

# CONTRAST LINGUISTIC STUDIES OF SETSWANA AND CHINESE: FROM THE PERSPECTIVE OF GRAMMATICAL CASES AND INTER-LANGUAGE

Duna M. Raletsatsi  
University of Botswana, Confucius Institute (CIUB)  
[dipholodm@ub.ac.bw](mailto:dipholodm@ub.ac.bw)

Qi Zeng  
University of Botswana, Confucius Institute (CIUB)  
[zengqi2804@gmail.com](mailto:zengqi2804@gmail.com)

## Abstract

Rising needs of mutual language learning between Botswana and China show that there is currently a huge knowledge gap in the contrast studies between Chinese and Setswana, especially in terms of grammatical cases. The purpose of this study was to investigate the lexical and grammatical commonalities between Setswana and Chinese (SC) and its effects on Batswana Students in second language (L2) acquisition and to develop a pedagogical framework that is effective in L2 classroom. By using surveys and quantitative analysis as the primary research methods, this study analysed the test results of students from Chinese Studies Program (CSP) and measured these results through an accuracy model conducted in 1995. Based on a review of the literature on the contrastive studies of languages and analysis of surveys, this study concludes that complex interactions between the similar grammatical cases and different usages in each language can negatively impact the output and acquisition of Setswana speakers. Further studies are needed to probe into other aspects that can improve the effectiveness of Chinese learning for Batswana students.

**Keywords:** Setswana; Chinese; Grammar; Inter-language; Contrast Study

## Introduction

Setswana and Chinese are two widely spoken regional languages that both feature tones, despite their distinctive writing systems. With the rapid growth of economic cooperation between China and Botswana, the demanding civil communication in both languages becomes increasingly important in a globalized context. It was the first time in history that Beijing Foreign Studies University introduced Setswana to its Bachelor's Degree program as an independent subject subordinated to the African Studies department. Other related aboriginal African languages include Swahili and Xhosa. In Botswana, we also saw a surge of student numbers at the Confucius Institute at the University of Botswana, since its establishment in collaboration with Shanghai Normal University in 2009. Given the mutual needs of exchange in language and culture, it gives rise to a discernible importance of a contrast study between the two languages because the research outcome can provide valuable implications about how teachers can improve their pedagogies and how students can improve their learning strategies

The purpose of this investigation is to explore the lexical and grammatical commonalities between SC and its effects upon the Batswana students in L2 acquisition. Part of the aim of this project is to develop a pedagogical framework that is effective in a L2 classroom.

## **Literature Review**

Selinker (1972) pointed out that inter-language structure existed along the journey in the Second Language (L2) learning and featured fossilization led by the First Language (L1) structure. His findings reconstructed a way for the research field in L2 acquisition studies, such as contrast study of the effects between L2 and L1 learning. Given the Universal Grammar (UG) by Paikeday and Chomsky (1985), together with his generative grammar (Chomsky, 2013), there are vast significant commonalities between various relative languages all over the world, such as between Chinese and Japanese. This paper will explore the extent of connection between Setswana and Chinese through comparative and contrast study, to which students have been affected as Setswana speakers. Recent researches have suggested there is a considerable influence over L2 learners and relevant pedagogies.

## **Significance of this study**

This paper is based on empirical study that encompasses the CnCindex developed by Beijing Language and Culture University (BLCU). As mentioned before, this study focuses on the contrast study of grammatical cases between SC and its effects upon L2 students, therefore it gives an access to the process of dynamic learning of Batswana students, especially in this case, for those students who are based in Botswana.

The current knowledge gap of contrast study is huge because there are very little previous studies that discussed and specified the commonalities between the two languages. There is a challenge in this contrastive study due to the lack of a functional and systematic Corpus of Setswana, despite a few studies seeking to build a model for it. For instance, Otlogetswe (2001) suggests that BNC should be considered when developing Setswana Corpus. Compared to Chinese, which was born in a nearly monolingual environment, Setswana sees an inherent diverse nature of language landscape, such as its multiple dialects, and the collaboration with English in society. Nfila (2002:2) states that, "Setswana is constitutionally accepted as a national language...It functions as a symbol of the nation and is a means of unification of the people of Botswana". Otlogetswe (2001) further points out that in Botswana literature, a distinction is usually made between English as an official language and Setswana as a national language. He also adds that, Setswana which is also known as Tswana, is one of the members of a Sotho sub-group of closely related Bantu languages. According to Shi (2002), the resultative construction is a widely observed structure in Modern Chinese, which consists of a verb plus an adjective or an intransitive verb expressing the resulting state of the action. Chao (1955) found that the upshot of Chinese grammar is that co-ordination in Chinese consists of mere juxtaposition, all 'and'-like words being

structurally either verbs or modifiers. For example, Shiansheng taytay bu tzay jia, "Mr. (and) Mrs. are not at home.", comparing to Setswana ' Rre(Mr) le(and) Mme(Mrs) ga bayo (are not) kwa (at) lwapeng (home) '.

