

The structure of Num+CL in the Zhōutún dialect

Issues induced by language contact

Chenlei Zhou
Chinese Academy of Social Sciences

The structure of Num+CL in the Zhōutún dialect can be divided into two kinds: VCP and NCP. The VCP in VCP+V is the adverbial, while the NCP can either precede or follow the N it modifies. In NCP+N, the NCP is the attribute; however, in N+NCP, the NCP can be the post-attribute and the adverbial, according to the syntactic property of N. The language contact of the Zhōutún dialect with Amdo Tibetan (AT) plays a role in leading to the peculiarities of Num+CL in the Zhōutún dialect.

Keywords: Zhōutún dialect, Num+CL, language contact, Amdo Tibetan

1. Introduction

The Zhōutún dialect is a Chinese dialect or a Chinese-Tibetan mixed language spoken by the native population (especially the Hàn people) of Zhōutún, a village in Guǐdé County, Hàinán Tibetan Autonomous Prefecture, Qīnghǎi Province, P.R. China. Under strong influence from Amdo Tibetan (AT), the basic word order of the Zhōutún dialect has changed from SVO to rigid SOV. The dialect also has several linguistic phenomena related to SOV word order, such as postpositions and case markers, which do not exist or rarely exist in Mandarin with SVO word order.

The history of the Zhōutún village can be traced to the Míng Dynasty. In 1406, the Míng government dispatched people to guard Guǐdé County, and these individuals came from Hézhōu (currently Línxià, Gānsù Province, Zhe 2001). The ancestors of Zhōutún then settled down and built the village under the lead of Officer Jian Zhou 周鑒. Zhōutún was built mainly to resist the nearby Tibetans around the area. During the long-term contact, Zhōutún has been influenced in many respects by the Tibetan villages nearby. Of course, the language system of

the Zhōutún dialect, which is the focus of this paper, has inevitably been affected by AT as well. In a systematic study, Zhou (2016) stated that the Zhōutún dialect can be treated as a “Chinese dialect with deep contact”, but he also noted that it is reasonable to define the Zhōutún dialect as a mixed language.

Studies on language contact and mixed language in northwestern China have proliferated in recent years. Ren (2004) and Wang (2008), among others, described the basic word order of the Xīníng dialect. Wang & Dede (2016) discussed negation in the Xīníng dialect and demonstrated that the word order features of the negative markers are developed from language contact. Xu (2014) offered a thorough description of the Tángwāng dialect. Both the Xīníng dialect and the Tángwāng dialect are affected by language contact, having a preferred SOV word order. The Wǔtún dialect (Janhunen et al. 2008; Sandman 2016) is another mixed language with Chinese vocabulary and Tibetan syntax. Compared with the Xīníng and Tángwāng dialects, the Wǔtún dialect has a rigid SOV word order, indicating a deeper degree of language contact in the latter than in the former. In this respect, the Zhōutún dialect resembles the Wǔtún dialect rather than the Xīníng dialect and the Tángwāng dialect.

As a result of constant language contact, the Zhōutún dialect is in a process of language type shifting in which some peculiar phenomena reflect middle stages between Mandarin and Tibetan. In this paper, we focus on the structure of Numeral (Num)+Classifier (CL) in the Zhōutún dialect, as in Example (1) and (2):¹

- (1) 我 蘋果 三 個 吃 了
 ŋɤ phikuɤ sã kɤ tɕhɤ lɔ
 I apple three CL eat PFV
 ‘I ate three apples.’
- (2) 貓娃 兩 個 跑 著 過來 了
 mɔua liã kɤ phɔ tɕɤ kuɤle lɔ
 cat two CL run PROG come PFV
 ‘Two cats are running and coming.’

In the Zhōutún dialect, Num must be followed by CL to semantically modify a noun (N), as *sã kɤ* and *liã kɤ* in Example (1) and (2). What is the syntactic status of Num+CL in each sentence? The answer appears to be obvious: in the structure

1. The Zhōutún examples were collected by the author in fieldwork in Zhōutún Village from Sept. to Oct. 2014, Nov. 2014 to Jan. 2015, and Aug. to Sept. 2015. The main instructors of the Zhōutún dialect, among others, are Yongming Zhe (male, 53), Yongmei Hu (female, 52), Chunlong Zhe (male, 30) and Juhua Song (female, 26), who are family members.

of N+Num+CL, Num+CL is the post-attribute of N, and N+Num+CL is a noun phrase (NP) as a whole, as the object and subject of Example (1) and (2), respectively. However, the situation is more complex. In fact, as shown in § 3, it is only the Num+CL *liā kɿ* in Example (2) that can be analyzed as a post-attribute, while the Num+CL *sā kɿ* in Example (1) is not an attribute of the preceding N. Moreover, it is only the N+Num+CL in sentences such as Example (2) that is an NP, while that in Example (1) is not. The syntactic asymmetry of Num+CL in different situations is the primary focus of this paper, with Num+CL in sentences such as Example (1) gaining most of the attention.

Before exploring the topic of this paper, we introduce some prerequisite knowledge of the Zhōutún dialect in § 2. In § 3, we analyze the structure of Num+CL in detail. We then attempt to explain the synchronic performance of Num+CL in terms of language contact in § 4.

2. Some relevant prerequisite knowledge of the Zhōutún dialect

This section discusses three aspects of the Zhōutún dialect that relate to the topic of this paper: § 2.1 the overall profile of the Zhōutún dialect; § 2.2 the types and positions of Num+CL; and § 2.3 the postpositional marker *xa* 哈.

2.1 The Zhōutún dialect: An overview

The Zhōutún dialect has mixed features: the syntax resembles that of Amdo Tibetan (e.g. the rigid SOV word order, the postpositions and the case marking system), whereas most of the vocabulary derives from Chinese. Regarding phonology, on the one hand, the Zhōutún dialect has only two phonemic tones, a phenomenon of tone simplification influenced by Amdo Tibetan, which has no tone. On the other hand, most phonemes can be found in Chinese, in which some Tibetan features such as consonant clusters are not found.

According to the data collected at the end of 2014, the Zhōutún village has 882 settlers, of which 85 percent are Hàn people, 10 percent are Tibetans, and 5 percent are Monguor/Tǔ people. All the Hàn people, whose population numbers approximately 750, fluently use the Zhōutún dialect in daily conversation with each other. Because of the lack of close investigation, the current level of bilingualism for the Tibetans and Monguor/Tǔ people in the village is unclear. According to the author's general observation, when communicating with the Hàn people in the village, the Monguor/Tǔ people tend to use the Zhōutún dialect, while Tibetans use Tibetan.

The Hàn people in the village, particularly those older than 80 years, can speak Amdo Tibetan as well. Unfortunately, since they are few in number and have poor health (they rarely go out to meet Tibetans), the author was unable to obtain data from their conversations with Tibetans. Nonetheless, one of the author's instructors, Qiulan Xu (then 82 years old), assured me that when she was young, the Hàn people in the Zhōutún village frequently communicated with the nearby Tibetans in Tibetan. Currently, a certain number of middle-aged speakers (close to 40 years old) can speak Amdo Tibetan, particularly merchants who often conduct business with Tibetans in nearby villages.

The younger generation, however, has a lower level of fluency in Tibetan. They are more familiar with the dialect QiáoHuà (a local variety of the Xīníng dialect² spoken in Guǐdé County, twenty-two kilometers from the Zhōutún village) for two main reasons. First, with social development, a villager finds moving to a developed county more convenient and is more eager to do so. Second, as part of the compulsory education, teenagers in the Zhōutún village are sent to boarding schools in the county, where their classmates come from the county and other villages, and QiáoHuà is used as a common language. In fact, due to this expanded communication with people outside the village, many elder people in the Zhōutún village master QiáoHuà, too.

The other language that influences the Zhōutún dialect is Modern Standard Mandarin (MSM), whose penetration occurs mainly through TV programs. Nevertheless, the influence is minor, and people differ in whether they can or want to use MSM to converse with outsiders (such as the author). Moreover, their "MSM" greatly interferes with the Zhōutún dialect. For example, some native speakers would thank the author by saying *níà ɛiɛɛiə uo* 2:ACC thank PART 'Thank you.' Here, the word order is OV rather than VO, and the accusative marker (not found in MSM) is used. The word *ɛiɛɛiə* 'thank', however, is from MSM (in the Zhōutún dialect, the corresponding word is *mafā* 'trouble').

