

# An OT Approach on the Word Order of Hakka Focus and Topic Constructions

Yu-Ching Tseng

Dept. of English, Tamkang University

FL207, 151 Ying-Chuan Road, Tamsui, New Taipei City 25137, Taiwan

Tel: 886-226-215-656-3220 E-mail: [ychtseng@mail.tku.edu.tw](mailto:ychtseng@mail.tku.edu.tw)

Received: October 28, 2012 Accepted: December 3, 2012 Published: December 31, 2012

doi:10.5296/ijl.v4i4.2586

URL: <http://dx.doi.org/10.5296/ijl.v4i4.2586>

## Abstract

This paper adopts an Optimality Theoretic approach to analyze the basic word orders of Hakka involving the subject, verb, object, and additional PPs. As argued in this paper, in Hakka the sentence-initial constituent should be identified as the topic, and the second preverbal position is associated with the focus position. Here a set of constraint ranking consisting of three generalized alignment constraints is proposed, which successfully accounts for the association of the word order variants with their pragmatic functions. This paper also discusses VP constructions that involve a complement or an adjunctive PP. While the positioning of adjunct PPs follows the general word order predictions; contrastively, it is specifically argued that a complement PP is incompatible with extraposition; in other words, a complement PP is never topicalized or focalized in sentences. With a separate OT analysis being applied on the pragmatic level, this paper uses a syntactic restriction against preverbal complement PPs to explain this phenomenon in Hakka.

**Keywords:** Word order, Topic, Focus, Hakka, Optimality theory

## 1. Introduction

It is a commonly observable phenomenon for languages to use word order variations as a strategy to mark one constituent in the sentence as more prominent than other constituents. Particularly in those languages that claim to have rigid word order, if a certain constituent is scrambling out of its canonical position; that is, the surface word order exhibits variation from the basic ordering pattern, we would assume there may well exist a motive triggering this non-canonical marked syntactic permutation. As noted here, the two pragmatic functions, namely ‘focus’ and ‘topic’, are often identified as the forces that motivate the derivation of marked word orders.

The basic word order of Hakka accords with other Chinese languages on taking SVO as the unmarked configuration; namely, the subject precedes the verb, and the object follows the verb. If the object scrambles preverbally out of its original postverbal position, the two possible preverbal object permutations, SOV and OSV, are claimed to be relevant to the marked topic and focus constructions. This paper adopts an Optimality Theoretic approach to explore how the relative position between subjects, objects and verbs functions to indicate a particular piece of information as the topic or focus in a given context. In other words, the word order variations help formulate the marked syntactic processes, topicalization and focalization, by permitting the placement of a preverbal object as opposed to the canonical SVO order.

The content of this paper is organized as follows. In section 2, I will provide a brief literature review on a number of important researches that examine the structure of these two marked ordering patterns SOV and OSV in its sister language: Mandarin Chinese. In section 3, I will focus on the parallel structures in Hakka. Some grammatical tests will be provided in this section to associate each preverbal argument with an appropriate pragmatic function. What follows is a syntactic analysis framed in the Optimality Theory, which will be proposed in section 4. The analysis will begin with the basic pattern involving simply the subject NP and the object NP; thereafter, I will further extend the analysis with an attempt to include cases when the constituent that receives the topicalized or focalized prominence is no longer the subjective or the objective NP; rather, the PPs may possibly undertake the pragmatic role of topic and focus. Our analysis will successfully account for these varieties of word order. However, also in this section I will show the analysis fails to generate the ordering pattern if one argues that the complement PP of a verb is selected as the sentential topic or focus. A solution to this problem, as suggested in this paper, is that a functional projection serving as a verbal complement may never be assigned the topic or focus function in sentences. Further evidence will be provided concerning the argument just been made. Finally, section 5 concludes this paper.

## 2. Topic and Focus in Chinese

Linguists often use the criterion of whether a given piece of information is “old” or “new” to distinguish between two different pragmatic functions. “Focus” refers to the essential piece of new information that is carried by a sentence (Comrie 1981); while “topic” refers to the core information that is currently under discussion and which is considered old or known to the

hearer as it has been previously mentioned or assumed (Bresnan and Mchombo 1987).

As mentioned in the previous section, generally across Chinese languages, the placement of an objective NP in the preverbal position points to a marked interpretation in which the information carried out by the preverbal object is pragmatically highlighted as being more prominent; i.e. significant, than other constituents in the same sentence. The resulted two word orders SOV and OSV are often claimed to be related to the constructions of topic and focus; therefore, we could say that in Chinese languages the pragmatic functions of “topic” and “focus” are indicated by word order-- the object preverbal permutations which diverge from the basic SVO order. Many Chinese linguists study these two marked SOV and OSV orders and propose different arguments in analyzing the correspondence of the two ordering patters with their pragmatic functions. A few important studies will be discussed in the following.

A pretty common analysis which distinguishes between the syntactic structures of these two orders is through the double process of adjunction. First, the object adjoins to IP, resulting in the OSV order; what's next, the subject then subsequently adjoins to CP, giving the word order SOV (Tang 1990, Lin 1992). Other linguists such as Tsai (1994), and Ernst & Wang (1995) argue that it is unnecessary to suggest a “double topicalization” to account for the distinction of the two orders; instead, the different word orders can be explained by proposing an IP-adjunction of the objective NP for the OSV order and a VP-adjunction for the SOV order. Besides, they argue that the two kinds of orders are associated with different pragmatic functions: the SOV order marks a contrastive meaning on the preverbal object, while the OSV order does not, which sets the difference between contrastive and discourse topic. The object in the SOV sentence must contain some sort of contrastive reading, while which in the OSV sentence may be contrastive or simply emphatically prominent in the discourse.