Given the aforementioned information, there is not currently available corpus for Setswana, however, it is important to ratchet up the awareness of the importance of building a Setswana corpus by drawing upon the experiences of Chinese language corpus. According to McEnery (2012), Corpus is described as a huge collection of linguistic samples that compose of attested language use. It may be contrasted against sentences constructed from metalinguistic reflection upon language use, rather than because of communication in context. Corpus can be both spoken and written. It can be categorized as follows: monolingual, representing one language; comparable, using multiple monolingual corpora to create a comparative framework; parallel corpora, wherein, corpus of one language is considered, and the data obtained, is translated in other languages.

The data that corpora often contain is displayed and categorized by word frequency and concordances. Corpora are used to create and inform multifarious teaching resources.

Table 1. Grammatical Cases (GC) covered in Cn-corpus

Code	Grammatical Cases	No. of Samples	Proportions
A	Adjective marker <i>piaoliang de</i>	234	4 %
B	Measure words <i>yi ge ren</i>	2060	32 %
C	Numbers <i>san shi</i>	2287	36 %
D	Overlapping Verbs <i>kan kan</i>	1803	28 %
Total		6384	100%

From the above table, we can see there is only 28% of the total usage generated by the overlapping verbs, which is quite close to that of numbers and measure words. Nevertheless, the adjective marker only contributes 4% to the overall frequency of grammatical cases.

## Contrastive Study

### 1. Adjective marker or symbol in SC

According to Dipholo (2016), unlike English language, both Setswana and Chinese languages have a marker or symbol that is used to connect adjectives and nouns when adjectives modify nouns. In Chinese the marker is ‘de’. Waltraud (2005:759) states that “It is a well-known fact that a noun in Mandarin Chinese can in general be modified either by simple juxtaposition with an adjective (respecting the strict head-final order of the NP) or with the aid of the subordinator ‘de’ following the adjective.”. In Setswana, the marker changes according to whether the noun is singular or plural and whether the noun refers to people or other things other than people. (Dipholo, 2016). Another difference is that, in Setswana, the marker comes before the adjective and after the noun whereas in Chinese, the marker comes after the adjective and before the noun.

Table 2. Adjective marker comparison

CHINESE	ADJECTIVE	MARKER	NOUN
	<i>Piaoliang</i> (beautiful)	<i>de</i>	<i>Nuer</i> (girl)
SETSWANA	NOUN	MARKER	ADJECTIVE
	Motswana (girl) <i>singular</i>	yo	montle (beautiful)
	Basetsana (girls) <i>plural</i>	ba	bantle (beautiful)

### 2. Measure words

Both Setswana and English languages have measure words. Gong (2010:12-13) states that:

“Typologically, Chinese is a classifier language and English is a non-classifier language. In Chinese, classifiers are always used in a noun phrase that enumerates countable objects or quantifies other entities, including count and mass substances”. Ross & Ma (2006) add that in Chinese, in all cases where nouns come after specifiers or numbers, classifiers are compulsory.

Table 3. Numerals and measure words comparison

CHINESE	NUMERAL	MEASURE WORD	NOUN
	<i>yi</i> (one)	<i>ge</i>	<i>ren</i> (person)
SETSWANA	NOUN	MEASURE WORD	NUMERAL
	motho ( person )	a le	mongwe ( one )

If measure words were omitted in the examples on table 3, in Chinese the example would be grammatically wrong, while in Setswana the meaning changes completely.

