

Third Language Acquisition of English Word Order in Written Production by L1 Yi and L2 Mandarin Learners

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Abstract

Based on third language acquisition theories (Flynn, Foley, & Vinnitskaya, 2004; Marx & Hufeisen, 2004; Rothman, 2010, 2015) and cross-linguistic influence (Sharwood Smith & Kellerman, 1986), this study explored the written production errors of L3 English acquisition of word order in the affirmative and interrogative structures by L1 Yi and L2 Mandarin learners. The participants were thirty “*Yi ethnic minority*”¹ students of L3 English at the beginner level from a middle school in Yunnan Province, China. The instrument was an elicited production task. The findings exhibited that errors in L1 Yi word order were more frequently produced than those of L2 Mandarin word order, and the errors produced in the interrogative structures were higher than in the affirmative structures. It demonstrated that cross-linguistic influence from L1 Yi and L2 Mandarin was more evident since a higher proportion of error rates from these two languages were examined, and L1 Yi tended to have a higher negative impact than L2 Mandarin.

Keywords: L3 acquisition, written production, English word order, L1 Yi and L2 Mandarin learners, cross-linguistic influence

Introduction

In the past two decades, the issue of the cross-linguistic influence of L1 and L2 on L3 acquisition has aroused the interest of linguists (Bild & Swain, 1989; Leung, 2009; Nayak, Hansen, Krueger, & McLaughlin, 1990; Ramsay, 1980). Gass (2013) stated that multilingual students have not one, but two or more background languages that are potential sources of influence on the students’ third language acquisition. From the point of view of cross-linguistic influence, the question arises as to how the three languages interact with each other during the language acquisition process.

Regarding the learning of word order, Odlin (2012) claims that word order is one of the most intensively studied syntactic properties in linguistics. The related studies outside the context of China are concerned with the acquisition of word order in L3, and a variety of languages were used to explore the phenomenon in L3A. Şimşek (2006) studied L3A of English word order by Turkish-German bilingual students in a German educational setting.

Grümpel (2009) conducted a study focusing on the acquisition of word order in L3 German by adult native speakers of Spanish and English as L2. Rothman (2010) examined the related domains of syntactic word order and relative clause attachment preferences in L3 Brazilian Portuguese. Falk and Bardel (2010) investigated syntactic transfer from L1/ L2 to L3 by comparing the word order of object pronouns in German, English, and French.

Nevertheless, only limited research has been conducted regarding previous studies of the morphosyntactic level in the context of China, and these studies were mainly concerned with morphological study. Xiang and Cao (2006) compared and contrasted English and Yi mainly at the grammatical level, and the differences indicated between Yi and English were helpful to compare the word order of these two languages at the syntactic level. Yang and Qi (2013) contrasted modifier-noun constructions in Dai, Mandarin, and English in the case of ethnic Dai students' L3A. The knowledge of the morphological differences in the three languages presented in this study helps examine the problems embedded in the sentence structures. Xu (2012) studied negative syntactic transfer by Tibetan students in terms of the word order of the 'there be' structure and copula 'be' in L3 English. The results indicated that L2 Mandarin has a greater influence than L1 Tibetan for L3 English acquisition.

The aforementioned studies depicted the phenomenon of L3A by comparing and contrasting the morphosyntactic similarities and differences among different languages. However, many studies previously conducted outside the context of China were mainly from the Indo-European language family; the studies conducted in the context of China were related to L3A at the morphological level. However, the present study is different from previous studies from two dimensions: (1) the languages studied are from different language families. That is, English is a language of the Indo-European language family, but Mandarin and Yi are languages of the Sino-Tibetan language family, which have a typological distance from English. (2) The related theories of L3A and cross-linguistic influence were applied to explore the phenomenon of L3 word order in the syntactic level, by focusing on affirmative and interrogative structures rather than the structures used in the previous studies.

Thus, L3 acquisition of syntactic word order is still an area that requires further exploration across a wide variety of linguistic contexts. Therefore, through applying theories of L3A regarding the Cumulative Enhancement Model, Language distance, and L3A is not a case of L2A, and also cross-linguistic influence, this study fills in the gap in the areas of L3 acquisition of word order in English language affirmative and interrogative structures in the linguistic context of China. The research aimed to achieve three objectives: (1) to explore the written production errors of word order in L3 English affirmative and interrogative structures; (2) to investigate if cross-linguistic influence from L1 Yi and L2 Mandarin exists in L3 English acquisition, and (3) to examine whether L1 Yi or L2 Mandarin is more influential in the acquisition of the word order in L3 English.

Literature Review

The literature review comprises two parts: 1) theories regarding third language acquisition; and 2) cross-linguistic influence.

Third Language Acquisition

Third language acquisition incorporates three areas: the Cumulative Enhancement Model in L3A, language distance, and L3A is not a case of L2A.

