### Is There Wh-Movement in Thai?\*

Natthaporn Panpothong

Chulalongkorn University

#### 1. INTRODUCTION

In English, Wh-interrogatives overtly move to a clause-peripheral position. In Chinese, on the other hand, Wh-interrogatives do not undergo a Wh-word fronting rule at S-structure (Huang, 1982a). Consider the following examples.

What did John see x? (English)

Shipi kandaa ahánma (Mandari

Shùhùi kàndao shénme (Mandarin Chinese) Shuhui see what 'What did Shuhui see?'

According to Huang (1982b, p. 254), even though *Wh*-elements in Mandarin Chinese do not move overtly at S-structure, they undergo 'covert' *Wh*-movement at LF (Logical Form).

As in Chinese, Wh-interrogatives in Thai do not move overtly at S-structure.

(3) sùda: hĕn ʔàray (Thai)
Suda see what
'What did Suda see?'

A significant question arising here is whether Thai is like Chinese in having Whmovement at LF. Huang (1982b) argues that all languages are supposed to have a Whmovement rule as a substantive universal, but may differ in where the rule applies, at S-structure or at LF. However, his claim is challenged by Cole and Hermon (1994). Based on the absence of ECP<sup>2</sup> effects, Cole and Hermon (1994, pp. 239–262) argue that Wh-elements in situ in Ancash do not undergo LF Wh-movement. This paper is an attempt to examine whether or not Wh-elements in situ in Thai undergo "covert" Wh-movement at LF.

In Section 2, the supportive arguments for LF Wh-movement proposed by Huang (1982a, 1982b) and Aoun and Li (1993) are applied to Thai. In Section 3, the

<sup>\*</sup>The author wishes to thank Dr. Kalaya Tingsabadh and the anonymous reader for their valuable remarks

Definitions of GB terms are provided in footnotes for those who do not have familiarity with the theory

<sup>&</sup>lt;sup>1</sup>In Government and Binding theory, the term refers to the initial representation of sentence meaning.

<sup>&</sup>lt;sup>2</sup>ECP is the abbreviation for Empty Category Principle. The principle requires a trace of a moved constituent to be governed by a lexical category or a category with the same index.

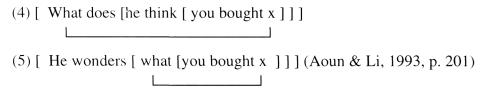
difference between Wh-movement in Thai and English in the choice of bounding categories for Subjacency is discussed. In Section 4, a conclusion is provided.

#### 2. SUPPORTIVE EVIDENCE FOR LF WH-MOVEMENT IN THAI

The supportive arguments for LF *Wh*-movement in Chinese proposed by Huang (1982a, 1982b) and Aoun and Li (1993) are selectional requirements, scope interaction between *Wh*-elements and quantifiers, locality effects, and weak crossover effects. Let us consider whether the four arguments are applicable to Thai.

# 2.1 Selectional Requirements

In English, the position of a Wh-element at S-structure determines whether a sentence is a direct question or an indirect question. Examples (4) and (5) illustrate this point.



In the direct question in (4), the *Wh*-element takes scope over the entire sentence, whereas in the indirect question in (5), the *Wh*-element takes scope over the embedded clause. Notice that while the matrix verb *think* selects a [-Wh] complement, the matrix verb *wonder* takes a [+Wh] complement. As in English, different verbs in Thai seem to select different types of complement. Consider the following examples.<sup>3</sup>

- sùda: thă:m [wâ: nít chô:p ʔàray]
  Suda ask Comp Nit like what
  'Suda asked (me) what Nit liked.'
- (7) sùda: chtûa [wâ: nit chô:p ?àray]
  Suda believe Comp Nit like what
  'What does Suda believe Nit likes?'
- (8) sùda: ruí: [wâ: nít chô:p ʔàray]
  Suda know Comp Nit like what
  'What does Suda know Nit likes?'
  'Suda knows what Nit likes.'

