

Lexical Interference in Learning Japanese and Korean Based on Chinese

Milja Nevanmäki

Bachelor's Thesis

Chinese Language, Bachelor of Humanities

School of Languages and Translation Studies

Faculty of Humanities

University of Turku

May 2026

Bachelor's Thesis

Chinese Language, Bachelor of Humanities

Milja Nevanmäki

Lexical Interference in Learning Japanese and Korean Based on Chinese

Number of pages: 25 pages, 2 appendices

Abstract

This study reviews lexical derivation and interference in the context of Chinese, Japanese, and Korean (CJK) languages. The influence of Chinese characters on both Japanese and Korean vocabularies creates favourable conditions for linguistic interference to occur. The study aims to determine whether the interference among the CJK languages is predominantly positive or negative and under which conditions it occurs. Moreover, the objective is to review the effects this interference has on language learners identified in previous research. The research was conducted primarily through qualitative desktop research, drawing on existing literature in cross-linguistic interference and second language acquisition.

The reviewed literature suggests that the interference among the CJK languages is both positive and negative, though predominantly positive. Positive interference reduces language learners' cognitive load and accelerates vocabulary acquisition. Furthermore, it may enhance learners' confidence and motivation by allowing them to utilize previously acquired knowledge. However, interference among the CJK languages is not without drawbacks, as *false friends* might give rise to errors when superficial similarity in form do not correspond to meaning or usage. Overall, the reviewed studies suggest that linguistic interference among these three languages is highly beneficial to learners' vocabulary acquisition in L2 despite the challenges posed by semantic discrepancies.

Key words: lexical interference, cognates, cross-linguistic interference, cognate facilitation effect, , false friends, L1 influence, lexical borrowing, language contact

Table of contents

Abstract	2
Chapter 1: Introduction	3
Chapter 2: Methodology	6
Chapter 3: Literature Review	8
Chapter 4: Discussion	12
Table 1. Comparative chart of CJK vocabulary similarity.....	14
Chapter 5: Conclusion	20
References	22
Appendices	25
Appendix 1. AI Use Declaration.....	25
Appendix 2. Original Finnish draft.....	25

Chapter 1: Introduction

Linguistic interference affords a novel perspective for studying languages, and is frequently discussed in research on language contact. It is enlightening to examine how the ability to use skills acquired in one language may, in practical application, facilitate the acquisition of another. Such interference can be studied at multiple levels, including phonological, syntactic, lexical, and orthographic. *This study reviews previous research on how lexical interference affects the learning of Japanese and Korean when Chinese functions as the source language. More specifically, it synthesizes whether lexical interference among the CJK languages is primarily positive or negative, under which conditions they occur and how this affects language learners.*

Studying interference between the Chinese, Japanese, and Korean languages (CJK languages) is of importance because these three languages share common linguistic and historical roots, which makes the occurrence of interference more probable. A substantial proportion of the vocabulary in Korean and Japanese (Japanese ~50%, Korean ~85%) is based on or has been influenced by Classical Chinese (Kinoshita, 2025). Recognizing this connection helps language learners acquire new words more efficiently. By utilizing previously learned knowledge, learners can form connections between the languages in both written and spoken forms.

Interference within the CJK languages is particularly relevant due to the high degree of lexical similarity. This similarity makes it possible to observe how previously acquired linguistic knowledge influences the learning of new languages. In addition, the shared history of these languages through trade, cultural exchange, and writing systems over centuries has contributed to their close relationship. Chinese characters (hanzi/kanji/hanja) connect the vocabularies of these languages in a unique way.

The phenomenon of *false friends* is also especially relevant in the CJK context, as superficially similar words may differ in meaning. Understanding interference between the CJK languages can therefore improve cross-linguistic teaching methods and help learners avoid common mistakes. When language teachers are aware of the cross-linguistic interference, they can more effectively select appropriate teaching approaches and materials. Furthermore, studying linguistic interference contributes to translation studies by improving the accuracy of translation and interpretation.

To clarify the scope of this study, several key concepts are to be defined. In linguistics, lexicality refers to vocabulary and words, and this definition is adopted in this study. Words carry meaning in relation to the external world and are able to function independently compared to functional (grammatical) structures.

In language contact research, interference refers to transfer effects between languages, that is, how features of one language influence the learning and use of another language. Linguistic interference can be divided into two types: positive and negative. Positive interference means that one language helps in the learning of another. Negative interference, in turn, is defined as a situation where one language hinders the learning of another and causes incorrect generalizations.

The term *false friends* is also used in this study; it refers to misleading equivalents, meaning that words that look and sound similar may have different meanings in different languages. *The cognate facilitation effect describes* a phenomenon in which similar words with corresponding meanings in two languages (cognates) are recognized and produced faster and more accurately than non-cognates.

The concept of second language acquisition (SLA) is also relevant to this study. The abbreviations L1 (first language) and L2 (second language) are used throughout the study. L2 refers to a language that is learned on the basis of the first language. This thesis focuses

specifically on lexical transfer between the CJK languages. Other types of transfer have been excluded from the study, and no other languages have been included in the interpretations.

