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Internal and External Mechanisms of Englishization: Changes in Marked and Unmarked Chinese Passive Constructions

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Abstract. The Chinese language is changing, and like other languages, has been becoming more like English. This article focuses on the Englishization (Europeanization) of certain Chinese passive constructions. Previous research indicates that written Chinese has seen an increase in the use of the **被** *bèi* passive construction (BEIC) and a concomitant decrease in use of the notional passive construction (NPC) over time. This assertion is supported by a corpus-based analysis. An apparent-time research study shows that, in general, younger, more educated participants (those hypothesized to have more exposure to English) are more likely to use BEIC than are older, less educated participants in the sentence continuation task. However, this difference between groups is not captured in the binary forced choice task due to the increased use of BEIC under a conscious condition by the older, less educated participants. This finding sheds light on the psychological mechanism of internalization involved with Englishization.

Keywords: sociolinguistics; Englishization; Europeanization; Chinese; passive construction

[ch] 汉语欧化的社会机制和心理机制——被动表达的历时演变

摘要：正如世界上的许多语言一样，自十九世纪末二十世纪初以来，汉语语法不断欧化，尤其变得越来越接近英语。围绕着汉语书面语中的被动表达，前人研究指出“被”字句的使用频率在不断增高，而汉语特有的无标记被动句的适用范围越来越小。这一观察得到了历时语料的支撑。同时，视时实验的研究结果显示，相对于年长、受教育程度较低的被试，年轻、受教育程度较高的被试在自由造句时更青睐“被”字句，可是这一差异在单项选择题中并不明显：相对于自由造句任务考察被试对语言下意识的使用，单项选择题考察的语言知识需要有意识的控制，年轻、受教育程度高的使用者在两个任务中的表现没有明显差异；可是年长、受教育程度高的被试在单项选择题中自觉地提高了“被”字句的使用频率。这说明汉语欧化的社会机制是通过教育，由受高等教育的年轻一代向全社会扩散；心理机制则是从外在的显性知识不断内化以至于达到完全自动化的过程。

关键词: 社会语言学；欧化语法；汉语；“被”字句；无标记被动句

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1. Introduction

1.1 The Englishization of Chinese grammar

The contact with English has been changing the phonology, lexicon, grammar, discourse, registers, and styles of a number of languages including Japanese, Korean, major Indian languages, African languages, Southeast Asian languages, etc. (e.g., Kachru, 1994a; 1994b; 1996; Kachru & Smith, 1986; Phillipson, 1992; Phillipson & Skutnabb-Kangas, 1987) The impact of English is all-pervasive, but not always direct or visible. In many cases it is "unplanned" (Annamalai, 1994; Y. Kachru, 1989), coming through international media and processes of translation. This phenomenon is termed as "Englishization" or alternatively "Europeanization/ Westernization". Kachru (1994a: 139) claims that "English has left hardly any major language untouched", and Chinese is no exception.

At the beginning of the 20th century, faced with unprecedented social problems, Chinese scholars were keen to identify the evils responsible for the deplorable state of China, and the language was among their targets. It was repeatedly suggested that Chinese expressions are not accurate for complex logic. For example, Lu Xun (1934/1991: 382) claimed, "the written or spoken language of Chinese is definitely too not precise (中国的文或话，法子实在太不精密)". Based on this perception, quite a few scholars called for the Europeanization (欧化 *ōuhuà*) of Chinese grammar. For example:

(1) 要想使我们的白话文成就新文学，唯有应用西洋修辞学上的一切质素，使得国语文法欧化。
'If we want to accomplish new literature through our standard vernacular Chinese, qualities of Western languages must be adopted completely to make Chinese grammar Europeanized.'

(Fu Sinian, 1919)

Hu Shih explicated the advantages of "Europeanized written Chinese":

(2) (欧化白话文)充分吸收西洋语言的细密的结构,使我们的文字能够传达复杂的思想，曲折的理论。只有欧化的白话文才能够应付新时代的需要。
'(Europeanized written Chinese) assimilates the precise structure of Western languages, making our characters able to convey complex thoughts and profound theories. Nothing but Europeanized written Chinese can meet the needs of the new era.'

(Hu Shih, 1917)

At the same time, foreign texts began to be translated and published in China on a large scale. Literary historian A Ying (Qian Xingcun) estimates that of the at least 1500 published works of fiction in the last decade of the Qing, two-thirds were translations of foreign literature and many were English and French works.

Discontent with the traditional Chinese written language and the great popularity of translated texts brought about a dramatic change to written Chinese grammar used by authors and journalists, who were typically first established through translation work, such as Hu Shih, Chen Duxiu, Lu Xun, Guo Moruo, etc. The Chinese linguist, Wang Li, commented that (1944/1984: 434) "the grammar change occurred from 1910s to 1940s is no less than that observed from the Han dynasty (202 BCE) to the Qing dynasty (1912)." According to Kratochvil (1982: 287), Chinese has changed "perhaps more rapidly and more profoundly than any other one of the principle world languages."

