

The Syntactic Typology of The Ningbo Dialect

Hanbo Yang^{1*}

¹ Ningbo Foreign Language School, Ningbo, Zhejiang, 315000, China

*Corresponding author. Email: dennis02_yang@163.com

ABSTRACT

The study investigates into the syntactic properties of the Ningbo dialect. The paper gives an overview of the typical word orders of the Ningbo dialect including categories like basic word order in the clause, word order in a nominal domain, and positions of an adposition and the nominal phrase. The study discovers that the basic word order in the Ningbo dialect shows contradictions to the long-standing Greenberg’s language universals, and the paper gives possible explanations to these discrepancies in terms of verb type deciding post/prepositions and head directionality.

Keywords: Ningbo dialect, syntax, typology, word order, Greenberg’s Universals, dialect preservation

1. BACKGROUND

The Ningbo dialect is a Han Chinese dialect used in Ningbo in People’s Republic of China. It belongs to the Wu language family and is categorized as a Sino-Tibetan language. By approximation, there are 5-6 million native speakers [1].



Figure 1 <http://www.mandarinrocks.com/Wu-dialects-in-China.asp>.

The data in the paper is collected from a native speaker who is a resident of Ningbo and has been speaking the dialect on an at least weekly basis for over 40 years.

The purpose of the paper is to try to preserve the dialect by noting down some basic syntactic properties as well as inspiring further research which is necessary to keep this language relevant in the linguistic literature.

2. SYNTACTIC PROPERTIES

This section shows the neutral word order in a clause and in a noun phrase.

2.1. Basic Word Order in the clause

In the following sections, I am going to introduce the basic word order in the main clause and in the embedded clause with the purpose of establishing the word order (WO) typology of the Ningbo dialect.

2.1.1. Word Order in the main clause

(1-3) show the sentence with a subject, verb and an object. The same examples show that the verb must precede the object, and the subject must be sentence initial.

- (1) Xiaoqiang² z i-gou hosang
 Xiaoqiang is one-CLF student
 'Xiaoqiang is a student.'
- (2) Xiaoqiang laige quo uhn
 Xiaoqiang is catch fish
 'Xiaoqiang is catching fish.'
- (3) Xiaoqiang quolo i-gua uhn
 Xiaoqiang catch one-CLF fish
 'Xiaoqiang caught a fish.'

The order in the clause shows that Ningbonese is an SVO language. Next, I will show the order in the embedded clause, and see whether the same order shows up in this environment as well.

2.1.2. Word Order in the embedded clause

We know from a syntactic literature on Germanic 'verb second phenomenon' that embedded clauses are syntactically 'smaller' than the main clauses. Thus, they are more telling with respect to the available neutral orders [2]. (4) shows that in the embedded clause, the subject *Xiaoqiang* precedes the verb, and the object *uhn* 'fish' follows it.

This shows the order is, again, SVO.

- (4) Oh cen Xiaoqiang quolo uhn
 I think Xiaoqiang catch fish
 'I think Xiaoqiang caught the fish.'

(5) shows that Ningbonese also allows the object initial order in the embedded clause. However, this order correlates with a passive construction, and thus it is not typologically telling regarding the (prosodically and syntactically) neutral clausal order.

- (5) Oh cen uhn z Xiaoqiang quolo-geou
 I think fish is Xiaoqiang catch-particle
 'I think fish is caught by Xiaoqiang.'

Based on the examples in sections 2.1.1&2.1.2, we see that the Ningbo dialect shows SVO in the basic syntactic structure and is, therefore, a head initial language. Next, I show the neutral order in a noun phrase.

2.2. Word order in a nominal domain

In this section, I focus on the order within the noun phrase. I will present data about the word order in the noun phrase when such a phrase contains adjectives, classifiers, numerals, a demonstrative and quantifiers.

2.2.1. The order in a nominal domain which includes adjective, classifier, and noun

In this section, I show possible orders in the noun phrase which contains adjectives and classifiers.

CLF-A-N

Example (6) shows the classifier-adjective order. As we see, the classifier *i-duo* precedes the descriptive adjective. The noun must be the rightmost element in a phrase.

- (6) Oh kejia **i-duo** hong huo
 I see one-CLF red flower
 'I see a red flower.'