Lexical interference has been studied, and in particular U. Weinreich's (1953, *Languages in Contact: Findings and Problems*) work on language contact serves as the foundation for this study. According to his language contact hypothesis, language contact arises when two or more languages interact, and this interaction leads to interference. Interference is not random, but influenced by the structural similarity of the languages as well as the speaker's language proficiency. This theory principally functions as the theoretical framework of this study.

In this thesis, Chinese functions as the source language whose lexical structures and meanings influence vocabulary learning in Japanese and Korean. The vocabularies of Japanese and Korean contain a large number of borrowings from Classical Chinese, which increases the likelihood of lexical interference.

There are some comparative studies on lexical interference between Chinese, Korean, and Japanese (Kinoshita Hitomi, 2025; Cho et al., 2025). However, this study argues that existing research remains limited, as it tends to compare only two languages at a time and does not consistently distinguish between positive and negative interference.

This thesis focuses specifically on lexical interference. My study of these three languages has revealed notable similarities in their vocabulary, which highlights the relevance of this phenomenon for understanding interference in the context of CJK cross-linguistic influence. For this reason, I want to examine the lexical similarity of these three languages specifically from the learner's perspective. This thesis examines more profoundly the comparison of these three languages specifically in terms of lexical interference from the perspective of a learner studying all of them as foreign languages. The learner's proficiency is assumed to be advanced, although the learner does not need to be a native speaker of the L1. A sufficiently broad vocabulary in L1 is required in order to notice similarities in L2.

This thesis is structured as follows: Chapter 2 presents the methodology used for the literature search and analysis. Chapter 3 provides a literature review, in which the theoretical framework and current research are presented in more detail. Chapter 4 presents concrete examples of vocabulary similarities among the CJK languages and thereafter discusses lexical interference among the CJK languages more broadly and synthesizes the observations

made in this literature-based study. Chapter 5 summarizes the study and offers suggestions for future research.

Chapter 2: Methodology

In searching for sources, databases such as ResearchGate, Connected Papers, RISS (Research Information Sharing Service), CiNii Research, CNKI (China National Knowledge Infrastructure), and ACL Anthology were primarily used. In addition, Google was used to find further relevant studies.

The following search terms were used: “the cognate facilitation effect”, “lexical interference between Chinese, Japanese and Korean”, “Chinese L1 Korean L2”, “lexical similarity between Chinese, Japanese and Korean”, as well as equivalent terms in Chinese, Japanese, Korean, Spanish, and French. 汉语, 日语, 韩语词语 (Chinese, Japanese and Korean vocabulary), 中国語、韓国語、日本語言語的干渉 (Chinese, Korean, Japanese interference), 중국어, 한국어, 일본어, 단어 유사성 (Chinese, Korean, Japanese lexical similarity), 汉语, 日语, 韩语语言干扰 (Chinese, Japanese and Korean interference), 日中韩共通語 (Japanese, Chinese, Korean common language), Transferencia de idioma chino, japonés, coreano en vocabulario (Language transfer in Chinese, Japanese and Korean vocabulary), Le chinois, le japonais, le coréen, le vocabulaire similaire (Chinese, Japanese, Korean, similar vocabulary). French and Spanish were also used in the search process to broaden the scope, as relying on a single language would otherwise yield a limited range of relevant literature. Using multilingual search strategies allowed for a broader range of perspectives and studies. The goal was to gather as much potentially relevant literature as possible and then narrow it down systematically through exclusion criteria.

Source selection and thematic analysis were conducted over a period of approximately three months, between February and April of 2026. The process can roughly be divided into two phases. The first phase, during February, consisted mainly of exploratory searching with consistent trial and error. Different combinations of search terminology across different languages were used in order to identify the most relevant body of literature. At this stage, the focus was width rather than specificity. The second phase, which primarily took place during March and early April, involved narrowing and refining the dataset. The majority of the most relevant data was found during the process of writing the discussion chapter and literature review. This is because engaging deeply with existing studies oftentimes revealed new

terminology, references, and conceptual connections that were not visible during the initial search stage.

The initial literature consisted of 30 scientific studies related to cross-linguistic interference and two research books about linguistics. The source material included studies in English, Japanese, Korean, and Chinese. After applying the exclusion criteria, 13 research papers, one linguistics and historical language studies book (Walter, 1994) as well as one scholarly research book in linguistics (Weinreich, 1968) remained. The final corpus of sources consisted of studies published in English, Japanese and French.

During the search process, primary sources (i.e., original studies) were prioritised. However, in some cases, secondary sources were used to acquire relevant foundational studies. For example, the study by Dijkstra, Grainger, & Van Heuven (1999) was accessed through Hoshino and Kroll (2008). Sources were selected based on their relevance to cross-linguistic transfer involving Chinese, Japanese, and Korean. While preference was given to studies including all three languages, studies focusing on two of the languages (e.g., Chinese-Japanese, Chinese-Korean, or Japanese-Korean) were also included due to the limited availability of research addressing all three simultaneously. In addition, selected studies were required to address vocabulary or lexical transfer, although they could also include broader linguistic aspects.

Due to the limited number of available sources, the inclusion criteria were adapted to allow for studies examining cross-linguistic transfer at a more general level. Studies were excluded if they did not address lexical processing or transfer in a meaningful way. This included research focusing solely on technical subfields (e.g., word embedding), overly broad historical accounts of cultural influence, or purely structural comparisons of writing systems without consideration of cognitive or lexical processing.