Wang Li (1943/1985: 334-359, 1944/1984: 433-502, 1958/2004: 462-472) conducted a series of comprehensive research into the Europeanization of Chinese grammar (欧化语法 *ōuhuà yǔfǎ*). The phenomena he noted include the systematic use of subjects, pronouns and copulas, the increased length of Chinese sentences, especially in the modifiers, the expansion of the 被 *bèi* construction, Europeanization of coordination strategy of nouns, the existence of indefinite articles, and so forth. Built upon Wang's observations, Kubler (1985) and Hsu (1994) also made significant contributions by noting the use of the pluralization suffix –们 *men*, the adverbial suffix –地 *de* and many other prefixes and suffixes, the use of 当 *dāng* as a conjunction, etc.

Passive constructions have been a hot spot of discussion. Consensus is that with the Englishization of Chinese, the traditional negative/inflictive overtone of the 被 *bèi* construction has been loosening (He, 2008; Kubler, 1985; Tsao, 1978; Wang, 1943/1985: 353). Additionally, it is also observed that the overall frequency of BEIC has been increasing in language use, mainly demonstrated in two ways: (1) 被 *bèi* has been taking precedence over other passive markers such as 叫 *jiào*, 让 *ràng*, and 给 *gěi*; (2) 被 *bèi* has been used in contexts where no passive marker was traditionally needed (Hsu, 1994; Yu, 1987). Sparked by these observations, the present study looks into the use the 被 *bèi* construction (BEIC, henceforth), in relative to the notional passive construction (NPC, henceforth), in the Englishization process of Chinese.

1.2 Passive expressions in Chinese

It is well known that many English passive sentences cannot be translated into BEIC (e.g., Cheung et al., 1994; Zhou & Jin, 2004; Yip & Rimmington, 2004; *etc.*). Instead, an NPC without any passive marker is needed:

(3) 你 的 信 已经 (*被) 收 到 了。
*Nǐ de xìn yǐjīng (*bèi) shōudào le.*
you DE letter already BEI receive-LE
'Your letter has already been received.'

(Cheung et al., 1994: 494)

(4) 饭 (*被) 烧 好 了。
*Fàn (*bèi) shāo hǎo le.*
meal BEI cook-ready-LE
'The meal is ready.'

(Zhou & Jin, 2004: 61)

Xiao (2015) studied a parallel corpus composed of 250,000 English words and over 400,000 Chinese words, and found that only about 20% of *be* passives are translated into Chinese using syntactically marked passive constructions, "with the majority being translated using notional passives, subjectless sentences, sentences with vague subjects (e.g., 有人 *yǒu rén* 'someone', 人们 *rén men* 'people', 大家 *dàjiā* 'all'), and special sentence structures (e.g., the disposal 把 *bǎ* construction and the predicative 是…的 *shì … de* structure)" (Xiao & McEnery, 2010: 76).

Many researchers (e.g., Author, 2015; 2018; Cheung et al., 1994: 485-501; Li, 1994; Lv & Zhu, 1952/1979: 60; Z. Wang, 2004) analyzed the syntactic features of BEIC and NPC in Chinese and the selection between them is argued to be sensitive to the animacy of the subject (which is also the theme in these two constructions), and the lexical semantics of the verb. Namely there is a strong tendency for the subject of BEIC to be animate and the subject of NPC is usually inanimate (Li, 1994; Z. Wang, 2004). Inherently causative verbs involving force recipients and complex event structures (including creation verbs and change of state verbs such as 写 *xiě* 'write' and 摇 *yáo* 'shake') tend to occur in NPC; surface contact verbs that do not involve change of state or force recipients, such as 踢 *tī* 'kick' and 捶 *chuí* 'thump', tend to occur in BEIC (Zhang, 2015, 2018). Many other factors, such as the context, lexicalization of verbal phrases, resultative compounds, and so forth, are also suggested to be relevant (Li, 1994; Z. Wang, 2004), but the present study is only focused on the animacy of the theme, and verbal semantics.

However, researchers also found that after the New Culture Movement of the mid-1910s to 1920s, these linguistic constraints are becoming less and less important: examples violating the traditional vernacular usage began to be observed, and accordingly, the overall usage of BEIC has been increasing (Hsu, 1994). These changes are attributed to the Englishization (Europeanization) of Chinese grammar (Hsu, 1994; Norman, 1988: 165; Wang, 1943/1985: 334-359; 1944/1984: 433-502; 1958/2004: 462-472; Yu, 1987), as the unmarked form of NPC is distinct from the passive voice of Western languages.

