

# *The Effects of Mandarin Chinese and Czech Negative Transfers on English Language Acquisition*

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**Abstract:** English has become the most studied second language around the world. Regardless of nationality, speakers of another native language other than English face challenges in acquiring English due to their fixed linguistic habits. This is a phenomenon called negative transfer. Mandarin and Czech are completely unrelated in terms of language family; thus, they can be used in this study to prove that the interference of the mother tongue with English happens inevitably and usually shares common areas of negative transfers. Since the author is a native speaker of Mandarin and Czech, her knowledge of the lexical, phonological, morphological and syntactic characteristics of these languages is used to demonstrate why native speakers of these two languages are prone to making specific English mistakes. At the same time, it relies heavily on first-hand accounts of common English errors gathered by other researchers to improve the study's dependability. The finding of this study argues that the negative transfer occurs because Mandarin and Czech lack the corresponding linguistic qualities of English. Native speakers of these two languages frequently struggle to remember English collocations, non-existent phonemes cannot be accurately pronounced, and similarly incompatible English tenses are used with errors. The absence of articles and the tendency for random word order also cause them to frequently go wrong in English usage. This research can be used as a resource for Chinese and Czech English as a Second Language (ESL) teachers to improve the quality of their classes.

**Keywords:** negative transfer, Mandarin Chinese, Czech, ESL

## **1. Introduction**

The concept of language transfer refers to the influence that a person's knowledge of one language has on their ability to acquire another. The origins of the concept can be traced back to the behavioristic theory of language learning, which one can use to compare a learner's output in their native language (L1) and second language (L2), particularly in terms of grammar [1]. There are two types of language transfer: positive transfer and negative transfer. The influence of L1 is positive when it makes it easier to acquire a new language. However, a native language pattern that may cause errors in a person's efforts to learn the target language is an example of negative skill transfer from L1 [2]. The main focus of most recent studies has been to analyse the negative effects of a single L1 on L2 acquisition. This research compares the negative transfers from two L1s from distinct language families, Sino-Tibetan Mandarin and Indo-European Czech, on the acquisition of an L2, Indo-European English. Although it is theoretically easier to learn a language from the same language

family than a language from a different language family with different origins and linguistic structures [3], this paper argues that negative transfers from L1 to L2 will occur qualitatively, regardless of the language families in question. Thus, Mandarin and Czech share commonalities in transferring similar types of linguistic errors in English language acquisition. Linguists typically split languages into various levels for description and analysis; accordingly, this paper uses that approach to examine negative transfers from Mandarin and Czech and ways to mitigate those transfers at the lexicon, phonology, morphology and syntax levels.

## 2. Lexical Negative Transfer

In terms of lexicon, Wolter suggested that L2 learners' misunderstanding of L2 vocabulary is partly because of excessive dependence on L1 lexis [4]. Neither Mandarin nor Czech belong to the same Germanic language group as English. Therefore, they have different lexical cognates; for individuals who seek to learn English as an L2 and whose L1 is either Mandarin or Czech, this makes it challenging to remember English words, especially collocations. Collocational knowledge as a parameter that distinguishes native speakers from non-native speakers is not easy for L2 learners to acquire [5]. In Ma's quantitative research, Chinese collocations caused over one fifth of the instances of lexical negative transfer. An example of a wrong "verb+noun" collocation can be 'to learn knowledge', while the correct expression should be either 'to gain knowledge' or 'acquire knowledge' [6]. Žemličková's bachelor thesis has confirmed the same "verb+noun" type of error for Czech learners of English. Instead of using 'to attend school', Czech secondary grammar school students wrote 'to study school' [7]. Chinese and Czech ESL students have difficulty with collocations because their L1s employ distinct word combinations. They attempt a literal translation from their L1, which results in usage errors.

English learners can improve their vocabulary through several methods, including creating a vocabulary notebook featuring words with accurate translations into a learner's mother tongue and specific examples of word use in a sentence. Other vocabulary improvement methods include connecting word meanings with semantic mappings and using digital technologies on mobile apps. For example, the Chinese-developed app Baicizhan prompts users automatically each day to practise their English vocabulary by completing tasks that include reciting a fixed number of words based on visual stimuli or provisions of contexts where the word or grammar structure is commonly used.

