



An Analysis of the Negative L1 Transfer in the Learning Process of German Modal Verbs by Native Chinese Speakers

Yihan Li*

School of foreign languages, Shanghai Jiao Tong University, Shanghai, 200240, China

*Corresponding author. Email: cynleee@sjtu.edu.cn

ABSTRACT. With the increasingly stronger bonds between Germany and China, German is now one of the most preferred minority languages for Chinese learners. The problem of negative L1 transfer of native Chinese speakers in the process of learning German is also gaining more focus. However, as an important grammatical category for cross-linguistic presence, modal verbs are scarcely conducted as a research subject in negative L1 transfer. To fill the gap, the article analyzes the possible effects of the negative L1 transfer on Chinese learners from both grammatical and cultural perspectives by clarifying the differences between German and Chinese modal verbs. It was found that differences in language families of Chinese and German as well as the presence of polysemous and synonyms both interfere with the learning of German modal verbs by native Chinese speakers at grammatical levels. From a cultural perspective, differential expressions of politeness and indirectness in Chinese and German culture and progressive nuances in the emotional expressions also pose considerable challenges for Chinese learners. In this regard, the article also proposes corresponding suggestions in learning and teaching to cope with the effects of negative native language transfer in different aspects

Keywords: modal verbs, negative language transfer, Chinese, German.

1 Introduction

As one of China's most important trading partners, Germany has become increasingly involved with China in recent years, which has also led to the rise in the number of Chinese people learning German as a second language to get access to better education and working opportunities, making it one of the most popular languages in China at the moment [1]. However, depending on who the learners are, how their cognitive ability works, their age, as well as other objective factors, language acquisition can be a very individualized learning process [2]. In addition to subjective differences, objective diversities are also worth noting. With different historical origins, grammatical systems and linguistic features, Chinese and German belong to two different families of languages [3]. Naturally, in the process of learning German, many Chinese native

speakers will be greatly affected by their mother tongue, which in turn poses impacts on the effectiveness of German-learning, which is also regarded as the process of language transfer including positive and negative transfer.

According to Odlin, the definition of language transfer is the influence resulting from similarities and differences between the target language and any other language that has been previously acquired [4]. For bilingual or multilingual speakers, the phenomenon appears to be outstanding when one language occupies prominence compared with other learned languages [5]. In most cases, the mother tongue, which is also known as the first language (L1), is considered to be dominant since they play influential roles when apply their own linguistic features to other languages and manifest ultimately an aggregate consequence [6].

For languages that are of similar units and structures in grammar, the occurrence of positive transfer is more frequent since the similarity can lead to the “correctness” of the impact [7]. On the contrary, language interference is more likely to show a negative impact when differences among languages possess more discrepancies, making it a source of errors.

Furthermore, how people interpret their verbal activities in concrete situations is closely related to their social knowledge and former experience [8]. Language as a vehicle of culture is therefore not separable from its background. The conventional thinking mode, aesthetic perception together with the religious belief all exert action on one’s expression [9]. Thus, cultural differences can lead to disagreements and divergent interpretations of the same thing or unified rational concept resulting in the negative transfer among the languages.

Nevertheless, from both grammatical and cultural point of view, the apparent distinctions between German and Chinese can lead to the evident phenomenon of negative transfer in the learning process presenting great challenges to learners.

Based on many previous studies related to negative language transfer, language interference can lead to various errors including redundancy, misusing of idioms, cultural terms and vocabulary, omission of subject, wrong application of run-on sentences, as well as other errors at the level of lexis, sentential and discourse [9,10]. Apart from the above-mentioned commonalities in various languages, modal verbs in German show a high grammatical, semantic and functional flexibility in spoken language and their constructions present very different degrees of schematicity, specificity and (non-)compositionality [11]. These features can be attributed to German’s nature as a typical inflectional language. In contrast, Chinese is an isolated language, and it hardly has a complete modal verb system. As a result, the differential characters of Chinese and German modal verbs make native Chinese speakers more susceptible to the negative effects of their mother tongue in the process of language transfer when learning German modal verbs. Its modality is mainly realized by means of vocabulary, such as modal auxiliary verbs, modal adverbs, modal particles or even intonation, etc [12].