Example (6) must be interpreted as a statement taking an indirect question, Example (7) must be interpreted as a direct question, and Example (8) can be interpreted as

<sup>&</sup>lt;sup>3</sup>The examples in this paper have been checked with five native speakers of Bangkok Thai.

either. Notice that the only difference found in (6), (7), and (8) is the choice of the matrix verb. These examples indicate that the verb /thă:m/ 'to ask' selects a [+Wh] complement, the verb /chtîa/ 'to believe' selects a [-Wh] complement, and the verb /rti:/ 'to know' optionally selects a [+Wh] complement. The idea of LF Wh-movement appears to provide a straightforward account for these examples. With the assumption that the Wh-elements in (6), (7), and (8) undergo LF Wh-movement, the selectional requirements are met at LF.

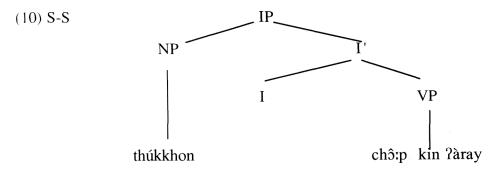
(6') LF[ [sùda: thă:m wâ: [ ?àray [nít chô:p x]]]] Suda ask Comp what Nit like (7') LF[?àray [sùda: chŵa chô:p x]]]] waî: [nít what Suda believe Comp like Nit (8') LFa ) [[?àray [sùda: rú: [ [nít chô:p x] ] ]waî: what Suda know Comp Nit like or wâ: [?àray [nít b) [ [sùda: ru: chô:p x]]]] Suda know Comp what Nit like

# 2.2 Scope Interaction Between Wh-Elements and Quantifiers

Example (9) contains *Wh*-element-Quantifier interaction.

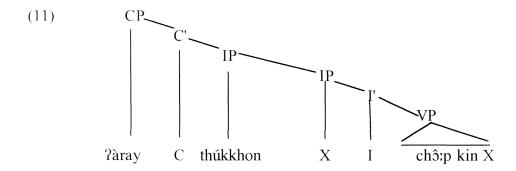
(9) thúkkhon chố:p kin ?àray everyone like eat what 'What (single item) does everyone like to eat?' Answer: ice cream.

The S-structure of (9) is represented by the tree in (10).



Notice that at S-structure, /thúkkhon/ 'everyone' c-commands<sup>4</sup> /?àray/ 'what.' Based on this structure, we should get the distributive interpretation--What does each man like to eat? (/thúkkhon/ has /?àray/ in its scope). But in fact, (9) has the collective interpretation--What single item does everyone like to eat? This indicates that in Thai Wh-elements that remain in situ at S-structure have quantifiers within their scope.

This phenomenon can be accounted for if we assume that /ʔaray/ undergoes Whmovement at LF and thus has /thúkkhon/ in its scope. The LF of (9) is represented by the tree in (11).



# 2.3 Locality Effects

Huang (1982b) points out that in Chinese, movement of an argument is free—can violate island constraints, whereas movement of an adjunct is not. This argument-adjunct asymmetry can be predicted if we assume that *Wh*-movement at LF and the Empty Category Principle (ECP) apply<sup>5</sup>.

The following examples illustrate that the *Wh*-elements *in situ* in Thai also display an argument-adjunct asymmetry.

(12) khru: dù? [dɛk [ thî: kin ʔaray]]
teacher scold child who eat what
'The teacher scolded the child who ate what?'
Answer: lû:kkwa:t
candy

<sup>&</sup>lt;sup>4</sup>The term "c-command" in the present study refers to the so-called maximal projection c-command or maximal-command.

C-command: A node X c-commands a node Y if every maximal projection dominating X also dominates Y, and X does not itself dominate Y. In (10) s-s,  $NP_1$ /thúkkhon/ c- commands I',I, VP, V', V, and  $NP_2$ /?àray/. But  $NP_2$ /?àray/ does not c- command  $NP_1$ /thúkkhon/.

<sup>&</sup>lt;sup>5</sup>The Empty Category Principle (ECP) in this paper refers to the version adopted by Huang (1982b, p. 550). The principle states that a trace must be either lexically governed or locally controlled—governed by its antecedent.