Reflection on the X' category in Thai

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0. Introduction

In Chomsky’s X-bar theory, three levels of syntactic categories are argued for: X⁰ for word level, X" or XP for phrasal level, and an intermediate level between the two, a category designated X'. It has been demonstrated that a category larger than lexical or word level yet smaller than the maximal expansion of a phrase exists for noun, verb, preposition, etc. in English. It is no doubt that both X⁰ and XP categories, which are more or less traditional, do exist in Thai. It is unclear, however, whether or not there is such an intermediate level of X' category in Thai. Hence, the objective of the investigation of this paper.

1. X'-Equivalences

Four categories, N, V, A, and P are given as major X⁰ categories in the X-bar theory. X'-equivalences are summarized as follows (Chomsky 1986, Sells 1985):

<table>
<thead>
<tr>
<th>X⁰</th>
<th>X'</th>
<th>X&quot; or XP</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N'</td>
<td>N&quot; or NP</td>
</tr>
<tr>
<td>V</td>
<td>V'</td>
<td>V&quot; or VP</td>
</tr>
<tr>
<td>A</td>
<td>A'</td>
<td>A&quot; or AP</td>
</tr>
<tr>
<td>P</td>
<td>P'</td>
<td>P&quot; or PP</td>
</tr>
<tr>
<td>I'</td>
<td></td>
<td>S = IP</td>
</tr>
<tr>
<td>C'</td>
<td></td>
<td>S' = CP</td>
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</tbody>
</table>

Table 1: X'-Equivalences (from Chomsky 1986, Sells 1985).

Where N = noun, V = verb, A = adjective/adverb, P = preposition, S = sentence, and I = INFL = inflection, C = complementizer, and both I and C are non-lexical. Also, IP = NP [[V...],[[I' P]]] and CP = ... [C IP]c.

A generalized X'-scheme or X'-template is given as follows (Chomsky 1986:3, Sells 1985:28, Radford 1988:261)

(1) \[ X^m \rightarrow \ldots X^n \]; where \( n \leq m \) and \( 0 \leq m \leq 2 \)
(2) \[ X^m \]
\[
\text{(specifier) modifier/argument } X^n \quad (n \leq m \text{ and } 0 \leq m \leq 2)
\]

Where a modifier is a sister adjunct of the head, and an argument or complement is subcategorized by an \( X^0 \)-head. A specifier is usually a sister of an \( X' \) under the \( X'' \) maximal projection, and a modifier/argument is any XP*, (unlimited numbers of any maximal projection).

Lexical categories, N, V, P, and A as well as phrasal categories, NP, VP, PP, and AP are well noted in traditional Thai grammar. I (in place of the former AUX in earlier versions of Transformational Syntax) deserves a full paper devoted to itself alone and will not be dealt with as far as this paper is concerned. Also, whether or not I and C are lexical in Thai will not be taken up here either. It is noted that \( S' \) is a skewing structure and \( S \) as an XP-equivalence is an assumption taken in this study. \( S' \) as a maximal projection can be demonstrated in Thai (cf. section 2 below). The scope of this study covers only \( N' \), \( V' \), and \( A' \), in particular, it is restricted to \( N' \) and \( V' \).

2. \( X' \) category in Thai?

First, the skewing \( S' \) which is an XP category will be demonstrated in Thai. Consider the schemata below,

\[
\begin{align*}
(3) \quad a. \quad & S' = CP = \ldots C' \\
\quad b. \quad & C' = C IP = C S
\end{align*}
\]

Complementizers in Thai are e.g. \( sīn \) ‘that, which’, \( tʰīi \) ‘that, which, who(m)’, and \( wāa \) ‘that’ and \( S' = \ldots C S \) as in (3) a & b is observable in Thai, for example,

\[
\begin{align*}
(4) \quad & [ [ kʰōn ]_N \ [ tʰīi ] \ [ nōp \ hēn \ māa waan ]_S ]_S ]_N ]_NP \\
\quad & \text{man whom Nop saw yesterday}
\end{align*}
\]

pen phīl phôm

is elder sibling my

‘The man whom Nop saw yesterday is my elder brother.’

\[
\begin{align*}
(5) \quad & kʰāw [ [ pʰūt ]_V \ [ wāa [ kʰāw thām sēt ]_S ]_S ]_V ]_V ]_NP \\
\quad & \text{he said that he work finish already}
\end{align*}
\]

he said that he had already finished working.’

\[
\begin{align*}
(6) \quad & pāmāj pen [ [ sīn ]_N \ [ sīn \ raw kʰuān ráksāa wāj ]_S ]_S ]_N ]_NP \\
\quad & \text{forest is thing which we should preserve kept}
\end{align*}
\]

‘A forest is something that we should preserve.’