The majority of previous studies on negative native language transfer have largely been limited to Germanic or Sino-Tibetan language families, or have conducted research according to linguistic typology, but few studies have chosen Chinese and German as direct subjects for comparative analysis. Among them, researches on Chinese and German modal verbs are still restricted due to the lack of systematization of

Chinese modal verbs and the considerable differences between the two languages. Faced with the study of the differences between modal verbs in two languages, scholars have yet mainly focused on static comparative studies, and there are few views on dynamic changes, thus ignoring the role of language transfer in the learning process, not to mention the role of negative language transfer. Therefore, to fill the gap in the current field of language study, it is very necessary and worthwhile to strengthen the research on native Chinese speakers' negative first language transfer in the learning process of German modal verbs.

From the perspective of native Chinese speakers, this article focuses on the negative language transfer phenomenon in the learning of German modal verbs in the following four parts: (1) overview of modal verbs in German and Chinese, (2) the phenomenon of negative L1 transfer at grammatical levels, (3) the phenomenon of negative L1 transfer at cultural levels, and (4) possible ways to lessen the negative interference of Chinese native speakers.

2 Overview of German and Chinese modal verbs

In linguistics, *modality* is a cross-language and ubiquitous semantic category. In both Chinese and German, there are language structures that express the speaker's perception or subjective vision of the action or state of affairs, but the two languages have their ways of expressing the modality respectively.

2.1 Modal verbs in German

In German, the ways of expressing the modality can be divided into three main types: lexical, syntactic, and morphological.

From a lexical standpoint, the modal verbs, which are also referred to as modal auxiliaries or auxiliary verbs of the mode, act as the main expression of the modality in the lexical aspect. They form a compact and orderly system with "müssen (must), können (can), dürfen (may), mögen (would like), wollen (want), sollen (should/shall)".

In addition to these typical representative modal verbs, there are several verbs or their usage variants that occasionally function as modal verbs at a syntactic level. For example, the German verb "brauchen (need)" is also used as a modal verb in conjunction with a negation, which then means "do not have to" and the construction "haben/sein + zu + infinitiv (have/be + to + infinitive)" can also express obligations, rules or regulations instead of using "müssen (must)". Neither of these is strictly modal verbs, whereas they express the meaning of modality.

On top of the lexicon and syntax, the way verbs are narrated (Modus) can also directly affect the expression of subjective emotions, such as "Indikativ (indicative mode)", "Konjunktiv (subjunctive mode)", and "Imperativ (imperative mode)".

2.2 Modal verbs in Chinese

In the study of Chinese, few studies have discussed the modality as a grammatical category, because the number of auxiliary verbs, which express objective possibility, necessity, and subjective will of people in Chinese, is large, and their numerical composition is quite variable.

Yet most Chinese auxiliary verbs convey the meaning of modality and hence Yuen Ren Chao suggested that the Chinese auxiliary verbs are also called "modal auxiliaries", which are regarded as the Chinese counterparts of modal verbs in German [13].

However, it is worth noting that since the range and boundaries of auxiliary verbs in Chinese are still indefinite, and not all auxiliary verbs express the modal sense, it is not possible to simply equate auxiliary verbs with modal verbs. To determine the scope of Chinese modal verbs, Zhu Dexi established a set of criteria that can classify modal auxiliary verbs based on their common forms and characteristics, and then decided on 27 modal verbs in total [14]. But for other scholars, the amount of Chinese modal verbs fluctuates, more or less, due to the different extents of delimitation and the established criteria.

In order to facilitate the research on language transfer, some high-frequency modal words in Chinese such as "bì xū (must)", "kě yǐ (can / may)", "néng (may)", "yuàn yì (would like)", "xiǎng (want)", "yīng gāi (should)" are selected as the research objects.