This study was conducted as desktop research using a thematic synthesis approach, including analysis of existing qualitative studies. The selected sources were organised into thematic categories based on their primary focus, including (1) studies on linguistic interference and cross-linguistic similarity, (2) studies examining similarities among Chinese, Japanese, and Korean, and (3) studies addressing the effects of cross-linguistic similarity on language learners. However, the analysis did not treat these categories as entirely separate. Instead, the synthesized findings from different categories were compared and integrated in order to

identify broader patterns and relationships across studies. This approach allowed for a more comprehensive understanding of lexical interference and its effects in the context of CJK languages.

There are several limitations that should be considered when interpreting the literature-based findings of this study. First, some of the sources were written in languages outside the researcher's full proficiency. In these cases, translation tools were used to support comprehension and clarify ambiguities as well as to ensure that all information was interpreted correctly. Second, the scope of the available literature is relatively broad, as many studies address linguistic transfer in general rather than focusing specifically on lexical interference among Chinese, Japanese, and Korean. In addition, some studies include language pairs beyond the CJK context or examine broader linguistic phenomena rather than vocabulary alone. Thirdly, access to relevant data was limited, as there is a relatively small amount of research directly addressing lexical interference across all three languages. As a result, the study necessarily relies on a wider range of related research areas to build a logical analytical framework. Finally, although the study primarily focuses on lexical interference, it inevitably engages with phonological and semantic aspects, as these are closely interconnected in language processing. While such aspects are discussed throughout the analysis, they are not examined systematically. This creates a limitation, as a more detailed analysis of the interaction between these two aspects could provide a more detailed understanding of cross-linguistic interference in CJK languages. Despite these limitations, this study provides valuable insights and perspectives into cross-linguistic lexical interference in CJK languages and contributes to an area that remains underrepresented in existing research.

Chapter 3: Literature Review

This chapter outlines the theoretical framework and reviews previous research on the cognate facilitation effect and linguistic interference as they relate to lexical interference in the CJK languages, particularly in the processing of cognates and false cognates among L2 learners of Japanese and Korean. It begins by presenting the theoretical framework that guides this study, followed by a critical review of prior research on lexical interference among the CJK languages. Finally, the chapter identifies gaps in the existing literature, especially the limited comparative research on cross-linguistic influence across all three CJK languages, which this study aims to address.

Research on SLA indicates that cross-linguistic similarity, especially at the lexical level, facilitates word processing and learning. In bilingualism research, cognates and shared vocabulary between languages have been shown to result in faster word recognition and improved retention compared to non-cognate words. This effect is typically attributed to the simultaneous activation of lexical representations across both languages (Costa et al., 2000; Hoshino & Kroll, 2008). This is a phenomenon known as the *cognate facilitation effect*.

The cognate facilitation effect has been widely documented among several language pairs. Words that share form and/or meaning are recognized and remembered more efficiently than non-cognate words. In the context of the CJK languages, a significant portion of Japanese and Korean vocabulary derives from borrowings from Classical Chinese (i.e., Sino-Japanese and Sino-Korean vocabulary). As a result, learners with prior knowledge on one CJK language may encounter words that share semantic roots, orthographic forms, or phonological similarities. Cross-linguistic similarity that stems from a shared origin of characters enables learners to link new vocabulary to existing representations, thereby supporting vocabulary acquisition, reading comprehension, and where phonological overlap exists, listening comprehension. This theoretical framework provides a basis for understanding how prior knowledge of Chinese may facilitate the acquisition of new vocabulary in Japanese and Korean.

In addition, Uriel Weinreich's (1953, *Languages in Contact: Findings and Problems*) research on language contact provides an important theoretical foundation for this study. According to Weinreich's hypothesis of language contact, language contact arises when two or more languages interact with each other, and this interaction in turn leads to interference. Crucially he argues that interference is systematic rather than random, shaped by structural similarities between languages as well as by the speaker's language proficiency. He also emphasizes the role of social context in influencing how and when interference occurs.

These insights are directly relevant to this study. Here, Chinese functions as the source language whose lexical structures and meanings influence vocabulary acquisition in Japanese and Korean. Due to the large proportion of borrowings from classical Chinese in both languages the likelihood of lexical interference increases. Furthermore, Weinreich's view on the importance of social and cognitive factors supports the analysis of how a learner's linguistic background guides word choices and the interpretation of meanings. This framework thus provides a basis for examining how cross-linguistic interference operates in

learners with established proficiency, particularly in their ability to perceive and navigate lexical similarities across the CJK languages.

In the context of Japanese language pedagogy, leveraging learners' prior knowledge of Sino-Japanese vocabulary from an early stage can promote more efficient acquisition, given the substantial number of cognates shared across Chinese, Japanese, and Korean (Kinoshita, 2025). This pedagogical perspective aligns with the present framework, as Kinoshita's research examines lexical influence from Chinese (L1) in the learning of Japanese and Korean (L2). The large proportion of cognates with shared roots and meanings reinforces the ideas that prior linguistic knowledge can facilitate lexical development.