In their classical study, Thomason & Kaufman (1988) described two basic types of interference, known as borrowing and interference through shift. The Zhōutún dialect is more likely to have experienced a borrowing-induced change, similarly to the Wǔtún dialect. Thomason & Kaufman (1988), based on the data from Li (1983), designated the Wǔtún dialect as "category (5) borrowing" within their classification scheme, i.e. the category corresponding to "heavy structural borrowing". They wrote (Thomason & Kaufman 1988:92):

2. Wang & Dede (2016) noted that the Xīníng dialect is spoken in Xīníng city as well as in some counties including Guǐdé County, with slight variations in pronunciation and lexicon in these counties.

[In Wutun] *The lexicon, though mostly Chinese, includes many Tibetan loanwords. These loanwords have non-Chinese segments and consonant clusters; in addition, Wutun has entirely lost phonemic tones... The most striking morphosyntactic features borrowed from Tibetan are rigid verb-final word order; strictly postpositional ordering, with no co-verbs; use of a causative suffix instead of resultative compounds; development of several cases; and almost total reduction of the classifier system to one classifier.*

These descriptions also fit the Zhōutún dialect, except that the Zhōutún dialect features neither many Tibetan loanwords nor non-Chinese segments and consonant clusters.³ Thus, the Zhōutún dialect may have undergone a “heavy structural borrowing” from nearby Tibetan, though to a slightly lesser degree than that of the Wūtún dialect.⁴

2.2 The syntax of Num+CL

2.2.1 Types

In the Zhōutún dialect, classifiers can be divided into noun classifiers and verbal classifiers. Thus, the structure of Num+CL can be a noun classifier phrase (NCP) or a verbal classifier phrase (VCP). NCP semantically modifies a noun, while VCP modifies the verb (V). For examples:

3. As for the tone system, T&K cited Li (1983), stating “Wūtún has entirely lost phonemic tones”. Sandmann (2016) also mentioned no tones but rather word stress in the Wūtún dialect. Acuo & Xiang (2015), however, argued that the Wūtún dialect has two tones. We believe that whether the Wūtún dialect has a tone system is a matter of analysis rather than a linguistic fact because the two-tone system is atypical. In the tone system of the Zhōutún dialect, the situation is analogous: one can either consider the dialect to have two tones or argue for a distinction between low vs. high or non-stressed vs. stressed.

4. Wang & Dede (2016) maintained that the Xíníng dialect “underwent a period of shift-induced language change”, in which the population that was “originally non-Chinese-speaking shifted to speaking Chinese”. They explained that in “the long period of contact with more standard varieties of Chinese”, the speakers can “refine the lexicon and phonology so that there is currently little to no trace of the original language in those systems”. This situation is another scenario that should be differentiated from borrowing. For the Zhōutún dialect, we are inclined to argue that the speakers maintained their identity as the descendants of the Chinese immigrants and used the Zhōutún dialect as a Chinese variety, while borrowing many elements from Tibetan. However, because of the lack of documents and other concrete evidence, we cannot obtain access to the history of oral language usage in the Zhōutún village. The question remains as to whether the changes in the Zhōutún dialect are borrowing-induced or shift-induced.

- (3) 書 一 本 / 一 本 書
 fʊ i pɿ / i pɿ fʊ
 book one CL / one CL book
 'one book'
- (4) 我 北 京 三 回 去 了
 ŋɿ pitɛĩ sã xui tɕhi lo
 I Beijing three CL go PFV
 'I went to Beijing three times.'

In Example (3), the NCP *i pɿ* semantically modifies the N *fʊ* whether it follows or precedes the *fʊ*. In Example (4), the VCP *sã xui* modifies the verb *tɕhi*. In Example (3) and (4), we can see that NCP is the attribute of N, while VCP is the adverbial of V. That is, NCP and VCP have different syntactic properties.

In the Zhōutún dialect, noun classifiers and verbal classifiers are two sets without any intersections except for *kɿ* 個. We introduce *kɿ* here briefly because it is the most common classifier in the Zhōutún dialect, regardless of the type of classifier.

As far as classifiers are concerned,⁵ the homophonous form *kɿ* has a dual identity as both a noun classifier and a verbal classifier. Example (1) and (2) show its function as a noun classifier; by contrast, in Example (5) below, *kɿ* is a verbal classifier.

- (5) 你 一 個 拾 掇 嗒
 ni i kɿ ʂɿtuɿ ta
 2 one CL tidy PART
 'You clear up (somewhere).'

In Example (5), the phrase *i kɿ* clearly does not modify the pronoun *ni*. In contrast, *i kɿ* modifies the verb *ʂɿtuɿ*, expressing the subtle meaning of 'to have a try' or 'to do something for a short time.' Therefore, *i kɿ* in Example (5) is a VCP rather than an NCP.

2.2.2 Positions

As shown in Example (3), NCP can either follow or precede the N that it modifies, forming the structures of N+NCP and NCP+N, respectively. Of the two structures, the former is used far more frequently than the latter, especially when the N is not a subject. Meanwhile, the former is pragmatically neutral, with no additional pragmatic meaning. For example, if the native speakers are asked for

5. *kɿ* can also be a demonstrative and a particle.

the natural expression of ‘I ate three apples,’ they would prefer Example (1) above rather than Example (6) below.

- (6) 我 三 個 蘋果 吃 了
 ɲɤ sā kɤ phĩkux tʂhɿ ɿ
 1 three CL apple eat PFV
 ‘I ate three apples.’

Compared to the former structure, the latter NCP+N is used under three circumstances.

First, if the numeral is emphasized, then the NCP usually precedes the N. See Example (7).

- (7) 我 三 個 蘋果 吃 了, 再 不 吃 了
 ɲɤ sā kɤ phĩkux tʂhɿ ɿ, tse pɥ tʂhɿ ɿ
 1 three CL apple eat PFV, again not eat PFV
 ‘I have eaten three apples and am not eating any more.’

In Example (7), the speaker emphasizes that he or she has eaten THREE apples and thus cannot or does not want to eat any more. Under this circumstance, NCP+N can apply.

The second circumstance under which the NCP precedes the N is when a demonstrative (Dem) is added. See Example (8) below.

- (8) a. 我 個 三 個 蘋果 吃 了
 ɲɤ kɤ sā kɤ phĩkux tʂhɿ ɿ
 1 this three CL apple eat PFV
 b. *我 蘋果 個 三 個 吃 了
 ɲɤ phĩkux kɤ sā kɤ tʂhɿ ɿ
 1 apple this three CL eat PFV
 c. *我 個 蘋果 三 個 吃 了
 ɲɤ kɤ phĩkux sā kɤ tʂhɿ ɿ
 1 this apple three CL eat PFV
 ‘I ate these three apples.’

Example (8) indicates that when a Dem is considered, the only possible structure is Dem+NCP+N, while the NCP cannot be placed after the N.

Last, if the N which is semantically modified by the NCP is relativized, then the NCP should precede the N. See Example (9).

- (9) a. 我 扎西哈 書 一 本 給 掉 了
 ɲɤ tʂaci xa fɥ i pɤ ki tiɔ ɿ
 1 PN DAT book one CL give COMP PFV
 ‘I gave Zhaxi a book.’

- 我扎西哈 給 掉 的 (郭) 一 本書
 b. ŋɤ tʂaɕi xa ki tiɔ tɤ (kuɤ) i pʃ fɤ
 1 PN DAT give COMP REL that one CL book
 ‘The book I gave to Zhaxi.’

We now consider VCP. Unlike NCP, the only position of VCP is before V. Hence, Example (10) is ungrammatical.

- (10) *我 北京 去 了 三 回
 ŋɤ pitɕi tɕhi lɔ sã xui
 1 Beijing go PFV three CL
 ‘I went to Beijing three times.’