The Cumulative Enhancement Model in L3A

The Cumulative Enhancement Model (CEM) was proposed by Flynn, Foley, & Vinnitskaya (2004). According to this model, language acquisition is cumulative, meaning any prior language can either enhance subsequent language acquisition, or remain neutral. CEM is one of the first generative attempts at modelling morphosyntactic multilingual transfer. Taken together, CEM by Flynn, Foley, & Vinnitskaya (2004) is summarised as follows:

1) In language acquisition, experience of any prior language can influence subsequent language acquisition. The positive influence of any previous L1 or L2 languages could facilitate L3A. Therefore, providing overall target-like structures from the outset.

2) L1 does not play a privileged role in subsequent language acquisition.

3) While L2 is still ‘in progress’, its influence on L3A is not the same as when L2 and L3 are sequential². Namely, the specific knowledge underlying language A appears to be more fully available for the acquisition of language B when language B is acquired after the learner has successfully acquired language A.

Language Distance

Language distance, also called ‘Typological Distance’, is reviewed within a range of different terms: Psychotypology or Typological Proximity by Kellerman (1979), Relatedness Distance by Jarvis (2000), Similarity Distance by Odlin (1989), Language Distance by Ringbom (1987), or the Typological Primacy Model (TPM) by Rothman (2010, 2011, 2015). De Angelis (2007) defined language distance as the “The distance that a linguist can objectively and formally define and identify between languages and language families” De Angelis (2007, p. 22).

Based on Keller (1983), Rothman’s view of the Typological Primacy Model (TPM) is that learners transfer the grammar properties, either L1 or L2, which are perceived to be typologically closer to the L3 (Rothman, 2011, 2015). However, this typological relationship may only be a perception. Slabakova (2017) examined Spanish and Portuguese as example. These languages belong to the Romance language family and are closely related; they can be considered typologically closer to each other than to English. De Angelis and Selinke (2001) claimed that typological proximity is sufficient by itself to influence the selection process in L3A. For the typological similarity of L2 in relation to L3 as a reason for transfer, De Angelis

(2005) mentioned the possibility of transfer occurring from an L2 source that is typologically distant from the L3. Heidrick (2006) claimed that typological similarity was almost always the deciding factor regarding which language was used as a source. Leung's findings suggested that knowledge of an L2 that is typologically close to the L3 facilitates acquisition (Leung, 2005). Gibson, Hufeisen, and Libben (2001) observed that the typological relationship between the L1 and L3 had no bearing on L3A.

L3A is Not a Case of L2A

In the late 20th century, most linguists supported the view that there is no difference in the acquisition of L2 or L3/Ln, and that all languages acquired after the native language are L2 (Myles, Hooper, & Mitchell, 1998; Singh & Carroll, 1979). That research mainly deemed that L3A was based on the L2A, and the L2A theories and approaches apply to L3A as the starting point. Few studies on L3 morphosyntax were discussed as L3 was treated as another case of L2A, thus it dismisses the role of other languages in the acquisition process (García Mayo, 1999; Klein, 1995; Zobl, 1992).

However, Cenoz, Hufeisen, and Jessner (2001) claimed L3/Ln acquisition as unique cases of language acquisition that should be studied independently of L2A. A series of sequential studies support the independence of L3A from L2A. Marx and Hufeisen (2004) claimed that L3A should not be considered equal to L2A, or even its sub-topic. Furthermore, Leung contended that L3A was not simply another case of L2A, because transfer in L3A does not always come from L1 in terms of article acquisition (Leung, 2001, 2005, 2007). De Angelis (2007) stated that researchers who took L3/ Ln as an extension of L2A have clearly overlooked the potential knowledge related to language acquisition by multilingual individuals, as the areas of how third or additional languages may be influenced by the previously acquired languages have been rarely studied. Relating to the sources of transfer, L2A and L3A are distinct, as is maintained in some studies (Cabrelli, Iverson, Judy, & Rothman, 2008; Iverson, 2010; Leung, 2007). That is to say, regarding the source of transfer from the previous languages, L3 learners have more potential for transfer at the initial state of L3.

Cross-linguistic Influence

Cross-Linguistic Influence (CLI) is a term originally created by Sharwood Smith & Kellerman (1986). "CLI includes all concepts regarding the phenomena of language influence such as 'transfer', 'interference', 'avoidance', 'borrowing', and the L2 related aspects of language loss" (Sharwood Smith & Kellerman, 1986, p.1). In the light of L2A, L1 is the learner's only knowledge of a prior language system, and the learner may transfer many features of L1 until achieving proficiency in L2 (Tremblay, 2006). However, the study of L3A deals with two prior language systems, and the learner has to decide whether to select the L1 or L2 system as the source language (Cenoz, 2001). It was stated previously that L3A could not be only L1 transfer to L3, but also the variant L2 transfer to L3, as all the prior language knowledge the learner has acquired can activate the language that is being acquired.

However, William & Hammarberg (1998) explore the L3 learners' tendency to use L2 as the source language in preference to L1 by studying Sarah Williams' case regarding L3A, and focused on the acquisition of L3 syntax concerning the L2 status factor as the source at the syntactic level.