A-CLF-N

Example (7) shows that when we switch the order of the adjective and the classifier, the sentence becomes ungrammatical in Ningbonese.

- (7) Oh* kejia **hong** **i-duo** huo
 I see red one-CLF flower
 'I see a red flower.'

CLF-A(modified)-N/A(modified)-CLF-N

When the adjective is modified, it can occur either following the classifier as shown in the example (8) or it can precede the classifier as shown in (9).

- (8) Oh kejia **i-duo** **jogui-hong-ou** huo
 I see one-CLF very-red-particle flower
 'I see a very red flower.'
- (9) Oh kejia **jogui-hong-ou** **i-duo** huo
 I see very-red-particle one-CLF flower
 'I see a very red flower.'

CLF-N-A

Example (10) supports my earlier observation which is that the noun must be the rightmost element in the noun phrase. There is, however, one exception to this generalization given in (11). (11) shows that the adjective can be the rightmost element in a phrase but in this case, it must be modified.

- (10) Oh* kejia **i-duo** huo **hong**
 I see one-CLF flower red
 'I see a red flower.'
- (11) Oh kejia **i-duo** huo **jogui-hong**
 I see one-CLF flower very-red
 'I see a very red flower.'

In this section I showed the basic word order in a nominal domain in Ningbonese. Based on the orders so far, I conclude that Ningbonese shows a head final typology in a nominal domain.

So far, I have established that the clausal order is VO; and the nominal order is X-N (where X stands for any element that precedes the noun (A or CLF) (unless A is modified)). I summarize this in Table 1.

Table 1. The WO in a clausal and a nominal domain

	WO typology
Order in a clause	Head initial
Order in a noun phrase	Head final (unless the adjective is modified)

Next, I show where other elements that co-occur with a noun are positioned. These elements include demonstratives, numeral classifiers, and quantifiers.

2.2.2. The order in a nominal domain which includes adjective, numeral(classifier), and noun

In 2.2.2, I will discuss sentences with adjectives and numeral classifiers in different orders.

(12) shows an example with an adjective, a numeral classifier (higher than 1) and a noun. We see that the numeral classifier precedes the adjective.

- (12) Oh keja **se-ze** **hong** bingo
 I see three-CLF red apple
 'I see three red apples.'

(13-14) show a position of a numeral classifier with respect to the modified adjective. We see that the numeral classifier cannot precede the adjective as shown in (13) unless it is modified as shown in (14).

- (13) *Oh keja **hong** **se-ze** bingo
 I see red three-CLF apple
 'I see three red apples.'

- (14) Oh keja **jogui-hong** **se-ze** bingo
 I see very-red three-CLF apple
 'I see three very red apples.'

Next, I will move on to the orders with a demonstrative. Demonstratives in Ningbonese are prefix-like elements that attach to a numeral classifier and form a "cluster" with it.

2.2.3. The order in a nominal domain which includes demonstrative, numeral, adjective, and noun

(15) shows that when we add the demonstrative, the demonstrative must precede every other element in a noun phrase discussed so far.

- (15) Oh keja **ge-lia-tao** **hoki-ou** yizon
 I see this-two-CLF beautiful-particle clothes
 'I see these two beautiful clothes.'

Observation in (15) is supported by (16) which shows the adjective cannot precede the demonstrative-numeral classifier cluster.

- (16) *Oh keja **hoki-ou** **ge-lia-tao** yizon
 I see beautiful-particle this-two-CLF clothes
 'I see these two beautiful clothes.'

(17) shows that when the adjective is modified, the demonstrative must also precede every element in a noun phrase.

- (17) Oh keja **ge-lia-tao** **jogui-hoki-ou** yizon
 I see this-two-CLF very-beautiful-particle clothes
 'I see these two very beautiful clothes.'

Observation in (17) is supported by (18) which shows the modified adjective also cannot precede the demonstrative-numeral classifier cluster.

- (18) *Oh keja **jogui-hoki-ou** **ge-lia-tao** yizon
 I see very-beautiful-particle this-two-CLF clothes
 'I see these two very beautiful clothes.'

Next, I will discuss situations where there are quantifiers in the noun phrase.