In summary, the NCP in the Zhōutún dialect follows the N in most situations, while it precedes the N when (a) the numeral is emphasized; (b) it is accompanied by a Dem; and (c) the N it modifies is relativized. For VCP, it only precedes the V.

2.3 Postpositional marker *xa* 哈

xa 哈 in the Zhōutún dialect is a multifunctional marker. It is an accusative marker when it follows the object NP (see § 2.3.1). As a dative marker, it can indicate various semantic roles including the recipient, the beneficiary, the addressee, the comparative standard, the experiencer and the possessor (see § 2.3.2). This paper thus designates it a dative-accusative marker.⁶ Unlike some other dialects spoken in northwestern China, the *xa* in the Zhōutún dialect is not a topic marker (see § 2.3.3). In the flow of speech, *xa* can be a 啊 as an allophone.

2.3.1 Accusative marker

When used as an accusative marker, *xa* is not a necessary element. It is often used when the agent and patient of a clause are obscure. Specifically, if the agent and

6. Other terms for *xa* are found in the literature, such as ANTI-ERGATIVE (Dede 2007), GRAMMATICAL FOCUS (Janhunen et al. 2008) and HIGHLIGHTER/FOCUS PARTICLE (Dwyer 1995). Among the various terms, the meaning of ANTI-ERGATIVE is substantially identical to that of the DATIVE-ACCUSATIVE term used in this paper. The designation GRAMMATICAL FOCUS seems markedly different from DATIVE-ACCUSATIVE, yet from the examples listed in Janhunen et al., the functions of *xa* in the Wūtún dialect are identical to those in the Zhōutún dialect: the authors noticed that in the Wūtún dialect, the *xa* can mark both patient-like roles and agent-like roles, while agent-like roles are the possessor and the experiencer, two semantic roles that can be marked by datives (see Næss 2008). In the Xúnhuà dialect, the function of the HIGHLIGHTER/FOCUS PARTICLE defined in Dwyer (1995) differs from that of the DATIVE-ACCUSATIVE in that the former can mark the actual agents. Such usage can also be found in the Tángwāng dialect, and this *xa* is termed TOPIC MARKER in Xu (2015a). See § 2.3.4.

patient share the same animacy hierarchy (e.g. both are humans or animals), *xa* is used to distinguish them.⁷ This is shown in Example (11).

- (11) a. 扎西 玉林 哈 打 了
 tʂaʂi yli xa ta lɔ
 PN PN ACC beat PFV
 ‘Zhaxi beat Yulin.’
 b. 玉林 哈 扎西 打 了
 yli xa tʂaʂi ta lɔ
 PN ACC PN beat PFV
 ‘Yulin, Zhaxi beat (him).’

Although the relative order of *tʂaʂi* and *yli* differs in Example (11a) and (11b), *xa* signals the identity of *yli* as the patient wherever it is placed.⁸

In sentences such as Example (1), in which the agent and patient are very clear, *xa* is not necessarily used. However, using *xa* to signal the object explicitly is still grammatical. For example, both Example (12a) and (12b) are grammatically acceptable.⁹

- (12) a. 我 蘋果 吃 了
 ŋɤ phikur tʂhɿ lɔ
 I apple eat PFV
 b. 我 蘋果 哈 吃 了
 ŋɤ phikur xa tʂhɿ lɔ
 I apple ACC eat PFV
 ‘I eat apple.’

Syntactically, *xa* is an enclitic adhering to the whole NP rather than the N immediately preceding it, as shown in Example (13).

- (13) a. 我 蘋果 帶 香蕉 哈 吃 了¹⁰
 ŋɤ phikur tɛ ɕiātɕiɔ xa tʂhɿ lɔ
 I apple and banana ACC eat PFV
 ‘I ate apple and banana.’

7. See the detailed discussion of the DOM (differential object marking) in the Zhōutún dialect in Zhou (2019a).

8. Both (11a) and (11b) are grammatical, though they differ pragmatically: (11b) emphasizes *yli*, which means that it is *yli* who was beaten or can be used to answer questions such as, “What happened to Yulin?”

9. The subtle difference between (12a) and (12b) are (a) that the *phikur* in (12b) is definite, marked by *xa*, whereas that in (12a) can be definite or indefinite, depending on the context; or (b) the *phikur* marked by *xa* is somehow emphasized.

- b. 我大的(蘋果) 哈 吃 了
 ɲɤ ta tɤ (phĩkux) xa tʂɿ lɔ
 I big AM (apple) ACC eat PFV
 ‘I ate the big (apple).’

In Example (13a), *xa* follows a coordinate NP. If the head N of the NP is omitted, *xa* can follow the headless NP, as shown in Example (13b).

2.3.2 Dative marker

Example (14) shows the functions of *xa* as a dative marker, by which various semantic roles can be marked.

- (14) a. 我扎西哈 書 一 本 給 了
 ɲɤ tʂaxi xa fɯ i pɤ ki lɔ
 I PN DAT book one CL give PFV
 ‘I gave Zhaxi a book.’ (Recipient)
- b. 扎西 玉林哈 衣裳 取 給
 tʂaxi yli xa iʂā tʂui ki
 PN PN DAT clothes get give
 ‘Zhaxi gets the clothes for Yulin.’ (Beneficiary)
- c. 我扎西哈 說 著 個
 ɲɤ tʂaxi xa ʂux tʂɤ kɤ
 I PN dat say PROG PART
 ‘I am talking to Zhaxi.’ (Addressee)
- d. 我你啊 歲數大 著 多
 ɲɤ nia suifɯ ta tʂɤ tuɤ
 I 2:DAT age old COMP much
 ‘I am much older than you.’ (Comparative standard)
- e. 我啊 餓 著 很 哩
 ɲa uɤ tʂɤ xɤ li
 I:DAT hungry COMP very PART
 ‘I am very hungry.’ (Experiencer)

10. The reviewer notes that in other Qīnghǎi/Gǎnnán dialects, the *xa* would be *lia*, the comitative-instrumental postposition. In the Zhōutún dialect, the comitative-instrumental marker *lā* (< *liā-kɤ* ‘two’) can also be used here to replace *xa*, unless it constitutes another structure: *lā* is used to emphasize that both *phĩkur* and *ɛĩātɕiɔ* are eaten, while *xa* manifests the semantic role of *phĩkur* and *ɛĩātɕiɔ* as patients. Moreover, if *lā* is used, then the coordinator *tɛ* tends to be omitted.

- f. 扎西 哈 錢兒 沒
 tʂaɕi xa tɕhiɛ mi
 PN DAT money not having
 ‘Zhaxi has no money.’ (Possessor)

Notice that among the subjects, only the experiencer and the possessor can be followed by the dative *xa*¹¹ (for a detailed description, see Zhou (2019a).)

Like the accusative marker, the dative *xa* is also an enclitic adhering to the entire NP rather than to the N immediately preceding it. Because of space constraints, we provide two examples.

- (15) 扎西 帶 連琚 哈 瞌睡 了
 tʂaɕi tɛ liātɕỹ xa khuɤfi lɔ
 PN and PN DAT sleepy PFV
 ‘Zhaxi and Lianjun are sleepy.’
- (16) 扎西 帶 連琚 哈 錢兒 沒
 tʂaɕi tɛ liātɕỹ xa tɕhiɛ mi
 PN and PN DAT money not having
 ‘Zhaxi and Lianjun have no money.’

2.3.3 Topic marker?

Xu (2015a) noted that, except for being an accusative marker, the *xa* in the Tángwāng dialect (as well as in some other dialects in northwestern China) can also be a topic marker, as in Example (17), cited from Xu (2015a: 16):

- (17) *jā xa tɕhɿ tɕɛ*
 sheep TOP eat PROG
 ‘Sheep are grazing on the grass.’

Dwyer (1995) mentioned the similar usage of *xa* (i.e. marking an agent-like role) in the Xùnhuá dialect, while she termed this *xa* a highlighter or a focus particle.