Given (2), the fact that \( S' \) is the complement subcategorized by an \( X^0 \) category in all of the examples given in (4)-(6) above, satisfying the structure in
(2), seems to demonstrate that it is an XP, a maximal projection—only maximal projection can be subcategorized by an X^0. That is, in (4), [ [kʰon]_N as the X^0-head subcategorizes for the S' complement. Likewise, [ pʰûut ]_V subcategorizes for the adjacent S' in (5), and [sin]_N for the S' complement in (6), (cf. (7)-(9) below).

The structures in (4)-(6) can be charted as in (7)-(9) respectively;

(7)  
    NP  
    |  
    N'  
    / \  
    N S'  
    | / \  
    | C S  
    | | Δ  
    kʰon tʰǐi nóp hën mǐa waan

Where the lexical entry of kʰon is as follows: [kʰon] = N; [ ___(S')]. More specifically, the optional subcategorization frame is [ ___ (tʰǐi S)].

(8)  
    VP  
    |  
    V'  
    / \  
    V S'  
    | / \  
    | C S  
    | | Δ  
    pʰûut wâa kʰâw tʰam sêt lâæw

Where the lexical entry of pʰûut is [ pʰûut ] = V; [ ___(S')]. With the co-occurrence restriction on the complementizer, the optional subcategorization frame is [ ___ (wâa S)].

(9)  
    NP  
    |  
    N'  
    / \  
    N S'  
    | / \  
    | C S  
    | | Δ  
    stdin stdin raw kʰuan râksâa wâj

Where stdin has the following lexical entry, [stdin] = N; [ ___(S')], or [stdin] = N; [ ___(stdin S)]

The question we ask is whether N' in (7) and (9), and V' in (8) are necessary, since neither the NP immediately dominates the N' nor the VP
dominates the V' branches. The intermediate N' and V' seem superfluous and redundant. If it can be shown, however, that such structures as the NP in (7) and (9), and the VP in (8) are not yet maximally expanded, that these XP mother nodes can branch, and that when expanded, they are not quite the same as the N' and V' they dominate, then we may have reasons for the existence of these intermediate N' and V'.

3. Subcategorizations in Thai

Given (2), evidence for any X' category lies heavily on the argument or complement structure of the X⁰ category itself—i.e., in its subcategorization frame at the lexical entry. Any structure with an X⁰-head that subcategorizes for any XP complement satisfying the template in (10) is by definition an X' (Chomsky 1986:3, Radford 1988:267). As such, a complement is distinguished from a modifier which is an adjunct XP—a periphery element in relation to the head.

(10) \[
X' \quad / \quad \setminus \\
\quad X^0 \quad XP^* 
\]

3.1 V'

With respect to subcategorization, at least two verb structures in Thai will be considered here.

3.1.1 V-X constituents

There are two-word verbs of the form [V X], where X = V, N, A, or P. For example,

(11) a. [sām sàon] 'be redundant' [V V]
b. [wīn raaw] 'snatch and run as an act of crime' [V N]
c. [wīn prīaw] 'run in a relay' [V A]
d. [dān kʰāw] 'walk in' [V P]

It seems that these V-X sequences function together as a constituent. For example, verb-preposition sequences such as nam kʰāw ‘import’, sōn sōk ‘export’ require an NP object. However, the preposition has to form a constituent with the verb rather than the NP following it, otherwise illformedness will result, or a different meaning (not intended) will be communicated. For example,

(12) bōrīsāt nam kʰāw sīnkʰāa tcamnuan màak
    company import merchandise amount many

    nāj pīi tʰī lāēw
    in year last

    'The company imported a large amount of merchandise last year.'
A question may be formed for the statement in (12). However, only a question with nam kʰâw functioning together as a constituent as in (13)a is wellformed. A question such as the one in (13)b which separates the verb and the preposition is illformed, or has a different meaning totally unrelated to (12).