Table 4. Example of the omission of measure words

CHINESE	NUMERAL	NOUN
	<i>yi</i> (one)	<i>ren</i> (person)
SETSWANA	NOUN	NUMERAL
	motho (person)	mongwe (one)

As Gong (2010), Ross & Ma (2006) rightly point out, if classifiers in Chinese noun phrases are omitted, the phrase becomes ungrammatical, therefore, classifiers are obligatory. The same applies to Setswana language, if measure words are omitted, while the phrase might not become ungrammatical, however, its meaning would change completely. Referring to table 4 above, what is supposed to mean ‘one person’ would change to ‘a certain person’.

In both Setswana and Chinese languages, measure words change according to certain circumstances. For instance, Raletsatsi (2018) found that in Chinese, measure words may change according to the shape of the object while in Setswana, measure words may change according to whether the noun is singular or plural, different classes of nouns found in Setswana language and whether the noun refers to people or other things other than people.

Even though both languages have measure words, the positions of nouns are different. In Chinese, the noun comes after the measure word while in Setswana, the noun comes before the measure word as per table 3.

### 3. Numbers

The Setswana numbers follow the same pattern as the Chinese numbers when the numbers are beyond ten. According to Miller and Stigler (1987), Chinese and other Asian languages have a linguistic transparency in their counting systems and transparent number systems are characterised by an uncomplicated and consistent representation of the base system which is usually ten. Miura et al (1988:1446) further explain that in transparent number system, “the value of a given digit in a multi digit numeral depends on the face value of the digit (0 through 9) and on its position in the numeral, with the value of each position increasing by powers of 10 from right to left”.

Basing on the above explanations, one can safely assume that Setswana just like Chinese, has a transparent number system (Mai-Liên and Noël, 2020). For instance, in both languages, 11 appears the same in both written and spoken forms. For both languages, 11 literally means ten - one (Mai-Liên and Noël, 2020). In Chinese, 11 is (*shi yi*) and in Setswana 11 is (lesome le bongwe). This means it is easy to guess new numbers since the numbers are organized according to a base-ten system (Miller and Stigler, 1987).

Table 5: Illustration of Numbers (one to twenty)

Chinese	Numbers below 10	Numbers Above 10	Setswana	Numbers below 10	Numbers above 10
	<i>yi</i> (one)	<i>shi yi</i> (eleven)		bongwe (one)	lesome le bongwe (eleven)
	<i>er</i> (two)	<i>shi er</i> (twelve)		bobedi (two)	lesome le bobedi (twelve)
	<i>san</i> (three)	<i>shi san</i> (thirteen)		boraro (three)	lesome le boraro (thirteen)
	<i>si</i> (four)	<i>shi si</i> (fourteen)		bone (four)	lesome le bone

					(fourteen)
	<i>wu</i> (five)	<i>shi wu</i> (fifteen)		botlhano (five)	lesome le botlhano (fifteen)
	<i>liu</i> (six)	<i>shi liu</i> (sixteen)		borataro (six)	lesome le borataro (sixteen)
	<i>qi</i> (seven)	<i>shi qi</i> (seventeen)		bosupa (seven)	lesome le bosupa (seventeen)
	<i>ba</i> (eight)	<i>shi ba</i> (eighteen)		borobabobedi (eight)	lesome le borobabobedi (eighteen)
	<i>jiu</i> (nine)	<i>shi jiu</i> (nineteen)		borobabongwe (nine)	lesome le borobabongwe (nineteen)
	<i>shi</i> (ten)	<i>er shi</i> (twenty)		lesome (ten)	masome a mabedi (twenty)

However, for numbers such as twenty, thirty, forty, fifty and so on, in Chinese *shi* comes on the right side of the other number, for example, *er shi* or *san shi*, while in Setswana, ‘masome’ which translates to the plural form of ‘ten’ comes on the left side of the other number. For example, ‘masome a mabedi’ (twenty) or ‘masome a mararo’ (thirty).

Table 6. Illustration of Numbers (twenty to thirty)

CHINESE	Numbers above 20	SETSWANA	Numbers above 20
	<i>er shi</i> (twenty)		Masome a mabedi (twenty)
	<i>er shi yi</i> (twenty one)		Masome a mabedi le bongwe (twenty-one)
	<i>er shi er</i> (twenty two)		Masome a mabedi le bobedi (twenty-two)
	<i>er shi san</i> (twenty three)		Masome a mabedi le boraro (twenty-three)
	<i>er shi si</i> (twenty four)		Masome a mabedi le bone (twenty-four)
	<i>er shi wu</i> (twenty five)		Masome a mabedi le botlhano (twenty-five)
	<i>er shi liu</i> (twenty six)		Masome a mabedi le borataro (twenty-six)
	<i>er shi qi</i> (twenty seven)		Masome a mabedi le bosupa (twenty-seven)
	<i>er shi ba</i> (twenty eight)		Masome a mabedi le borobabobedi (twenty-eight)
	<i>er shi jiu</i> (twenty nine)		Masome a mabedi le borobabongwe (twenty-nine)
	<i>san shi</i> (thirty)		Masome a mararo (thirty)