Shyu (1995, 2001) further emphasizes the contrastive meaning of the preverbal object in the SOV pattern by relating the Mandarin SOV order to the focus construction. In her analysis, the focused NP undergoes the focalization movement, and the movement is triggered by a covert [+Focus] feature. The object NP moves up to the Spec position of the functional projection FP which dominates VP. The preverbal object NP still follows the subject NP in sequence because the subject NP occupies the [Spec IP], and the IP dominates both FP and VP. In Shyu's analysis, she proposes a unified approach to the object movement in the SOV order and the so-called *lian*-focalization. The major difference lies in that whether the [+Focus] triggering feature is lexically overt or covert.

Even though it is common in literature to associate the preverbal object in the SOV order with the focus construction, there are linguists holding a different proposition stating that the preverbal object in the two ordering patterns OSV and SOV should be analyzed as occupying different topic positions. Liu and Xu (1998) argue that a topic occurs between the subject and the verb is the SUBTOPIC; while the sentence-initial topic is the MAIN TOPIC. A similar approach is proposed by Paul (2002), in which the pre-subject topic position, the sentence-initial topic, is analyzed as the EXTERNAL TOPIC position; while the post-subject topic position, the pre-verbal topic on the right of the subject, is analyzed as the INTERNAL

TOPIC position. Paul further argues that the two kinds of topic occupy different syntactic positions. An external topic occupies the specifier position of a topic phrase (TP) which branches underneath CP; while an internal topic occupies the [Spec TP] below the subject and above VP. Under this approach, the object NP in the OSV order should be identified as the MAIN or EXTERNAL TOPIC; on the other hand, the object NP in the SOV order is connected to the SUBTOPIC or INTERNAL TOPIC.

Linguists may not agree on the syntactic analysis which involves movement or adjunction of the objective NP that ought to be postverbal when occurring in sentences exhibiting the basic word order. Neither did they reach a consensus on the pragmatic function that a preverbal objective NP may obtain, given the possibility that the NP may appear in two different kinds of syntactic positions, pre-subjective and post-subjective. However, this section can be settled with the following important generalizations: First, taking SVO as the basic word order, Chinese languages allow the objective NP to occur in the preverbal position in non-conventional situations, which therefore derives the marked SOV and OSV orders. Second, a preverbal object receives focalized or topicalized prominence. When the preverbal object follows the subject, it is pragmatically emphasized in contrast to other constituents that might occur in the same position. The object may be known or unknown to the hearer; it is prominent because it highlights a new attention for the hearer to focus on. When the preverbal object precedes the subject, it basically tells what the sentence is about, which could be the most recurrent and continuous center information from the sense of discourse.

### 3. Topic and Focus in Hakka

Like other Chinese languages, the basic word order of Hakka is also SVO, in which the subject precedes the verb, and the object follows the verb. A few examples are given in the following (1) and (2):

1) gi    teungit    zo    dong    do    se  
she    every day    do    very    a lot    chores

‘She does many chores every day.’

2) ge    zhak    ngin    zok    den    yit    sung    vuk    hai  
that    CL    person    wear    ASP    one    pair    black    shoe

‘That person is wearing a pair of black shoes.’

While the above two sentences exhibit the basic SVO order, Hakka also allows the object to occur in the preverbal position, as shown in the following (3) and (4). By rearranging the relative position among subjects, verbs and objects, we will produce word orders different from the basic SVO to indicate specific pragmatic prominence.

3) a. ge    deu    se            gi    teungit    zo    mo    tin  
that    PL    chores    she    every day    do    NEG    stop

‘Those chores, she never stops doing every day.’

b. gi ge deu se teungit zo mo tin  
she that PL chores every day do NEG stop  
'It is those chores that she never stops doing every day.'

4) a. ge sung vuk hai gi zok den oi hi hokgau  
that pair black shoe he wear ASP will go school  
'That pair of black shoes, he is wearing it to school.'

b. gi ge sung vuk hai zok den oi hi hokgau  
he that pair black shoe wear ASP will go school  
'It is that pair of black shoes that he is wearing to school.'

Both (a) sentences in (3) and (4) show the OSV order, and the (b) sentences are arranged in the SOV order. In contrast to the previous (1) and (2), we would argue that the two ordering patterns are considered marked in relation to the basic unmarked SVO order; explicitly, when the object of the verb is preposed in the preverbal position, a marked word order is produced, and which is assigned the pragmatic function to emphatically mark the preverbal argument as the topic or focus of the sentence.

In order to identify which of the pragmatic functions; i.e. topic or focus, is associated with a particular preverbal argument, we need to create a context in which either a topic or a focus construction is properly established. By testing whether it is appropriate for the two word orders to be used in that context, we could also find the association of a particular preverbal argument occurring in a certain marked order with the pragmatic function established by the discourse context.

First, the question-and-answer context formed by the wh-word construction provides very useful tests for the topic and focus identification. Each of the examples (5) and (6) given below contains a wh-question followed by two possible answers. The wh-word assumes a piece of new information to be provided in the answer to the given content question, and the two marked orders SOV and OSV are tested to see if they are appropriate to be used in the context where a preverbal subject or a preverbal object should receive focus prominence.

5) Q: gi mai do [nai sung hai]?  
she buy RVC which pair shoes  
'Which shoes did she buy?'

**A1:** gi [vuset ge hai] mai do le, (mgo [vongset ge]  
she black MOD shoes buy RVC PART but yellow MOD  
mo mai do)

NEG buy RVC

‘That pair of black shoes was the one she bought, (but not the yellow one).’

