultural history of their orthography.²⁹

5. Empirical Study

In order to test the hypothesis that the inherent significances of Chinese characters have a greater influence over word choice than the international prestige of the English language, a 4-part survey in Chinese was created and distributed to Chinese students studying at the State University of New York at New Paltz and to Chinese students studying at Nanjing University in China. These students were requested to forward the survey to friends and family in order to increase variety in the sample pool. The majority of respondents identified as college-level students. Thus, it should be noted that the results of this study are more exemplary of a Chinese student-derived perspective of loan word use in Mandarin Chinese.

5.1: Background Questionnaire

The first part of the survey consisted of a questionnaire to gather the relevant background information about the participants, including their age, gender, length of their study of the English language and time spent living in an English-speaking country. Participants were prompted to evaluate their English proficiency on a scale of 1 to 5, 1 representing no English ability and 5 representing complete English fluency. If not already working, participants were asked to identify themselves within the options of “ESL student,” “undergraduate student,” “graduate student,” or “not yet a college student.” Finally, participants were asked select their home province, taking into account the distinction between Taiwan, Hong Kong, Macau, and Mainland China.

5.2 Experimental Tasks

The second, third, and fourth parts of the survey consisted of forced-choice tasks, each with 10 fill-in-the-blank sentences in Chinese for which 2 possible word choices were provided. Participants were asked to select one of the two options in order to complete the sentence. For each question of the first two tasks, the two words provided had the same English translation and were each used interchangeably in Chinese, but they differed in that one would represent a native Chinese word (Task 1) or a semantically adapted word (Task 2 and Task 3) while the other would represent a phonological adaptation (all tasks.) An example of a test sentence translated into English would be “This weekend there is a birthday ____,” for which each participant would select the most natural sounding of two Chinese variants of “party,” one from native Chinese word stock (聚会 *jùhuì*) and the other a transliteration (派对 *pàiduì*), to fill in the blank.

5.2.1 task 1

The purpose of the first experimental task was to ascertain which word Chinese speakers prefer when given a choice between a native Chinese word and its transliterated loan word equivalent. Words tested in this task include “Russia,” “show” (the noun), “modern,” “bye-bye,” “cookie,” “baby,” “cool” (the slang term), “party,” “romantic,” and “humorous.” It was predicted that, when presented with a native Chinese word and a superfluous phonologically adapted loan word synonym, Chinese speakers would prefer the native Chinese word. This was predicted because the native Chinese word contains the semantically coherent element expressed by the written form, which has been

suggested to be acceptable to literate Chinese speakers over a semantically misleading phonologically adapted equivalent.³⁰

5.2.2 task 2

The second experimental task tested the preferences of native speakers between two loanword adaptation strategies: transliterated (phonologically adapted) loan words and their equivalently translated (semantically adapted) synonyms. These words included “bus,” “internet,” “email,” “ice cream,” “cheese,” “mile,” “taxi,” “copy,” “microphone,” and “laser.” It was predicted that, when presented with a semantically adapted loan word and a phonologically adapted loan synonym, Chinese speakers would prefer the semantic adaptation, or the word that better resembles native Chinese words and whose written form conveys the appropriate meaning.

5.2.3 task 3

Task 3 used English words that have not yet been translated into Mandarin, and tested preference between invented phonological adaptations and semantic adaptations of these words. The English words included in this task were “study date,” “friend zone,” “Stone Ridge” (a town in New York State), “HENRY” (“High Earner Not Rich Yet”), “s’more,” “iron maiden” (the device), “ableist” (one who is prejudiced against the disabled), “body positive” (the acceptance of any and all body types as beautiful), “fitspo” (a blend of “fitness” and “inspiration”), and “mullet” (the hairstyle). These words were supplemented by explanations in Chinese of the word’s meaning and syntactic category in English. It was predicted that, when presented with semantic adaptations and phonological adaptations of English words not yet known to Chinese speakers, semantic adaptations that better explain what the word means would be preferred.

6. Participant Data

43 participants completed the questionnaire. All of them were Chinese nationals, with 79% residing in an English-speaking country at the time of the survey. 88% of the participants had studied English for more than 5 years, and 53% of them had spent more than 2 years living in an English-speaking country. All of the participants were college students, with 14% identifying as English as a Second Language (ESL) students, 51% identifying as undergraduate students, and 30% identifying as graduate students. The mean age was 24.3 years old, and the mode age was 22 years old. 56% of the participant pool identified as female and 44% identified as male. 6 participants identified as Taiwanese, while the rest all hailed from Mainland China, primarily Fujian province.

After the data was collected, the participant pool was split into two groups, labeled “Group A” and “Group B.” Group A consisted of 23 students who had spent over 2 years living in an English speaking country, while Group B consisted of 20 students, ranging from those who had never been to an English-speaking country to those who had spent up to 2 years living in one.

