

Markedness in negative interlingual transfer: analysis of the productive skills of Chinese

Xiaoya Hang^{1, †}, Xun Li^{2, *, †}

¹School of Humanity and Social Science, Xi'an Jiaotong-Liverpool University, Suzhou, China

²School of English, University of Sheffield, Sheffield, the United Kingdom

*Corresponding author: xli222@sheffield.ac.uk

[†]These authors contributed equally.

Abstract. Language transfer is essential in foreign language learning which can make influence on the second language acquisition positively and negatively. This study is focused on the negative transfer which always has connection with the differences in the linguistic features of two languages. Features in language can be regarded as having the characteristic of markedness. Unmarked features are natural and easy-memorizing but marked features might be more effort-needed to manage. In order to figure out why Chinese students having trouble learning English, based on the data collection and other research, the detailed linguistic analysis is provided in this essay. The thesis statement will concentrate on five linguistic aspects: 1) Phonology, 2) Lexicon, 3) Syntax, 4) Semantics, and 5) pragmatics. Phonemes and tones will be introduced in phonology. Lexicon and syntactical differences are included in part two. Some semantic components will be featured with markedness and the way and attitudes which people represent feelings pragmatically will be discussed in the end. The comparison between Chinese and English is given and markedness is also concluded in each part of the features through this essay. According to the analysis and the conclusion could be given that negative transfer occurred in each aspect of language acquisition and more attention are needed for L2 learners to avoid making mistakes.

Keywords: Markedness; Negative interlingual transfer; Second language acquisition.

1. Introduction

Due to the huge difference between Chinese and English in many aspects, there are increasingly more students who learn English in China or decide to study overseas having trouble acquiring English as their second language, the problems happened through this process might have similar features and they all because of the negative transfer from the first language to second language acquisition. Language transfer refers to the propensity to transfer phonology, grammar, and semantics from one language to another. Researchers argued that a learner's native language had a significant influence on their capacity to learn a second language [1]. Language transfer can be divided into two occasions which could influence the second language acquisition positively and negatively. Positive transfer is due to the similarity between the first language and the second one that could promote the understanding and memorizing of a new language. For instance, Lipka pointed out a theory that learners will get better score in written English if their first languages have similarities in grammar with English which could evidence the impact of positive transfer [2]. By contrast, negative transfer happens when structural differences between the two languages cause systematic mistakes during the process of learning the second language and transferring native language to the second one. Negative transfer can also represent the disruptions in L2 learning which caused by native tongues and Corder also evidenced the existed phenomenon that most of the second language learners who have the lower level of language study are commonly affected by their first languages [3-4]. There are many articles and research focused on English as the second language, but the concentration of L1 learners as Chinese is quite rare. For instance, Ionin, Zubizarreta and Maldonado made research about the language transfer from L1 learners as Spanish and learned English as L2 [5]. In addition, there are many articles focus on the language transfer between Japanese and English. Korean as another popular Asian language has also received many attentions about how Korean students learn English

as Windle supported in 2006 [6]. Chinese as the first language is lack of analyzing so it could also be a well-worth discussing topic. Markedness is non-ignorable during the transformation process which happened through the linguistic organization in all aspects. The things which transfer from L1 to L2 could be featured as marked or unmarked. Unmarked features refer to the categories or identities which are considered as 'natural' or 'original' such as the verb 'walk'. By contrast, marked illustrates the 'opposite' site compared with unmarked features such as 'walked' which shows the past-tense by adding a suffix word-finally. The significant factor to help researchers figure out the concept of markedness is fixed relations do not always exist; however, the internal evaluation of opposites should be emphasized. Within each language, a marked form may be marked. The concept of markedness was first coined by Turetsky in his classification of various phonemic opposites. For example, in the two opposing phonemes, /t/ and /d/, the former is unmarked because /t/ has no voicing, while the latter is marked because it has voiced sound. Another example is "number" of English nouns. Plural nouns are marked by adding (e)s, while singular nouns are unmarked and do not add (e)s. The Prague School's labeling theory is an absolute dichotomy pattern, that is, a language component is either labeled or unlabeled. The former is marked, which definitely conveys information X, while the latter is unmarked, which may or may not convey information X, and can be expressed as "x" and "X+ non-X". The markedness theory has been applied in extensive fields of linguistic studies such as phonology, lexicon, syntax, semantics and pragmatics. Researchers can briefly know markedness in these five aspects from the perspective of language acquisition and second language acquisition. Taking children as an example, in the process of language acquisition, unmarked terms tend to be more easily acquired due to their simple form and a high degree of social regulation. The first things children learn are unmarked vowels and consonants, unmarked grammatical forms, and unmarked speech. From the perspective of language acquisition, the reason why babies can learn words "mom" and "dad" at first is because they contain the most natural and easiest unmarked vowels /a:/ and consonants /m/. These monophones have been learned by infants when they cry. From the perspective of reception, the response of speech recipients to unmarked speech expression is better than that to marked speech expression. In one study, subjects were shown to be unhappy when they understood that since she had been laughing/crying for the last hour, she must be happy. The reaction to the unmarked word happy was much higher than the reaction to the marked word unhappy. Next, this paper will elaborate from these five aspects.