In CLI, one of the most investigated factors attributing to interference is 'language distance or typological distance'. In past decades, L3A at the morphosyntactic level was studied in the light of language distance. Jessner (2006) investigated typological distance and the acquisition sequence (i.e., the order in which languages were acquired) in the context of Spanish-English bilingual students who studied Portuguese as L3. The findings indicated that the linguistic similarity between the languages overrode the acquisition sequence. Regarding the acquisition of word order, Odlin (1989) analysed and interpreted the research by showing the many ways in which similarities and differences between languages may influence the acquisition of grammar, vocabulary, and pronunciation. Nevertheless, it is worth noting that Taylor (1975) claims more errors from prior acquired languages were produced by learners at an elementary level rather than learners at an intermediate or advanced level. Kellerman (1983) also proved the view that the beginner and elementary level learners show more prevalent errors from the first language in acquisition of the second and additional languages.

Based on the literature reviewed above, it is hypothesized that the written production of L3 English word order of affirmative and interrogative structures is positively and negatively influenced by both L1 Yi and L2 Mandarin. However, the positive transfer is more influenced from L2 Mandarin when the word order of L2 Mandarin and L3 English is typologically close, and it is more negatively influenced by L1 Yi learners when the word order of L3 English and L1 Yi is typologically distant.

Scope of the Study

The three languages in relation to this study are L1 Yi, L2 Mandarin, and L3 English. This study focuses on two cases of word order: (1) L1 Yi≠L2 Mandarin & L3 English (L2=L3): the sentence structures that are the same as L2 Mandarin and L3 English, but different from L1 Yi; (2) L1 Yi≠L2 Mandarin≠L3 English: the sentence structures that are totally different among the three languages. The word order of affirmative and interrogative structures of the three languages is shown below.

Table 1: The three languages' word order of affirmative and interrogative structures

No	Category	L3 English	L2 Mandarin	L1 Yi
Case 1: L1 Yi≠L2 Mandarin & L3 English (L2=L3)				
1	Simple S+V+O	S+V+O	Same as English	S+O+V
2	S+V+O+to	S+V+O+to	Same as English	S+O+to+V
3	With double objects	S+V+IO+DO	Same as English	S+IO+DO+V
Case 2: L1 Yi≠L2 Mandarin≠L3 English				
4	With a preposition	S+V+O+PP	S+PP+V+O	S+PP+O+V

No	Category	L3 English	L2 Mandarin	L1 Yi
5	Passive voice	O(patient)+Be+V 3+by+S(agent)	O(patient)+by+ S(agent)+V3	O(patient)+S +Agt.pt+V3
6	With the infinitive structure 'to'	S+V+to	S+V+V+O	S+O+V+V
7	Affirmative Yes-no question	Aux.v+S+V+O	S+Aux.v+V+O+ Int.pt	S+O+V+Aux.v +Int.pt
8	Negative Yes-no question	Aux.v+Neg.pt+S+ V+O	S+Neg.pt+V+O	S+O+Neg.pt +V
9	Wh-question (Wh-word as the object)	Int+Aux.v+S+V	S+V+Int	S+Int+V

Note: for abbreviations in Table 1 see endnote³

In total, nine types of simple sentence structure were covered, comprising six types of affirmative structures (three types for L1≠L2&L3, and the other three types for L1≠L2≠L3) and three types of interrogative structures (L1≠L2≠L3).

Methods

This part introduced the population and subjects of the study first. Then the instruments, including two proficiency tests and an elicited production task, were described. Finally, the research procedure was explained.

Population and Subjects

The population comprised a number of Yi ethnic minority students studying at Luohe Nationality Junior Middle School in the Yuxi Municipality of Yunnan Province, China. Luohe Nationality Junior Middle School is a Yi ethnic minority concentrated middle school. The majority of the students attending this school are Yi ethnic minority students, and a small group of students are Hani ethnic minority and Han Chinese. The students at this school have at least seven years of experience learning English⁴. Yi ethnic minority students who speak the Yi language as L1 and Mandarin as L2 were exclusively selected for this study, and they all learnt English as the third language at school.

Thirty Yi ethnic minority students of the beginner level were purposively selected by means of an English proficiency test (The standardised Oxford Quick Placement Test (QPT)) and a Mandarin proficiency test (Hanyu Shuiping Kaoshi Level 5 (HSK⁵ Level 5)). The QPT is a reliable method of assessing the subjects' proficiency in L3 English. The HSK Level 5 was selected to test the participants' L2 Mandarin proficiency for the following reasons. According to the Chinese Language Curriculum Standard, students at the compulsory education level (Grade 1- Grade 9) are required to master at least 3,500 words, and be able to read and write articles of various genres (Chao, 2012). By considering average Chinese vocabulary of the beginner learners' level is around 3,000-3,500 words, and their overall comprehensive reading and writing ability, the degree of difficulty for HSK Level 5 was considered to be suitable for the participants in this study.