2.2.4. The order in a nominal domain which includes quantifier, demonstrative, adjective, and noun

Example (19) shows that adding the quantifier *many* in the order **many-Dem-A-N** is grammatical in the Ningbo dialect with quantifier preceding the demonstrative classifier. (20) shows when the quantifier *many* is in the order **Dem-many-A-N**, the sentence is ungrammatical with quantifier following the demonstrative classifier. Examples (19-20) show the quantifier *many* must be the leftmost element in a noun phrase.

- (19) Oh keja **keido** ge-zong hong bingo
 I see many this-type red apple
 'I see many this type of red apples.'

- (20) Oh* keja ge-zong **keido** hong bingo
 I see this-type many red apple
 'I see many this type of red apples.'

Examples (21-22) show that when we add the universal quantifier *all*, the quantifier must also be the leftmost element in the phrase.

- (21) Oh keja **jubu** ge-zong hong bingo
 I see all this-type red apple
 'I see all this type of red apples.'

- (22) Oh* keja ge-zong **jubu** hong bingo
 I see this-type all red apple
 'I see all this type of red apples.'

Based on the data in 2.2.2, 2.2.3, and 2.2.4, the Ningbo dialect has demonstrative and numeral always before the noun, but for adjectives, they don't show a clear pattern whether they precede or follow the noun.

Next two sections investigate the order of the adposition with respect to the nominal phrase (section 3), and question formation (section 4). These phenomena are

relevant for establishing the head directionality in Ningbonese.

3. ADPOSITION AND THE NOMINAL PHRASE

(23) and (24) show that the language has postpositions. In both examples, the adpositions follow the NP they are associated with.

(23) Xiaoqiang z Ningbo laio
 Xiaoqiang is Ningbo from
 ‘Xiaoqiang is from Ningbo.’

(24) yi-duo huo laile zoden den
 one-CLF flower is table on
 ‘A flower is on the table.’

The language, however, also has prepositions, as shown in (25) and (26). For example, *qi* ‘to’ precedes the NP it is associated with.

(25) Xiaoqiang qin gongjiocuo qi hoyo
 Xiaoqiang take bus to school
 ‘Xiaoqiang takes bus to school.’

(26) Xiaoqiang de Oh sidei qin gongjiaocuo qi hoyo
 Xiaoqiang with me together take bus to school
 ‘Xiaoqiang takes bus to school together with me.’

Next section shows how questions are formed in Ningbonese.

4. QUESTION FORMATION

Examples (27-29) show the Ningbo dialect has its interrogative words directly replacing the subject or object that is been asked.

The declarative example is given in (27)

(27) Xiaoqiang laige de gongjin
 Xiaoqiang is play piano
 ‘Xiaoqiang is playing the piano.’

A Question about the subject is given in (28)

(28) Sonin laige de gongjin
 Who is play piano
 ‘Who is playing the piano?’

A Question about the object is given in (29)

(29) Xiaoqiang laige de soxi
 Xiaoqiang is play what
 ‘What is Xiaoqiang playing?’

To summarize, I have established that Ningbonese shows the following properties with respect to a head directionality in a clause, noun phrase and an adpositional phrase:

Table 2. head directionality in Ningbo

	Head initial	Head final
clause	yes	
NP		yes
PP	yes	yes

Based on Table 2, we see that the Ningbo dialect exhibits mixed properties regarding the head directionality. The first question is how we explain this, and the second question is how this observation fits when we look at languages more broadly (i.e. with respect to what we find across languages more universally). I will address the second question first by evaluating some facts in Ningbonese against some of the Greenberg’s Universals.

5. GREENBERG’S UNIVERSALS

Joseph Greenberg was an American linguist focusing on African language classifications. In 1966, Greenberg published a number of generalizations on word order and other language properties that he came up with through investigations of a large sample of languages [3]. Greenberg’s classification is centered around three properties [4]:

1. Whether a language has prepositions or postpositions
2. The order of S, V and O
3. The order of a noun and its modifiers

Greenberg further noted that some generalizations (i.e. universals) relate one property to another that can be formed as a conditional statement: if p then q (typology reader) (so called, *implicational* universals). In what follows, I look at some of the implicational universals and evaluate the empirical generalizations from the Ningbo dialect.

I will start with a Universal #17, which concerns the order in a clause and the order in a noun phrase:

“With overwhelmingly more than chance frequency languages with dominant order VSO have the adjective after the noun.”