3 The negative L1 transfer at grammatical levels

Chinese learners are very susceptible to the obstructions and interference of Chinese modal verbs and other grammatical conventions when learning German modal verbs. In many cases, Chinese mother tongue uses German modal verbs according to the Chinese meaning of their counterparts combined with their grammatical rules and usage in German, whereas the native Chinese speakers, on the contrary, are guided by their language sense and intuition about how they use Chinese, and thus lack a systematic and rigorous analysis of

3.1 Negative language transfer caused by different linguistic typology

In Chinese, there is no internal flexion to convey grammatical purposes. In contrast, German is a classical flexion language, and its modal verbs often have morphological changes, and the affixes they carry serve different grammatical functions.

Since Chinese, an isolated language, expresses grammatical senses through independent function words and fixed word order, the way native Chinese speakers understand and acquire Chinese modal verbs is rather straightforward. As a result, they often undergo a "from simple to difficult" process when learning German modal verbs, in other words, they have to gradually incorporate morphological transformations, grammatical functions, and distortion of meaning into their comprehension of modal verbs, which can ultimately turn into a negative transfer.

3.2 Negative language transfer caused by polysemy and synonym

Both Chinese modal verbs and German modal verbs have the characteristic of polysemy. Although each modal verb has its most common semantic meaning, they do not completely correspond to each other in other semantic senses apart from the main semantic meaning.

For example, “kě yǐ (may)” in Chinese and “dürfen (may)” in German usually both denote permission to do something and can both be used to express a polite request in a general question. In this case, similar or even identical semantic meanings can facilitate native Chinese speakers' understanding of the German modal verb “können”, which is also an indication of positive L1 transfer. However, since the Chinese word “kě yǐ” has a great variety of meanings, it can also refer to a possibility or an ability to do certain things, while such a function is often implemented in German by the word “können (can)”.

In another case, there are frequently synonyms in modal verbs, such as “néng (can)” and “kě yǐ (can)” in Chinese and “wollen (want)” and “mögen (want)” in German, etc. The usage and semantics of these word pairs overlap considerably and are interchangeable in many contexts, which also tends to confuse.

As we can see, the semantic categories of modal verbs between Chinese and German are overlapping due to polysemy and synonymy, which makes it necessary for native Chinese speakers not only to overcome the semantic compatibility of their native language but also to organize them reasonably so as to help comb the semantic relations between Chinese and German modal verbs.

4 The negative L1 transfer at cultural levels

Language can be seen as an external reflection of the cultural core, and some of the differences in emotion and linguistic conventions between Chinese and German modal verbs might also be attributed to cultural differences.

4.1 Politeness and indirectness in Chinese and German modal verbs

Politeness and indirectness, though not an outwardly visible content or structure of a language, are in great demand in almost all languages, and cultures have also developed unique and conventional habits of linguistic expression over time.

There are many constructions in German modal verbs that express politeness, but they also vary in degree. For example, a direct imperative can be used in a common request situation, and an adverb like “bitte (please)” can be added for a humbler expression, but the imperative still appears to be too strong and aggressive. A general question with a modal verb in “Konjunktiv II (subjunctive mode 2)” such as “könnten (can)”, is more polite and shows a considerate attitude towards others. Using “dürfen (may)” and replacing the subject with “ich (I)” also makes the speaker look educated.

The use of grammatical devices and special grammatical structures in German makes it possible to gradually achieve a superposition of degrees of politeness.

Chinese rarely uses syntactic and grammatical techniques to present an attitude; in most cases, Chinese modest words and honorific speech combined with euphemistic and courteous tones are sufficient to interpret politeness. In this way, politeness and euphemism can be said to be transferred from the Chinese vocabulary to a cascade of grammatical logic in German.

4.2 Stepwise progression in the meanings of German modal verbs

There are only a few Chinese modal verbs that have a distinct relationship between strength and weakness, for example, "bì xū (must)" is directer than "yīng gāi (should)" and semantically more powerful, but most of the remaining words have no progressive connection with each other.