It should be noted that Setswana numbers that come immediately after ‘masome’ also change to the plural form, as shown on table 6 above. However, the last numbers maintain the singular form we find in numbers below ten (see table 5).



#### 4. Repetition of adjectives, verbs and nouns

In both Chinese and Setswana, adjectives, verbs and nouns can be repeated. According to Li & Thompson (1981:28), “reduplication means that a morpheme is repeated so that the original morpheme together with its repetition form a new word.”

##### 4.1 Adjectives

According to Li & Thompson (1981) in Chinese, the original meaning of the adjective becomes clearer when an adjective is reduplicated as a noun modifier. Melloni and Basciano (2018), further assert that, reduplication in Mandarin Chinese is a common phenomenon found in all lexical categories including adjectives and these adjectives usually indicate a higher degree of liveliness and vividness. According to Mogapi (1998), in Setswana, adjectives may be repeated for emphatic purposes.

Table 7. Illustration of repeated adjectives:

CHINESE	ADJECTIVE	SETSWANA	ADJECTIVE
	<i>da da</i> (big)		tona tona (big)
	<i>xiao xiao</i> (small)		nnye nnye (small)

##### 4.2 Verbs

Li & Thompson (1981) explain that when an action verb is reduplicated, it shows that the doer of the action is doing something a little bit. In Setswana also, it may be used to indicate a little bit or briefly. This repetition may also suggest that the action is casual and short.

Table 8. Illustration of repeated verbs:

CHINESE	VERB	SETSWANA	VERB
	<i>kan kan</i> (look)		leba leba (look)
	<i>ting ting</i> (listen)		reetsa reetsa (listen)

### 4.3 Nouns

According to Li & Thomson (1981), when nouns are reduplicated in Chinese, the meaning becomes “every”. The same applies to Setswana language.

Table 9. Illustration of repeated nouns:

CHINESE	NOUN	SETSWANA	NOUN
	<i>tian tian</i> (every day)		letsatsi le letsatsi (everyday)
	<i>ren ren</i> (everyone)		mongwe le mongwe (everyone)

### Empirical Results

This sector mainly focuses on the analysis of the samples of grammatical products that are collected from the corpus, and thus to demonstrate the relevant accuracy of each category related to the contrast study of Setswana and Chinese. The measurements used in data analysing include the accuracy of vocabulary, tense, order of words, and grammatical markers. There are nine independent samples collected from the students of the same nationality, that is, they are all Batswana. The purpose of the analysis is to calculate the accuracy of each grammar and speculate the relevance between the accuracy and the features of each grammar, and how each grammar possibly impacted students’ perception and output in the process of learning. There are two models that have been applied in this sector for the purpose of better explanation in inter-language theory and accuracy test, which is the locus of this part.