**A2:** # [vuset ge hai] gi mai do le  
black MOD shoes she buy RVC PART

‘That pair of black shoes, she bought it.’

6) **Q:** mangin mai do ge sung hai?  
who buy RVC that pair shoes

‘Who bought that pair of shoes?’

**A1:** ge sung hai [gi] mai do le  
that pair shoes he buy RVC PART

‘That pair of shoes, he bought it.’

**A2:** # [gi] ge sung hai mai do le  
he that pair shoes buy RVC PART

‘That pair of shoes was the one he bought.’

In (5), a *wh*-construction is proposed to give focus prominence to the object, the first answer, which shows the SOV order, turns out to be appropriate in this context; while the second answer, in which the sentence pattern appears to be OSV, is relatively inappropriate. Note that the first answer in (5) assumes there are various colors of shoes the subject *he* might possibly choose to buy, and it is the black one, rather than the one in any other color, that he has actually purchased. In (6), when the focused element is the subject, OSV is the preferred order, and the SOV order causes inappropriateness. Therefore, the first important issue arises here is that the focused element typically occurs in the second position of a sentence.

The second test is proposed to identify the discourse topic. As shown in the following (7), when the question establishes a set of two possible topics, an appropriate answer would choose a specific one among the two as the marked topic.

7) **Q:** mangin hi mai lingo tung game no?  
who go buy apple and orange PART

‘Who went to buy apples and oranges?’

**A1:** [lingo], nga ze hi mai zonloi le; [game], ngai yitha  
 apple my sister go buy back PART orange I in a short while  
 oi hi mai  
 will go buy

‘Apples, my sister has bought some; Oranges, I will get some in a short while.’

**A2:** # nga ze [lingo] hi mai zonloi le; ngai [game] yitha  
 my sister apple go buy back PART I orange in a short while  
 oi hi mai  
 will go buy

‘Apples, my sister has bought some; Oranges, I will get some in a short while.’

When someone asks a question about two kinds of fruit, the two names of fruit, *apple* and *orange*, are established as the topic in its corresponding answer. As shown in the above example (7), the topic of conversation normally occurs at the beginning of a sentence; therefore, when the OSV order appears, as in A1, the initial object is appropriately to be recognized as the topic of sentence, which repeats the information that has been given in the previous context, which is also the piece of information that recurs to bring in the central idea of a conversation. The second answer in (7) is inappropriate because this sentence shows the SOV order. Theoretically with this pattern the sentence-initial subject should be identified as the pragmatic topic; however, in this sentence what means to be the topic is the object, which surfaces in the focused position instead.

Comparing with the following example (8), when it is the subject of sentences that should be identified as the topic, both the SVO and SOV orders are allowed, but the OSV order is unacceptable in this context.

8) **Q:** ngia me tung ngia ba hi mai magari  
 your mother and your father go buy what

‘What did your mother and your father go to buy?’

**A1:** [nga me] hi mai game; [ng ba] hi mai linggo le  
 my mother go buy orange my father go buy apple PART

‘My mother went to buy oranges while my father went to buy apples.’



**A2:** [nga me] game hi mai zonloi le; [nga ba] linggo  
 my mother orange go buy back PART my father apple  
 zang oi hi mai  
 right now will go buy

‘My mother has get some oranges; my father will go get some apples’

**A3:** # game [nga me] hi mai zonloi le; linggo [nga ba]  
 orange my mother go buy back PART apple my father  
 zang oi hi mai  
 right now will go buy

‘Oranges, my mother has get some; apples, my father will go get some.’

The three answers in (8) are all syntactically correct; nevertheless, in the context where the proposed question establishes topic selection in the subject position, the corresponding answer is appropriate when the sentence pattern shows the subject-initial order, as in A1 and A2. If the object turns out to overhaul the subject appearing in the initial position, as in A3, the answer is considered inappropriate.

From the above discussion we can conclude that the topicalized argument commonly occurs sentence-initially in Hakka. To summarize this section, the following table 1 generalizes the correspondence between the arguments involved in different word orders and their related pragmatic functions:

Table 1. The association of word order and pragmatic function

<b>Word order</b>	SVO	SOV	OSV
<b>Pragmatic functions</b>	Subject=Topic	Subject=Topic Object=Focus	Object=Topic Subject=Focus

As shown above, when the sentence shows the basic SVO pattern, the initial subject is the default topic. On the other hand, if the object is preposed in the position preceding the verb, it may receive pragmatic prominence as either the topic or the focus of sentences. It is interpreted as the sentential topic when occurring at the beginning of a sentence; while the succeeding subject should be interpreted as the focused information, and the resulted word order is OSV. In sentences that exhibit the SOV pattern, the preverbal object receives the focused interpretation, and the initial subject gets the topic prominence.

#### 4. Optimality Theoretic Approach

This section provides an analysis based on the Optimality Theoretic approach (Prince and



Smolensky 1993) to account for Hakka topic and focus constructions. The analysis will be divided into two parts. The first part of analysis deals with the word order variations discussed in the previous section 3, which involves the relative position among the verb and its primary arguments. In addition to the grammatical subject and object, subsequently, the sentence construction under our discussion will grow more complex involving additional prepositional phrases, which may function as either complement or adjunct of the verb. The OT approach developed in the second part of analysis will be applicable for those syntactic constructions.