This is consistent with the argument of Uriel Weinreich that structural similarity between languages increases the likelihood of cross-linguistic influence. In this context, vocabulary derived from Chinese creates conditions for positive transfer and more efficient learning. This perspective therefore supports the hypothesis that cross-linguistic similarity among the CJK languages can facilitate vocabulary acquisition.

Recent quantitative research demonstrates that lexical similarity among the CJK languages is not only historically grounded but also empirically measurable. Cho et al. (2025) developed a database to compare Sino-Japanese and Sino-Korean vocabulary within Japanese. Their findings indicate that more than half (over 55%) of Sino-derived words have corresponding synonyms across all three languages, indicating strong lexical overlap. In addition, nearly 98% of these words share a core meaning, i.e., they refer to the same concept across all three languages (Cho et al., 2025), suggesting minimal semantic difference in most cases. These findings support the view that extensive shared vocabulary and strong semantic correspondence can facilitate positive interference in SLA. However, it should be noted that shared meaning does not necessarily imply complete equivalence in usage, as differences in nuance, register, or collocation may still occur.

Although existing research provides valuable insights into the topic, several gaps remain. First, the role of Sino-derived vocabulary is not always sufficiently emphasized in studies of Japanese and Korean lexicons. While these Sino-derived words differ in pronunciation across languages, they often retain phonological, semantic and orthographic similarities that are perceptible to learners. Given the large proportion of vocabulary in Japanese and Korean that originates from Classical Chinese, this shared lexical foundation warrants more systematic

attention. This degree of borrowing can be compared, for example, to Spanish and French, as a parallel case of extensive historical lexical inheritance, where a large proportion of vocabulary originates from Latin (estimated as 60–70% in Spanish, though estimates vary depending on methodology) (Dworkin, 2012). Comparable proportions are reported for French (Walter, 1994). Second, comparative research encompassing all three languages remains limited as it focuses on pairs of languages or includes additional languages such as Vietnamese or Thai, leaving a gap in comprehensive analyses of Chinese, Japanese, and Korean as an interconnected group. Studying the CJK languages together could be particularly valuable, useful, and perspective-expanding. Thirdly, relatively little attention has been paid to how these cross-linguistic relationships affect learners' lexical development. In particular, the potential role of positive transfer in facilitating vocabulary recognition and acquisition has not been fully explored. From the learner's perspective, it would be beneficial to be aware of this phenomenon at an early stage of learning, so that later observations in the learning process would occur more automatically.

This thesis primarily addresses Gap 2 by examining the three CJK languages simultaneously, while also contributing to Gaps 1 and 3 by incorporating a learner-centered perspective on how cross-linguistic influence can facilitate or hinder L2 vocabulary acquisition through L1 influence. Based on the theoretical frameworks presented earlier, the study examines cross-linguistic similarity, the cognate facilitation effect, and lexical interference across CJK vocabularies.

The synthesized findings aim to contribute to understanding how close linguistic relatedness actually functions in learning. Although lexical similarity among the CJK languages is widely recognized, there is insufficient systematic knowledge of how positive interference concretely develops and where its limitations lie. This thesis therefore discusses circumstances in which lexical similarity may accelerate comprehension and acquisition, and when it does not. In addition the study has pedagogical implications, as it may provide perspectives for a concrete foundation for more effective language teaching. A clearer understanding of these processes may help make teaching more consciously structured around these factors, accelerating early-stage learning and reducing unnecessary mechanical practice. The synthesis presented in this study may therefore also be beneficial for language teaching and learning support, as it could enable a different approach to teaching closely related languages.

Chapter 4: Discussion

This chapter aims to first provide concrete examples of lexical borrowing and similarity in the vocabularies of the CJK languages via a chart. Next, it discusses the existing findings presented in the literature review in relation to the research question, which reviews how lexical interference from Chinese affects the learning of Japanese and Korean. In particular, it analyzes whether the interference is primarily facilitative or inhibitive, and under which conditions each occurs. The chapter synthesizes fundamental factors that contribute to positive and negative interference, and evaluates their impact on language learners. In addition it considers the implications of these literature-based findings for language learning and pedagogy.

As illustrated in Table 1 many lexical items share identical Chinese characters across Chinese, Japanese, and Korean. In the comparative vocabulary examples collected from sources, Chinese words are written in simplified characters, whereas Japanese and Korean retain traditional character forms. This reflects the character reform implemented in China, following the simplification of Chinese script; however, this orthographic difference does not affect the underlying character correspondence across the three languages. The characters generally share equivalent semantic meanings across languages. Although there is slight variation in pronunciation, the phonological forms remain recognisably similar due to their common origin in Classical Chinese.

For example, the first word, 治安 is realised as zhì'ān in Mandarin Chinese, chian in both Japanese and Korean. Despite phonological variation, the forms show a high degree of cross-linguistic similarity in both structure and meaning, illustrating the shared Sino-lexical heritage of the three languages. This shared lexical structure can be interpreted as a concrete example of the cognate facilitation effect discussed in Chapter 3.