2. Analysis of productive skills

2.1 Phonology

The markedness in phonology aims to highlight the central element which shows that only some phonological constitutes have special status through the whole system. However, markedness is language-depended which has various distinctions between different languages and phonological patterns have many variants [7]. Concentrating on the main thesis statement of this essay, Chinese and English have different syllable structures which cause the differences in the phonological markedness. Albright, Hahn and Bailey argued that markedness is not only about the segment itself but also influenced by phonological features [8-9]. Chinese is an opened-syllable language which words always end up with a vowel and most of the Chinese words have structure as the initial consonant (C) plus the final vowel (V) like the word 'desk' in Chinese will be pronounced as 'zhuo zi' which makes a final /i/ as the end of the word. By contrast, English has the different situations that end up with a velar plosive consonant /k/ in 'desk'. Chinese also have the syllable structure like VV or V, but the phonological system in English has more variety such as CV, VC, CVC, CVCC and so on. CV is considered as an unmarked format evidenced by Rice in 2007 [10]. Such differences may lead to the mistake when Chinese people pronouncing English words and writing them down with wrong syllables. Learners also need more time to memorize the specific occasions or phonology constitutes which do not exist in their mother tongue. For example, unmarked sounds are effortless to manage such as /p/, /b/ or the vowel /a/ which are considered as natural and commonly existed in

the majority of languages. By contrast, English has some unusual and marked sounds like fricative phonemes /θ/, /ð/, and /ʒ/ which might be hard for learners to produce and match up the correct IPA syllables with their pronunciations. In addition, English does not have such diverse tonalities as Chinese which could affect the language transfer especially on practicing spoken English. Chinese has totally five tones with each phoneme: tone 1 sounds stable and smooth; tone 2 is quite a rising tone; tone 3 is twisted with a rise after producing a falling tone; tone 4 is a simple falling tone and tone 5 is special which produce a neutral tone. Besides, each part of China has its own speaking habits and accents which cause the difference using tones. Zhang made analysis based on the data resources of tonal inventory in Tianjing and many figures represented the sandhi which people let tone 4 change to tone 2 before a tone 1 can be regarded as a result made by markedness [11]. In this case, Chinese students might have difficulties catching the most precise tone of English phonemes and easy to carry with unusual and strange accents, especially for who does not have a standard language environment that their spoken English are more likely effected by Chinese dialects.