2. Research Question

With a corpus study and an apparent-time study, the paper investigates the Englishization of Chinese passive expressions, i.e., the use of BEIC in relative to NPC of different age groups and education levels.

Since the Englishization is believed to come through international media and processes of translation (Kachru, 1994a), we hypothesize that the younger, more educated generation, who have more contact with English through media and education, tend to use more BEIC (as opposed to NPC) than the less educated, older generation.

As for the use of BEIC and NPC, we are concerned with the overall frequency and the loosening of the linguistic constraints. Based on previous literature, it can be hypothesized that the overall frequency of BEIC is increasing, accompanying a concomitant decrease of NPC, and that the linguistic constraints affecting the selection between BEIC and NPC, i.e., the effects of the animacy of the theme-subject and verbal semantics, are loosening.

3. Experimental Design

3.1 Method

The present study involves a corpus-based analysis and an apparent-time research study comprising of two picture description tasks, i.e., (1) a sentence continuation task investigating automatic production, followed by (2) a binary forced choice task probing into participants' voluntary choice under a conscious condition. In the corpus study, 16 verbals (including bare verbs, verb compounds and complex verb phrases) differing in verbal semantics were entered as keywords and searched in the corpora of the Ming dynasty (1368-1644), the Qing dynasty (1636-1912), and Modern Chinese of Cncorpus (www.cncorpus.org, a large-scale balanced corpus compiled by the State Language Commission of China). Tokens of the target verbals occurring in BEIC and NPC were counted and analyzed. If more than 500 tokens were collected for one target verbal in a specific historical period, 500 tokens were randomly selected for analysis. In the picture-description tasks, participants were presented with slides displaying different events, each involving an agent and a theme. In the sentence continuation task, participants were prompted with the theme of each slide and asked to complete the sentence, which means that BEIC, NPC, and other theme-initial structures are all possible responses. In the binary forced choice task, participants were presented with two sentences for each slide, taking the forms of BEIC and NPC respectively, and asked to indicate which description is better to describe the slide. The experiment was conducted completely in Chinese, in a pencil-and-paper written mode. The verbals appearing in the binary forced choice task are the same as the 16 target verbals used in the corpus study.

3.2 Materials

Since the corpus study and the binary forced choice task are using the same group of target verbals, the selection of target verbals needs to take into consideration the overall frequency, diversity of verbal semantics, and visualizability of semantics (so that they can be depicted in pictures). After consulting the HSK (*Hanyu Shuiping Kaoshi* 'Chinese Proficiency Test') Level 1-6 vocabulary guideline as a reference of frequency, we selected 16 verbals, all of which semantically allow animate or inanimate themes. Eight of them inherently encode changes of state, and the other eight do not. For the determination of change-of-state verbals, we applied the causal approach to lexical semantics (Levin, 2009). Croft (1994), Levin (2009) and Levin & Rappaport Hovav (2005) introduced the idea of a causal chain to elucidate the difference between change of state and non-change of state. A causal chain consists of a series of segments (or 'atomic events'), each relating two participants in the event" and that "a single participant may be involved in more than one segment" (Levin, 2009). Change-of-state verbs encode this causal chain by definition. The transitive form of 'break' has been used as an example to illustrate the causal chain, as follows:

(5) *Harry broke the vase.* Modelled with a three-segment causal chain:
(i) Harry acts on the vase
(ii) the vase changes state
(iii) the vase is in a result state (i.e., broken) (Croft, 1994, p. 38)

Complex event structures can be observed for this kind of verbs.

(6) break: [[x ACT] CAUSE [BECOME [y <BROKEN>]]]

(Levin & Rappaport Hovav, 2005, p. 113)

To avoid ambiguity, the change-of-state verbals in the present study all contain elements expressing the result state explicitly, and thus take the form of resultative verb compounds (e.g., 洗干净 *xǐ gānjìng* 'wash clean') or complex verb phrases (e.g., 染成蓝色 *rǎn chéng lánsè* 'blue dye'). In contrast, non-change of state is only instantiated by surface contact verbs (cf. Levin, 2009) that absolutely do not involve result states.

To design the materials for the picture description tasks, the animacy of the theme-subjects was also manipulated. Two lists of theme-verbal pairs, as shown in Table 1, were designed for the 16 target verbals.