- (18) *tha xa fan mɔ tɕhɿ ʂaŋ*
 3 highlighter food NEG eat up
 ‘He did not eat food.’ (Dwyer 1995: 153)

Dede (2007) also noticed a topic marker *xɔ* in the Xīníng dialect, which in other parts of Qīnghǎi (Huángyuán and parts of Huángzhōng) is realized as *xa*.¹²

11. Marked by the dative case, the experiencer and the possessor are non-canonical subjects.

12. This information is given by a reviewer. Thanks to the reviewer.

In the Zhōutún dialect, however, *xa* cannot be a topic marker. That is, if we construct a sentence with *xa* that formally corresponds to Example (17) in the Tǎngwāng dialect, the semantic role of “sheep” would vary from the agent to the patient role, as in Example (19).

- (19) 羊 哈 吃 著 個
iā xa tʂhɿ tʂɿ kɿ
 sheep ACC eat PROG PART
 ‘Sheep is being eaten.’

Although “sheep” in both Example (17) and (19) are topics pragmatically, the one in Example (19) can be a patient only, which excludes the possibility of analyzing *iā* as an agent. In addition, the sentence (18) is ungrammatical in the Zhōutún dialect, in which the *xa*, if necessary to use, can only follow the patient *fan*.

The Zhōutún dialect has topics, but the topic marker is *a* 啊. For example:

- (20) a. 水果樹 啊, 嚟 就 桔, 甜 梨, 酸 梨.....
fɪkʊɿfɿ a tɿ tɕiɯ ɿɿ thiā li uā li
 fruit tree TOP DM only a kind of pear sweet pear sour pear
 ‘As for fruit trees, there are only pears, including sweet pears and sour pears.’
 b. 長 啊 不 長, 短 啊 不 短 啲 郭
tʂā a pɿ tʂā tuā a pɿ tuā ti kʊɿ
 long TOP NEG long short TOP NEG short PART that
 ‘Long, that is not long; short, that is not short.’

Notice that the *a* in (20) cannot be replaced by *xa*, whereas in the case of the *a* as the allophone of *xa*, it can always be restored to the case marker *xa*. This difference demonstrates that the topic marker *a* is essentially different to the case marker *a*.

The topic marker *a* is rarely used in the Zhōutún dialect, even if the Zhōutún dialect is a topic prominent language. The latter is indicated by the existence of the identical topic structures, as shown in (20b), which reflects “a more characteristic property of topic prominent languages” (Liu 2004). This phenomenon is likely due to the fact that this topic marker has the same pronunciation as the case marker, and speakers use it rarely to avoid ambiguity.

3. The nature of NUM+CL

As discussed above, in the Zhōutún dialect, both the syntactic property and position of VCP are clear; thus, we do not address VCP in the sections below. The Num+CL discussed in this section and below is NCP, unless otherwise stated.

The criterion that we use to define the nature of NCP is the position of *xa*. Specifically, because *xa* adheres to NP, the corollary would be that NCP on the left side of *xa* belongs to NP and is the attribute of the head N of the NP, whereas NCP on the right side of *xa* is not an element of NP and then cannot be the attribute of the N of the NP.

For convenience, we henceforth use N_s to indicate N as a subject and N_o to indicate N as an object. The “object” has a broad meaning, which includes the object in transitive constructions and the direct object in ditransitive constructions.

3.1 Attribute

3.1.1 In NCP+N

In the structure of NCP+N, NCP is the attribute of N, regardless of whether N is N_s or N_o . This is shown in Example (21) and (22).

- (21) 兩個貓娃哈餓下了
 liǎ kx mɔua xa uʔ xʔ lɔ
 two CL cat DAT hungry COMP PFV
 ‘Two cats are hungry.’
- (22) 我三個蘋果哈吃了，再不吃了
 ŋʔ sā kx phikux xa tʂhɿ lɔ tse pʋ tʂhɿ lɔ
 I three CL apple ACC eat PFV again NEG eat PFV
 ‘I have eaten three apples and am not eating any more.’

In these two examples above, *xa* is a dative marker and an accusative marker, respectively. The NCPs in both sentences are on the left side of *xa*; hence, they are the component of the NP and the attribute of the head N.

3.1.2 In N+NCP

In the structure of N+NCP, NCP cannot be arbitrarily regarded as an attribute. However, whether NCP in this structure is an attribute depends on which argument – subject or object – the N fulfills.

If N is N_s , then the NCP following the N_s is the post-attribute. See Example (23).

- (23) 貓娃 兩 個 哈 餓 下 了
 mɔua liã kɤ xa uɤ xɤ lɔ
 cat two CL DAT hungry COMP PFV
 ‘Two cats are hungry.’

In Example (23), because it is on the left side of *xa*, the NCP belongs to the NP and is the post-attribute of N_s . Although *xa* can follow only a subject with the semantic roles of experiencer and possessor, it is sufficient to prove that NCP is the post-attribute of N_s .

If, however, N is N_o , then the NCP following the N_o is not the post-attribute. We shall discuss this case in detail below.

3.2 Adverbial

3.2.1 *Attribute?*

In the structure of N_o +NCP, the NCP is not the post-attribute of the N_o , as *xa* can only be placed behind N_o (i.e. the NCP falls on the right side of *xa*). See Example (24).

- (24) a. 我 蘋果 哈 三 個 吃 了
 ŋɤ phikux xa sã kɤ tʂhɿ lɔ
 I apple ACC three CL eat PFV
 b. *我 蘋果 三 個 哈 吃 了
 ŋɤ phikux sã kɤ xa tʂhɿ lɔ
 I apple three CL ACC eat PFV
 ‘I ate three apples.’

Example (24a) shows the only possible position of *xa* as an accusative marker. It is ungrammatical for *xa* to be placed after NCP, as shown in Example (24b). Therefore, it is clear that the NCP is not the attribute of N_o .

3.2.2 *Object?*

Could NCP be the object of a sentence such as (24a)? This possibility is valid in that, semantically speaking, NCP assumes the patient role, particularly when the N_o is omitted, as in Example (25).

- (25) 我 三 個 吃 了
 ŋɤ sã kɤ tʂhɿ lɔ
 I three CL eat PFV
 ‘I ate three.’

However, *sā kx* in Example (24a) and (25) cannot be analyzed as an object for certain reasons.

First, *xa* cannot appear after *sā kx*. As mentioned in § 2.3.1, although *xa* is not necessarily used in a sentence whose agent and patient are naturally distinct, using *xa* to explicitly indicate the object is nevertheless grammatical. However, *xa* is unacceptable when adhering to the *sā kx* in Example (24a) and (25).

Second, if the NCP (*sā kx*) is the object, we would face a theoretical problem. Namely, a transitive clause would have two objects, including N_o and NCP. Thus, in Example (24a), *phikux* is already the object, signified by the accusative marker *xa*; how, then, could *sā kx* be another object?

Third, in the Zhōutún dialect, objects can be moved to the beginning of a sentence for pragmatic reasons (such as emphasis), as shown in Example (11b). Thus, the *phikux* in Example (24a) can be moved with *xa*, whereas *sā kx* cannot be moved simultaneously, as demonstrated by Example (26).

- (26) a. 蘋果 哈 我 三 個 吃 了
 phikux xa ɲx sā kx tʂhɿ lo
 apple ACC 1 three CL eat PFV
 b. *蘋果 哈 三 個 我 吃 了
 phikux xa sā kx ɲx tʂhɿ lo
 apple ACC three CL 1 eat PFV
 ‘Apples, I ate three.’

sā kx cannot be moved as well as *phikux*, the real object; instead, it remains in the position before V.

The criteria for movement can also be used to test the identity of the postpositional NCP in ditransitive constructions. In the Zhōutún dialect, the unmarked word order of ditransitive constructions is A(gent)+ O_i (indirect object)+ O_d (direct object)+V. In this sequence, the dative marker *xa* follows the O_i (see Example (14a)). Because *xa* does not mark the O_d , it is impossible to determine the syntactic property of the NCP following the O_d based on the relative position of *xa* and the NCP. The criteria for movement, however, still hold: the O_d is free to move to the beginning of the sentence, but the NCP cannot. See Example (27).