This universal is an implicational universal which can be interpreted as a conditional statement as follows: if a language is head initial in a clause, then it follows that it is head initial in a noun phrase. However, as seen in section 2.1.1&2.1.2, the Ningbo dialect shows a head initial order in a clause but a (predominately) head final order in a noun phrase.

Another relevant implicational universal is Universal #3:

“Languages with dominant VO order are always prepositional.”

This universal states that head initial languages in a clause are also head initial in an adpositional phrase. However, in the Ningbo dialect, a VO language, there are both postpositions “laio” and “den” and preposition “qi”.

Given the current data elicitation, ‘to’ is the only type of adposition that occurs as a preposition. Whether other ‘directional’ adpositions behave the same is a matter of future research. (towards, out of).

Another relevant implicational universal is Universal #12:

“If a language has dominant order VO in declarative sentences, it always puts interrogative words or phrases first in interrogative word questions.”

This universal links head initial typology in the clause to the movement of a question word to the beginning of a sentence. However, examples (27-29) show Universal 12 does not hold. In the Ningbo dialect, the question words directly replace the position of the subjects or objects that are asked, namely it stays in situ.

To summarize, when we look at some of the implicational universals in Greenberg’s typology, we see that the Ningbo dialect does not comply with it. The question is whether the Ningbo dialect is an unusual language that challenges the long-standing Greenberg’s typology or whether there must be a different explanation to why the Ningbo dialect apparently doesn’t conform to Greenberg’s typology. In the following section, I offer my thoughts and speculations on possible explanations.

6. DISCUSSION

The Ningbo dialect shows ‘mixed’ properties, such that in some cases it is consistent with a head final typology and in other cases it is consistent with the head initial typology.

For example, the implication is if the language is head final in a clause, we could expect the language has postpositions, wh-in situ, and we could also expect for it to be head final in a noun phrase. What we observe in Ningbonese is that the language has both wh-in situ, head final noun phrase and postpositions (with some exceptions), but it has a clear head initial order in a clause.

The question is why Ningbonese shows a mixed head initial/head final typology.

The possible explanation for these facts could be as follow: for instance, Universal 3 is not that easy to interpret in Ningbonese. The reason is that whether Ningbonese shows postpositions or prepositions depends on the verb type.

If the verb has lexical content, then the adpositional argument is a prepositional phrase. If the verb, on the other hand, is ‘be’, then the adpositional argument is a postpositional phrase. Therefore, to properly evaluate

Universal 3, we should think about what type of verb is used. Given this reasoning, it is not necessarily the case that Universal 3 is ruled out for Ningbonese.

For the other two universals, it is not exactly clear how to explain why Ningbonese, although head initial (in a clause), shows typically OV properties. A similar fact has been noted in other Chinese languages, such as Mandarin. Mandarin, like Ningbonese, shows VO order in a clause, but also has wh-in situ. I will leave the explanation of these facts for future research.

7. LIMITATIONS

The data are collected from a single dialect speaker. In my future work on the Ningbo dialect, what needs to be done is to extend the data collection to more structures and with more speakers.

8. CONCLUSION

This paper is done for the sake of preserving the endangered and somehow neglected Ningbo dialect in the Ningbo speaking area. The paper shows the data on some basic syntactic properties of the dialect which have been elicited from a single native speaker. The data have then been evaluated from the perspective of Greenberg’s Universals. The results show that Ningbonese, interestingly, does not clearly fit with either head initial or head final typology. Possible interpretations of this inconsistency are left for future research. Finally, the paper wishes to make Ningbonese present in the syntactic and the typological literature, and it hopes to promote Ningbonese as a dialect that needs to be studied more from a formal linguistic perspective.

REFERENCES

- [1] Dryer, Matthew, S. & Haspelmath, Martin. (2013). *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. URL: [http:// www.wals.info](http://www.wals.info).
- [2] Holmberg, A. (2015). Verb second. *An international handbook of contemporary syntactic research*. DeGruyter Mouton, 342-383.
- [3] Greenberg, J. H. (1966). Some universals of grammar with particular reference to the order of meaningful elements. *Universals of language*. MIT-Press, Cambridge, MA.
- [4] Keenan, E., Torrence, H., Mahajan, A., Stowell, T. & Walkow, M. (2014). Introduction to Syntactic Typology Course Reader. The University of California Los Angeles (UCLA), 11-314.