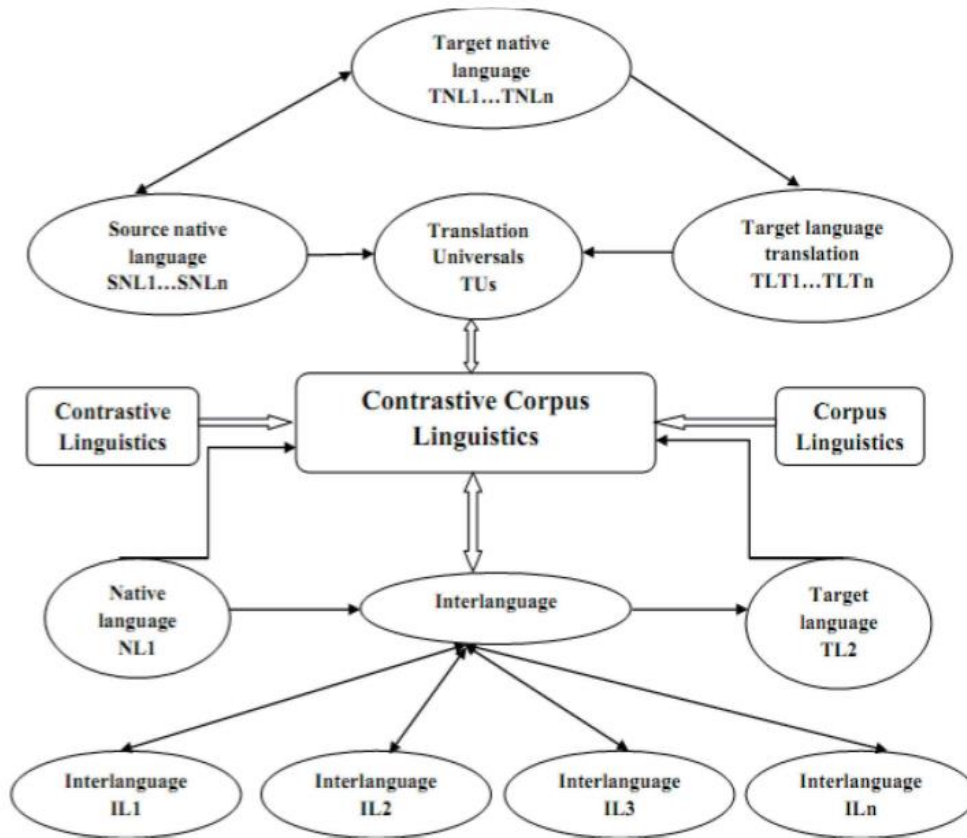


Figure 1. A model of contrastive Corpus linguistics (Xiao & 肖忠華, 2015)

This model shows the procedure of analysing a target native language and the relevant inter-language in a contrast manner. Starting from developing Translation Universals, it requires the input of both source native language and target language translation, followed by a two-way channel towards contrastive corpus linguistics that engaged the contrastive linguistics, corpus linguistics, and inter-language. At the last stage, the inter-language manifests itself in multiple products made by different language learners.

		Predicted Class	
		P	N
Actual Class	P	True Positives (TP)	False Negatives (FN)
	N	False Positives (FP)	True Negatives (TN)

Figure 2. A model of accuracy test (Fahey, Irwig, & Macaskill, 1995)

In a scientific research, accuracy plays a key role in the assessment of variables, and in the implications of test results. When it comes to the context of the linguistic assessment, the accuracy means the correctness of the language product and whether it is understandable and acceptable. For example, predicted class indicates the possibilities of whether a sentence is correct grammatically whereas actual class denotes actual results of the test. In other words, the usage of pronouns can be either true or false and it is the same variables in the test results.

Within the designed surveys, if a student makes a correct sentence in accordance with the correct answer, it is True Positive (TP) or it is True Negative (TN) if the sentence is correct in grammar but different from the given answer. It is False Positive (FP) if the sentence is incorrect in grammar, and if it does not meet the standard of the targeted answer, it is False Negative (FN).

$$\text{Accuracy} = \frac{TP+TN}{TP+FN+FP+TN}$$

Question 1. Mosetsana (girl) yo (marker) montle (*beautiful*) yo (marker) moleele (tall) = (tall, beautiful girl)

Correct answer: *nuer you gao you piaoliang*

Student 1- *piaoliang gao de guniang* - FN

Student 2- *nuer feichang piaoliang ye hen gao* - FP

Student 3- *nuer piaoliang de gao*- FN

Student 4- *nuer de piaoliang he chang* -FN

Student 5- *piaoliang he gao nuer* -FN

Student 6- *nuer hen piaoliang hen gao* -FP

Student 7- *hen piaoliang de gao de guniang* -FP

Student 8- *yige gao piaoliang nuer* -FN

Student 9- *nuer gao hen piaoliang* -FN

Accuracy :  $(0/ (9) = 0$

Question 2: Mongwe (person) le (and) mongwe (person) o (they) tsile (came) = (everyone came)

Correct answer: *ren ren dou lai le*

Student 1- *ge ge ren dou lai le* -FN

Student 2- *dajia dou lai le* - FP

Student 3- *dajia lai le* - FP

Student 4- *dajia lai le* -FP

Student 5- *ren de dou lai le* -FN

Student 6- *dajia dou lai le* -FP

Student 7- *dajia lai le* -FP

Student 8- *dajia lai le* 大-FP

Student 9- *dou mei ge ren lai* -FN

Accuracy:  $0/ (9) = 0$

Question 3: Masome a mabedi (twenty) le (and) boraro (three) = (twenty three)