## 3. Phonological Negative Transfer

The greater the phonological differences between Mandarin, Czech and English, the more likely it is for native speakers of these languages to mispronounce English words. The differences between Mandarin and English vowels stem from the absence of equivalent phonemes. English has fifteen vowels, while Mandarin has only five vowels [8]. Mandarin speakers often mispronounce the English schwa vowel /ə/ by either substituting it with a more backward /ɤ/ or confusing it with /e/ or /i/ since the schwa vowel does not exist in the Mandarin Pinyin IPA system. Furthermore, because Mandarin has only one /a/, Mandarin speakers also frequently pronounce the Pinyin /a/ and English /ʌ/ interchangeably, even though /ʌ/ has a more backward and closed manner of articulation than the Pinyin /a/. For example, the word 'cut' may be mispronounced as the fully open /cat/. Since /w/ is only an allophone of /v/ in Mandarin consonants, changing one of them has no impact on the meaning [5]. Mandarin students thus frequently mispronounce /w/ for /v/, for instance, 'ventilation' as /wen.tɪ'lei.fən/. Additionally, Mandarin places a vowel at the end of a word, whereas English words can end with a consonant [8]. Due to this phonotactic difference, English students whose L1 is Mandarin tend to add /ə/ after /t/ and other English consonants (e.g., /fæktə/ instead of /fækt/).

Like Mandarin, Czech has only five vowel phonemes. In Czech, all vowels are pronounced equally strongly, and there is no equivalent to the English schwa /ə/. Czech speakers, like Mandarin speakers, tend to substitute /ə/ with /ɛ/ or /e/ from their phonetic system. Czech speakers also have difficulty differentiating between the sounds /æ/ and /e/, such as in the pair ‘bad’ and ‘bed’ [9]. The phoneme /w/ is an allophone of /v/ in Czech consonants as well. Since the two sounds do not contrast with each other, Czech speakers do not round their lips when saying the English /w/. In Ambrozová’s study, Czech subjects often mispronounced /w/ as /v/, which the author observed in words like ‘twice’, ‘week’, ‘wifi’, ‘wherever’, ‘will’, ‘always’ and ‘William’ (/tvaɪs/, /vi:k/, /vaɪ faɪ/, /veə'revə/, /vɪl, ə:lveɪz/, /vɪlɪəm/) [10]. English is a non-rhotic language, whereas Czech features the voiced alveolar trill /r/. As a result, many native Czech speakers roll their tongues to produce the English /r/. Additionally, in Czech, every letter corresponds to a specific sound, which explains why Czech speakers tend to enunciate each English letter. For example, they distinctly pronounce silent letters in the last syllable of English words, such as /b/ in ‘comb’. Phonemes play an important role in helping to understand what a person has said. Consequently, over-enunciation of phonemes would result in a stilted or unnatural-sounding speech pattern.

In addition to improving students’ English pronunciation by having them practice many dictionary- or International Phonetic Alphabet (IPA)-based phonological exercises for the above-mentioned native-language-specific phonological errors, teachers should include information about the frequency of English functional loads in their lesson content. According to Brown, functional load is the measure of minimal pairs that prevent a speaker from confusing two phonemes in utterances [11]. The Cambridge English examination is a series of English language proficiency exams that are used to assess the language ability of non-native English speakers. They are divided into several levels, starting with the beginner level A1, up to the most advanced level C2. Based on the results from the Cambridge English examination shown in Figures 1 and 2, the errors in consonants and vowels of functional load with high frequency (high FL) decrease significantly as a speaker’s proficiency level increases. Making a few mistakes in functional load with low frequency (low FL) does not hinder speakers from achieving native fluency or earning a Certificate of Proficiency in English. It is thus strongly advised that they emphasise minimal pairs with high cumulative frequency and relatively equal probability of occurrence in English, such as /ð and d/, rather than pairs with low cumulative frequency and unequal probability of occurrence, including /ɔ: and ɔɪ/. By perfecting the most common English phonemes, a person learning English can improve their overall speaking ability and accuracy in English pronunciation.