Instrument

The instrument utilised for this study was an elicited written task: the Multiple Choice Task (MCT). The MCT is an assessment technique of forced choice elicitation in language tests. According to Harmer (2007), the MCT is an ideal test instrument for measuring learners' knowledge of grammar and vocabulary. In addition, Heaton (1990) described the MCT as a device that tests the ability to recognise sentences which are grammatically correct. In designing the task, both the target structures and distractors were fully considered as the distractor sentences decrease the participants' guessing the answers from similar sentence structures. Therefore, forty items were designed in total, including twenty-seven target sentences with three sentences for each structure, and thirteen distractor sentences, respectively.

As the aim of this study is to examine how L1 Yi and L2 Mandarin influence L3 English acquisition in terms of affirmative and interrogative structures, the MCT aims to elicit the production errors of L3 English word order by the L1 Yi and L2 Mandarin beginner learners. The instructions and examples are presented below.

Instructions: Provide the answer in accordance with the question.

E.g. Kim: What can you do for him?

Li: _____.

A. I can for him cook food.

B. I can for him food cook.

C. I can cook food for him.

D. I can food cook for him.

As can be seen in the example, regarding providing the answer in accordance with the question, the choices are designed in the word order sequence of Mandarin, Yi, English, and other structures⁶, respectively. The participants can freely select the sentence that they consider to be the correct English word order. Such a natural dialogue is presumed to generate natural data production of the intended structures by the participants.

Procedure

First, the L3 English proficiency QPT and the L2 Mandarin proficiency HSK Level 5 were implemented to stratify the qualified participants. Then the tests were undertaken in a strictly supervised environment. After the data were collected, it was analysed quantitatively and qualitatively. The quantitative data focused on assessing the production error rates, and the qualitative data emphasised elaborating the error types and the causes of errors.

Findings and Discussion

This part reports the results of the beginner learners' production errors of word order and discusses the findings. Nevertheless, it should be noted that the use of only task (multiple-choice questions) might not portrait the phenomenon of L3A to the full. There might be some task effects in the findings.

Results of the Written Production Errors of L3 English Word Order

The beginner learners' results for the written production errors of L3 English word order from the multiple-choice questions are presented in the sequence of the sentence structures of Case 1: L1≠L2&L3 first, followed by the sentence structures of Case 2: L1≠L2≠L3.

Table 2: The written production of L3 English word order in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%
S+V+O	17/90	18.9	1/90	1.1
S+V+O+to	10/90	11.1	1/90	1.1
S+V+IO+DO	19/90	21.1	1/90	1.1
Total	46/270	17	3/270	1.1

In this case, the word order of each sentence structure is as the same as L2 Mandarin and L3 English. The results indicated that the beginner learners exhibited low error rates. The average error rates from L1 Yi word order were 17%, and those from other structures were only 1.1%. Thus, the results showed that the beginner learners, to some extent, encountered some difficulties in producing L3 English affirmative structures since they produced errors of L1 word order in the multiple-choice task. That is, they produced the highest number of errors from L1 Yi word order, particularly in the 'S+V+IO+DO' structure, in which the error rates were 21.1%, followed by the error rates of 18.9% for the 'S+V+O' structure and 11.1% for the 'S+V+O+to' structure, respectively.

The results for the written production of word order in the affirmative structures for L1≠L2≠L3 are presented in Table 3.

Table 3: The written production of L3 English word order in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
S+V+O+PP	3/90	3.3	13/90	14.4	1/90	1.1
O(patient)+Be+V3+by+S(agent)	1/90	1.1	17/90	18.9	0/90	0
S+V+to	27/90	30	5/90	5.6	0/90	0
Total	31/270	11.5	35/270	13	1/270	0.4

In this case, the word order of these sentence structures was totally different among L1 Yi, L2 Mandarin, and L3 English. The results revealed that the average error rates from L2 Mandarin, L1 Yi, and other structures were 11.5%, 13%, and 0.4%, respectively, with the errors rates from L1 Yi ranking the highest. In particular, the error rates from L1 were as high as 18.9% in the passive voice structure 'O(patient)+Be+V3+by+S(agent)', but those from L2 Mandarin were only 1.1% for the same structure. Conversely, in the 'S+V+to' structure, the

error rates from L2 Mandarin reached 30%, which was much higher than the error rates from L1 Yi at only 5.6%. The error rates of other structures occurred exclusively in the ‘S+V+O+PP’ structure, and the error rates were only 1.1%.

The results for the written production of word order in the interrogative structures for L1≠L2≠L3 are presented in Table 4 below.