(13) a. kʰraj pen pʰuû [nam kʰâw]
    who is one who import
    ‘Who is the one that imported (the merchandise)?'

b.* kʰraj pen pʰuû [nam] ?
    who is one who bring
    *‘Who is the one that brought ---?'
    (unfinished sentence)
    *‘Who is the leader?’
    (different meaning, out of context)

Likewise, an answer to the question in (13)a must have nam kʰâw as a constituent, for example,

(14) a. bôrisát siisii pen pʰuû [nam kʰâw]
    company C.C. is one who import
    ‘The C.C. company is the importer.’

b.* bôrisát siisii pen pʰuû [nam]
    company C.C. is one who bring
    *‘The C.C. company is the one who brought ---’
    (unfinished sentence)
    *‘The C.C. company is the leader.
    (different meaning, incoherent utterance)

As such, the V-P constituent in (12), (13)a, and (14)a has the structure as shown in (15)a, whereas the V and P in (13)b and (14)b has the structure of (15)b;

(15) a. \[ V' \\
| / \ NP \\
| / \ \ Δ \\
| V P sînkʰâa təamnuan mâak \\
| | [nam kʰâw] \\

b.* \[ V' \\
| / \ PP \\
| | / \ \\
| | P NP \\
| | | Δ \\
| nam [kʰâw sînkʰâa təamnuan mâak] \]
Thus, the subcategorization frame of \textit{nam kʰāw} is as follows: [nam kʰāw] = V; [ ___NP], and the VP in (12) has the structure of (16) below;

\begin{verbatim}
(16) VP
    / \ V' PP
      / \ Δ
      V NP naj piิ thii laěaw
      / \ Δ
      V P sǐnkʰáa tɕamnuan mâak
      [nam kʰāw]
\end{verbatim}

It is noted that \textit{nam kʰāw} and \textit{nam} `bring' as in \textit{nam sǐnkʰáa kʰāw} `bring merchandise in' have different and separate lexical entries. The lexical entry of \textit{nam} is [nam] = V; [ ___NP (kʰāw )]. Also, a generalization can be made for two-word verbs of the form [V X]ˌ that require an NP complement.

The lexical entry will be of the form [V X] = V; [ ___NP].

It seems clear that the V' structure is satisfied under (2) and (10) in a two-word verb with NP complement. Also, it is quite clear that such V' may have a sister adjunct as a modifier such that the modifier expands the V' into yet another V; (not shown here), which in turn, with its null specifier expands into its maximal projection, VP, as in (16) above. In the following, it will be shown that such V' can be substituted by a proform, tham `do' and a WH-word, which distinguishes it from a full VP. Consider the following question for the statement in (12),

\begin{verbatim}
(17) bɔrísát [tham ?a? raj] naj piิ thii laěaw
company do what in year last
`What did the company do last year?'
\end{verbatim}

And a short answer will be,

\begin{verbatim}
(18) [nam kʰāw sǐnkʰáa tɕamnuan mâak]ˌ
import merchandise amount many
`imported a large amount of merchandise,'
\end{verbatim}

Here we have [tham ?a? raj ] in (17) substituting for the V' [nam kʰāw sǐnkʰáa tɕamnuan mâak] which is the short answer to the question.

Besides, tham `do', can serve as a proform of a V' but not the entire VP. For example,

\begin{verbatim}
(19) a. bɔrísát [nam kʰāw sǐnkʰáa tɕamnuan mâak]ˌ
company import merchandise amount many
naj piิ thii laěaw tǣe māj dáj [tham] naj piι nǐ
in year last but NEG do in year this
\end{verbatim}
‘The company imported a large amount of merchandise last year but (it) does not do...’(so) this year.

b.* borísát [nam kʰâw sînkʰâa tɔamnuan mâak company import merchandise amount many
naj pìi thʰîi lâæw]vp təæe máj dâj [thâam] in year last but NEG do
*‘The company imported a large amount of merchandise last year but (it) does not do...’

In (19) a thâm serves as a pro-V' but in (19)b serving as a pro-VP does not work. The sentence is incomplete in (19)b.

Moreover, in passivization, only the V' and not the entire VP is involved. For example,

(20) a. [sînkʰâa tɔamnuan mâak], thùuk [nam kʰâw e₁]v merchandise amount many PASS. import
naj pìi thʰîi lâæw
in year last
‘A large amount of merchandise was imported last year.’

b. *[sînkʰâa tɔamnuan mâak naj pìi thʰîi lâæw], thùuk merchandise amount many in year last PASS.
[nam kʰâw e₁]v import
*‘A large amount of merchandise last year was imported.’

All the examples in (17)-(20) above seem to give evidence for the existence of a V' category.

3.1.2 Transitive verbs

Since the subcategorization frame of a verb determines whether or not the XP sister node is an argument or an adjunct according to (2) and (10), any transitive verb has the structure of [V NP]v and a bi-transitive verb has a structure of [V NP PP]v or [V NP NP]v. For example,

ŋnaa n lîaŋ sàmæe party always
‘He always gives gifts to children at a party.’