Target Verbal	Semantic Type	Theme on List 1	Theme on List 2
找到 *zhǎodào* 'find'	Change of state	钱 *qián* 'money'	**小猫** *xiǎo māo* 'kitten'
染成… *rǎn chéng…* 'dye become…'	Change of state	T **恤衫** *tīxùshān* 'T-shirt'	**熊** *xióng* 'bear'
洗干净 *xǐ gānjìng* 'wash clean'	Change of state	**衣服** *yīfu* 'clothes'	**兔子** *tùzi* 'rabbit'
放在… *fàng zài* … 'put at…'	Change of state	书 *shū* 'book'	**小狗** *xiǎo gǒu* 'puppy'
画好 *huà hǎo* 'draw complete'	Change of state	**猫** *māo* 'cat'	**樱桃** *yīngtáo* 'cherry'
扔出去 *rēng chūqù* 'throw out'	Change of state	**小狗** *xiǎo gǒu* 'puppy'	**烟**头 *yāntóu* 'cigarette butt'
设计**好** *shèjì hǎo* 'design complete'	Change of state	龙 *lóng* 'dragon'	**衣服** *yīfu* 'clothes'
包好 *bāo hǎo* 'wrap complete'	Change of state	婴儿 *yīng'ér* 'baby'	**礼物** *lǐwù* 'gift'
拉 *lā* 'pull'	Non-change of state	绳**子** *shéngzi* 'rope'	驴**子** *lǘzi* 'donkey'
撞上 *zhuàngshàng* 'run into'	Non-change of state	树 *shù* 'tree'	**鹿** *lù* 'deer'
踢 *tī* 'kick'	Non-change of state	**球** *qiú* 'ball'	**男人** nánren 'man'
踩 *cǎi* 'step on'	Non-change of state	**香蕉皮** *xiāngjiāo pí* 'banana skin'	乌龟 *wūguī* 'turtle'
摸 *mō* 'touch'	Non-change of state	**虫子** *chóngzi* 'worm'	屏幕 *píngmù* 'screen'
敲 *qiāo* 'knock at'	Non-change of state	乌龟 *wūguī* 'turtle'	钉**子** *dīngzi* 'nail'
检查 *jiǎnchá* 'examine'	Non-change of state	**病人** *bìngrén* 'patient'	**行李** *xínglǐ* 'luggage'
推 *tuī* 'push'	Non-change of state	骆驼 *luòtuo* 'camel'	**球** *qiú* 'ball'

Table 1. *Target verbals and theme-verbal pairs in the picture description tasks*

It can be noticed from Table 1 that there are 4 theme-verbal pairs of each condition on each list, and across the two lists, the animacy of the themes for the same verbal are opposite to each other. For example, the verbal 画好 *huà hǎo* 'draw complete' is paired with an animate theme 猫 *māo* 'cat' on List 1, an inanimate theme 樱桃 *yīngtáo* 'cherry' on List 2; 洗干净 *xǐ gānjìng* 'wash clean' is paired with an inanimate theme 衣服 *yīfu* 'clothes' on List 1, an animate theme 兔子 *tùzi* 'rabbit' on List 2.

Participants were randomly assigned into two groups. One group had List 1 as sentence completion and List 2 as binary forced choice, and the other way around for the other group. Importantly, the sentence completion task always preceded the binary forced choice task to avoid the priming effect caused by the provided choices.

Based on the target theme-verbal pairs, comic pictures were found on the internet to form picture series shown on each slide as visual stimuli. Since passive is argued to be related to agentivity — "in the passive, the actor is not in the subject position, but it can often be expressed in an actor phrase, and in any case the existence of an actor is implied in a passive clause" (Haspelmath, 1987) — there is an outside force (typically an acting person or acting hands, as shown in Figure 1) acting on the theme in every picture series to exclude the possibility that themes are interpreted as changing spontaneously. In order to highlight the difference between a change of state and a non-change of state, each change-of-state event is illustrated in a series of three pictures showing the initial state, the imposition of the outside force, and the resultative state respectively, whereas a non-change-of-state event is depicted by one picture. Sample PowerPoint slides in the binary forced choice task for each condition are given in Figure 1.

Inanimate, Change of State

Inanimate, Non-change of State

Animate, Change of State

Animate, Non-change of State

Figure 1. Sample slides of the binary forced choice task for each condition.

In the sentence continuation task, only the first word was presented as the prompt, as shown in Figure 2.

Figure 2. A sample slide of the sentence continuation task

Slides were presented in a randomized order in each task to avoid priming effect caused by items of the same condition occurring consecutively.ç

4. Participants and Procedure

76 native speakers of Chinese, 31 males and 45 females, recruited from students, faculty and staff in a big university in China, participated in the present study. Mean age: 32.61; age range: 17-60. Based on education level, the highest degree of 2 participants is elementary school (sixth grade, coded as "1" in data analysis); 4 participants completed secondary school (ninth grade) but never attended high school (coded as "2"); 15 participants completed high school (twelfth grade) but never went to college (coded as "3"); 16 participants were either studying in college or had a bachelor's degree as the highest degree (coded as "4"); 39 participants were enrolled in a graduate program or have a master's degree (coded as "5").

Each participant was provided with an answer sheet starting with a brief background information survey critically gathering information regarding age and education level. After the background information survey, PowerPoint slides were presented for them using a MacBook and participants wrote down their answers on an answer sheet. The sentence continuation task was always before the binary forced choice task. In both tasks, participants were instructed to respond based on their intuition.