Table 4: The written production of L3 English word order in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
Aux.v+S+V+O	4/90	4.4	22/90	24.4	0/90	0
Aux.v+Neg.pt+S+V+O	12/90	13.3	23/90	25.6	0/90	0
Int+Aux.v+S+V	6/90	6.7	17/90	18.9	6/90	6.7
Total	22/270	8.1	62/270	23	6/270	2.2

The results demonstrated that the beginner learners were influenced more negatively by L1 Yi than by L2 Mandarin in this case. The average error rates from L1 Yi word order in the interrogative structures were 23%, much higher than the error rates produced in the affirmative sentence structures for both cases of L1≠L2&L3 and L1≠L2≠L3. Comparatively, the proportion of the error rates from L2 Mandarin word order was 8.1%, and from other structures were only 2.2%. In the individual sentence structures, the error rates from L1 Yi in the affirmative Yes-no question ‘Aux.v+S+V+O’ structure and the negative Yes-no question ‘Aux.v+Neg.pt+S+V+O’ structure were as high as 24.4% and 25.6%, respectively. Comparatively, the error rates from L2 Mandarin were 4.4% and 13.3%, respectively in the two aforementioned structures. Similarly, the error rates from L1 Yi and L2 Mandarin in the Wh-question ‘Int+Aux.v+S+V’ structure were notably different at 18.9% and 6.7%, respectively.

To sum up, the results from the written production task indicated that the beginner learners encountered some degree of difficulty in the production of L3 English affirmative structures and interrogative structures. The findings exhibited that errors in L1 Yi word order were more frequently produced than those of L2 Mandarin word order, and the errors produced in the interrogative structures were higher than in the affirmative structures.

Discussion of the Written Production Errors of L3 English Word Order

The findings for the written production errors of L3 English word order were discussed in parallel with some previous research such as the Cumulative Enhancement Model (CEM), the Typological Primacy Model (TPM), L3A is not a case of L2A, and Cross-linguistic Influence.

As presented in the previous section, the results in the affirmative structures for L1≠L2&L3 showed that the beginner learners produced a low proportion of erroneous sentences in L3 English word order, and the major error rates of 17% were from L1 Yi word order, and only a small proportion of errors were produced from other structures. The lower proportion of erroneous sentences exhibited evidence of the beginner learners’ partial success

in the acquisition of the L3 English affirmative sentence structures. Examples of the errors from L1 Yi and other structures are extracted and presented in Table 5.

Table 5: Examples of errors in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O	S+O+V *He a pen bought. *He for his mom food cooked.	S+PP+V+O *He for his mom cooked food.
S+V+O+to	S+IO+DO+to+V+V *The doctor him the medicine to take advised.	S+IO+V+V+O *She him asked buy some food.
S+V+IO+DO	S+DO+IO+V *He a photo her showed.	S+IO+V+DO *Him Lisa gave a book.

In the simple ‘S+V+O’ English structure, *‘He a pen bought’ and *‘He for his mom food cooked’ were sentences of the L1 Yi ‘S+O+V’ structure. That is, the object preposed the verb. In the ‘S+V+O+to’ English structure, the learners chose the sentence of the L1 Yi ‘S+IO+DO+to+V+V’ structure such as *‘The doctor him the medicine to take advised’. In the ‘S+V+IO+DO’ English structure, the learners selected the sentence of L1 Yi ‘S+DO+IO+V’ structure such as *‘He a photo her showed’, which was an example of Yi grammar whereby the verb is placed at the end of the sentence.

On the one hand, as Kellerman (1986) claimed that the linguistic knowledge from all the prior acquired languages can activate the additional language that is being acquired. In this case, L1 Yi, as the native language for the beginner learners, has influenced the production of L3 English in terms of the word order in the affirmative structures for L1≠L2&L3, since the sentences of L1 Yi word order were produced more frequently. Evidence of L1 Yi word order such as in the ‘S+O+V’ structure, the ‘S+O+to+V’ structure and the ‘S+DO+IO+V’ structure was frequently produced. This proved the claim viewed by Krashen (1981) that the learners may use the resource language L1 when initiating utterances if they lacked skill in the target language. Consistently, the L1 Yi and L2 Mandarin beginner learners in this study were still at the initial stage of their L3 English acquisition. They had not fully mastered the basic linguistic knowledge of L3 English, so the word order of L1 Yi affirmative structures might be used as the reference to facilitate the L3 production. The representation of L1 Yi word order that differentiates L3 English is ‘S+O+V’ versus ‘S+V+O’, and the beginner learners consistently produced such errors, showing the greater influence from L1 Yi. L1 Yi word order was used as a facilitator in producing L3 English in the simple affirmative structures.

On the other hand, the results in the affirmative structures for L1≠L2&L3 showed that the learners produced a higher proportion of correct sentences from L3 English word order. As reviewed in the previous study regarding the ‘Typological Primacy Model (TPM) proposed by Rothman (2010, 2011, 2015), the learners transfer the typologically closer grammar properties of L1 or L2 to L3 or additional languages. Even though L2 Mandarin is a language in the Sino-Tibetan language family and English is a language in the Indo-Euro language family, they are typologically distant. However, the word order of L2 Mandarin and L3 English in these affirmative structures is syntactically the same. As De Angelis (2005) pointed out, when an L2 source is typologically distant from L3, the possibility of transfer

occurs. Accordingly, when the beginner learners produced sentences of such word order in L3 English, they might be positively influenced by L2 Mandarin word order, and the production of a higher proportion of correct sentences in L3 English word order becomes possible. This also proved the claim stated by Leung (2005) that knowledge of an L2 that is typologically close to the L3 facilitates the acquisition of the L3.