- (27) a. 書 扎西哈 一 本 給 了
 fʊ tʂæi xa i pʃ ki lo
 book PN DAT one CL give PFV
 b. *書 一 本 扎西哈 給 了
 fʊ i pʃ tʂæi xa ki lo
 book one CL PN DAT give PFV
 ‘A book is given to Zhaxi.’

3.2.3 Topic?

One could claim that *phikux* in Example (26a) is the topic such that *sā kr* could still be the object. In MSM, a special kind of topic is known as a “split topic”, as in Example (28a).

- (28) a. 蘋果 我 吃 了 三 個
 píngguǒ wǒ chī le sān gè
 apple 1 eat PFV three CL
 ‘Apples, I ate three.’
 b. 我 吃 了 三 個 蘋果
 wǒ chī le sān gè píngguǒ
 1 eat PFV three CL apple
 ‘I ate three apples.’

Liu (2004) called *píngguǒ* in Example (27a) a SPLIT TOPIC to indicate that it has moved from the position in (28b) as part of the object NP. In that sense, the object *sān gè píngguǒ* in Example (28b) is split into two parts, with the original attribute *sān gè* remaining and serving as the object on its own, while the original head N of the object NP (i.e. *píngguǒ*) is topicalized. At first glance, Example (27a) and (28a) seem to be similar in that *píngguǒ* is moved to the beginning in both sentences and *sān gè* remains as the object. However, Example (27a) and (28a) fundamentally differ.

In their series on TOPICS in Chinese, Liu (2004) and Xu & Liu (2007) emphasized that the term TOPIC in Chinese was defined from a syntactic in addition to pragmatic perspective. In other words, TOPIC in Chinese is a syntactic element that is somehow equivalent to other arguments such as subjects and objects in that they all occupy a grammatical slot.¹³ Hence, we can state that *píngguǒ* in Example (28a) is the topic and *sān gè* is the object; the entire sentence has the order T(topic)SVO. The same situation can be found in the Tǎngwǎng dialect, as shown in Example (29), cited from Xu (2014: 209):¹⁴

13. To fully prove that the TOPIC in Chinese occupy a grammatical slot is a long story, and it is not the aim of this paper. Simply put, according to Xu & Liu (2007), it is hard to point out the syntactic property of some constituents in Chinese sentences, unless we admit the concept of TOPIC as a grammatical constituent. Take the sentence below (Xu & Liu 2007: 41): 水果, 我最喜歡蘋果 (fruit, I most like apple) ‘As for fruits, I like apples most.’ In this sentence, the word 水果 is neither the subject nor the object (since these two slots have already been occupied by other constituents). Thus, we should admit that 水果 is a grammatical topic, occupying the topic slot.

14. We adjusted the form of the examples, adding abbreviations and translation into English that were lacking in the original book. We applied this adjustment to Example (35–39) and (43).

- (29) 我羊 哈買料一個, 牛 哈買料一個

1 sheep *xa* buy PFV one CL cow *xa* buy PFV one CL

‘Sheep, I bought one; cow, I bought one.’

Because *xa* can be a topic marker in the Tángwāng dialect (as shown in Example (17)), “sheep” and “cow” in Example (29) can be treated as SPLIT TOPICS.

However, we cannot apply the same analysis to Example (26a) (i.e. treating *phīkur* in Example (26a) as a SPLIT TOPIC) because in (26a), *phīkur* is syntactically an object indicated by the accusative marker *xa*, which is not, according to § 2.3.3, a topic marker. If we want to avoid the two-object predicament, we cannot define *sā kx* as an object, given that *phīkur* has already occupied the object slot.

3.2.4 Adverbial

If the NCP in N_o +NCP is neither the post-attribute of the N_o nor the object of the clause, what is its identity? Perhaps the only remaining possibility is a semantically awkward but syntactically feasible one: NCP is the adverbial modifying V. More specifically, NCP in the structure of N_o +NCP+V modifies the V backward, bearing the quantificational meaning of V. This analysis is applicable for the reasons below.

First, in the Zhōutún dialect, the Num+CL immediately before V could be the adverbial. VCP is undoubtedly the adverbial. We do not discuss this in detail here. In fact, NCP could also be the adverbial, as shown in Example (30).

- (30) 我扎西哈 一米高 著 個

ŋx tɕaci *xa* i mi kɔ tɕx kx

1 PN DAT one CL tall PROG PART

‘I am one meter taller than Zhaxi.’

Example (30) shows the common expression of comparative constructions in the Zhōutún dialect. In semantic terms, the comparee is *ŋx*, the standard is *tɕaci*, the comparative result is *kɔ*, and the NCP *i mi* reflects the specific value of the result. In this sentence, *i mi* is not the post-attribute of *tɕaci* because of its relative position to *xa* (even if *xa* is not considered, it is difficult to claim that *i mi* is the attribute because, semantically speaking, it does not relate to *tɕaci*). We define *i mi* as an adverbial describing the degree of *kɔ*, similar to how *one meter* in the corresponding English translation does so.

Second, as shown in Example (26a) and (26b), the NCP (*sā kx*) is fixed on the position before V, lacking the ability to move to the beginning of the sentence as the object (*phīkur*) does. Thus, based on the principle of linguistic iconicity (see Haiman 1985), NCP is closer to V than to N_o . Likewise, Num+CL as an adverbial is also fixed on the position before the verb. On the one hand, as discussed in § 2.1.2,

VCP cannot be moved away. On the other hand, the NCP *i mi* in Example (29) cannot be placed in any other positions. In parallel, the NCP as *sā kx* in Example (26a) is also the adverbial.

Third, the pre-verbal position in the Zhōutún dialect accommodates various types of adverbials in addition to Num+CL. For convenience, we use manner adverbials as an example. See Example (31).

- (31) a. 你蘋果 (哈) 慢慢兒 吃
ni phīkux (xa) mām̃x t̃shŋ
2 apple ACC slowly eat
‘Eat the apple slowly.’
b. 你 我啊 (書) 好好兒 不 給 嗎? ¹⁵
ni ŋa (fɤ) xɔxɔ pɤ ki mā
2 1:DAT book good manner NEG give PART
‘Don’t you give me (the book) in a good manner?’

In (31), the adverbs *mām̃x* and *xɔxɔ* occupies the same position as the postpositional NCP, indicating the syntactic similarity between them. The NCP can co-exist with a manner adverb, occurring either before or after the latter. See Example (32).

- (32) a. 你蘋果 (哈) 兩 個 慢慢兒 吃
ni phīkux (xa) liā kx mām̃x t̃shŋ
2 apple ACC two CL slowly eat
b. 你蘋果 (哈) 慢慢兒 兩 個 吃
ni phīkux (xa) mām̃x liā kx t̃shŋ
2 apple ACC slowly two CL eat
‘Eat two apples slowly.’

Despite the subtle difference,¹⁶ both (32a) and (32b) are grammatical. Notably, the NCP in (32b) occurs to the right of the adverb, which severs contact between the *N_o* and the NCP. This example demonstrates that the NCP is not an object, but an adverbial.

15. In the Zhōutún dialect, the negative marker occurs immediately before the verb, and its scope is backwards on the preceding adverb(s). This performance is distinct from that in MSM, yet similar to that in the Xīníng dialect and other northwestern Chinese varieties (see Wang & Dede 2016; Zhou 2017).

16. (32a) has a normal meaning of “eat two apples slowly”, whereas (32b) might mean “eat apples slowly, and you can eat up two.”

Based on the discussion above, it is legitimate to identify NCP in N_o +NCP+V as the adverbial of V. This legitimacy is from the perspective of syntax rather than semantics. After all, NCP is closer to N_o than to V in semantics. Thus, a syntax-semantics mismatch arises: elements that are close in syntax are remote in semantics, and vice versa. We consider a syntax-semantics mismatch a not uncommon phenomenon. One enlightening case is in Example (33) in MSM.¹⁷

- (33) 我 讀 了 一 年 的 書
 wǒ dú le yì nián de shū
 I read PFV one year AM book
 ‘I read books for one year.’