5. Results

5.1 Overall usage of BEIC against NPC

5.1.1 Corpus-based analysis

The number of tokens in which the target verbals occur in BEIC were counted, and contrasted with the number of tokens in which they occur in NPC for each of the three historical periods. Results are presented in Table 2.

	Semantic Type	Ming Dynasty	Qing Dynasty	Modern Mandarin	BEIC/NPC Total
找到 *zhǎodào* ‘find’	Change of state	0/0	0/22	0/18	0/40
染成… *rǎn chéng*… ‘dye become…’	Change of state	0/4	0/3	7/12	7/19
洗干净 *xǐ gānjìng* ‘wash clean’	Change of state	0/1	0/4	0/3	0/8
放在… *fàng zài* … ‘put at…’	Change of state	0/97	0/53	3/109	3/259
画好 *huà hǎo* ‘draw complete’	Change of state	0/0	0/1	0/4	0/5
扔出去 *rēng chūqù* ‘throw out’	Change of state	0/0	0/1	0/0	0/1
设计**好** *shèjì hǎo* ‘design complete’	Change of state	0/0	0/0	0/0	0/0
包好 *bāo hǎo* ‘wrap complete’	Change of state	0/1	0/1	0/4	0/6
拉 *lā* ‘pull’	Non-change of state	0/11	2/8	2/8	4/27
撞上 *zhuàngshàng* ‘run into’	Non-change of state	0/0	0/0	0/0	0/0
踢 *tī* ‘kick’	Non-change of state	0/5	0/3	11/18	11/26
踩 *cǎi* ‘step on’	Non-change of state	0/1	0/0	10/6	10/7
摸 *mō* ‘touch’	Non-change of state	0/11	0/5	1/8	1/24
敲 *qiāo* ‘knock at’	Non-change of state	0/42	2/10	6/23	8/75
检查 *jiǎnchá* ‘examine’	Non-change of state	0/1	0/0	2/7	2/8
推 *tuī* ‘push’	Non-change of state	1/19	1/22	14/21	16/62
Total		1/193	5/133	56/241	62/567

Table 2. Number of BEIC/NPC tokens for each target verbal in each historical period

It can be seen that cases of BEIC are extremely rare in the Ming dynasty and the Qing dynasty. A major increase is seen in Modern Mandarin, confirming the hypothesized relationship between the Englishization (Europeanization) of Chinese and the expanding usage of 被 *bèi*.

5.1.2 The sentence continuation task

In the sentence continuation task, as previously mentioned, participants were only presented with the theme as the initial word, so NPC, BEIC and other theme-initial structures are all possible responses. In the collected data, 554 out of 1216 responses take the forms of NPC or BEIC, accounting for 45.56%. Other structures frequently used by participants include stative sentences without an action verb (e.g., 衣服焕然一新 *yīfu huànrányīxīn* ‘the clothes new’), the long passive structure with the agent (e.g., 鹿被车撞死了 *lù bèi chē zhuàng-sǐ-le* ‘the deer is hit and killed by the car’), and the ‘theme + agent + verb’ topic structure (e.g., 钉子榔头敲了 *dīngzi*

lángtou qiāo-le 'the nail, the hammer knocked'). Structures other than BEIC and NPC were excluded from analysis. Responses taking the form of BEIC were coded as "0", and responses taking the form of NPC were coded as "1".

We first used point-biserial correlations, computed with the cor.test function in R, to look at the correlation between age/education level and construction selection, with age and education level both treated as interval variables. There were significant correlations between age and response (r_{pb} = 0.2361, t = 5.7446, df = 559, p = 1.515 *10^{-8}), and between education level and response (r_{pb} = -0.2829, t = -6.9749, df = 559, p = 8.681*10^{-12}). We also employed mixed-effects logistic regression models (GLMER) to look at the effects of age and education level. Compared to traditional procedures such as analysis of variance, GLMER models can simultaneously include random effects of participants and items, as well as experimental manipulations as fixed effects (cf., Neuhaus et al. 1992). For all analyses, We report coefficients (β), standard errors, *t*-values, and *p* values. *P* values were calculated by the package LmerTest in R packages. In this analysis, age and education level were entered as predictors, and participant and item were entered as random effects. Results show a main effect of education level (β = -0.6294, *SE* = 0.2348, t = -2.681, p = .0074), but no main effect of age (β = 0.0295, *SE* = 0.0184, t = 1.603, p = .1088)

Overall, younger, more educated participants were more likely to use BEIC, as opposed to NPC, than older, less educated participants. The effect of education level is stronger than that of age.