Therefore, the results of the higher correct rates rather than the lower error rates in the affirmative structures for L1≠L2&L3 might be attributed to the same word order of L2 Mandarin and L3 English in these sentence structures, which may facilitate the beginner learners in producing the correct L3 English word order. Meanwhile, the errors of L1 Yi word order might be clues to the cross-linguistic influences from prior languages before fully acquiring L3 English. Furthermore, one possible account of the beginner learners' good performance in the affirmative structures for L1≠L2&L3 might be the effect of the only task type. The learners might tackle a multiple-choice task more facilitatively because of the multiple-choice task taking skills they had.

As shown in the results, the erroneous sentences produced in the affirmative structures for L1≠L2≠L3 were various, and they were negatively influenced by both L1 Yi and L2 Mandarin. However, they were more negatively influenced by L1 Yi rather than L2 Mandarin. Some examples of word order errors are presented below.

Table 6: Examples of errors in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O+PP	S+PP+V+O *He in the bag found it.	S+PP+O+V *He in the bag it found.	S+O+V+PP *He it found in the bag.
O(patient)+Be+V3+by+S(agent)	O(patient)+Be+by+S(agent)+V3 *Henry was by him beaten.	O(patient)+S+Agt.pt+V3 *It was his uncle by built.	-
S+V+to	S+V+V+O *He planned watch a movie.	S+O+V+V+to *He Shanghai visit wanted to.	-

Firstly, in the English structure 'S+V+O+PP', for instance, the sentence with the Yi structure 'S+PP+O+V' was selected such as '*He in the bag it found'. This is a typical sentence of L1 Yi word order, in which the preposition phrase PP follows the subject, and the object precedes the verb. Meanwhile, errors in the L2 Mandarin structure 'S+PP+V+O' were also traced to this sentence structure. For example, '*He in the bag found it' is a sentence using L2 Mandarin word order, in which the preposition phrase PP precedes the verb. This sentence structure is representative of the word order difference among Yi, Mandarin, and English, with 'S+V+O+PP' in English, 'S+PP+V+O' in Mandarin, and 'S+PP+O+V' in Yi.

Regarding L3 acquisition, it is claimed that transfer occurs in some areas from either the L1 or the L2 linguistic system, especially for lexicon and syntax, and either of the two previously existing language system alone cannot explain all the observed syntactic

behaviour, and both the L1 and L2 grammatical properties were transferred (Flynn, Foley, & Vinnitskaya, 2004; Jakobson, 2012; Leung, 2007; Leung, 2005, 2006). The results of the errors produced in the English structure 'S+V+O+PP' indicated consistently that both L1 Yi and L2 Mandarin influenced the acquisition of L3 English. However, a higher proportion of error rates was shown from L1 Yi in this sentence structure than from L2 Mandarin. As supported by Ellis (1985), L1 is a resource of knowledge that learners may use to facilitate input and improve their performance with regard to L3 learning. As the beginner learners were at the stage of full proficiency in L1 Yi and 'in progress' for L2 Mandarin acquisition, they may have preferred to apply their mother language word order in the production for the simple sentence structure in L3 English.

Secondly, similarly, in the English passive voice structure 'O(patient)+Be+V3+by+S(agent)', the learners produced the highest error rates of 18.9% from L1 Yi word order, compared with the error rates of only 1.1% from L2 Mandarin. The sentence with the L1 Yi structure 'O(patient)+S+Agt.pt+V' such as *'It was his uncle by built' was selected. However, the grammatical rules for the passive voice in L1 Yi are definitely different from L2 Mandarin and L3 English. In the L1 Yi passive voice, the main verb is placed at the end of the sentence without changing to V3 as it is in L3 English. In the English passive voice, 'by' is the indicator of the passive voice structure which connects V3 and agent via 'Be+V3+by+S(agent)'. However, the beginner learners deemed the sentences in the L1 Yi passive voice word order to be correct English sentences, and used those frequently in the production of L3 English passive voice sentences.

The results indicated that L1 Yi outperformed in the production of the L3 English passive voice structures. The findings concerning the English passive voice differentiated the claim made by Flynn (2009) that experience in any prior language can be drawn upon in subsequent language acquisition and that L1 does not play a privileged role in subsequent language acquisition. Conversely, L1 Yi might play a privileged role in the production of L3 English passive voice sentences, even though the evidence showed a negative effect rather than a positive effect from L1 Yi. Accordingly, the findings did correspond to Kellerman's (1983) claim that more prevalent errors from L1 is shown by the beginner learners in acquisition of the second and additional languages.