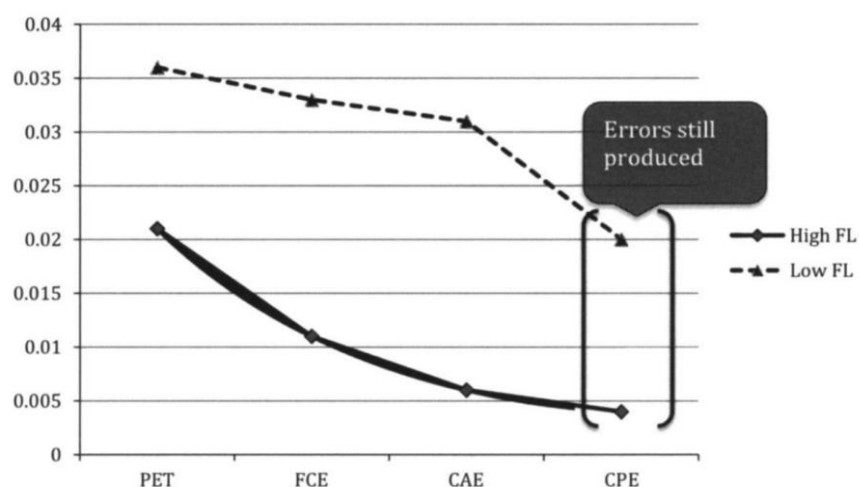


Figure 1: Functional load errors: Consonants [12].

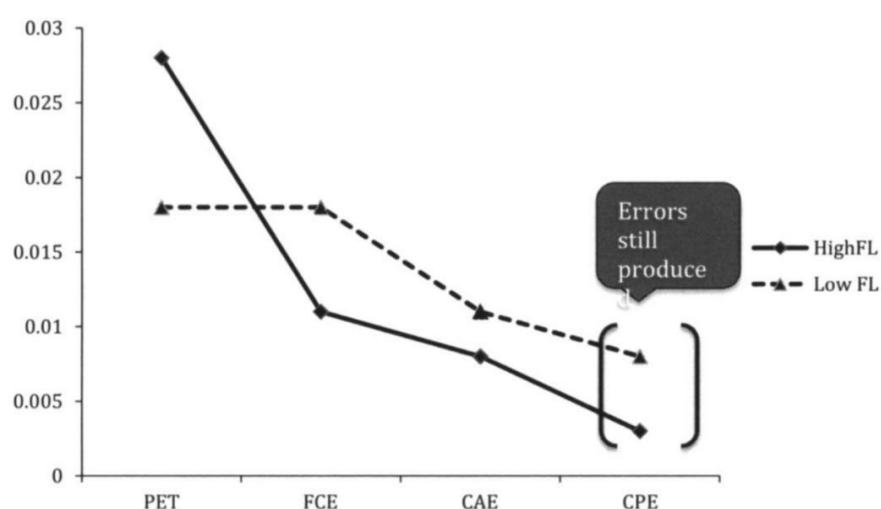


Figure 2: Functional load errors: Vowels [12].

#### 4. Morphological Negative Transfer

On the morphologic level, native speakers of Mandarin, which is tenseless, and Czech, which only has three tenses, are prone to making English tense errors. Hawkins and Chan's findings support this; they summarised that even very advanced English learners have problems acquiring the correct L2 tense form due to a representational deficit that arises as a result of parametric differences between L1 and L2 [13]. In Mandarin-speaking spheres, schools are highly unlikely to teach pupils how to inflect Mandarin words because they only have one grammatical form. For instance, expressions of time, such as 'yesterday' or 'now', as well as untranslatable Chinese temporal particles, are used to denote the moment at which an action occurs (past, present, or future), replacing the notion of tense in English. Figure 3 details the results of a written paradigm task performed by native Chinese-speaking advanced and intermediate EFL learners. The results show that even the fluently speaking students only correctly used the present perfect and past simple tenses 23.3% and 33.0% of the time, respectively. This highlights a major difficulty that Chinese ESL learners face in their use of present perfect and past simple tense forms in English.