5.1.3 The binary forced choice task

In the binary forced choice task, participants can only choose from NPC and BEIC to describe the slides. Same as the sentence continuation task, responses taking the form of BEIC were coded as "0", and responses taking the form of NPC were coded as "1". The point-biserial correlation analyses show a weak correlation between age and responses (r_{pb} = 0.0640, t = 2.2331, df = 1214, p = .0257), but not significant correlation between education level and responses (r_{pb} = -0.0065, t = -0.2254, df = 1214, p = .8217). Results from the GLMER model did not find a main effect of age (β = 0.0127, *SE* = 0.0274, t = 0.462, p = .6444) or education level (β = 0.4840, *SE* = 0.2968, t = 1.631, p = .1029). Overall, the effects and education level are not clearly seen in the responses in the binary forced choice task.

5.1.4 The comparison of two tasks

Figure 3 plots the correlations between age and responses in the sentence continuation task and the binary forced choice task. As mentioned previously, younger participants tend to use more BEIC than older participants in the responses in the sentence continuation task, but this tendency is barely seen in the binary forced choice task. A similar discrepancy is observed from the correlations between education level and responses in two tasks, as shown in Figure 4.

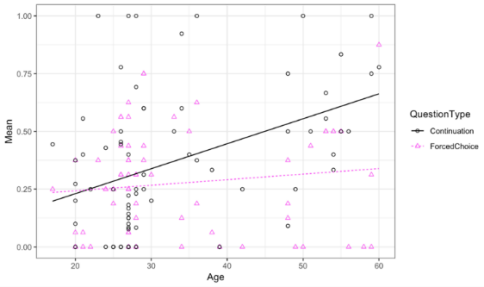

Figure 3. Correlations between age and responses in two tasks

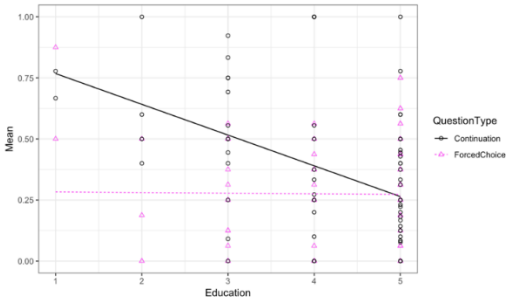

Figure 4. Correlations between education level and responses in two tasks

To investigate where this discrepancy comes from, we split participants (based on age) into an older group and a younger group, taking 30 as the cutting point; and (based on education level) into a more educated group and a less educated group, with college attendance as the cutting point. The percentages of BEIC usage in two tasks of each group are presented in Table 3.

	Sentence Continuation	Forced Choice
Older	47.26%	71.53%
Younger	75.75%	73.09%
Low Education	43.31%	71.88%
High Education	75.18%	72.77%

Table 3. *Four groups' overall percentages of BEIC use in two tasks*

These data can be plotted in Figure 5.

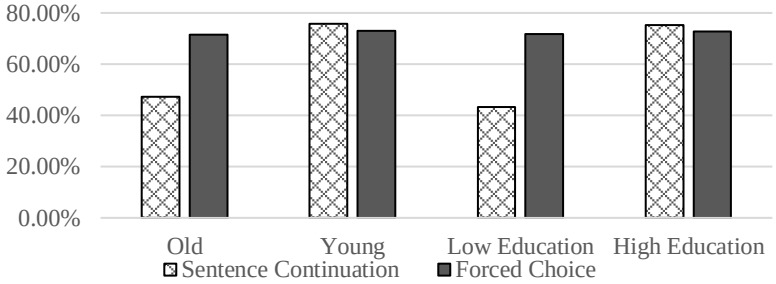

Figure 5. Four groups' overall percentages of BEIC use in two tasks

Interestingly, the older group and the less educated group were much more likely to use BEIC against NPC in the binary forced choice task than in the sentence continuation task, but such difference is not captured in the performances of the younger group and the more educated group. This observation explains the pattern observed before that age and education level significantly correlate with responses in the sentence continuation task, but not in the binary forced choice task. Since the binary forced choice task taps on a more explicit level of knowledge than the sentence continuation task, this finding indicates that older, less educated participants use more BEIC when they are conscious: part of their knowledge about BEIC usage is voluntary but not automatic. In contrast, the consistency of the younger, more educated participants' performances in two tasks signifies a symmetry between their implicit and explicit knowledge. The discrepancy between implicit knowledge and explicit knowledge is even more dramatic if we include corpus data into analysis. As shown in Table 2, in the Modern Mandarin corpus, the numbers of tokens of the 16 target verbals occurring in BEIC and NPC are 62 and 567 respectively, which means in natural production outside the experiment setting, the frequency of BEIC is still much lower than in participants' responses in the sentence continuation task.

5.2 Sensitivities to the animacy cue and the verbal semantic cue

Table 4 presents the percentage of BEIC use of each group in each linguistic condition in the sentence continuation task, also plotted in Figure 6.