Student 1- *er shi san*- TP

Student 2- *er shi san* -TP

Student 3- *er shi san* -TP

Student 4- *er shi san* -TP

Student 5- *shi er san* -FN

Student 6- *er shi san* -TP

Student 7- *er shi san* -TP

Student 8- *yi er san* -FP

Student 9- *er shi san* -TP

Accuracy:  $7/9=78\%$

Question 4: Kolo*i* (car) e (marker) nnye (small) = (small car) can also read as (the car is small).The meaning depends on the tone used.

Correct answer: *che hen xiao* and *xiao che*

Student 1- *xiao che* -TP

Student 2- *xiao de che* -FP

Student 3- *che bu da* -FP

Student 4- *che de xiao* -FN

Student 5- *xiao che* -TP

Student 6- *che hen xiao* -TP

Student 7- *che hen xiao* -TP

Student 8- *che xiao* -FP

Student 9- *xiao che* -TP

Accuracy:  $5/9=56\%$

Question 5: Dintsa (*dogs*) tse (marker) pedi (two) tse (marker) dintsho (black) tse (marker) ditona (big) = (two big black dogs)

Correct Answer: *liang tiao hei se de da gou /liang ge hei se da gou/ liang ge hei de da gou*

Student 1- *liang ge hei de da gou* -TP

Student 2- *liang ge hei se de gou dou hen da* -FP

Student 3- *liang ge da de gou hei se* -FP

Student 4- *hei se gou liang ge de da* -FN

Student 5- *da er hei gou* -FN

Student 6- *liang ge* .....-FN

Student 7- *liang ge hei de da gou* -TP

Student 8- .....-FN

Student 9- *liang ge hei se de da gou* -TP

Accuracy:  $3/9=33\%$

Question 6: *ni qu kan kan*

Tsamaya (go) o (you) ye go (to) leba leba (see see) / Tsamaya (go) o (you) ye go (to) bona bona (see see) = (go and see)

Correct answer: Tsamaya o ye go leba leba/ Tsamaya o ye go bona bona (These two answers have an element of a casual tone or indicate that the action is not going to take long by repeating verbs.)

Another correct answer: Tsamaya o ye go leba/ Tsamaya o ye go bona (These two answers are also correct, however, they do not have an element of a casual tone and they do not indicate that the action is not going to take long.)

Another correct answer: Ya go bona/ Ya go leba (These answers are common in spoken language.)

Student 1- Tsamaya o ye go leba -TP

Student 2- Tsamaya o ye go bona-TP

Student 3- Ya go bona- TP

Student 4- Tla o bone -FP

Student 5- Tla o bone- FP

Student 6- Tsamaya o ye go bona-TP

Student 7- Ya go bona - TP

Student 8- You should go and see- FP

Student 9- You go watch- FP

Accuracy:  $5/9 = 56\%$

Question 7: *ta de yanjing da da de*

Matlho (eyes) a gagwe (his) a (are) matona tona (big big) / Matlho (eyes) a gagwe (his) a (are) makima kima (big big) = (his eyes are big.)

Correct answer: Matlho a gagwe a matona tona/ Matlho a gagwe a makima kima (These repeated adjectives indicate emphasis.)

Another correct answer: Matlho a gagwe a matona/ Matlho a gagwe a makima (These adjectives have not been repeated, therefore, they do not indicate emphasis.)

Student 1- Matlho a gagwe a matona tona-TP

Student 2- Matlho a gagwe a matona- TP

Student 3- Matlho a gagwe a matona- TP



Student 4-Matlho a gagwe a matona- TP

Student 5- Matlho a gagwe a matona- TP

Student 6- Matlho a gagwe a matona- TP

Student 7- . . . -FN

Student 8- . . . -FN

Student 9- His eyes are bigger-FP

Accuracy:  $6/9 = 67\%$

Question 8: *xuesheng tian tian dou lai shang ke*

Bana ba sekolo/ Baithuti (students) ba (they) tla (come) sekolong (school) tsatsi (day) le (and) letsatsi (day) = (students come to school every day.)