#### *4.1 Basic Sentence Patterns*

As stated in the previous section 3, the relative order between the verb and its primary arguments; namely, the subject and the object, allows at least three variations, and the subject NP as well as the object NP bear specific pragmatic functions in each of the ordering variations. In the most basic SVO order, the subject is the default topic. In the SOV order, the subject is bound with the pragmatic function of topic, and the object with the function of focus. In the OSV order, the initial object bears a pragmatic topic function, preceding the subject that bears a focus function. We can therefore make the following generalizations. First, all the preverbal arguments bear a certain pragmatic function, either topic or focus. Second, the argument standing at the beginning of a sentence is the pragmatic topic. Third, the preverbal argument following the sentence-initial topic is the pragmatic focus.

Here I propose that an analysis based on the interaction of three Generalized Alignment Constraints (GA constraints) (McCarthy and Prince 1993a, b) can handle the word order variations discussed to this point. The constraints are formalized below in (9):

9) **ALIGN-L (Verb, S)**: align the verb to the left edge of a sentence

**ALIGN-L (Topic, S)**: align the topic to the left edge of a sentence

**ALIGN-L (Focus, S)**: align the focus to the left edge of a sentence

The three GA constraints compete with each other to determine which element should appear at the sentence-initial position. The ranking **ALIGN-L (Topic, S) >> ALIGN-L (Verb, S)** grants the basic word order SVO, in which the subject, as a default sentence topic, precedes the verb, and the verb precedes the object. Then, we will establish another ranking **ALIGN-L (Focus, S) >> ALIGN-L (Verb, S)**. The two sets of constraint ranking jointly expresses that an NP must be preverbal if it bears the pragmatic function of either topic or focus. Finally, by proposing the dominance of **ALIGN-L (Topic, S)** over **ALIGN-L (Focus, S)**, the topicalized NP is enforced to precede the focalized NP if they co-occur.

Summing up the result of our discussion so far, we arrive at the preliminary constraint ranking in (10):

10) **ALIGN-L (Topic, S) >> ALIGN-L (Focus, S) >> ALIGN-L (Verb, S)**

Now we should turn to tableau analysis. The following three tableaux prove that with the ranking proposed in (10), the word order variations in Hakka are predictable in different

situations. In the tableau presented in (11), we are examining the most unmarked case where the subject is the sentential topic, and the object does not receive any kind of special pragmatic prominence.

11)

Subject=Topic Verb Object	ALIGN-L (Topic, S)	ALIGN-L (Focus, S)	ALIGN-L (Verb, S)
☞ SVO			*
SOV			**!
VSO	*!		
VOS	*!*		
OSV	*!		**
OVS	*!*		*

All the verb-initial and object-initial candidates are not optimal as they do not place the subject in the first position. The two subject-initial candidates now compete with each other. The SOV candidate loses the competition because it violates **ALIGN-L (Verb, S)** more seriously, as the verb stands sentence finally, incurring double violations on the constraint. The winning candidate SVO collects only single violation on the same constraint, due to the precedence of the verb over the object.

It should be noted that in this paper, the evaluation of GA constraints takes into account degree of violation. Taken in this sense, violations of all the alignment constraints proposed in (9) and later should be calculated cumulatively, as the constraints are designed to measure the distance between the two designated edges for the referring categories.

In the following tableau (12), we are examining the case when the object of verbs receives focalization, and the subject remains the discourse topic.

12)

Subject=Topic Verb Object=Focus	ALIGN-L (Topic, S)	ALIGN-L (Focus, S)	ALIGN-L (Verb, S)
SVO		**!	*
☞SOV		*	**
VSO	*!		
VOS	*!*		
OSV	*!		**
OVS	*!*		*

As can be seen in the above tableau, when the object NP is marked as the focused element, the constraint **ALIGN-L (Focus, S)**, if ranked above **ALIGN-L (Verb, S)**, will correctly select SOV over SVO, rearranging a canonically postverbal object to the preverbal position.

Now let's turn to the tableau in (13). Given the situation that the object replaces the subject to be the topic of sentences, and the subject obtains the status as the focused argument, the correct word order is predicted as shown below.

13)

Subject=Focus Verb Object=Topic	ALIGN-L (Topic, S)	ALIGN-L (Focus, S)	ALIGN-L (Verb, S)
SVO	*!*		*
SOV	*!		**
VSO	*!*	*	
VOS	*!	**	
☞ OSV		*	**
OVS		**!	*

Given that the object is now selected as the discourse topic, all the candidates not having the object in the initial position are ruled out, leaving only OSV and OVS in the competition under the evaluation of the undominated constraint **ALIGN-L (Topic, S)**. The OVS candidate is ruled out as it collects one more **ALIGN-L (Focus, S)** violation than the OSV candidate, by the fact that the subject, as the focus of sentences, appears to be closer to the left edge in OSV than in OVS. Thus, OSV is the optimal candidate selected as the output.

#### 4.2 Sentences Involving Prepositional Phrases

A sentence may contain elements other than the primary NP arguments; for example, in addition to the grammatical subject and object, all the sentences in below (14) involve an additional PP in the structure:

14) a. gi [di hokgau] tuk den su  
       he at school study ASP book

‘He is studying at school.’

b. gi oi hanglu [do hokgau]  
       he want to walk to school

‘He wants to walk to school.’

The PP in (14a) is an adjunctive modifier specifying the location where the action takes place. This kind of PPs constantly occurs in the preverbal position. In (14b) the PP functions as a complement selected by the verbal predicator, occurring in the postverbal position indicating the direction which the action is moving toward. The distribution of the two different kinds of PP follows the word order generalization of Chinese languages, according to which adjunct PPs are bound with preverbal positions, while complement PPs preferably occur in postverbal positions (Feng 2003, Mulder and Sybesma 1992).