In Example (33), followed by the attributive marker *de*, the NCP *yì nián* is syntactically the attribute of *shū*. Semantically, *yì nián* modifies the verb *dú*, expressing the temporal information. In the literature on Chinese linguistics, this *yì nián* is known as a FAKE ATTRIBUTE (see Huang 2008, among others), indicating that it is an attribute. However, this identity is somewhat “fake” because it semantically modifies the verb rather than the noun.

Following the FAKE ATTRIBUTE, we call the NCP in N_o +NCP+V in the Zhōutún dialect a FAKE ADVERBIAL, which means that the NCP is an adverbial of the V, but this identity is “fake” because it semantically modifies the N_o rather than the V.

4. Language contact and Num+CL in the Zhōutún dialect

In this section, we focus on § 4.1 possible shifting routes of Num+CL in the Zhōutún dialect and § 4.2 explanation of the behavior of Num+CL in the Zhōutún dialect.

4.1 Possible shifting routes of Num+CL in the Zhōutún dialect

4.1.1 From Pattern I to Pattern II

Among the languages of the Sino-Tibetan family, if CL is not considered for the present (because the position of CL relative to Num may vary among languages), the order of Num exhibits two patterns: in Mandarin or even in all of Chinese, the order of Num is Num+N and V+Num, which is called Pattern I in this paper; by contrast, many languages of the Tibeto-Burman branch have the order of N+Num

17. The MSM examples were constructed by the author, who is a native speaker.

and Num+V (see Ma 2003; Li 2008, among others), which is called Pattern II in this paper. As presented in Table 1, Pattern I and Pattern II are mirror images of one another.

Table 1. Pattern I and Pattern II¹⁸

	Nominal quantification	Verbal quantification
Pattern I	Num+N	V+Num
Pattern II	N+Num	Num+V

MSM is a representative language of Pattern I, as in Example (34):

- (34) a. 我 看見 了 三 個 人
wǒ kànjiàn le sān gè rén
1 see PFV three CL people
‘I saw three people.’
b. 我 這 本 書 看 過 三 遍 了
wǒ zhè běn shū kàn guò sān biàn le
1 this CL book read EXP three CL PFV
‘I have read this book three times.’

In Example (34a), *sān gè rén* represents the Num+CL+N pattern, and in Example (34b), *kàn guò sān biàn* shows the V+Num+CL pattern.

AT, which intensely influenced the Zhōutún dialect, exhibits Pattern II, as in Example (35):¹⁹

- (35) a. *kanna lahdzu thəm htək jə khə*
there pepper CL one have PART
‘There is a bag of pepper.’
b. *mər hga thaŋ ma hsəm joŋ nə*
3 PART CL CL three come PFV
‘She came here three times.’

In Example (35a), the NCP *thəm htək* is the post-attribute of the N *lahdzu*; in Example (35b), the VCP *thaŋ ma hsəm* is the adverbial of the verb *joŋ*.²⁰

18. This Table is modified under the suggestion of a reviewer. Thanks to the reviewer.
19. The AT examples are from Machu speech, a typical dialect of AT, cited from Zhou (2003:203).
20. *thaŋ ma hsəm* in Example (35b) is defined as the COMPLEMENT by Zhou (2003). In fact, in the literature on minority languages in China, scholars typically use the term complement *bǔyǔ*

Note the slight difference between MSM and AT if CL is considered: in MSM, the relative order between Num and CL is Num+CL, whereas in AT, the order is CL+Num.

Obviously, the Zhōutún dialect underwent the shift from Pattern I to Pattern II as a result of the deep contact with AT. In the process of shifting, VCP has completely moved to the front of V, while NCP still remains in the position before N in certain cases, indicating the trace of Pattern I in MSM.

4.1.2 Which one (VCP or NCP) shifted faster?

This section attempts to reconstruct possible sequence in the shifts of NCP (from before the N (as in Pattern I) to after the N (as in Pattern II)) and VCP (from after the V (as in Pattern I) to before the V (as in Pattern II)) in the Zhōutún dialect. The conclusion is that the VCP shifted first and then the NCP shifted. The reasons are as follows.

The first piece of evidence comes from the Zhōutún dialect itself. As mentioned in § 3, there is only one possible order of VCP relative to V, i.e. VCP+V, while two possible sequences of NCP and N exist: NCP+N and N+NCP. We may thus assume that the VCP has already accomplished the shift from after the V to before the V, while the NCP is still on the way to shifting from before the N to after the N.

The second piece of evidence is indirect. The Xíníng and Tǎngwǎng are similar dialects in that they have undergone the shift from VO to OV due to language contact.²¹ In these two dialects, it has been the VCP that first began to abandon its original position, moving from after the V to before the V. See Example (36) and (37) from these two dialects.

(36) Xíníng dialect

(Ren 2004: 340, 343)

補語 corresponding to the constituents of Chinese that appear after the verb. However, those so-called complements are actually adverbials (see Liu 2008b).

21. Synchronically, the Tǎngwǎng dialect is likely wholly influenced by Altaic languages, Santa/Dongxiang in particular. The Xíníng dialect reflects influences from AT and Altaic languages, while the Zhōutún dialect is affected by AT. The comparison among the three dialects is effective in terms of word order. Some features are shared by these three dialects, such as using *xa* as the dative-accusative marker, which is formed through contact with AT (Dede 2007; Zhou 2019b). This effect illustrates that these dialects are closely related and that they were influenced by AT through an earlier contact before the Tǎngwǎng and Xíníng were further affected in later periods by Altaic languages. After all, historically, Tubo, a Tibetan regime in ancient China, entered this region centuries earlier than Altaic groups. For further discussion, see Footnote 23.

- a. 自行車騎上了鄉里跑一趟
bicycle ride up PFV town in run one CL
'Ride a bicycle and go to the town one time.'
- b. 一個月裡十幾趟跑者
one CL month in ten nearly CL run PROG
'Go (somewhere) more than ten times in a month.'

(37) Tángwāng dialect (Xu 2014: 210)

- a. 我書哈看料兩遍
1 book ACC read PFV two CL
b. 我書哈兩遍看料
1 book ACC two CL read PFV
'I read the book twice.'

In Example (36a), the VCP 一趟 'one time' is located after the V, while in Example (36b), the VCP 十幾趟 'more than ten times' has moved to the front of the V. In Example (37) from the Tángwāng dialect, the situation is similar.

Compared to VCP, the NCP in both the Xíníng and Tángwāng dialect are still before the N they modify. See Example (38) and (39).

(38) Xíníng dialect (Ren 2004: 339)

- 狗一個娃娃啊咬下了
dog one CL child ACC bite COMP PFV
'The dog bit a child.'

(39) Tángwāng dialect²² (Xu 2014: 209)

- 一個老漢，三個娃娃
one CL old man three CL child
'An old man and three children.'

22. The word order of NCP relative to N is normally NCP+N in Santa, the language that greatly influenced Tángwāng. Thus, arguably, the structure of NCP+N in the Tángwāng dialect may be affected by Santa, and the NCP is not supposed to move afterward. However, as mentioned in Footnote 21, it is reasonable to deduce that the Tángwāng dialect (and most Chinese dialects spoken in the Gansu-Qinghai linguistic area) was in contact with AT for a long time before being influenced by Altaic languages. Thus, we prefer to assume that the position of NCP in the Tángwāng dialect has been maintained in front of the N during contact with AT (and Santa might play a role in the later period to strengthen the order of NCP+N). In fact, AT is prominent in the Gansu-Qinghai linguistic area that it affects, not only Chinese varieties, but also Altaic languages (Sandman & Simon 2016). The position of NCP in some Altaic languages in the area has become N+NCP, such as Salar, Tu, Bonan, and Kangjia (Chen 2015), which likely resulted from the influence of AT. Furthermore, Santa exhibits N+NCP, in addition to the normal NCP+N (Chen 2015: 152), also indicating the influence of AT.

As shown in Example (38) and (39), the NCPs in both sentences precede the N they modify, and these two authors do not mention the situation in which the NCP follows the N.

Based on the situations of the Xīníng and Tángwāng dialect, we can reasonably assume that in the Zhōutún dialect, the VCP has first moved from after the V to before the V, while the position of NCP changed later, from before the N to after the N.