Correct answer: Bana ba sekolo/ Baithuti ba tla sekolong tsatsi le letsatsi. (This sentence with repeated nouns has the equivalence of ‘students come to school every day.’)

Another correct answer: Bana ba sekolo /Baithuti ba tla sekolong malatsi otlhe. (This sentence also has the equivalence of ‘students come to school every day’, however the noun has not been repeated.)

Student 1- Bana ba sekolo ba tla sekolong tsatsi le letsatsi. -TP

Student 2- Baithuti botlhe ba tla sekolong malatsi otlhe. -TP

Student 3- Baithuti botlhe ba tla sekolong. - FP

Student 4- Baithuti ba tla sekolong tsatsi le letsatsi. - TP

Student 5- Bana ba sekolo botlhe ba tlile sekolong. - TP

Student 6- Bana ba sekolo botlhe ba tla sekolong. -TP

Student 7- Bana ba sekolo ba tla sekolong tsatsi le letsatsi. -TP

Student 8- Every student came to class. -FP

Student 9- All students came to class. -FP

Accuracy:  $6/9=67\%$

Question 9: Choose the correct Chinese meaning for each given phrase.

A. Motho (person) montsho (black) = (black person)

Student 1- *hei se de ren* -FN

Student 2- *hei se ren* - FN

Student 3- *hei se de ren* - FN

Student 4- *hei se de ren* - FN

Student 5- *hei se de ren* - FN

Student 6- *hei se ren* - FN

Student 7- *hei se ren* - FN

Student 8- *hei se ren* -FN

Student 9- *hei ren* - TP

Accuracy:  $1/9= 11\%$

B. Bana (children) ba (measure word) babedi (two) = (two children)

Correct answer : *liang ge haizi*

Student 1- *liang ge haizi* - TP

Student 2- *liang ge haizi* - TP

Student 3- *liang ge haizi* - TP

Student 4- *liang ge de haizi* - FN

Student 5- *liang ge de haizi* - FN

Student 6- *liang ge haizi* - TP

Student 7- *liang ge haizi* - TP

Student 8- *liang ge haizi* - TP

Student 9- *liang ge haizi* - TP

Accuracy :  $7/9 = 78\%$

## Discussion

Given the aforementioned commonality examples and the accuracy test model, one might wonder why the similarity between the two languages does not prompt a higher accuracy, which implies a smoother acquisition route according to our expectation. Instead, the results show that there is not much relevance between the L2 products and the initial state of the L1 knowledge and structure, despite a few cases with high accuracy that need to be verified. Nevertheless, results show that students have a relatively better acquisition and output of the targeted L2 in simple grammatical cases, such as within the usages of the numbers (78%), the structure of prediction (56%), and in translating into the L1 – *xuesheng tian tian dou lai shang ke* (67%). According to Schwartz and Sprouse (1996), the full transfer theory of L2 acquisition must ultimately account for both; (i) the output of L2 products is negatively impacted by the L1 structure when the L1 contradicts the L2; and (ii) the transfer can be positive when the L1 and L2 share the similar sets in grammatical features, such as the order of words in Chinese and Setswana. As a result of this theory, we must classify the grammatical cases into a group of similarity and another group of contrast whereby it allows us to capture the relevance as per aspect.

It is important to note here that students have more difficulty in outputting products of the eclipsed conformation, such as *...ren ren*, *...tian tian*, despite the similarity with their mother language. In Chinese grammar, the eclipsed conformation (EC) of vocabulary is quite common and it carries an informal tone compared to the original form. Emphasizing the constant state of a movement, there are a wide range of EC words relevant to time, of which include *tian tian*, *yue yue*, *nian nian*, *ci ci*, *hui hui*. Besides, this EC format implies there is no exception in terms of the scope referred per context.

## Conclusion

This discussion demonstrates the huge potentials and values of Contrast Studies between Setswana and Chinese, because there is a wide spectrum of unknown fields to be explored and myths to be debunked. In the light of the complicated nature of inter-language,

this study recognizes the difficulty in verifying the inter-language theories in a circumstance that lacks adequate corpus support. That means it is important to develop a Setswana language Corpus for the purpose of improving students' learning outcome, not only in Chinese language, but in all other L2, L3, L4 languages where the contrast studies is needed.

This study therefore recommends a pedagogical framework that involves the introduction of contrast studies between SC in an L2 class, highly raises students' awareness in the commonalities between SC and facilitates the practices of interpretation.