Table 1. Comparative chart of CJK vocabulary similarity

Japanese		Chinese		Korean	
治安	ちあん	治安	zhì ān	治安	치안
注意	ちゅうい	注意	zhù yì	注意	주의
治療	ちりょう	治疗	zhì liáo	治療	치료
夜間	やかん	夜间	yè jiān	夜間	야간
按摩	あんま	按摩	àn mó	按摩	안마
残余	ざんよ	残余	cán yú	殘餘	잔여
独身	どくしん	独身	dú shēn	獨身	독신
誘導	ゆうどう	诱导	yòu dǎo	誘導	유도
要注意	ようちゅうい	要注意	yào zhù yì	要注意	요주의
家具	かぐ	家具	jiā jù	家具	가구
高度	こうど	高度	gāo dù	高度	고도
準備	じゅんび	准备	zhǔn bèi	準備	준비
調和	ちょうわ	调和	tiáo hé	調和	조화
都市	とし	都市	dū shì	都市	도시
野心	やしん	野心	yě xīn	野心	야심
温度	おんど	温度	wēn dù	溫度	온도
期間	きかん	期间	qī jiān	期間	기간
散歩	さんぽ	散步	sàn bù	散歩	산보
短期	たんき	短期	duǎn qī	短期	단기
道理	どうり	道理	dào lǐ	道理	도리
道路	どうろ	道路	dào lù	道路	도로
簡易	かんい	簡易	jiǎn yì	簡易	간이
簡単	かんたん	简单	jiǎn dān	簡單	간단
躊躇	ちゅうちょ	躊躇	chóu chú	躊躇	주저

Figure 1: 日中韓三国協力事務局、日中韓共通語彙集, TCS (Trilateral Cooperation Secretariat) *Common Vocabulary of Japanese, Chinese, and Korean*

This phenomenon can also be illustrated from the learner's perspective. For example, in Korean, the word 주의 (*juui*) can be associated with the Chinese L1 from 注意 (zhùyì), as both share similar phonological structures and identical written forms in Chinese characters. A similar correspondence can be observed in Japanese, where the same lexical item is also

represented using the same characters and retains a closely related pronunciation. Such cross-linguistic similarity may facilitate word recognition and support the cognate facilitation effect, even during initial auditory or visual exposure.

The examples presented in Table 1 are only a small fraction of the vocabulary in which the CJK languages share the same orthographic form, pronunciation, and meaning. However, not all shared forms are semantically equivalent. A notable example is 爱人 (*ài rén*), which illustrates cases of semantic divergence across the three languages. In Chinese, 爱人 refers to a spouse or partner; in Korean, it generally refers to a romantic partner (not necessarily married); while in Japanese, the word has a markedly different meaning, as it typically denotes a lover or extramarital partner. These cases demonstrate that although orthographic and phonological similarity may facilitate lexical access, semantic differences can also lead to misinterpretation and potential negative interference. Such phenomena are consistent with the concept of *false friends* in SLA research. While these examples illustrate the extent of lexical similarity, they also raise the question of how such similarity affects language learning in practice.

Words of Chinese origin form a considerable part of Japanese and Korean vocabularies, accounting for approximately 43–54% in Japanese and 47–56% in Korean. A large proportion of these words are cognates, and most (around 80–90%) share a corresponding fundamental meaning, making them largely understandable across all three languages. However, a small proportion (approximately 10–20%) deviates in meaning, which may therefore give rise to uncertainty (Kinoshita, 2025).

In the quantitative study by Matsushita et al. (2025), the figures are also very similar in terms of percentages: 46.4% of general Japanese vocabulary consists of Sino-Japanese words, of which 93.4% are cognates with Korean, and 98.1% share the same basic meaning. Based on these statistics reported in previous studies, they suggest that CJK languages possess an aberrantly stout lexical common foundation. Taken together, these figures suggest that a significant portion of Japanese vocabulary may be partially accessible to Korean learners through cognate recognition.

The large number of cognates and their high semantic correspondence creates favorable conditions for positive lexical interference, particularly in the early stages of vocabulary acquisition, as learners may be able to infer meanings without prior knowledge. Overall, the

figures indicate that prior language knowledge tends to function more as a resource rather than as a barrier in CJK vocabulary learning, particularly when learners are able to strategically exploit cognate relationships, although this advantage is not without limitations. The presence of false or partially overlapping cognates indicates that the interference is not uniformly facilitative and may also lead to misunderstandings.

The extent of Chinese-origin vocabulary can be understood in terms of lexical borrowing. As argued by Weinreich, borrowing is closely linked to sustained linguistic and cultural contact, as the more contact there is between languages, the more likely lexical borrowing becomes. Words are adopted due to factors like communicative need, social value, and intercultural interaction. The historically intensive contact between Chinese and both Japanese and Korean has therefore resulted in a large shared lexicon, which in turn underlies the patterns of cross-linguistic influence observed in learners.

Cognates and shared lexicon between languages can lead to faster word recognition and enhanced retention compared to non-cognate words, a phenomenon known as *the cognate facilitation effect*. This effect arises because bilingual learners tend to unconsciously activate both languages simultaneously when the words have similar appearance and meaning. This parallel activation enables a more efficient processing of words, providing a clear advantage in vocabulary acquisition.