An adjunct PP can be the topic and focus of sentences. As indicated in the following (15) and

(16), we may establish a context in which a PP is designed to be the topicalized or focalized information in the response to a wh-question:

15) **Q:** gi naive mai e do fungset ge hai no  
 he where buy possible RVC red MOD shoes PART  
 ‘Where can he buy red shoes?’

**A1:** fungset ge hai **[di miguet]** gi mai e do  
 red MOD shoes at US he buy possible RVC  
 ‘Red shoes, it is in the US where he can get one.’

**A2:** # **[di mi-guet]** fungset ge hai gi mai e do  
 at US red MOD shoes he buy possible RVC  
 ‘Red shoes, it is in the US where he can get one.’

16) **Q:** gi **[di ge gien diam]** mai magai  
 she at that CL store buy what  
 ‘What did she buy at that store?’

**A1:** **[di ge gien diam]** lingo gi mai den  
 at that CL store apple she buy ASP  
 ‘At that store, it was apples that she was buying.’

**A2:** # lingo **[di ge gien diam]** gi mai den  
 apple at that CL store she buy ASP  
 ‘Apples, it was at that store where she was buying them.’

Both examples (15) and (16) include an adjunct PP in the sentence. When the conversation established in (15) highlights the PP as the focus which brings in new information as a response to the interrogative word *where*, and the object NP *red shoes* the repeated information serving as the topic, the word order corresponding to the above generalization turns out to be an appropriate answer, where both the topic and focus are preverbal, with the topic NP standing sentence-initially followed by the focus PP, as presented by A1. However, if we switch the topic and focus constituent, as in A2, an inappropriate result will be yielded. In (16), when the locative PP is established as the repeated topic of conversation, and the objective NP the new information being questioned, the PP is allowed to occur in the leftmost position preceding the focused NP and the remainder of sentence, shown in A1. The second answer A2 is inappropriate as the topicalized PP follows the focused NP.

We can also examine the word order of sentences that involve a complement PP, as in (17), in which the PP, serving as the complement of verb, specifies the goal of the letter he dropped

from his hands.

- 17) a. gi lap yit fung sin **[ngit yiutung]**  
 he fall one CL letter into postbox  
 ‘He dropped one letter into the postbox.’
- b. \*gi **[ngit yiutung]** lap yit fung sin  
 he into postbox fall one CL letter  
 ‘It is into the postbox where he dropped one letter.’
- c. \***[ngit yiutung]** gi lap yit fung sin  
 into postbox he fall one CL letter  
 ‘Into the postbox, he dropped one letter.’

In such instances, the complement PP cannot occur in any position beside postverbal; therefore, neither (17b) nor (17c) is acceptable. These sentences presented in (17) help argue that when a PP functions as a verbal complement, it prefers occurring at the postverbal position following both the subject and the object. Even if one argues that the given context marks the PP constituent as the pragmatic topic or focus of conversation, the distribution of PPs does not follow the word order prediction generated in this paper; on the other hand, they remain postverbal.

Examples in (18) illustrate the free ordering between the objective NP and the directional PP. As shown below, the two verbal complements are allowed to be arranged into either precedence order as long as they are both postverbal.

- 18) a. gi lap yit fung sin **[ngit yiutung]**  
 he fall one CL letter into postbox  
 ‘He dropped one letter into the postbox.’
- b. gi lap **[ngit yiutung]** yit fung sin  
 he fall into postbox one CL letter  
 ‘He dropped into the postbox one letter.’

Let us now illustrate how this word order scenario involving a PP constituent is encoded in the OT-based constraint interaction.

The tableau in (19) illustrates the example given in (15). The tableau considers the possible positions for an adjunctive PP when it is associated with the function of pragmatic focus. However, we must now deal with the problem that the analysis established thus far would wrongly push the subject to the sentence final position. The false prediction is shown in below tableau 4, indicated by the symbol ⊗ in current and all the following tableaux:

19)

(13) Locative PP=Focus Subject Verb Object=Topic	ALIGN-L (Topic, S)	ALIGN-L (Focus, S)	ALIGN-L (Verb, S)
PP O S V	*!		***
V O PP S	*!	**	
S O PP V	*!	**	***
O S PP V		**!	***
O S V PP		**!*	**
O V PP S		**!	*
O PP S V		*	***!☹
☹☹O PP V S		*	**

The problem arises when the object outranks the subject in receiving topicalized prominence, and in that case the subject is no longer the default topic. As in (15), the topic interpretation is now taken by the object NP with theme indication. The constraint interaction shown in tableau 4 thus problematically selects the order in which the verb precedes the subject to satisfy the constraint **ALIGN-L (Verb, S)**.

A solution to this is proposing a markedness constraint reflecting the unfeasibility of a sentence-final subject, and the exception can only be made if the subject is uttered in a rising intonation. In normal indicative sentences, the speaker composes the utterance in a rising-falling pattern, in which the pitch rises and falls on the topic and focus word in a sentence, and then at the end of the sentence, the pitch must fall to signal that the sentence has come to the end. If the speaker's pitch rises at the end of a sentence, it means the speaker is waiting for a response, can it be a reply or a confirmation from the hearer. As shown in the following (20), in Hakka when the subject occurs at sentence-final position, the rising intonation pragmatically implies that the speaker is seeking for some kind of response from the hearer. A declarative sentence is never produced with the subject standing as the last word of sentences.

20) **A:** nga ze di miguet mai do yit sung fung hai  
my sister at US buy RVC one pair red shoes

'My sister bought a pair of red shoes in the United States.'

**B:** di miguet mai do yit sung fung hai, **ngia ze (with rising intonation)**  
at US buy RVC one pair red shoes your sister

'Buying a pair of red shoes in the United States, your sister?'