2.2 Lexicon

In the part of speech, this essay will focus on introducing some negative transfers on noun and prepositions. Modern English nouns belong to the category of grammar, which is one of the marked grammatical items. The English plural is marked item, the singular is unmarked item. Plural nouns in English are formed by singular inflectional affixes "-s or -es", which have dominant morphological marks and reflect the characteristics of English hypotaxis. However, Chinese is a semantic language, which realizes the connection of words or sentences by means of the logical connection of their meanings [12]. According to Zhuang, missing plural nouns accounted for 71.7% of all noun-related errors [13]. Based on the misclassification of nouns used by learners, it can be found that the absence of plural markers was very serious. There are many reasons for differences in expression, such as the differences between Chinese and English characters, grammatical types and the ways of thinking. From the perspective of linguistic typology, there are mutual constraints between plural marker and quantifier system, a language cannot develop both a quantifier system and a plural marker. For instance, in the process of language output, the Chinese learners are disturbed by the pattern of Chinese thinking. In the use of Chinese, there is almost no number mark. For example, in the phrase "two dogs", There is no other word added behind "dog". Instead, Chinese people use quantifiers with specific meanings to express plural numbers. Moreover, the number of Chinese nouns can also be expressed by other words, such as adjectives, verbs, adverbs or other nouns, which act as attributive, predicate, adverbial, complement, appositive and other sentence elements in a sentence [14]. Markedness can also be illustrated in the application of prepositions, the meanings of which are difficult to analyze and they are easy to be discarded in processing text [15]. Prepositions are the most active words in the English language. To some extent, English is the language of prepositions. However, there has always been a view in Chinese grammar circles that modern Chinese does not have prepositions. Prepositions are actually verbs. Some grammars call them secondary or auxiliary verbs. This statement also illustrates the great difference between English and Chinese prepositions. Moreover, the system of English preposition is far more complicated than Chinese one. Therefore, it is common for Chinese students to have the improper selection of English prepositions with the indistinguishable meanings in Chinese. That is why they cannot understand, accept and grasp so many prepositions well in a short learning process. Moreover, Chinese students find it hard to distinguish when there is a cluster of different English prepositions with identical Chinese meanings [16]. According to Lian, here are 286 prepositions in English while only 30 in Chinese [17]. For instance, for native Chinese speakers, there is no other Chinese character for the preposition "zai". As a result, when students acquire English prepositions "at" "in" and "on", which means the meaning of "zai", there will inevitably be difficulties. Students may choose the above prepositions randomly, which will lead to negative transfer of mother tongue. The Chinese preposition "zai" greatly interferes with the correct extraction of English prepositions at, in, on and so on. In fact, in the process of student extraction, there will be cognitive impairment. In terms of the meaning of prepositions, English

prepositions have more specific meanings, such as below/under, indicating the difference of time and place in/at. However, Chinese prepositions are often used together with location words to indicate location or direction, whereas English prepositions of location themselves contain the meaning of location. Chinese and English belong to different language families, and their differences far outweigh their commonalities. This also indicates that the errors made by Native Chinese English learners in acquiring prepositions are caused by negative transfers of native language.

2.3 Syntax

The most basic sentence type in English is SVO, which is the structure of subject + predicate + object. It is the most common and easy type to master. Therefore, it is unmarked. Although there is OSV sentence type in ancient Chinese, which is the structure of object + subject + predicate, this sentence type is relatively rare and difficult to master, belonging to marked sentence type. However, modern Chinese is a typical SVO language with the same word order as English. SVO is considered by most to be the canonical order of Chinese [18]. When the corresponding second language norm is marked, the unmarked features in Chinese is most likely to be shifted. Locative inversion is present in Chinese and English and they demonstrate a similar degree of frequency/use. It is generally associated with passivized verbs or accusative verbs [19]. that locative inversion plays a role when the theme phrase bears a discourse function focus or the argument structure of the verb is: <theme, location>. In the sentence *chuang shang fang le yizhan deng* ‘on the table is placed a lamp’, it is obvious that Chinese non-passivized transitive verbs can also occur in locative inversion. It is more marked in English as opposed to Chinese. Because of the similar distribution of verb position inversion in Chinese and English, there is no typological marker for English-Chinese learners. Learning difficulties are unexpected. From the perspective of syntax, more positive effects can be transferred into L2.