Research suggests that bilingual lexical access is largely non-selective, meaning that both languages are activated automatically during word recognition. According to models such as the Bilingual Interactive Activation Model (BIA model), this activation occurs across orthographic, phonological, and semantic levels. The BIA model explains how bilingual people recognize words in two languages by suggesting that both languages are processed at the same time, with words from each language becoming active and competing until the brain selects the correct one. Cognates benefit from overlapping representations in both languages, leading to converging activation on a shared meaning and reduced competition between alternatives, which in turn results in faster recognition and more efficient processing. This mechanism explains why shared form and meaning across languages facilitate lexical access and contribute to more efficient vocabulary learning (Dijkstra & Van Heuven, 2002; Hoshino & Kroll, 2008). In the context of the CJK languages the BIA model explains the cross-linguistic interference effect due to shared characters and overlapping orthographic and phonological mappings.

In the case of the CJK languages, partial sharing of a logographic writing system contributes to orthographic similarity, which can trigger simultaneous activation of L1 and L2 during lexical processing (Cai et al., 2024). Cognates with high orthographic similarity have overlapping visual representations, which allows a faster transition from orthographic to semantic processing and thus faster word recognition. Rather than processing such words as entirely new, learners can utilize previously acquired visual patterns from their L1, reducing cognitive effort during processing. These studies suggest that the languages do not function as fully separate systems, but instead interact continuously at the lexical level, which can support vocabulary acquisition and reading comprehension. Conversely, in situations where orthographic similarity is low, *the cognate facilitation effect* is reduced, and processing may become slower and less efficient.

Another recent study supports shared orthographic representation and cognitive transfer between the writing systems of the CJK languages. Fei et al. (2021) provide experimental evidence that, during Japanese lexical processing by Chinese learners, the semantics of Chinese are rapidly activated and influence word recognition. This finding suggests that bilingual lexical processing involves interaction between languages rather than strict separation. The automatic activation of L1 semantics shows that learners utilize existing knowledge structures, which may reduce processing effort and improve recognition speed. From a learning perspective, existing research suggests that prior knowledge of the L1 can support L2 processing. However, this effect is likely dependent on the learner's level of L1 proficiency and the degree of lexical overlap. While the study focuses on Chinese-Japanese processing, the theory may also be extended to other CJK language combinations, especially given the shared use of Chinese characters. In such cases, lexical processing may be facilitated by overlapping orthographic representations, enabling partial access to meaning through L1 associations rather than full independent construction in the L2.

Taken together, Cai et al. (2024) and Fei et al. (2021) suggest that lexical processing in CJK languages is facilitated at both orthographic and semantic levels, supporting an integrated model of cross-linguistic activation. Building on this processing advantage, cognates are often learned more quickly during language acquisition, and can create stronger and more stable lexical representations (Arana et al., 2022). Previous research indicates that lexical learning is not entirely isolated within a single language, but can benefit from shared representations across languages, where overlapping features

reinforce long-term retention over time. More broadly, vocabulary similarity helps learners connect new vocabulary to existing concepts, which may support vocabulary acquisition and reading comprehension. In addition, similarity in pronunciation may also contribute to listening comprehension, although the extent of this effect likely depends on the degree of phonological overlap. Overall, cross-linguistic similarity, particularly in vocabulary, appears to facilitate both lexical processing and aspects of language learning in CJK contexts.

Despite the facilitative effects of cross-linguistic similarity, research also highlights the presence of negative interference in CJK languages. China's historical, political and economic influence across other East-Asian regions shaped the development of languages throughout history. The shared literary traditions and writing systems make cross-linguistic transfer possible (Song et al., 2024). Despite this, research evinces that shared historical roots shall not guarantee efficacious cross-linguistic interference. In particular, although many characters share visual forms, their meanings, pronunciations, and contextual usage have diverged over time. This can lead to *false friends*, where superficial similarity in form does not correspond to functional equivalence, potentially resulting in misunderstanding and inaccurate lexical associations. To put it another way, identical or similar-looking characters may function differently across languages, which can lead to confusion in interpretation and usage.

In summary, The reviewed literature suggests that positive interference is most likely to occur when two analogous languages share cognate words. When vocabulary in L1 and L2 share the same roots, spelling (or character), and pronunciation along with corresponding meaning, it may accelerate vocabulary acquisition. In order to discern these cognates between languages and adopt this knowledge strategically, the literature suggests that the language learners' proficiency needs to be sufficient, as advanced learners generally have enhanced capacity to distinguish genuine correspondences from deceptive overlap. In such cases, previously acquired language skills in L1 may be facilitative for vocabulary recognition, processing speed, and long-term retention. By contrast, negative interference is most likely to occur when similar superficial forms in orthography or alike pronunciation won't always guarantee correspondence in meaning and usage. These *false friends* discrepancies may lead to confusion and inaccurate lexical associations among learners and for that reason produce

errors. L1 doesn't necessarily always facilitate the learning of L2 when these erroneous assumptions and knowledge are incorrectly transferred to L2.

There is some clear dissent between the preceding studies about the nature of interference happening. Some studies (e.g., Zhang et al., 2021) firmly espouses the role of *the cognate facilitation effect* in promoting lexical learning. By contrast, other studies (e.g., Song et al., 2024) highlights the risk of induced confusion as superficial similarity within the characters does not always imply correspondence in usage, which evidently obfuscates learning. These two studies are conflicting as to whether the interference among the CJK languages is positive or negative, suggesting that the effect of cross-linguistic similarity is not uniform, but depends on factors such as degree of overlap and learner interpretation.