Thirdly, conversely, in the English structure 'S+V+to', the higher error rates of 30% were from L2 Mandarin, compared with the error rates of 5.6% from L1 Yi. The error rates produced from these sentence structures were extremely different from the previous two affirmative structures for L1≠L2≠L3. For instance, the sentence in the L2 Mandarin structure 'S+V+V+O' was chosen more frequently and the 'to' infinitive was frequently omitted in the sentence such as *'He planned watch a movie'. As an equivalent to the 'to' infinitive is not required in the L2 Mandarin grammar rules, the learners tended to choose sentences in the Mandarin word order without the 'to' infinitive structure. The results from this sentence structure demonstrated that L2 Mandarin was more privileged than L1 Yi in facilitating L3 English production of the 'S+V+to' structure. The finding might be explained with William & Hammarberg's (1998) claim that L2 as the source language in preference to L1 according to the L2 status factor at the syntactic level.

According to the Typological Primacy Model (TPM) (Rothman, 2011, 2015), the learners transfer the grammar properties from L1 or L2 that are perceived to be typologically closer to L3. Regarding the English structure ‘S+V+to’, Mandarin and English are languages with the SVO word order, and its equivalent in Mandarin is ‘S+V+V+O’. Thus, they are typologically closer for the word order of this sentence structure, whereas Yi is a language with the SOV word order, and its equivalent for this sentence structure is ‘S+O+V+V’, which is typologically distant from L2 Mandarin and L3 English. Accordingly, this proved the claim by De Angelis and Selinker (2001) that typological proximity is sufficient by itself to influence the selection process in L3A. It seems like the TPM supports the results of the highest error rates from L2 Mandarin for the English structure ‘S+V+to’. Therefore, when certain syntactic structures in L3 are typologically closer to the equivalent of those in a prior acquired language, the L3 learners might be more easily influenced by the sentence structure of the previously acquired languages. The results from this sentence structure indicated that the TPM does function for the L1 Yi and L2 Mandarin beginner learners’ acquisition of L3 English in the process of the written production of L3.

Therefore, based on the overall results from the three affirmative structures for L1≠L2≠L3, we cannot simply come to the conclusion that L3A is absolutely influenced by both L1 and L2, or solely influenced by either L1 or L2 in terms of cross-linguistic interference. The results from this case were only partially consistent with the claim proposed by Flynn, Foley, and Vinnitskaya (2004) regarding the Cumulative Enhancement Model (CEM). According to the CEM, language acquisition is cumulative, and any prior language can either enhance subsequent language acquisition or remain neutral. In contrast, in this study, L1 Yi seemed to play a privileged role as a negative influence in the production of the English structures of ‘S+V+O+PP’ and the passive voice ‘O(patient)+Be+V3+by+S(agent)’. On the contrary, L2 Mandarin showed a privileged influence for L3 English in the English ‘S+V+to’ structure. Therefore, based on the results, whether L1 or L2 is privileged is not exclusively determined by any single factor.

The results in the interrogative structures for L1≠L2≠L3 demonstrated that L1 Yi was more negatively influenced than L2 Mandarin, since higher error rates from L1 Yi than L2 Mandarin were produced. Examples of the errors in each sentence structure are presented in Table 7.

Table 7: Examples of errors in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
Aux.v+S+V+O	S+V+O+Int.pt *He attended the concert?	S+O+V *Tony last Saturday basketball played?	-
Aux.v+Neg.pt+S+V+O	S+Neg.pt+V+O *Tom didn’t live in Beijing?	S+O+Neg.pt+V *She the book didn’t return?	-
Int+Aux.v+S+V	S+V+Int *Mr. Harrison repaired	S+Int+V *Mr. Harrison what	Int+V+S *Which liked she?

	what?	repaired?	
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In the interrogative Yes-no question ‘Aux.v+S+V+O’ structure, errors from the L1 Yi ‘S+O+V+Aux.v+Int.pt’ structure were frequently produced such as *‘Tony last Saturday basketball played?’. In the example, instead of using the ‘do’ movement at the first position in the sentence and the ‘S+V’ word order in the following main sentence as required by the English grammar rule, the learners chose sentences of the Yi word order, in which an interrogative particle is used at the end to ask the question.

In the negative Yes-no question ‘Aux.v+Neg.pt+S+V+O’ structure, the learners produced the highest number of errors from the Yi word order compared with those produced from the other two interrogative structures. The sentence with the Yi structure ‘S+O+Neg.pt+V’ was chosen such as *‘Tom in Beijing didn’t live?’. The negative particle precedes the verb in Yi interrogative sentences.

Additionally, the word order for the Wh-question (Wh-word as the object) is ‘Int+Aux.v+S+V’ in the English structure, whereas the word order for the equivalent structure is ‘S+Int+V’ in L1 Yi and ‘S+V+Int’ in L2 Mandarin. In addition, the word order for the Wh-question structure is totally different among the three languages. However, the learners produced the greatest number of errors from L1 Yi for the Wh-question. For instance, they chose the sentence such as *‘Mr. Harrison what repaired?’. The sentence was evidence of the L1 Yi Wh-question word order in which the Wh-word precedes the verb. Meanwhile, the sentence in L2 Mandarin word order was also chosen by the learners such as *‘Mr. Harrison repaired what?’ that follows the Mandarin word order of ‘S+V+Int’ for the Wh-question.