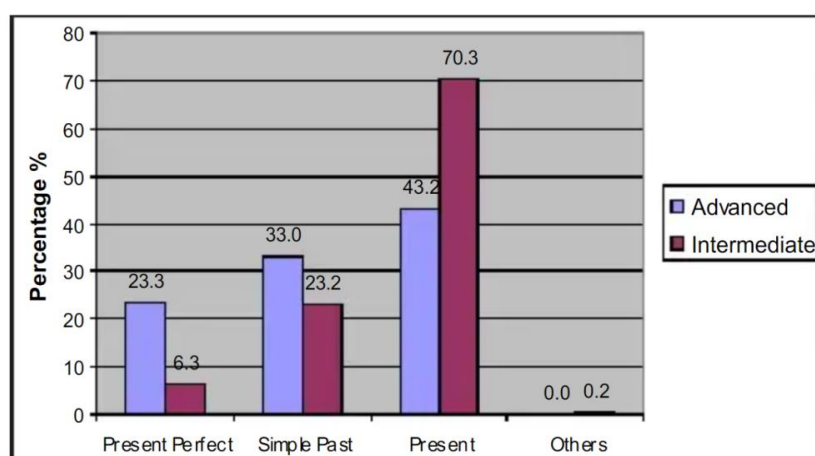


Figure 3: Mean scores of native Chinese advanced and intermediate English learners in a written paradigm task [13].

Similarly, Czech native speakers make mistakes in their use of English tenses. Languages such as Czech, which are rich in declensions, usually have a simplified approach to tense: the Czech language only has the present, past and future tenses. This is confirmed by Chamonikolasová's research, which concluded that the most frequent error made by undergraduate-level English majors whose native language is Czech or Slovak when writing English is the use of the present perfect with temporal adverbials that describe actions that began in the past and continue to the present [14]. In such cases, a writer should use the present perfect tense. For example, these students wrote 'countries that are (correct: have been) members for a certain period of time...' or 'As it was (correct: has been) suggested many times...' [14]. As Chinese and Czech speakers have little experience with tenses in their native languages, research has shown that Chinese and Czech speakers, even those with proficient English language skills, may make mistakes in past simple and present perfect tense usage in academic writing. For both the Mandarin and Czech language groups, it is critical that educators provide careful supervision and clearly differentiate between the 12 tenses in English in their lessons. In particular, these lessons should involve extensive opportunities for practice such as cloze tests. Drawing a horizontal timeline with time markers will also assist in distinguishing that the past simple is used for completed acts that occurred at a certain period in the past, yet the present perfect is used for actions that occurred at an undefined time in the past and have a relationship to the present. Authentic materials, including news articles, TV episodes and films, allow students to learn the tenses in a natural way.

## 5. Syntactic Negative Transfer

Syntactically, unlike English, neither Mandarin nor Czech use articles. Native Mandarin and Czech speakers face challenges in choosing when and which articles to use. In regard to Lei's investigation, the most common article error Chinese ESL learners made was erroneously omitting the indefinite articles 'a' and 'an', accounting for 10 out of 16 errors [15]. For example, Mandarin speakers might make a mistake as such: 'Before I came here, I could not recognise the difference between  $\sqrt{\text{an}}$  American accent and  $\sqrt{\text{an}}$  English accent.' [15]. Mandarin speakers might omit 'an' in this sentence because nouns can stand alone in Mandarin. Whereas English uses indefinite articles to indicate an unspecified thing or quantity, Czech uses case endings, leading to omission errors such as the following: 'to get  $\sqrt{\text{an}}$  unbiased insight, to give her children  $\sqrt{\text{a}}$  tranquil family life.' [14]. Furthermore, both Mandarin and Czech speakers commonly make redundancy errors in definite article usage. One of the Mandarin participants overused 'the' in the following sentence: 'The great increase in tuition makes the students spend most of their money paying the tuition.' The participant does not realise that, in English, definite articles must not be used when describing a general situation. Similar patterns appeared in the Czech students' samples; they placed 'the' before plural nouns ('inevitable for the university students' or 'the expenses for the books' [14], suggesting the students were unaware that definite articles are not placed after plural nouns in English.