Overall, interference among CJK languages can be both facilitative and misleading. A shared lexical foundation can make transfer beneficial for reading comprehension and vocabulary development. This shared system can be seen as a form of mental framework that helps learners navigate new vocabulary by drawing on existing knowledge. However, it may also lead to misinterpretation when surface similarity masks functional differences. This indicates that similarity among CJK languages functions like a “double-edged sword”, providing both advantages and disadvantages in language learning. That is to say, the learner cannot enjoy the benefits without also having to deal with the impediments. Interference among these three languages cannot be characterised as purely positive or negative, but rather as a context-dependent phenomenon.

Researchers in applied linguistics tend to put more emphasis on negative interference chiefly for negative interference is prominent in learner errors, whereas positive effects are oftentimes inconspicuous (Harlig & Sprouse, 2017). However, this emphasis may overlook the momentous role of positive interference in language learning, which might prove valuable to investigate especially in the context of CJK languages for their kinship and interference is potent.

From a learner's perspective, it could prove to be beneficial to shift focus on positive interference as it might aid them to see language acquisition in a new light. Previous studies suggest that learners may draw on prior linguistic knowledge, which can reduce cognitive load and facilitate more efficient processing, comprehension, and production. It may also advocate confidence, perseverance and motivation by highlighting existing knowledge rather

than focusing solely on errors. This can make learning feel more attainable and swifter. In this sense, L1 can function as a valuable resource in L2 learning.

From a pedagogical perspective, greater attention to positive interference could encourage more strategic learning. Learners may benefit from developing an awareness of when L1 knowledge is helpful and when it may lead to error, enabling them to balance facilitative and misleading influences. In the case of the CJK languages, positive interference supports strategic inference, for meanings can often be reliably estimated based on characters, pronunciation, and word structure. This makes positive interference an efficacious learning tool, as the learner can use visual recognition, phonological similarity, and prior linguistic knowledge to construct new meanings.

In summary, highlighting positive interference can make language learning feel more like building on strengths and leveraging existing linguistic knowledge rather than avoiding mistakes. This shift can improve both confidence and learning outcomes.

Chapter 5: Conclusion

According to the synthesization of these reviewed studies, interference among the CJK languages is both positive and negative, but appears to be predominantly positive. Positive interference may occur when the writing systems and phonetic similarities in pronunciation have resemblance across languages. As the studies explain, the simultaneous activation of languages in the bilingual or multilingual speaker's cognitive system is explained by *the cognate facilitation effect*. The presence of cognates triggers activation in the brain, which speeds up the recognition of similar words.

For a learner of these three languages, *the cognate facilitation effect* is highly beneficial: processing new words becomes significantly faster, learned words are easier to retain in long-term memory, and learning new material based on another language increases confidence, as the learner is able to utilize and apply previously acquired knowledge. However, interference among the CJK languages may also be considered a “double-edged sword,” as it has its drawbacks. While it is true that there are advantages, the interference is not without a flaw. Negative interference also occurs among these languages, causing the *false friends* phenomenon to occur when a familiar-looking or -sounding word differs in meaning across languages. Nevertheless, it is worth noting that *false friends* tend to decrease as the learner's language proficiency increases.

This study aimed to address gaps in the existing research by reviewing Chinese, Japanese, and Korean simultaneously as well as taking into account the effects interference has on a language learner. It sought to analyze both positive and negative interference, while placing greater emphasis on positive interference and its effects on the learner. Previous research has primarily focused more on negative interference and its harmful effects, as they are prominent in learner errors. However, positive interference is often more common, although less noticeable. Therefore, this study aspired to accentuate the role of positive interference in the learning of these languages.

For future research, it could be of value to further examine how the learner proficiency affects interference among these three languages. Moreover, positive interference and its effects on language learning ought to be studied in greater depth. Higher proficiency generally enables learners to make better use of cross-linguistic similarities, while reducing the risk of *false friends* and negative interference. Overall, multilingual speakers actively draw on all languages in their repertoire. They possess the knowledge, skills, and understanding to utilize interference. The literature suggests that learners can develop an awareness of when their L1 helps and when it may mislead them. This kind of balance is often psychologically easier for learners to manage. Interference should therefore not only be viewed as a source of error but also as a cognitive resource that learners can learn to manage strategically. This balance between facilitation and interference may also reduce cognitive load and support more efficient language learning.

From this perspective, the benefits of positive interference outweigh the disadvantages of negative interference, depending on the learner's level. However, this requires learners to remain aware that, despite structural similarities in the CJK context, these are three distinct languages. While lexical or phonetic similarity can sometimes support the assumption of words being cognates, it should not be treated as a reliable indicator without verification, as this excessive confidence may lead to errors.

This thesis synthesizes existing insights regarding the cross-linguistic interference among the CJK languages. First, it addresses the underrepresentation of studies on CJK linguistic interference in global linguistic research. On a theoretical level, the synthesis presented may contribute to a deeper understanding of SLA by outlining how lexical interference operates among typologically related but distinct languages. Furthermore, it expands models of cross-linguistic influence beyond alphabetic writing systems to include logographic systems.