4.2 How to explain the behavior of NCP in the Zhōutún dialect

In the Zhōutún dialect, the NCP in the structure of N+NCP is not always the post-attribute of the N. Instead, when the N is N_s, the following NCP is the attribute; if the N is N_o, the NCP would be the adverbial of the verb after it. This phenomenon does not exist in AT, in which NCP is always the attribute, regardless of N_s or N_o, or in MSM, whose NCP is before the N it modifies. Hence, given its difference from both AT and MSM, how can we explain the behavior of NCP in the Zhōutún dialect? Two possible factors can be considered.

4.2.1 To avoid NCP from being the only post-attribute

If NCP is not considered, all kinds of attributes appear before the N they modify in the Zhōutún dialect. See Example (40).

- (40) a. 蘋果 樹
 phĩkux fʊ
 apple tree
 ‘apple tree’
 b. 尕 阿舅
 ka atɕiu
 little uncle(maternal)
 ‘little uncle’
 c. 書 看 著 的 學生娃
 fʊ khã tsɿ tɿ ɕyɿsʃua
 book read PROG REL student
 ‘student who is reading the book’

The constituents as the attribute in each sentence of Example (40) are the noun *phĩkux*, the adjective *ka* and the relative clause, respectively.

The situation in which all types of attributes, especially relative clauses, appear before the noun they modify reflects a distinctive feature of MSM as a VO language (Dryer 1992; Liu 2008a). In the process of shifting from a VO language to an OV language, the Zhōutún dialect maintains this feature of having attrib-

utes appear before the noun they modify. Therefore, if the NCP that moved to the right side of the noun becomes the post-attribute, an asymmetry would emerge: the NCP would be the only attribute that follows the noun. Thus, one can reasonably speculate that the syntactic system of the Zhōutún dialect would attempt to avoid this asymmetry as much as possible.

One could claim that in N_s +NCP, the NCP is still the attribute. This claim is likely true because there is no other possible analysis for the NCP in N_s +NCP unless we define the NCP as a post-attribute. Specifically, in N_o +NCP+V, the NCP does not merely adhere to N_o but also linearly adheres to V, revealing the possibility of being analyzed as an adverbial. By contrast, the NCP in N_s +NCP+ N_o has no opportunity to play another role except for a post-attribute. Hence, considering the NCP to be a post-attribute in N_s +NCP is inevitable. However, there are other ways in the Zhōutún dialect to partly decrease the number of N_s +NCP, as shown in Example (41) and (42) below.

- (41) 兩 個人 來 了
liā kx ɿ̃ ɿ̃ lɛ lɔ
two CL people come PFV
'Two people came.'

- (42) 人 一 個人 沒
ɿ̃ i kx ɿ̃ mi
people one CL people not have
'There is no one.'

Example (41) shows a common relative order of N_s and NCP: NCP+ N_s . According to our research, the number of NCP+N in the Zhōutún dialect is greater when the N is N_s than that when the N is N_o , roughly in a proportion of three to one.²³ Example (42) represents another way to resist the structure of N_s +NCP, i.e. copy the N_s and add it to the right side of NCP, forming the structure " N_s " + NCP+ N_s . In this structure, the first N_s is no longer the subject, instead, it becomes a topic, while the second N_s becomes the only subject. Therefore, the original structure N_s +NCP is changed to N_{topic} +NCP+ N_s , successfully avoiding the N_s +NCP. To sum up, the grammar of the Zhōutún dialect has some methods to decrease the number of N_s +NCP, trying its best to avoid the asymmetry that the NCP is the only post-attribute in the whole system.

23. It is probably because subjects are usually definite. As mentioned in § 2.2.2, if a DEM is used, the only possible structure is DEM+NCP+N, which indicates that in a definite NP, the NCP precedes the N.

We now consider AT. Although there are some pre-positional attributes, post-positional attributes also exist in AT, as in Example (43) (Zhou 2003: 296).

- (43) a. tɕhu ham rɲoŋ ŋa wo kan me kha
 yours shoes old that not have
 ‘The old shoes of yours are not there.’
 b. mər hgi mɔzək htɕi se ro kan rɲoŋ wa re
 her ring yellow that old is
 ‘That yellow ring of hers is old.’

In the examples above, the underlined constituents are attributes. We can observe that the possessive pronouns are before the head noun they modify, while the adjectives and demonstratives are behind the noun.

That is, in contrast to attributes in the Zhōutún dialect, attributes in AT can be post-positional. Thus, the finding that Num/NCP in AT can be a post-attribute is not surprising.

4.2.2 Preverbal adverbial as a language universal in SOV languages

In his pioneering work, Greenberg (1963) proposed 45 language universals. Universal 7, which was proven in Dryer (1992) based on data from a great number of languages, is our focus:

- (44) Universal 7 of Greenberg (1963)
If, in a language with dominant SOV order, there is no alternative basic order or only OSV as the alternative, then all adverbial modifiers of the verb likewise precede the verb.

According to Universal 7, a language with SOV word order tends to have its adverbials precede the verb. The Zhōutún dialect, as a SOV language, does follow this universal: the position before the V in Zhōutún is for adverbials, see Example (4) and (5) for the VCP as adverbial, and (31) and (32) for other kinds of adverbials. Therefore, in the structure of $N_o + \text{NCP} + V$, the NCP could be considered an adverbial.

Thus, we can conclude that due to two factors from both the internal system of the Zhōutún dialect (i.e. avoiding the post-attribute) and the language universal (i.e. the adverbials are preverbal in a SOV language), the NCP in $N_o + \text{NCP} + V$ is close to V syntactically.

Another issue can be explained through language universals. As discussed in § 4.1.2, the position of VCP changes faster than that of NCP. There is a simple explanation for this: this situation accords with the prediction of language universals in that, on the one hand, the Universal 7 in (44) urges that the VCP, as an adverbial, move to the front of the V when the basic word order of the Zhōutún

dialect varied from SVO to SOV; on the other hand, as Dryer (1992: 118) claimed, “the two orders of numeral and noun (i.e. NumN and NNum in Dryer’s terminology) are equally common among OV languages”. That is, there is no impetus for the NCP in the Zhōutún dialect to move to follow the N. Hence, it is not difficult to understand why the VCP changed faster than the NCP did.

5. Conclusion

As a conclusion, the possibilities for the structure of Num+CL in the Zhōutún dialect are presented in Table 2.

Table 2. Num+CL in the Zhōutún dialect

Type	VCP		NCP	
Structure	VCP+V	NCP+N	N _s +NCP	N _o +NCP
Syntactic property	Adverbial	Attribute	Attribute	Adverbial

The behavior of the Num+CL in the Zhōutún dialect reflects the influence of AT. In the Zhōutún dialect, several grammatical structures are borrowed from AT, but the basic vocabulary and material resources of grammar come from Chinese. Considering the basic vocabulary as the most reliable indicator of genetic affiliation (see Janhunen 2007), we regard the Zhōutún dialect as a descendant of Chinese, with heavy structural borrowing from AT during long-term contact in a bilingual environment.

In recent decades, with the development of the economy and the educational system, the influence of MSM has gradually deepened. Thus, although the tendency to move NCP afterward in the Zhōutún dialect will generate the consistent N+NCP form (like the Wūtún dialect, whose NCP nearly always follows N, see Sandman 2016), whether this movement would continue under the influence of MSM requires further research.

In northwest China, particularly in west Gānsù, east Qinghai and the border between the two areas, Tibetan, Altaic, and Chinese languages coexist, forming the Gansu-Qinghai linguistic area.²⁴ AT and Altaic languages are typologically similar, i.e. they are SOV languages with case markers and postpositions. Therefore, distinguishing whether a particular structure in the Chinese dialects in this area originates from AT or Altaic languages is sometimes difficult. In the case of

24. Or “Qinghai-Gansu sprachbund” (Slater 2003); “Gansu-Qinghai Sprachbund” (Xu 2015b); “Amdo Sprachbund” (Sandman 2016).

the NCP in the Zhōutún dialect, the source language is clearly AT because the NCP in most Altaic languages precedes the N that it modifies. Do any other structures have a clear origin (i.e. AT or Altaic languages)? This question is important, as researching it would provide a comprehensive understanding of the language contact scenario in the Gansu-Qinghai linguistic area.