	Older	Younger	Low Education	High Education
Animate-Non	80.00%	94.52%	75.00%	94.87%
Animate-Change	60.00%	90.35%	53.57%	88.89%
Inanimate-Non	40.35%	72.16%	34.00%	71.72%
Inanimate-Change	27.27%	50.00%	25.81%	51.94%

Table 4. *Percentage of BEIC use of each group in each linguistic condition (sentence continuation)*

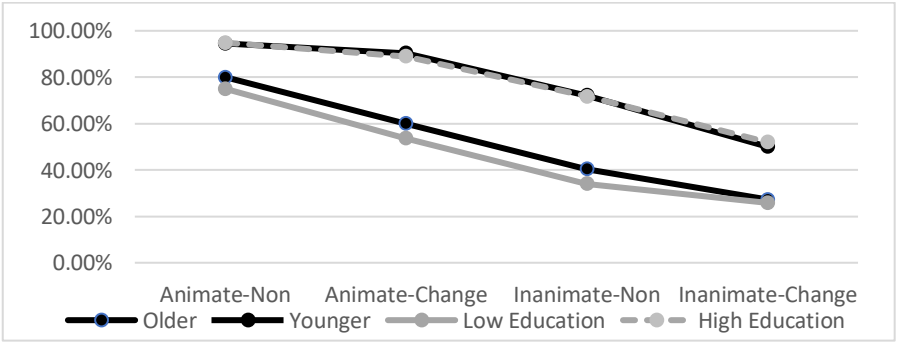

Figure 6. Percentage of BEIC use of each group in each linguistic condition (sentence continuation)

Despite the overall more extensive BEIC use among younger and more educated participants, all groups display similar sensitivities to the animacy cue and the verbal semantic cue. This finding is by and large replicated in the results of the binary forced choice task, as shown in Table 5 and Figure 7.

	Older	Younger	Low Education	High Education
Animate-Non	91.67%	90.82%	88.75%	91.96%
Animate-Change	59.26%	64.80%	61.25%	63.39%
Inanimate-Non	81.48%	88.27%	82.50%	87.05%
Inanimate-Change	53.70%	48.47%	55.00%	48.66%

Table 5. *Percentage of BEIC use of each group in each linguistic condition (binary forced choice)*

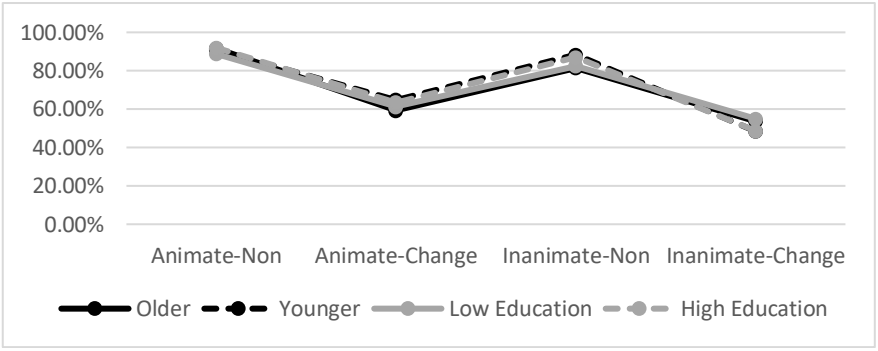

Figure 7. Percentage of BEIC use of each group in each linguistic condition (binary forced choice)

Clearly, younger, more educated participants are equally sensitive to the animacy cue and the verbal semantic cue as older, less educated participants, presenting no evidence supporting the loosening of the linguistic constraints—the animacy of the theme and verbal semantics are still playing their roles in affecting NPC/BEIC selection.

6. The Speculative Mechanism of Englishization: Social and Psychological Perspectives

Englishization of language is typically initiated by private individuals like translators, writers and journalists, and then, the written form they invented became public and contributed to making canons through print culture, education, and international media (cf. Harada, 2015). With more exposure to English, the more educated, younger generation should hypothetically use more BEIC as opposed to NPC, as the marked form of BEIC is closer to the passive voice in English than the unmarked NPC. The results from two picture description tasks support this hypothesis, consistent with the finding from corpus showing the expanding usage of BEIC.

Another interesting finding is that older, less educated participants showed a discrepancy between their performances in two tasks: the percentage of BEIC usage is higher in the binary forced choice task than in the sentence continuation task — in fact, their performances in the binary forced choice task are no different from younger, more educated participants. As previously mentioned, compared to the

sentence continuation task, the binary forced choice task taps on a more explicit level of knowledge. This finding suggests that older, less educated participants are more likely to use BEIC under a conscious condition, i.e., their knowledge of using BEIC over NPC has not been fully internalized. Therefore, at a social level, we see that Englishization spreads from the younger, more educated generation to the older, less educated generation. At a psychological level, a corresponding process is taking place with knowledge internalizing from consciousness to automaticity. Taken together the social and the psychological perspectives, the mechanism of Englishization can be represented in the following diagram.