The study concludes that the complex interaction between the similar grammatical cases and different usages in each language negatively impacts the output and acquisition of Batswana Mandarin Chinese learners.

## References

- Chao, Y. R. (1955). Notes on Chinese grammar and logic. *Philosophy East and West*, 5(1), 31-41.
- Chomsky, N. (2013). *Topics in the theory of generative grammar (Vol. 56)*: Walter de Gruyter.
- Chao, Y. R. (1955). Notes on Chinese grammar and logic. *Philosophy East and West*, 5(1), 31-41.
- Chomsky, N. (2013). *Topics in the theory of generative grammar (Vol. 56)*: Walter de Gruyter.
- Dipholo, D. M (2016) .A comparison between Chinese and Setswana language markers or symbols used when adjectives modify nouns and acquisition research. (Unpublished Masters Thesis). Shanghai Normal University:Shanghai
- Fahey, M. T., Irwig, L., & Macaskill, P. (1995). Meta-analysis of Pap test accuracy. *American journal of epidemiology*, 141(7), 680-689.
- Li, C. & Thompson, S.(1981), *Mandarin Chinese: A functional reference grammar*, California: University of California Press
- Gong, Jiang Song (2010) Chinese classifier acquisition: Comparison of L1 child and L2 adult development . Graduate Student Thesis, Dissertations, & Professional Papers. 192. <https://scholarworks.umt.edu/etd/192>
- Mai-Liên, T. L & Marie-Pascale, N.,Transparent number-naming system gives only limited advantage for preschooler's numerical development: Comparisons of Vietnamese and French-speaking children ,Published online 2020 Dec 7. doi: 10.1371/journal.pone.0243472
- McEnery, T. (2012). *Corpus linguistics (Vol. 978019)*: Oxford University Press Inc.
- Melloni, C., & Basciano,B.(2018). Reduplication across boundaries: The case of Mandarin. In Olivier Bonami, Gilles Boyé, Georgette Dal, H el ene Giraudo & FiammettaNamer

(eds.), *The lexeme in descriptive and theoretical morphology*, 325–363. Berlin: Language Science Press.

Miller, K. F & Stigler, J. W (1987), *Counting in Chinese: Cultural variation in a basic cognitive skill*, *Cognitive Development*, Volume 2, Issue 3, Pages 279-305, ISSN 0885- 2014

Miura I.T, Kim, C.C., Chang, C. & Okamoto, Y. (1988) *Effects of Language Characteristics on Children's Cognitive Representation of Number: Cross-National Comparisons*, *Child Development*, Vol. 59, No. 6, pp. 1445-1450

Mogapi, K. (1998). *Thutapuo Ya Setswana*. Gaborone: Longman Botswana (Pty) Limited

Otlogetswe, T. (2001). *The BNC design as a Model for a Setswana language corpus extraction*, 1.

Paikeday, T. M., & Chomsky, N. (1985). *The native speaker is dead! An informal discussion of a linguistic myth with Noam Chomsky and other linguists, philosophers, psychologists, and lexicographers*.

Raletsatsi, D.M. (2018). *A comparison between Chinese and Setswana Language measure words*. Paper presented at CIUB seminar. Gaborone, Botswana

Ross, C. & Ma, J.S. (2006). *Modern Mandarin Chinese Grammar: A Practical Guide*. USA & Canada: Routledge

Schwartz, B. D., & Sprouse, R. A. (1996). *L2 cognitive states and the full transfer/full access model*. *Second language research*, 12(1), 40-72.

Selinker, L. (1972). *Interlanguage*. *IRAL-International Review of Applied Linguistics in Language Teaching*, 10(1-4), 209-232.

Shi, Y. (2002). *The establishment of modern Chinese grammar. The formation of the resultative construction and its effects*.

Waltraud, P. (2005). *Adjectival modification in Mandarin Chinese and related issues*. *Linguistics, De Gruyter*, 43 (4), pp.757-793. 1515/ling.2005.43.4.757. halshs-01574254

Xiao, R., & 肖忠華. (2015). *Contrastive Corpus Linguistic Studies of English and Chinese: The Cases of Passive Constructions and Classifiers / 英汉对比语料库研究：以被动结构与量词为例*. *Journal of Chinese Linguistics Monograph Series*(25), 82-114. Retrieved from <https://www.jstor.org/stable/26455280>