**A:** um, nga ze song libaize hi miguet cutcai  
INJ my sister last week go US travel on business

‘Right, my sister had a business trip in the United States last week.’

The sentence final subject is emphatically marked as the topic of conversation with interrogative mood because when the NP is encoded in rising tone, it is featured as the most prominent part in a sentence, and the response that the speaker expects is naturally some further information about the subject NP. In other words, when the conversation continues, it can be predicted that the topic of the succeeding sentence will be the subject NP of the previous sentence. It should be noted that the position of this interrogative topic differs from which of an indicative discourse topic in that when a constituent is marked as the topic of a request sent to another speaker for further information, it is placed sentence-finally and must be produced with a rising tone; while a constituent bearing discourse topic function occurs sentence-initially and bears a rising-falling tonal pattern. Now back to our example in (15), the subjective NP cannot be uttered in a rising tone pattern because the objective NP has already been established as the discourse topic of conversation. Since the object NP beats the subject NP in prominence, the subject does not overrun the object in serving the topic function, thus the subject is disallowed to occur in the sentence final position.

From the above discussion, we know that the prosodic requirement on the subject is bound with the sentence-final syntactic position, expressed by the markedness constraint proposed in (21) below.

21) **SUBJS-Rising Tone:** utter the sentence-final subject in a rising tone

This constraint sets a prohibition on the presence of a sentence final subject in normal indicative sentences. As illustrated here, in the grammar of Hakka this constraint is undominant, see the following tableau in (22):

22)

(13) Locative PP=Focus Subject Verb Object=Topic	<b>SUBJS- Rising Tone</b>	<b>ALIGN-L (Topic, S)</b>	<b>ALIGN-L (Focus, S)</b>	<b>ALIGN-L (Verb, S)</b>
P P O S V		*!		***
V O P P S	*!	*	**	
S O P P V		*!	**	***
O S P P V			**!	***
O S V P P			**!*	**
O V S P P			**!*	*
O V P P S	*!		**	*
☞ O P P S V			*	***
O P P V S	*!		*	**

The word order variation ‘*O P P V S*’ is now successfully ruled out due to the violation of the undominant **SUBJS-Rising Tone**. The order ‘*O P P S V*’, even if it incurs three violations on **ALIGN-L (Verb, S)** by arranging the verb at the rightmost position, is the optimal candidate



in which the topicalized object NP stands sentence initially, followed by the focused locative PP, and then the subject NP and the verb. The subject is forced to appear on the left of the verb to avoid the sentence final position, in that case it can satisfy the high-ranking **SUBJJS-Rising Tone**.

Next, the left extraction of an adjunctive PP happens when the PP serves as the topic of conversation. The example has previously been shown in (16), where the topicalized PP precedes the remainder of sentence at the leftmost position. As illustrated in the following tableau (23), the proposed constraint ranking accounts for the word order involving a leftmost adjunctive PP:

23)

(14) Locative PP=Topic Subject Verb Object=Focus	<b>SUBJJS- Rising Tone</b>	<b>ALIGN-L (Topic, S)</b>	<b>ALIGN-L (Focus, S)</b>	<b>ALIGN-L (Verb, S)</b>
☞ P P O S V			*	***
P P O V S	*!		*	**
P P S V O			**!*	**
P P S O V			**!	***
P P V S O			**!*	*
P P V O S	*!		**	*
V P P S O		*!	***	
S P P O V		*!	**	***
O P P S V		*!		***

Even though the candidates '*PP O S V*' and '*PP O V S*' seem to follow our predication on the positioning of topic and focus in sentences, in which the locative PP, serving as the sentential topic, appears sentence initially followed by the focused object, and the subject comes after them, the candidate '*PP O V S*' is filtered out by the top-ranking constraint **SUBJJS-Rising Tone** due to the presence of a sentence final subject. This ungrammaticality renders '*PP O S V*' as the only winner.

Now we should consider instances when the PP functions as a complement assigned by the verb. As shown in the previous (17), a Hakka PP obtains the complement function when it is bound with postverbal position. Even if one argues that the PP is encoded as the topic or focus of the sentence, it constantly follows the head verb. A preverbal complement PP results in ungrammaticality, as demonstrated in (17b) and (17c).

A problem arises given that the restriction against a preverbal PP contradicts our generalization in which a topicalized and a focalized constituent should be preposed to the first or the second position in sentences. To this we will continue in the next section.

### 4.3 Restrictions on Complement PPs

We will proceed from the point that in Hakka a complement PP never precedes the verb; on the other hand, it constantly follows the verb in the postverbal position. As mentioned in the previous section, the restriction against a preverbal PP contradicts our generalization in which a pragmatically-marked constituent should be associated with preverbal position in sentences. To account for this contradiction found in Hakka, what we are going to argue in this section is that a Hakka complement PP alone does not receive the pragmatic prominence as the topic or the focus of sentences, some evidence is proposed in the following.

First, a complement PP cannot be preposed to the preverbal position. When the construction of VP contains a verb which takes a PP complement, we are allowed to extract only the NP complement of the head preposition out of the VP; however, if left-extraction applies to the entire PP, the process causes ungrammaticality, shown in (24).

- 24) a. gi dakngit hanglu [**do hokgau**]  
 he everyday walk to school  
 ‘He walks to school every day.’
- b. [**hokgau**], gi dakngit hanglu do gevi  
 school he everyday walk to there  
 ‘School, he walks there every day.’
- c. \***[do hokgau]**, gi dakngit hanglu  
 to school he everyday walk  
 ‘To school, he walks everyday.’