Moreover, Mandarin and Czech learners of English often struggle with the syntax of English structure, particularly with word order. English, Mandarin, and Czech are officially regarded as subject-verb-object (SVO) languages. A SVO English sentence such as 'I watch TV' would be constructed in Mandarin and Czech with the same word order, demonstrating that building a basic English clause is not much of a problem for the speakers of these two languages.

However, issues arise when learners add more components to a sentence. In complex English declarative and imperative sentences, the set order of words is subject, verb, objective and adverbs of manner, place and time, whereas Mandarin and Czech use loose word orders. According to Li and Thompson, word order in Mandarin is governed to a large extent by considerations of meaning rather than grammatical function [16]. For instance, in Mandarin, one can claim, 'I today used a good knife to chop the garlic'. This highlights the fact that the speaker was using a good knife and the modifier

precedes the verb and the object. Things that are important tend to be placed earlier in Mandarin sentences. Therefore, it is common for Chinese ESL learners to reverse the positions in complex English sentences (rather than an SVO structure, these learners often use object-subject-verb). Xu collected the following real-world examples of word order problems from unedited spoken Chinese English primary data:

- a. Yes, I think many many easy words we have forgotten [17].
- b. Probably some other kind of jobs I also want to try [17].

Both examples feature syntactic errors. In these sentences, Mandarin's syntactic influence is evident, which places important objects before verbs.

Notably, in Czech, sentences can also be loosely structured. For example, where a Czech speaker places temporal words and adverbs of manner depends on what they seek to emphasise. If the goal is to emphasise the manner in which something occurred, the adverb of manner spreads first: 'Pomalu jím večeri po práci ('slowly I eat dinner after work').' Based on the comparison of English and Czech word orders in Danielisová's bachelor thesis, Czech speakers of English tend to make the following mistakes:

- a. I always am ready [18].
- b. In September we go usually on a holiday [18].

The incorrect adverb placement in both sentences is related to the tendency in Czech to either place adverbs at the beginning of a sentence for emphasis or after the verb to indicate a general statement. These students can improve their English grammar through several techniques, including extensive reading and a great deal of practice, as well as the close review of correct answers in grammar workbooks and feedback from their tutors.

## 6. Conclusion

When learning English, Mandarin and Czech speakers often experience negative transfer of their vocabulary, phonological patterns, morphology and syntax habits from their native languages. Regarding vocabulary, Mandarin and Czech speakers face difficulties with advancing English collocations. The phonological systems of Mandarin and Czech differ significantly from those of English; phonemes like /ə/ and /w/, which do not exist in Mandarin or Czech, are challenging for these two languages. When speaking English, they commonly conflate them with other phonemes, leading to inaccurate English pronunciations. For native Czech speakers learning English as an L2, rolling the tongue to pronounce /r/ and uttering silent letters loudly is a distinct negative transfer, whereas native Mandarin speakers frequently make errors such as adding vowels after consonants at the end of English vowels. Morphologically, both native Mandarin and Czech speakers generally fail to distinguish between the present perfect and past simple tenses in English. This is because Mandarin does not use tense, and Czech features only simplistic tenses in comparison to English. In terms of syntax, because neither language features articles, Mandarin and Czech learners of English frequently omit indefinite articles and overuse the definite article. Although the three languages share the same basic syntactic structure, Mandarin and Czech allow for greater flexibility in the placement of words of greater importance (typically placing them earlier in a sentence), whereas English sentences maintain a fixed word order.

This study focuses solely on the main features of negative transfer from Mandarin and Czech to English. It does not examine the variety of affective and cultural factors that affect the process of negative transfer. Furthermore, it does not specify the degree of intensity of different negative transfers or their specific relationships with a learner's age group, learning environment or English proficiency. Future studies could build upon the instant work by narrowing the scope of negative transfer. For instance, they could examine whether there is any correlation between students of a certain English level and their mistakes in the context of a negative transfer from L1.

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