2.4 Semantics

In modern semantics, it is generally believed that the most basic structural level of semantic analysis is semantic component (semantic marker, semantic feature and sememe). The essence of sememe analysis is to regard the feature as the criterion to distinguish word meaning. The operation method of embodiment is contrast, which is limited to the rational meaning of words in the same semantic field. For instance, in the semantic field, users can generalize some common sememes and then distinguish them by semantic features. Unmarked features contain the meanings of marked features semantically and can be used in it. For example, when *man* refers to human, it contains the meaning of woman. Woman means “adult female human”. In late Old English, it was called *wimman*, literally “woman-man”. From this point, we can conclude that “man” is the stem of the word “woman”, and the prefix of it is “wo”, which is derivational. In English, most women's occupations end in stem (usually a male occupation) with “ess”, such as waitress, actress and hostess. However, in China, when a noun is used to distinguish between genders, it is customary to put the word representing the gender as an adjective before the noun which needs to modify. It is acceptable for Chinese students to use some words like “waiter” and “actor” to call those gentlemen. Whereas, they will call those ladies “female waiter” and “female actor”. Therefore, it is obvious that for Chinese students, the occupations of male are unmarked, which are easier for them to acquire, however, some negative transfers can be found when they described the occupations of female. Moreover, with the development of functional linguistics, sememe labeling has broken through the bondage of rational meaning and entered the field of irrational meaning, in which cultural semantics and functional rhetoric take the lead. Under the theoretical framework of cultural semantics, tokenism refers to the relevant reference of lexical units to national culture, and the manifestation of tokenism of linguistic units must rely on cross-language contrast. For example, the owl is just an animal in Chinese culture, without cultural concomitant meaning and cultural marker, while the owl is rich in cultural concomitant meaning in British culture. For example, the English word “owl” is a symbol of wisdom, and the idiom “as wise as owl” is an example, so it is marked.

2.5 Pragmatics

The language transfer in lexicon typically refers to the transformation in language acquisition pragmatically which illustrates the language using habits and notions performed in L2 communications which was set up in their lexicon of L1. The unmarked form in pragmatic is considered as a common and easy-transferred format [20]. Pragmatic transfer always comes with the negative transfer from L1 to L2 and this issue is regarded as having a kind of relation to the directness or politeness and the attitude of speaking or representing feelings. It also depends on different cultures and speaking environments but it is hard to clarify a clear statement because the criteria is depending on culture or even individuals. For instance, in a Chinese company, if leaders want other subordinates to help to make a copy of a document, they might represent their requirements quite straight forward like 'Make a copy for me, thanks.' This is because of the obsession of hierarchy in China that people of high-rank in a company or apartment will be treated favorably and lower-ranking colleagues should show more respect even though they might be treated impolitely. However, this situation might be rude in English speaking countries because people have consensus that everyone is equal but doing the different parts of work, and therefore they need to be more polite to everyone. In this case they might say 'Hi, if you have time do you mind doing me a favor that I need a copy of a document. English speaking people are more likely to use much more indirect and polite lexicon compared with Chinese in some situations so it might be a language barrier for L2 learners to express their thoughts using the most correct lexicon. In addition, according to Du's research, Chinese people are more willing to complaint or share negative emotions behind of others [21]. Such indirect representations are more marked than the direct methods. Eckman figured out the Markedness Differential Hypothesis which supported that markedness has a proportional relation with difficult level that the marked differences between L1 and L2 will be more difficult [22]. Because of that, the unmarked pragmatic knowledge is more easily to be acquired from L1 to L2 than the marked one so learners and teachers should pay more attention to avoid the negative transfer.

3. Conclusions

To summarize, in the above article, to those Chinese learners who study English as L2, the phenomenon of negative transfer in second language acquisition caused by various differences has been demonstrated through the study of markedness. The markedness was researched from 5 main aspects: Phonology, Lexicon (nouns and prepositions), syntax, semantics and pragmatics. We found that unmarked features, for instance, in phonology, some natural phonemes that are common in most languages, in lexicon, the singular form of nouns, in syntax, the most basic sentence type, in semantics, a number of words which are related to men were easier for second language learners to accept and pick up. However, the negative transfer caused by markedness cannot be ignored. In phonology, due to the differences between Chinese and English in syllable structure, phonetic features, tones and language environment, it is difficult for learners to have pure spoken English. In lexicon, learners also have great problems in the correct use of plural nouns and prepositions. In semantics, some words related to women are often controversial. In pragmatics, the differences between Chinese and Western cultures make it difficult for learners to use words correctly in different situations. These tend to be marked. It can be inferred that marked features are hard to transfer from L1 to L2, so that negative transfer usually occurs when learning marked features in L2. On the contrary, unmarked features are more likely to transfer from L1, bring more positive effect on learning unmarked parts in L2. However, this paper only focuses on the markedness of negative interlingual transfer in language acquisition and is limited to the analysis of Chinese productive skills. Future research on second language acquisition should not only focus on the transfer of markedness to the negative transfer, but also pay enough attention to the positive transfer so as to broaden people's horizons. Similarly, researchers can study from different languages. It can be the study of second language acquisition of non-native Chinese learners, the study of the mother tongue and second language coming from the same or different language family, or the study of multilingual acquisition. In conclusion, language acquisition

is closely related to every aspect of human society. With the passage of time and the advancement of cognitive skills, it still has a lot of room for progress in the field of language acquisition.