However, when German modal verbs are used to express speculative purposes, the degree of speculation varies from one modal verb to another, and there is a terraced distribution. For example, "müssen (must)" expresses conjecture with certainty, "wollen (want)" expresses doubt about the speaker, "sollen (should)" merely paraphrases and does not guarantee the truthfulness, and "dürfen (may)" and "mögen (would like)" are both slightly more speculative than können.

The usage of German modal verbs is rather elaborate, and even though their general purpose is similar, each modal verb shows a different degree of possibility, which makes it difficult for native Chinese speakers to comprehend. This is also a reflection of the German national characteristic of precision and strictness in the modal verbs. When distinguishing between different modal verbs and their corresponding meanings, it may be difficult for native Chinese speakers to notice the nuances of degrees and to have a proper perception of them, which may lead to confusion and mistakes in interpreting German modal verbs and their meanings and degrees

5 possible ways to lessen the negative L1 transfer

To overcome the resistance to learning German modal verbs, it is important that learners not only conquer the grammatical habits cultivated by their mother tongue but also comprehend German modal verbs from a cultural standpoint so that they can master them with grammatical precision as well as cultural sensitivity.

It is evident that to master German modal verbs adequately, one must first of all be aware of the inflected forms of it. This is particularly beneficial for native Chinese speakers. Since Chinese and German have little in common in terms of alphabetic patterns, pronunciation, and word transformations, and thus there is relatively weak interference from their Chinese mother tongue in these aspects. Students can simply acquire the spelling, pronunciation, and morphological changes of modal verbs under different persons and tenses through memorization and intensive exercises and applications.

The second issue is grasping the semantic meaning of German modal verbs, which is also problematic for the majority of native Chinese speakers. Chinese can help the learners understand only a handful of German modal verbs, but in both German and

Chinese, modal verbs possess abundant semantics, so in many cases, it is not feasible to establish an equivalent or non-equivalent relation simply based on the language intuition or the common superficial meaning. This requires a thorough grounding in the semantics of German modal verbs, a focus on their unconventional, low-frequency variety, as well as a distinction between the subjective and objective modalities of the same verb, namely, the relationship between the subject of the sentence and the action expressed by the infinitive verb, and the speaker's attitude toward the proposition stated in the sentence.

At the same time, it is also recommended to be aware of the contextual usage of modal verbs and then carefully scrutinize them. One of the most common cases is to pay attention to the multiple selections of the German modal verbs when expressing politeness, indirectness, and euphemism. When expressing these emotional sentiments in German, native Chinese speakers should emphasize not only the tones, attitudes as well as the choice of terms of respect, as they do in Chinese but also the choice of appropriate modal verbs and the additional function that grammar imparts to them.

This may give rise to another problem: Some Chinese native speakers can anticipate misunderstandings or incorrect applications of the combination "modal verb + grammar", or find themselves uncertain about whether it is an accurate output circumstance. They may then avoid this language phenomenon, leading to deficits in this area.

To solve this problem, teaching and writing exercises are not enough; learners should identify where their problems lie and not deliberately avoid them because they are not good at them and are afraid of making mistakes.

Last but not least, reducing negative language transfer relies not only on a variety of teaching-learning methods and techniques but more importantly, on the essence that what is learned should be internalized as a natural language habit. Learners should be able to constantly interact with input and output in their natural language environment, so that speaker, language, and context eventually become an unconscious organic whole. In this process, the role and effect of the mother tongue are also discarded, which minimizes the negative L1 transfer.

6 Conclusion

The results of this study show that there are inherent significant discrepancies between Chinese and German modal verbs, which lead to native language interference in the learning process.