In terms of L3A as a different case from L2A, the findings supported the claim made by Leung (2001, 2003, 2007) that L3 acquisition was not simply another case of L2A because transfer in L3A does not always come from L1. In the results, errors were frequently produced not only from L1 Yi but also from L2 Mandarin. Evidence of the negative influence from L2 Mandarin word order was frequent such as in the negative Yes-no question ‘Aux.v+Neg.pt+S+V+O’ structure. Therefore, with the exception of L1 Yi, L2 Mandarin as the other language probably plays a role in the acquisition process of the L3 English interrogative structures. Also, the findings confirmed the studies concluded by Cabrelli, Iverson, Judy, & Rothman (2008) and Iverson (2010), which relate to the source of transfer, L2A and L3A are distinct, and regarding the source of transfer from the previous language, L3 learners have more potential for transfer at the L3 initial state.

However, García Mayo (1999) and Klein (1995) agreed that L3 was treated as another case of L2A regarding L3 morphosyntax. As shown in the results, Mandarin as the L2 for the beginner learners also hindered the correct production of the L3 English word order. This showed that the production of the L3 English word order by the beginner learners was not only influenced by L1 Yi but also by L2 Mandarin. The findings further approved Gass (2013) claims that two or more background languages rather than one language are potential sources of influence on the learners’ L3A. Therefore, L3A should not be treated as another case of L2A, as L3A shows a difference from L2A since the negative influence from L2 Mandarin was also examined.

Conclusion

In conclusion, the beginner learners exhibited cross-linguistic influence from both L1 Yi and L2 Mandarin in the written production task, and the errors from L1 Yi word order were more evident than from L2 Mandarin word order and other structures for both the affirmative and interrogative structures. Thus, the hypothesis based on the objectives was supported by the findings. In particular, the passive voice sentence was more complicated than the active voice sentence in the affirmative structures, and the interrogative structure was more complex than the affirmative structures. It is worth noting that the production errors from the case of L1≠L2≠L3 were much higher than for L1≠L2&L3. Therefore, it can be assumed that the beginner learners of L1 Yi and L2 Mandarin faced more challenges in the process of producing the interrogative structures than the simple affirmative structures in the written production task.

Therefore, implications are provided with respect to the theoretical and pedagogical contributions. Theoretically, one perspective is that L3A was another case of L2A, and another perspective is that L3A was not a case of L2A since transfer in L3A was not simply from L1 alone, but also from L2 in different linguistic contexts (Leung, 2001, 2005). Clues of L2 Mandarin influence were evident in the findings such as in the affirmative ‘S+V+to’ structure and the negative Yes-no question ‘Aux.v+Neg.pt+S+V+O’ structure. These clues of L2 Mandarin influence might support the claim that L3A is not a case of L2A. Therefore, the findings may confirm the statement that L3A as a separate domain from L2A and provide a vivid sample for the study of L3A. Pedagogically, firstly, the appropriate tasks concerning the written production such as sentence translation, sentence making, and essay writing are recommended to be assigned in teaching. Secondly, it is advisable that the teachers focus more on teaching grammar regarding interrogative structures than affirmative structures. Thirdly, the types of grammatical features of typologically close or distant are suggested to be categorised and collected in order to create helpful teaching materials and facilitate third language learning. Thus, teachers are recommended to be aware of these problems and attempt to prepare facilitative materials for teaching and learning, which will benefit the students in L3A and provide pedagogical implications for third language acquisition.

Endnotes

¹ The Yi ethnic group is an ethnic group dwelling in south-western China, Vietnam, Laos and northern Thailand. It is the seventh largest of the 55 ethnic minority groups officially recognised by the People’s Republic of China. The Yi language belongs to the Tibeto-Burman language group, which is a language group within the Sino-Tibetan Language Family.

² This refers to the case that the initial stage of L3A starts after the learners have successfully acquired L2.

³ Abbreviations: S=subject; V=verb; O=object; DO=direct object; IO=indirect object; PP=prepositional phrase; Aux.v=auxiliary verb; Int=interrogative; Pt=particle; Int.pt=interrogative particle; Neg.pt=negative particle; Agt.pt=agent particle.

⁴ The English subject starts at Grade 3 of elementary school, which is prescribed in the Nine-year Compulsory Education System.

⁵ Hanyu Shuiping Kaoshi (HSK) is a Chinese proficiency test which aims to assess non-native speakers of Chinese when using the Chinese in their daily, academic and professional life. It is administered by Hanban, an agency of the Ministry of Education of China.

⁶ ‘Other structures’ refers to sentences of other structures not existing in Yi, Mandarin, and English. They are incorrect sentences.

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