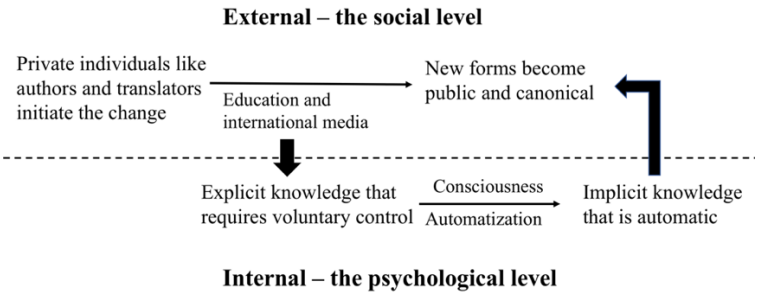

Figure 8. The mechanism of Englishization

7. Discussion and Future Directions

It has been suggested that as Chinese grammar is being Englishized (Europeanized), NPC is gradually giving way to BEIC for Chinese passive expression (Hsu, 1994; Yu, 1987). Corpus data from the Ming dynasty, the Qing dynasty and Modern Mandarin support this claim by showing that the frequency of BEIC in relative to NPC was extremely low before the 20th century, and a major increase is only seen after the ending of the Qing dynasty. The apparent-time research study further shows that younger, more educated participants are more likely to use BEIC, as opposed to NPC, than older, less educated participants in the sentence continuation task, but this difference is not observed in the binary forced choice task, confirming that Englishization is a dynamic process spreading through education, print literacy and international media. However, all participants show similar degree of sensitivities to the animacy cue and the verbal semantic cue, suggesting that the linguistic constraints affecting the selection between NPC and BEIC are not loosening.

Moreover, the observation that older, less educated participants are more likely to use BEIC under a conscious condition sheds light on the internal mechanism underlying the Englishization of Chinese grammar, which operates through the automatization of explicit knowledge.

As a preliminary exploration of the socio-psychological mechanism of language Englishization, the present study has left open more questions than it can possibly solve. In the first place, there are other tasks more commonly used to assess explicit and implicit linguistic knowledge. For implicit knowledge, a timed sentence completion task in the oral mode would tap on a more implicit level of knowledge than the sentence continuation task (R. Ellis, 2005), and explicit knowledge is defined to be able to be verbalized (Dienes & Perner, 1999), so some verbal report

methods including think-aloud protocol analysis or stimulated recall (Kasper, 1998) may be helpful. Secondly, the tendency that some people are more likely to use BEIC under a conscious condition call attention to the identity issue underlying Englishization. Li (1997: 479, cited by Xu, 2009) points out that local people tend to take Englishization of their local language as a sign of sophistication, trendiness and a means for a new "borrowed identity". To investigate whether our participants have this mentality, a questionnaire can be added to test their attitudes towards BEIC and NPC in language use. Besides, the changing passive expression is merely one example of the Englishized Chinse grammar. There are many other examples previously discussed (Wang, 1943/1985: 334-359; 1944/1984: 433-502; 1958/2004: 462-472). The applicability of the proposed mechanism of language modernization is yet to be tested. To firmly establish this model, support from other structures and other languages are critically needed.

In the last place, there remains another issue pertaining to the participants of the present study. Due to practical reasons, more younger, highly educated people participated in the present study than older, less educated people. For future studies, a more balanced sample will be preferred.

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APPENDIX: ANSWER SHEETS

看图说话小调查(A 组)

您的性别：_____ 年龄：_____ 学历：_____

除了普通话以外，您在日常生活中还说什么方言？_____

您学过哪些外语，学过多久？_____

第一部分：首词造句

1. 烟头_____
2. 熊_____
3. 礼物_____
4. 小猫_____
5. 钉子_____
6. 乌龟_____
7. 驴子_____
8. 小狗_____
9. 樱桃_____
10. 男人_____
11. 兔子_____
12. 屏幕_____
13. 球_____
14. 衣服_____
15. 鹿_____
16. 行李_____

第二部分：单项选择

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

看图说话小调查(B 组)

您的性别：_____ 年龄：_____ 学历：_____

除了普通话以外，您在日常生活中还说什么方言？_____

您学过哪些外语，学过多久？_____

第一部分：首词造句

1. 钱_____
2. 婴儿_____
3. 乌龟_____
4. 虫子_____
5. 绳子_____
6. 骆驼_____
7. T恤衫_____
8. 猫_____
9. 球_____
10. 病人_____
11. 香蕉皮_____
12. 小狗_____
13. 树_____
14. 龙_____
15. 书_____
16. 衣服_____

第二部分：单项选择

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16