Both Chinese and German have their grammatical features which exert an effect on modal verbs, whereas Chinese modal verbs do not carry grammatical elements and conversely German does. Therefore, the habitual transition from Chinese to German of native Chinese speakers requires a shift in the linguistic logic of the language and a tight integration of grammatical elements and vocabulary, which is hardly achievable in a short period. At the semantic level of polysemy and synonymy, since the meanings of Chinese modal verbs and German modal verbs just narrowly resemble each other, and as there are many semantics dissension, the correlation between the modal

verbs in Chinese and German is intertwined and cannot be classified in simple correspondence.

For negative L1 transfer involving cultural and social contexts, native Chinese speakers primarily have difficulties in experiencing politeness and indirectness as well as correctly distinguishing the progressive emotional degree of modal verbs in German modal verbs. Since politeness and indirectness are expressed explicitly in separate words in Chinese, the German language injects such emotional attitudes into the lexical and grammatical structure, which makes them roundabout and needs to be perceived circumspetively. The attitudes attached to the German modal verbs also become elusive because of their different intensities.

To minimize the conflict between native and second language habits and to mitigate the negative transfer of Chinese, the paper also introduces several proposals for learning German modal verbs:

1. focus on morphological inflections and construct a solid foundation of grammatical patterns;
2. broaden the semantics coverage and be aware of the non-mainstream usage, instead of limiting the semantic scope of modal verbs;
3. contextualize the specific usage in the specific circumstances, and
4. actively communicate in the second language environment, reducing the presence of the native language.

In short, to properly comprehend and skillfully utilize German modal verbs, a thorough investigation of various linguistic phenomena is still in need. The comparison and transferable relationship between Chinese and German modal verbs can be further elaborated, and the six common German modal verbs can also be specifically analyzed in separate cases. However, due to the limitation of the length of the article, only a few general aspects of the phenomenon of native language migration are presented. Nonetheless, it is hoped that the analysis and suggestions in this article will provide a reference for German teaching and language transfer research, and thus further promote more positive transfer effects in the learning of German modal verbs by native Chinese speakers.

7 REFERENCES

1. Y. Li, H. Huang. Global German Learning Report. Language life book ---- Language situation in Foreign countries, 2021. (2020).
2. S. Khasinah. Factors influencing second language acquisition. *Englisia: Journal of Language, Education, and Humanities*, 1(2), (2014).
3. R. Hans, L. Zaize, Z. Qichang. *Kontrastive Linguistik Deutsch / Chinesisch*. (1984).
4. T. Odlin. *Language Transfer: Cross-Linguistic Influence in Language Learning*. Cambridge: Cambridge University Press. (1989).
5. P. Lennon. Contrastive analysis, error analysis, interlanguage. *Bielefeld Introduction to Applied Linguistics. A Course Book*. Bielefeld: Aisthesis Verlag, (2008), 51-60.
6. C. Sharma, D.S. Rachna Puri. The Dominance of Mother Tongue while studying English Language in Vernacular Medium Schools. *Genesis*, 7, (2020), 9-11.

7. I. Shatz. Native language influence during second language acquisition: A large-scale learner corpus analysis. In Proceedings of the Pacific Second Language Research Forum (PacSLRF 2016), (2017), (pp. 175-188).
8. S. Günthner. Language and culture: An analysis of a Chinese-German conversation. Erfurt Electronic Studies in English. (1998).
9. L. Bai, J. Qin. A study of negative language transfer in college students' writing from cultural perspective. *Theory and Practice in Language Studies*, 8(3), (2018), 306-313.
10. X. Wang. Exploring the negative transfer on English learning. *Asian social science*, 5(7), (2009), 138-143.
11. J. Kaiser. Absolute Verwendungen von Modalverben im gesprochenen Deutsch. Eine interaktionslinguistische Untersuchung. Winter, (2017).
12. H. Ji. Comparative Study of Modal Verbs in German and Chinese. *Literature Education*(03), (2014), 23-25.
13. Y. R. Chao. A grammar of spoken Chinese. Berkeley and Los Angeles: University of California Press. (1968).
14. D. Zhu. Grammar Notes. The Commercial Press. (1982).

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