In contrast with (24a), (24b) and (24c) show an example of left extraction in which a postverbal constituent travels to the position on the left of the verb. In (24b), an NP has been left-extracted to the sentence initial position, and the sentence is acceptable. It should be noted that a demonstrative pronoun *gevi* has to be overt following the preposition to avoid preposition-stranding, which is barely attested in Hakka. In (24c), the sentence becomes unacceptable as the postverbal PP has been extracted sentence-initially.

The same restriction can be found in constructions involving a verb followed by a postverbal CP complement. In that case, if topicalization applies, only the constituent following the head complementizer can be preposed, may it be a VP or an S. If it is the entire CP that has undergone extraposition, the resulted construction becomes ill-formed.

- 25) a. gi siit [**do dusii dong bau**]  
 he eat COMP belly very full  
 ‘He ate (a lot) to the degree that he became extremely full.’
- b. [**dusii dong bau**], gi siit do.

belly very full he eat COMP

‘Becoming extremely full, he ate a lot then it happened.’

c. \*[do dusii dong bau], gi siit

COMP belly very full he eat

‘To the degree that he became very full, he ate.’

As shown in (25), when the verb takes a clausal complement, realized by a CP consisting of a head complementizer followed by an S, we are allowed to topicalize and extrapose only the S after the complementizer. If the entire CP moves sentence initially, the sentence turns to be ungrammatical. Another example can be found in (26) below with the complementizer *gong* functioning to encode mental or verbal activity:

26) a. gi siong [gong mo ngin voi loi]

he think COMP no person will come

‘He thinks that nobody will come.’

b. [mo ngin voi loi], gi siong gong.

no person will come, he think COMP

‘Nobody will come, he thinks (that).’

c. \*[gong mo ngin voi loi], gi siong.

COMP no person will come he think

‘That nobody will come, he thinks.’

Again, the examples proposed in (26) demonstrate that when a head verb requires a CP as the complement following it, it is ungrammatical to topicalize and extrapose the CP to the first position of a sentence; instead, only the S dominated by the CP may undergo the leftward movement.

Second, as we have said earlier in this paper, a *wh*-question is formed to test whether a constituent is appropriate to be marked as pragmatic focus. Given the following VP constructions where each head verb selects either a PP or a CP as complement, as shown in below (27) and (28), we are not allowed to use the content question to establish the context in which the functional phrase is pragmatically marked and bears the focus function.

27) a. gi gi yit fung sin do ngia vukha

he send one CL letter to your home

‘He sent a letter to your home address.’

b. gi gi yit fung sin do nai?

he send one CL letter to where

‘Where did he send a letter to?’

- c. \*gi gi yit fung sin **nai**?  
he send one CL letter where

‘Where did he send a letter?’

- 28) a. gi hi **do mienfungfung**

he be angry COMP face-red-red

‘He was so angry that his face turns red.’

- b. gi hi **do ngionge?**

he be angry COMP how

‘How angry is he?’

- c. \*gi hi **ngione?** (\*gi ngione hi)

he be angry how

‘How angry is he?’

If the locative PP or the modifier CP functions as an adjunct, the wh-word perfectly replaces each of the adjunctive phrases, as in (29) and (30).

- 29) a. gi **do nga vukha** siitfan

he at my home dine

‘He is dining at my place.’

- b. gi **nai** siit-fan

he where dine

‘Where is he dining?’

- 30) a. gi ma seingine ma **do mienfungfung**

he scold kid scold COMP face-red-red

‘He scolded the kids to the degree that his face turns red.’

- b. gi **ngione** ma seingin-e?

he how scold kid

‘How did he scold the kids?’

The examples provided in above (27) throughout (30) again seem to correspond with our hypothesis, which proposes that a Hakka complement PP by itself should not be marked as the topic or the focus of sentences. This also explains why the postverbal PP is generally

incompatible with extraposition.

Finally, I will show that the left movement of a postverbal PP may result in syntactic ambiguity. For example, the preposition *do*, when heading a prepositional phrase, may precede or follow the verb, and the different positioning affects the interpretation of the sentence that contains the *do*-phrase. See the sentences listed below in (31):

31) a. gi [do yiupienkiuk] gi sine  
he at post office send letter  
'He is sending a letter in the post office.'

b. gi gi sine [do yiupienkiuk]  
he send letter to post office  
'He sent a letter to the post office.'

In (31a), the preverbal *do*-PP functions as an adjunct describing a general location where the action of sending letter occurs; while in (31b), the *do*-PP is now a verbal complement indicating the direction toward which the letter has been sent. The difference in interpretation is determined by the position of PP. When the PP occurs in preverbal position, it provides general locative information for the action; contrastively, a postverbal PP is required by the verb, necessarily present to specify the direction of the verb's action.

From (31) we see that if a postverbal complement PP is topicalized or focalized and thus moving leftward to the preverbal position, this syntactic process may cause ambiguity as the same PP, when placed preverbally, is encoded with a totally different syntactic function.

To summarize the above discussion, I use three constructions to help demonstrate that a complement PP may never by itself be topicalized or focalized. First, a postverbal complement PP is by no means possible to be extraposed to preverbal position under any circumstances. Second, a *wh*-word is barely used to replace a complement PP in the formation of content question. Third, the same preposition may be preverbal or postverbal when heading a phrasal projection. The position in relation to the verb decides whether the PP obtains complement or adjunctive function, which in turn affects the interpretation of the VP.