Acknowledgements

This research is supported by the key project of Chinese National Social Science Foundation “Corpus of grammatical features of Chinese Dialects” (19AYY004). The author would like to thank Prof. Danqing Liu for his helpful suggestions. This paper has also benefited from the valuable comments given by the anonymous reviewers. Any remaining errors are the author’s.

Abbreviations

1	first-person pronoun	EXP	experiential marker
2	second-person pronoun	MSM	modern standard Mandarin
3	third-person pronoun	NCP	noun classifier phrase
ACC	accusative marker	NEG	negative
AM	attributive marker	PART	particle
AT	Amdo Tibetan	PFV	perfective
COMP	complement verb	PN	proper noun
CL	classifier	PROG	progressive
DAT	dative marker	REL	relativizer
DM	discourse marker	TOP	topic marker
DOM	differential object marking	VCP	verbal classifier phrase

References

- Acuo, Yixiweisa & Xiang, Xun. 2015. Wutunhua de shengdiao [The tones of Wutun]. *Zhongguo Yuwen* [Studies of the Chinese Language] 2015(6). 483–497.
- Chen, Xinyi. 2015. *Zhongguo beifang Aertai yuyan yuxu leixing yanjiu* [On the word order of Altaic languages in North China]. Beijing: China Social Sciences Publishing House.
- Dede, Keith. 2007. The origin of the anti-ergative [xa] in Huangshui Chinese. *Language and Linguistics* 8(4). 863–881.
- Dwyer, Arienne M. 1995. From the northwest China Sprachbund: Xúnhuà Chinese dialect data. *Yuen Ren Society Treasury of Chinese Dialect Data* 1. 143–182.
- Dryer, Matthew S. 1992. The Greenbergian word order correlations. *Language* 68(1). 81–138. <https://doi.org/10.1353/lan.1992.0028>

- Greenberg, Joseph Harold. 1963. Some universals of grammar with particular reference to the order of meaningful elements. In Greenberg, Joseph Harold (ed.), *Universals of language: Report of a conference held at Dobbs Ferry, New York, April 13–15, 1961*, 73–113. Cambridge: The MIT Press.
- Haiman, John (ed.). 1985. *Iconicity in syntax: Proceedings of a Symposium on Iconicity in Syntax, Stanford, June 24–6, 1983* (Typological Studies in Language 6). Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.6>
- Huang, C.-T. James. 2008. Cong “ta de laoshi dang de hao” tanqi [On *Ta de laoshi dang-de hao* and related problems]. *Yuyan Kexue* [Linguistic Sciences] 7(3). 225–241.
- Janhunen, Juha. 2007. Typological interaction in the Qinghai linguistic complex. *Studia Orientalia* 101. 85–102.
- Janhunen, Juha & Peltomaa, Marja & Sandman, Erika & Dongzhou, Xiawu. 2008. *Wutun*. Munich: Lincom Europa.
- Li, Charles N. 1983. Languages in contact in western China. *Papers in East Asian Languages* 1. 31–51.
- Li, Yunbing. 2008. *Zhongguo nanfang minzu yuyan yuxu leixing yanjiu* [A cross-linguistic typology on word orders of minority languages in southern China]. Beijing: Peking University Press.
- Liu, Danqing. 2004. Identical topics: A more characteristic property of topic prominent languages. *Journal of Chinese Linguistics* 32(1). 20–64.
- Liu, Danqing. 2008a. Hanyu mingcixing duanyu de jufa leixing tezheng [Typological features of nominal phrases in Chinese]. *Zhongguo Yuwen* [Studies of the Chinese Language] 2008(1). 3–20.
- Liu, Danqing (ed.). 2008b. *Yufa diaocha yanjiu shouce* [A handbook for grammatical investigation and research]. Shanghai: Shanghai Education Press.
- Ma, Xueliang (ed.). 2003. *Hanzangyu gailun* [An introduction to Sino-Tibetan languages]. Beijing: The Ethnic Publishing House.
- Næss, Åshild. 2008. Varieties of dative. In Malchukov, Andrej & Spencer, Andrew (eds.), *The Oxford handbook of case*, 572–580. Oxford: Oxford University Press.
- Ren, Bisheng. 2004. Xining fangyan de qianzhi binyuju [Prepositional objective sentences of Xining dialect, Qinghai province]. *Fangyan* [Dialect] 2004(4). 338–346.
- Sandman, Erika. 2016. *A grammar of Wutun*. Helsinki: The University of Helsinki. (Doctoral dissertation.)
- Sandman, Erika & Simon, Camille. 2016. Tibetan as a “model language” in the Amdo Sprachbund: Evidence from Salar and Wutun. *Journal of South Asian Languages and Linguistics* 3(1). 85–122. <https://doi.org/10.1515/jsall-2016-0003>
- Slater, Keith W. 2003. *A grammar of Mangghuer: A Mongolic language of China's Qinghai-Gansu Sprachbund*. London: RoutledgeCurzon.
- Thomason, Sarah Grey & Kaufman, Terrence. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley: University of California Press.
- Wang, Shuangcheng. 2008. *Xining fangyan zhuanji yanjiu* [The monographic study on Xining dialect]. Shanghai: Shanghai Normal University. (Master's thesis.)
- Wang, Shuangcheng & Dede, Keith. 2016. Negation in the Xining dialect. *Language and Linguistics* 17(3). 407–429. <https://doi.org/10.1177/1606822X15586686>
- Xu, Dan. 2014. *Tangwanghua yanjiu* [Studies on Tangwang]. Beijing: The Ethnic Publishing House.

- Xu, Dan. 2015a. Sinitic languages of Northwest China: where did their case marking come from? In Cao, Guangshun & Djamouri, Redouane & Peyraube, Alain (eds.), *Languages in contact in North China: Historical and synchronic studies* (Collection des Cahiers de Linguistique Asie Orientale 13), 217–244. Paris: École des hautes études en Sciences sociales, Centre de recherches linguistiques sur l'Asie orientale.
- Xu, Dan. 2015b. The role of geography in the northwest China linguistic area. In Xu, Dan & Fu, Jingqi (eds.), *Space and quantification in languages of China*, 57–73. Cham: Springer.
- Xu, Liejiong & Liu, Danqing. 2007. *Huati de jiegou yu gongneng (Zengding Ben)* [Topic: Structural and functional analysis]. Revised and enlarged edn. Shanghai: Shanghai Educational Publishing House.
- Zhe, Wankui. 2001. *Zhoutun de lishi* [The history of Zhoutun]. (Unpublished mimeographed booklet).
- Zhou, Chenlei. 2016. *Qinghai Zhoutunhua cankao yufa* [The reference grammar of Zhoutun in Qinghai Province]. Tianjin: Nankai University. (Doctoral dissertation.)
- Zhou, Chenlei. 2017. On the word order of ditransitive constructions in Northwestern Chinese. *Journal of China Studies* 20(3). 29–45. <https://doi.org/10.20288/JCS.2017.20.3.3>
- Zhou, Chenlei. 2019a. A special case marking system in the Sinitic languages of Northwest China. *Journal of Chinese Linguistics* 47(2). 425–452. <https://doi.org/10.1353/jcl.2019.0018>
- Zhou, Chenlei. 2019b. Ganqing fangyan gebiaoji “ha” de lai yuan [The origin of the dative-accusative marker *xa* in Gan-Qing dialects]. *Language and Linguistics* 20(3). 494–514.
- Zhou, Maocao. 2003. *Maqu Zangyu yanjiu* [Studies on Machu Tibetan]. Beijing: The Ethnic Publishing House.

Author's address

Chenlei Zhou
 Chinese Academy of Social Sciences
 Institute of Linguistics
 5 Jianguomen Nei Street
 Beijing 100732
 China
 zhouchenlei@126.com

Publication history

Date received: 9 June 2016
 Date accepted: 8 April 2018