7. Results

7.1 Task 1

In Task 1, both groups demonstrated a preference for borrowed English words over their native Chinese equivalents, with Group A’s preference at a rate of 68% and Group B’s at 80%, as shown in Figure 1. Group A, which included speakers who have spent over 2 years living in an English-speaking country, showed a 12% higher preference for native words than Group B, which included speakers with less than 2 years of daily exposure to the English language. This contradicts the prediction that, when presented with a native Chinese word and a borrowed synonym, Chinese speakers would prefer the native Chinese word.

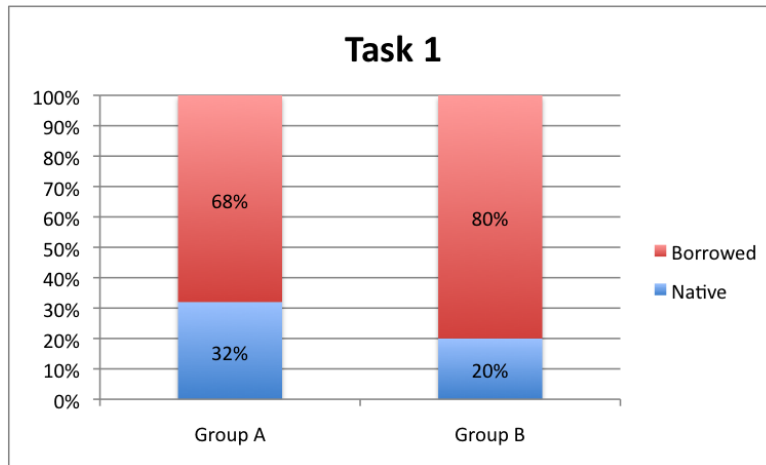


Figure 1. Task 1 results.

7.2 Task 2

In Task 2, both groups demonstrated a preference for transliterated words over their equivalently translated counterparts, with Group A's preference at a rate of 60% and Group B's at 79%, as shown in Figure 2. Group A showed a 19% higher preference for equivalently translated words than Group B, meaning that Group A, or those with more experience living in an English-speaking country, showed a relatively greater preference for semantically adapted words (equivalent translations) than did Group B. This contradicts the prediction that, when presented with a semantically adapted loan word and a phonologically adapted synonym of the same loan word, Chinese speakers would prefer the semantically adapted loan, or the loan that bears greater resemblance to native Chinese words.

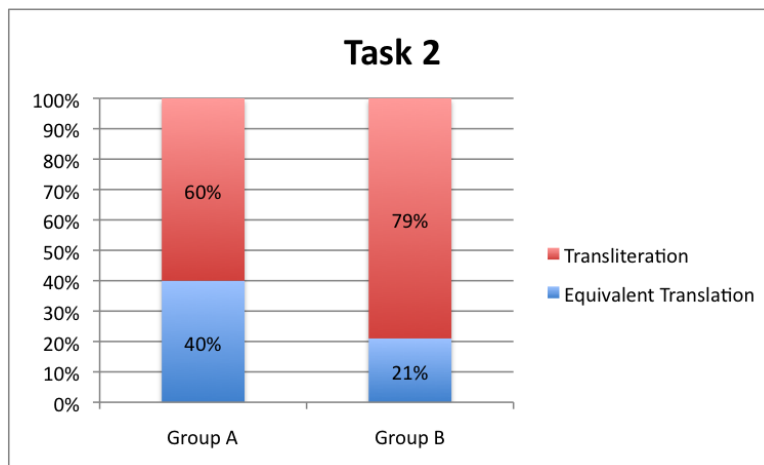


Figure 2. Task 2 results.

7.3 Task 3

In Task 3, Group A showed a preference for the equivalent translations of nonce words at a rate of 58% while Group B showed a preference for transliterations of nonce words at a rate of 54%, as shown in Figure 3. In comparison to Task 2, in which preference was tested between transliterations and equivalent translations with existing words, Task 3, which included nonce words, showed a rise of roughly 20% in semantic preference in both Group A and Group B. The prediction that, when presented with nonce words adapted either semantically or phonetically, Chinese speakers would be more accepting of the semantic adaptations was supported in the case of Group A, or

those with more experience in an English-speaking environment, but not supported in the case of Group B, or less with less experience in an English speaking environment.

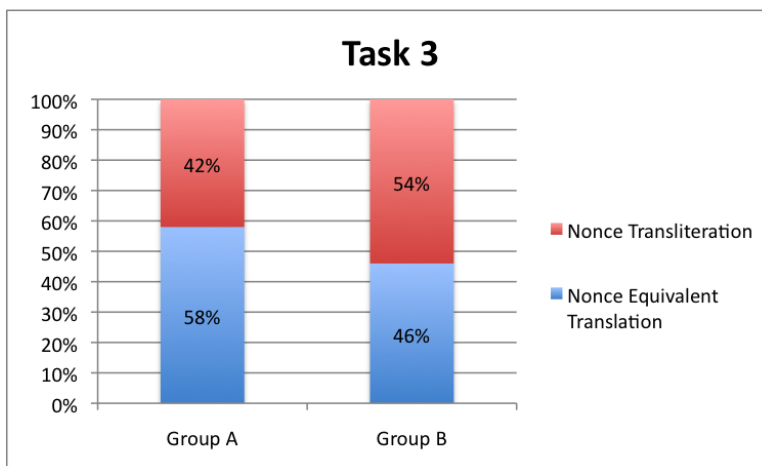


Figure 3. task 3 results.