To apply the restriction against a preverbal complement PP into our OT based analysis, I propose that in Hakka we will never obtain an input for evaluation in which the complement PP of the verb alone receives any kind of pragmatic topicalization or focalization. A separate OT tableau on the discourse level may be proposed to rule out ineffective prominence assignment on sentence constituents:

32) **Constituents:** assign pragmatic prominence to a syntactic constituent

**Elements:** assign pragmatic prominence to a linguistic element

**\*Complement PP:** never assign pragmatic prominence to a complement PP of verbs

And here is their relative ranking:

### 33) Constituents, \*Complement PP >> Elements

Possible prominence assignment is selected by the following tableau (34). Concerning the cases when the verb takes a PP complement, all the constituents except the complement PP may be marked as sentential topic or focus:

34)

(15) Subject: <b>gi</b> 'he' Verb: <b>lap</b> 'fall' [theme, direction] Object: <b>yit fung sin</b> 'a letter' PP: <b>ngit yiu-tung</b> 'into the postbox'	Constituents	*Complement PP	Elements
☞ Subject			
☞ Verb			
☞ VP(V+NP+PP)			
☞ Object of V			
PP		*!	
V+P	*!		
☞ Object of P			

According to the result of this tableau, as the PP complement fatally violates the constraint **\*Complement PP**, it must be ruled out from the optimal list which contains all the possible linguistic forms that may receive special pragmatic prominence to function as the topic or focus element of conversation. All these selected outputs possess the potential for serving as the input for evaluation in the syntactic tableaux proposed in the previous sections.

## 5. Conclusion

In this paper, I use an Optimality theoretic approach to analyze the basic word order patterns involving subject, verb, object and PPs. We have seen that the topic and focus position in Hakka is associated with the first and second position in sentences. In the basic SVO pattern, the subject serves the topic function. In the SOV pattern, the subject is the topic, while the object is marked as the focus. In the OSV pattern, the object precedes all the rest of constituents as topic, and the subject is marked as the focus. The Optimality Theoretic account of these ordering patterns made use of a limited set of generalized alignment constraints, and the constraint interaction can be specified by the ranking: **ALIGN-L (Topic, S) >> ALIGN-L (Focus, S) >> ALIGN-L (Verb, S)**.

In the course of our analysis, we need to take into consideration the VP constructions that involve prepositional phrases. If the PP functions as the adjunct of verbs, the PP may be pragmatically marked as the topic or focus of sentences. In that case, the word order prediction in general follows the OT generalization. Only that we need to propose a markedness constraint **SUBJIS-Rising Tone** to prevent the subject of an indicative sentence

from occurring in the sentence-final position. On the other hand, if the PP functions as the complement of verbs, this paper argues that the PP can be assigned neither the topic prominence nor the focus prominence role, which seems to be a language-specific restriction effective in the interface of syntax-semantics/pragmatics. In the OT framework we need to propose a separate OT evaluation on the pragmatic level.

### Acknowledgement

The research paper is financially supported by the National Science Council, Taiwan under the grant #NSC- 99-2410-H-032-076-. I thank the NSC for the funding support.

### References

- Bresnan, J., & Mchombo, S. A. (1987). Topic, pronoun and agreement in Chichewa. *Language*, 63, 741-782. <http://dx.doi.org/10.2307/415717>
- Comrie, B. (1981). *Language Universals and Linguistic Typology*. University of Chicago Press.
- Ernst, T., & Wang, C. C. (1995). Object preposing in Mandarin Chinese. *Journal of East Asian Linguistics*, 4, 235-260. <http://dx.doi.org/10.1007/BF01731510>
- Feng, S. (2003). Prosodically constrained postverbal PP in Mandarin Chinese. *Linguistics*, 41-6, 1085-1122
- Lin, J. (1992). The Syntax of *zenmeyan* 'how' and *weishenme* 'why' in Mandarin Chinese. *Journal of East Asian Linguistics*, 1, 293-331. <http://dx.doi.org/10.1007/BF00130555>
- Liu, D., & Xu, L. (1998). Putonghua yu Shanghaihua zhong de kaobei shi huati jiegou [The copying topic structure in Standard Mandarin Chinese and Shanghainese]. *Yuyan Jiaoxue Yu Yanjiu [Language Teaching and Linguistic Studies]*, 1, 85-104
- McCarthy, J., & Prince, A. (1993a). Generalized alignment. In *Yearbook of Morphology*, ed. G. E. Booij & J. van Marle, 79-153. Dordrecht: Kluwer.
- McCarthy, J., & Prince, A. (1993b). Prosodic morphology I: constraint interaction and satisfaction. ms., University of Massachusetts, Amherst, MA; Rutgers University, New Brunswick, NJ.
- Mulder, R., & Sybesma, R. (1992). Chinese is a VO language. *Natural Language & Linguistic Theory*, 10(3), 439-476. <http://dx.doi.org/10.1007/BF00133370>
- Paul, W. (2002). Sentence-internal topics in Mandarin Chinese: The case of object preposing. *Language and Linguistics*, 3(4), 695-714
- Prince, A., & Smolensky, P. (1993). Optimality theory: constraint interaction in generative grammar. ms., New Brunswick: Rutgers University, Boulder, University of Colorado.
- Shyu, S. I. (1995). *The Syntax of Focus and Topic*. PhD Dissertation, Los Angeles: University of Southern California.



Shyu, S. I. (2001). Remarks on object movement in Mandarin SOV order. *Language and Linguistics*, 2(1), 93-124

Tang, C.-C. (1990). *Chinese Phrase Structure and the Extended X' Theory*. PhD Dissertation, Cornell University.

Tsai, W. T. (1994). E-closure extensions, ms., MIT.

### **Glossary**

ASP: aspectual marker.

CL: classifier.

COMP: complementizer.

MOD: modificational marker.

NEG: negative marker

PART: particle.

RVC: resultative verbal compound.

### **Copyright Disclaimer**

Copyright reserved by the author(s).

This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).