References

- [1] Karim, K., Nassaji, H. First Language Transfer in Second Language Writing: An Examination of Current Research [J]. *Iranian Journal of Language Teaching Research*, 2013, 1 (1): 117 - 134.
- [2] Lipka, O., Forkosh Baruch, A., Meer, Y. Academic support model for post-secondary school students with learning disabilities: student and instructor perceptions [J]. *International Journal of Inclusive Education*, 2019, 23 (2): 142 - 157.
- [3] Zhao Yanan. Negative transfer of mother tongue in English [J]. *Creative Education*, 2019, 10 (05): 940.
- [4] Corder, S. P. A role for the mother tongue [J]. *Language transfer in language learning*, 1983, 1: 85 - 97.
- [5] Ionin, T., Zubizarreta, M.L. and Maldonado, S.B. Sources of linguistic knowledge in the second language acquisition of English articles, *Lingua*, 2008, 118 (4), pp.554 – 576.
- [6] Windle S. Human engagement: The English language learning process of Korean university students in Canada[J]. 2006.
- [7] Labov, W., Harris, W. A. Addressing social issues through linguistic evidence [J]. *Language and the law*, 1994: 265 - 305.
- [8] Albright, A. Feature-based generalization as a source of gradient acceptability [J]. *Phonology*, 2009, 26 (1): 9 - 41.
- [9] Hahn, U., Bailey, T. M. What makes words sound similar? [J]. *Cognition*, 2005, 97 (3): 227 - 267.
- [10] Rice, K. Markedness in phonology. *The Cambridge handbook of phonology*, 2007, 79 - 97.
- [11] Zhang Jie. Issues in the Analysis of Chinese Tone [J]. *Language and Linguistic Compass*, 2010, 4 (12): 1137 - 1153.
- [12] Pan, H. Imperfective aspect zhe, agent deletion, and locative inversion in Mandarin Chinese [J]. *Natural Language and Linguistic Theory*, 1996, 14 (2): 409 – 432.
- [13] Zhuang ping. Study on the errors of singular and plural nouns based on corpus [J]. *Journal of Guangdong Ocean University*, 2010, 30 (5): 76 - 82.
- [14] Zhang, L. The representation of noun number category in Chinese [J]. *Chinese Learning*, 2003, (5): 28 - 32.
- [15] Litkowski, K., Hargraves, O. The preposition project [J]. 2021, arXiv preprint arXiv:2104.08922.
- [16] Guo, X, Lin, Y. Impact of Language Ego, the Native Language Effect on Oral English Learning of High School Students [J]. *International Journal of English and Cultural Studies*, 2020, 3 (1): 33 - 40.
- [17] Lian, S. Comparative study of English and Chinese [J]. Beijing: Higher education press, 1993.
- [18] Li Wendan. Second language acquisition of topic-comment structure in Mandarin Chinese [D]. Ph.D. University of Alberta, 1996.
- [19] Pan H. Imperfective aspect zhe, agent deletion, and locative inversion in Mandarin Chinese[J]. *Natural Language & Linguistic Theory*, 1996, 14 (2): 409 - 432.
- [20] Tran, G. Q. Pragmatic and discourse markedness hypothesis [D]. University of Melbourne, 2002.
- [21] Du Jinwen Steinberg. Performance of face-threatening acts in Chinese: Complaining, giving bad news, and disagreeing [J]. *Pragmatics of Chinese as a native and target language*, 1995: 165 - 206.
- [22] Eckman, F. R. Markedness and the contrastive analysis hypothesis [J]. *Language learning*, 1977, 27 (2): 315 - 330.