Where [hâj] = V; [ ____NP (kææ) NP]
In the same manner as (17)-(20) above, transitive verbs can be tested for a V' constituent which is distinguished from a VP. For example,

(22) a. khāw [hāj khōn khwān kāe dēk]$_V$ naj he give gift to children in

ηaan ṭhām sāmōa tāe māj dāj [tham] naj ηaan nīi party always but NEG do in party this

'He always gives gifts to children at a party but (he) does not do (so) at this party.'

b. *khāw [hāj khōn khwān kāe dēk naj he give gift to children in

ηaan ṭhām sāmōa]$_{VP}$ tāe māj dāj [tham]

party always but NEG do

*'He always gives gifts to children at a party but (he) does not do (so).'

Here in (22)a tham is a pro-V' whereas in (22)b, it is a pro-VP. Again, it does not work in the latter, indicating that a V' is different from a VP.

In all, we see that a category V' does exist in Thai and that the templates in (2) and (10) do work for Thai V' and VP, and that the subcategorization at lexical entry of a verb helps determine the V' category.

3.2 N'

It will be shown in this section that the same principles hold true for N' and NP as in the case of verbs above.

A major distinction between the Thai and English NP that needs mentioning is that there are no articles, definite or indefinite in Thai, whereas in English, the articles a, an, and the, are more or less obligatory for countable singular nouns. While determiners this, that, are less obligated in English, they are optional in Thai. Given (2) and (10), we have the following NP and N' schemas:

(23) \[
\begin{align*}
\text{NP} & \rightarrow \text{N'} (\text{DETP}) \\
\text{N'} & \rightarrow \text{N} ((\text{S'}, \text{ PP})) (\text{AP}) \\
\text{DETP} & \rightarrow (\text{CLP}) \text{ DET}
\end{align*}
\]

Where CL = classifier and DET = determiner, and the S' or PP may be complements of N whereas AP is an adjunct of N. The rules for adjectives are;

(24) \[
\begin{align*}
\text{A'} & \rightarrow ((\text{CLP}) \text{ A}) \\
\text{AP} & \rightarrow \text{A'} (\text{AP})
\end{align*}
\]
The examples below will show the difference between an N' and an NP in that proforms e.g. *man, thәә can only serve as a pro-NP but not a pro-N'.

(25) a. [mәәw khәәŋ thәәŋ tuy nіi]NP thәәŋ rәәk [man] mәәk cat of I CL this I love it much
   'This cat of mine, I love it (very) much.'

b. *[mәәw khәәŋ thәәŋ]N, thәәŋ rәәk [man tuy nіi] mәәk cat of I I love it CL this much
   '*'My cat, I love it this one (very) much.'

In (25) a [man] serves as a pro-NP, but in (25)b it serves as a pro-N', which does not work.

(26) a. [phуу jіŋ sүәj khon nіi]NP thәәŋ rүү thәәk [thәә] dіі woman beautiful CL this I know her well
   'This beautiful woman, I know her well.'

b. *[phуу jіŋ sүәj]N, thәәŋ rүү thәәk [thәә] khon nіi dіі woman beautiful I know her CL this well
   '*'Beautiful woman, I know her this one well.'

Again, [thәә] in (26)a serves as a pro-NP which is wellformed. But when it serves as a pro-N' in (26)b the sentence is illformed. As such, an N' is distinguished from an NP.

4. Summary

Returning to the question we asked earlier at the end of section 2, whether or not the N' and V' nodes of (7)-(9) are redundant when the mother nodes, NP and VP, do not branch. The answer seems clear now that these N' and V' nodes are actually there and they can be expanded into an NP or VP with a specifier. However, we may assume the general practice of skipping the X' node in writing when the XP mother node does not branch (Sells 1985:29).

In sum, there seems to be evidence for the existence of an X' category in Thai, in particular, N' and V', and most probably A' and P' as well, if a similar kind of argumentation is applied. The implications are many. For example, V' can handle recursion in the serial verb construction in Thai nicely, and N' distinguishes a semi-phrase without a determiner from a maximally expanded NP. Moreover, under the X'-template of (2) and (10), the significant role of lexical entries whereby subcategorizations are specified is put forward. In light of the X' category, as specific and necessary information is required for each and every lexical entry (Radford 1988:365), a revision of the lexicon is being called for.
REFERENCES


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