As a result, this study highlights the need for further research into lexical similarity among these languages, as their relationship extends beyond surface-level features. This study synthesises existing findings on interference among these three languages. This is significant, as the phenomenon has received considerably less attention in the CJK context compared to Indo-European language pairs. The reviewed studies also identify recurring patterns and error types, such as *false friends* and semantic confusion and helps identify how these patterns may vary according to proficiency level, exposure, and learning context.

In practice, the synthesized findings might support language pedagogy by increasing learner awareness of cross-linguistic pitfalls and by exploiting the positive benefits. They can also assist teachers in designing targeted vocabulary instruction that anticipates errors caused by interference. In addition, the study may contribute to improving translation accuracy and interpreter training by identifying high-risk lexical overlaps.

The first chapter of the thesis provided an introduction to the study by presenting the research question, defining key terminology, and outlining the structure of the thesis. Chapter 2 described the methodology used for the literature search and analysis in detail. Chapter 3 presented the literature review, outlining the theoretical framework of the study and reviewing relevant recent research. Chapter 4 illustrated lexical similarity among the CJK languages using concrete examples and a comparative table. Thereafter it analyzed lexical interference among these languages and discussed the findings of this literature-based study. Chapter 5 concluded the thesis by summarising the main synthesized findings and suggesting directions for future research, while also reinforcing the overall contribution and significance of the study.

References

Arana, S. L., Duñabeitia, J. A., & Carreiras, M. (2022). The cognate facilitation effect depends on the presence of identical cognates. *Bilingualism: Language and Cognition*, 25(5), 1023–1036.

<https://doi.org/10.1017/S1366728922000062>

Bardovi-Harlig, K., & Sprouse, R. A. (2017). Negative versus positive transfer. In *The Encyclopedia of Applied Linguistics*, 1–2. John Wiley & Sons.

<https://doi.org/10.1002/9781118784235.eelt0084>

Cai, F., Fei, X., & Song, Q. (2025). Japanese-as-a-foreign-language acquisition affects native Chinese lexical processing among Chinese learners. *Frontiers in Psychology*, 15, Article 1457155. <https://doi.org/10.3389/fpsyg.2024.1457155>

Cho, H., Yanagimoto, D., Lee, J., Choi, Y., & Matsushita, T. (2025). Development of a database of Sino-Japanese vocabulary in contrast to Korean: A quantitative study of semantic correspondence patterns. *The Japanese Language Association of Korea*, 86, 105–123.

<https://doi.org/10.14817/jlak.2025.86.105>

Costa, A., Caramazza, A., & Sebastián-Gallés, N. (2000). The cognate facilitation effect: Implications for models of lexical access. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 26(5), 1283–1296. <https://doi.org/10.1037/0278-7393.26.5.1283>

Dijkstra, T., & Van Heuven, W. J. B. (2002). The architecture of the bilingual word recognition system: From identification to decision. *Bilingualism: Language and Cognition*, 5(3), 175–197. <https://doi.org/10.1017/S1366728902003012>

Dworkin, S. N. (2012). The Latin base of the Spanish lexicon. In S. N. Dworkin (Ed.), *A history of the Spanish lexicon: A linguistic perspective* (pp. 44–64). Oxford University Press <https://doi.org/10.1093/acprof:oso/9780199541140.003.0003>

Fei, X., Zhao, Y., & Liu, H. (2021). Auditory recognition of Chinese-Japanese cognates and homographs. <https://doi.org/10.2117/psysoc.2021-A144>

Hoshino, N., & Kroll, J. F. (2008). Cognate effects in picture naming: Does cross-language activation survive a change of script? *Cognition*, 106(1), 501–511.

<https://doi.org/10.1016/j.cognition.2007.02.001>

Kinoshita H. (2025). 日本語・韓国語・ベトナム語における中国語からの借用語(漢語)の量的調査研究 : 漢語・同根語の割合, 同根語の意味対応による割合を中心に, 国立国語研究所論集 (*NINJAL Research Papers*), 29, 221–243. <https://doi.org/10.15084/0002000520>

Song, S., Yoo, H., Jin, J., Cho, K., & Oh, A. (2025). Shared heritage, distinct writing: Rethinking resource selection for East Asian historical documents. arXiv.

<https://doi.org/10.48550/arXiv.2411.04822>

Walter, H. (1994). *L'aventure des langues en Occident: Leur origine, leur histoire, leur géographie*. Robert Laffont.

Weinreich, U. (1968). *Languages in contact: Findings and problems*. Mouton.

https://www.academia.edu/39358679/Uriel_Weinreich_Languages_in_contact_Findings_and_problems_1979_1

Zhang, Y., Li, X., & Wang, H. (2021). Unpacking cross-linguistic similarities and differences in third language Japanese vocabulary acquisition among Chinese college students.

<https://doi.org/10.1080/01434632.2020.1865987>

日中韓三国協力事務局. (2020). 日中韓共通語彙集 (第3版). 日中韓三国協力事務局.

<https://ci.nii.ac.jp/author/DA19696341>

Appendices

Appendix 1. AI Use Declaration

[AI Use Declaration](#)

Appendix 2. Original Finnish draft

[Original Finnish Draft: Kandidaatintutkielma - Leksikaalinen interferenssi japanin ja korean oppimisessa kiinan pohjalta](#)