7. Discussion

This study predicted that Chinese speakers would prefer native words over borrowed words, and semantic adaptations over phonological adaptations of loan words, as was suggested by Anna Tian and Ad Backus’s research on the subject. However, the overall results were exactly the opposite, with participants generally preferring borrowed words and phonological adaptations to native words and semantic adaptations. With the exception of Task 3, in which Group A showed a preference for semantically adapted loans, these results contradict previous research and furthermore suggest that the international prestige of the English language may in fact exert more influence over word choice than Chinese character meanings do. This appears to hold especially true for college-age speakers who have greater exposure to the English language and English language culture, which describes the great majority of the participants in this study who have at least been learning English for more than 5 years in their home country. Notably, the majority of participants in this study have studied more than 5 years of English, and as a result, they may be more receptive to phonologically adapted loan words with meanings that are extraneous to the word-for-word, literal meanings of the characters used to transcribe them. In other words, it is very likely that their academic backgrounds equip them with a stronger ability to block out the semantic interference that occurs for those less familiar with the English language when they are presented with the semantic disarray conveyed by the Chinese written forms of transliterated words. For example, it is difficult for Chinese speakers not familiar with the English word “fans” to disassociate its transcription 粉丝 *fěnsī* from the word for “rice noodle”, which is written with the same characters.³¹

Group A, or those with more than 2 years of experience in an English-speaking country, consistently demonstrated a higher preference for semantic loans than Group B. An explanation for this result may be that those with more experience living abroad and speaking a foreign language may have a greater tendency to use either the actual English word (a factor not tested for in this survey) or the Chinese semantic equivalent, but not the phonological adaptation of the English word into Chinese. In Task 3, Group A showed a slight preference for semantic adaptations over phonological adaptations. If those with more experience in an English-speaking country are more likely to code-switch instead of borrow words, it may explain their preference for the semantic adaptation that more accurately reflects the English meaning they already understand rather than the phonological adaptation that neither conforms to Chinese written semantics nor to English phonology.

Contrary to expectations, the results of this study suggests that there are limitations to the extent that the cultural history of Chinese characters are said to have on the minds and social realities of Chinese speakers.³² However, they attest to the results of past research that demonstrates that the “importers of phonological innovations” and “agents of loanword diffusion” are the youth, those involved in academia, highly bilingual speakers, and “those in direct

contact with the donor language and/or culture”.³³ The demographics of the majority of those who participated in this study match one or more of these criteria, which explains their high acceptance rates of phonological adaptations over semantic adaptations.

8. Conclusion

In spite of the deeply ingrained importance of Chinese characters in the Chinese culture, the prestige of the English language appears to have achieved a remarkable degree of influence. This is likely due to recent changes in the Chinese educational and economical systems. On an official level, the Chinese government actively promotes English education, and many Chinese universities require that undergraduate students achieve a score of at least 60% of the College English Test (CET) before they may receive a Bachelor’s degree.³⁴ Furthermore, possessing at least minimal command of English has become a prerequisite of well-paying jobs, a high standard of living, the ability to participate in business endeavors, advanced technological and scientific research, and the development of China itself.³⁵ Unofficially, the recent rise in popularity of American and other English language media in China have made English a linguistic marker of status among fashionable Chinese youth.³⁶

While this study was more intended to discover the way in which Chinese people use language in general, the nature of the sample pool led the results to be more reflective of the language use of Chinese college students with substantial experience with the English language and who are of the age group directly influenced by the societal factors mentioned above. To improve upon this study, a larger sample size with a greater range of ages, English proficiency levels, occupations, socioeconomic statuses, and levels of familiarity with English-language culture would be necessary. Additionally, the present study, which tested loan word preference only in written form, could be expanded to include analyzing data gathered from transcriptions of spontaneous conversations in order to acquire data that more reliably reflects the word choice tendencies demonstrated in spontaneous language use. Using context as an additional variable would further help to clarify the role the use of the English language plays in Chinese society and in what situations using English is perceived by speakers as conducive to personal benefit.

9. Acknowledgements:

The author wishes to express deepest thanks to Dr. Oksana Laleko, faculty advisor from the Linguistics Program at the State University of New York at New Paltz for the time and work put into the development and evaluation of this research. The author also wishes to express tremendous gratitude to Professor Jingjing Xu, professor of Chinese at the State University of New York at New Paltz, all those who helped to review, correct, and improve the Chinese sentences used in the survey, and all 43 survey participants, for their contribution to this research.

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