On the structure of classifiers in non-quantified contexts in Mandarin and Thai

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In this paper, I propose that classifiers in non-quantified contexts such as those occurring with a demonstrative and an adjective are used as topic markers in Thai and Mandarin. The different word orders in the two languages result from the movement of the noun plus pied-piping to Spec of Topic Phrase in Thai, producing N-CL-Dem while the noun stays in situ in Mandarin, yielding Dem-CL-N order.

1. Introduction

The use of classifiers in Chinese language varieties has been the subject of study by many scholars (Cheng and Sybesma 1999, 2005, Tang 1996, among others). However, this literature focuses only on classifiers in quantified contexts, i.e. co-occurring with numerals and quantifiers. Another use of classifiers, i.e., classifiers co-occurring with a demonstrative and an adjective, has been ignored. In this paper, I explore the function and structure of classifiers in non-quantified contexts in one Chinese language, Mandarin, and in Thai. Mandarin and Thai share many common characteristics. For example, they belong to the Sino-Tibetan family, exhibit SVO word order, lack (in)definite articles, and use classifiers in counting. However, within the nominal domain, they exhibit word orders that are mirror images of each other: all elements modifying the noun are in the pre-nominal position in Mandarin but post-nominal in Thai. The surface order of the items comprising a Mandarin DP is shown in (1) and the order in a Thai DP is in (2).

(1) Mandarin:  Dem > Num + CL > A > N
na liang dong da fangzi
that two CL big house
‘those two big houses’

(2) Thai:  N > A > Num + CL > Dem
baan yai song lang nan
house big two CL that
‘those two big houses’

Classifiers are optional in certain contexts in both Mandarin and Thai. They are required when a noun is quantified and must appear adjacent to a numeral or quantifier, as illustrated in (1) and (2). Their absence yields ungrammaticality: *na liang fangzi (that-two-house) or *baan song nan (house-two-that) ‘those two houses’. However, it is optional in the absence of a quantifier/numeral, as illustrated in the DPs in (3) and (4) which contain a demonstrative and an adjective. The main

1 The abbreviations used here are Dem = demonstrative; Num = numeral; CL = classifier; A = adjective; N = noun.
questions raised by this paper are: 1) what is the function of classifiers in non-quantified contexts in the two languages and 2) how can this function be represented?

(3) Mandarin
na (dong) da fangzi
that CL big house
‘that big house’

(4) Thai
baan (lang) yai nan
house CL big that
‘that big house’

To derive the surface order of DPs in both languages, as shown in (1) and (2), I follow Cinque’s (2005) analysis of the structure of DPs. Essentially, Mandarin word order in DPs represents the universal merge order of the elements in the nominal domain and Thai DPs are derived from this order by the movement of the noun to the Spec of each modifying projection and the pied-piping of those elements along with it. This will be further elaborated in Section 2.

Section 3 discusses the difference between classifiers in quantified and non-quantified contexts. I assume previous proposals that classifiers in quantified contexts provide a unit to be counted (Chierchia 1998 and Borer 2005 among others), but further propose that non-quantified classifiers mark topicalized nouns and are selected as the head of a Topic Phrase and are thus only required in a topicalized noun phrase, as detailed in Section 4.

2. Deriving the surface order within DPs: Cinque (2005)

Cinque (2005) proposes that cross-linguistic variation in word order within the nominal domain results from different strategies of NP movement. There is one basic order, which represents the universal merge order of the elements within a DP. For the sake of simplicity, only demonstratives, numerals, adjectives and nouns will be considered. The basic order is Dem > Num > A > N. This order is found in English and Mandarin DPs. The basic merge order is found in (5).

(5) Dem > Num > A > N

Apart from the basic order, languages may allow the movement of NP. When an NP moves, it jumps from Spec to Spec of each higher projection. There are two options for this movement: either a) the NP moves by itself and stops at any particular projection or b), it carries along the projection that is checked by its movement, resulting in pied-piping. Some possible word orders in the DP domain are illustrated in (6)-(9).
The order in (6) results from NP raising from Spec to Spec up until Spec DP. An example of a language employing this order is Kikuyu (Greenberg 1963).

The order in (7) results from NP raising to Spec AP and stopping there, as in Yao (Jones 1970).

The order in (8) results from NP movement up to Spec NumP, as in Maasai (Koopman 2003).

This order results from NP movement to Spec NumP plus pied-piping of AP, as in Burmese (Jones 1970).

Recall that Thai DPs present a mirror image of their Mandarin counterparts. Mandarin DPs represent the basic universal order of Merge: Dem > Num + CL > A > N while Thai DPs represent the reverse order: N > A > Num + CL > Dem, because the NP raises from Spec to Spec and pied-pipes each projection until it reaches Spec DP. Notice that classifiers are always adjacent to numerals. I assume that the Numeral Phrase occupies the Specifier of the Classifier Phrase (Elizabeth Cowper, p.c.). The derivation of Thai DP surface order is illustrated in (10).

Underlying (Merge) order: Dem > Num + CL > A > N
Thai surface order: N > A > Num + CL > Dem

We have seen that the different surface orders within the DP domain can be analyzed as a result of phrasal movement parameters from one basic universal DP structure. The difference between Mandarin and Thai DPs lies in the fact that Thai opts for NP movement to Spec DP plus...
pied-piping. More detail on the motivation for movement can be found in Cinque (2005). We will now turn to the distribution of classifiers in both languages.

3. Canonical vs. non-canonical classifiers

As shown in (1) - (4), the classifier is obligatory in a quantified noun phrase but optional when there is no quantifying element. I will label the quantifying classifier as the canonical type and the non-quantifying one as the non-canonical type. According to recent literature (Borer 2005, for instance), canonical classifiers function as unit providers or individuators. This is because nouns in the so-called ‘classifier languages’ are assumed to be inherently unindividuated or mass (see Chierchia 1998 and Krifka 1995, for example). There is no grammatical distinction between mass and count nouns in these languages.

In both Mandarin and Thai, a classifier may co-occur with an adjective and a demonstrative, as illustrated in (3) and (4), repeated in (11) and (12). The difference is that Mandarin does not allow a classifier to co-occur with just an adjective without a demonstrative, while Thai does allow N-CL-A sequences, as shown in (12b).

(11) Mandarin
   na (dong) da fangzi ‘that big house’
   that CL big house

(12) Thai
   a. baan (lang) yai nan ‘that big house’
      house CL big that
   b. baan (lang) yai ‘the big house’
      house CL big

Although classifiers may be absent in this context without causing ungrammaticality, their presence does affect the number interpretation of the noun phrase. In Thai, the classifier allows only a singular interpretation to the noun phrase. Without a classifier, the noun phrase may be interpreted as either singular or plural. We will not be concerned with the effect of a classifier on number interpretation here. I will assume for now that singularity is encoded in the classifier because its main function is to individuate mass, and without it, no number interpretation is possible.

There are three different approaches to the use of non-canonical classifiers in Thai. First, Singhapreecha (2001) proposes that Thai classifiers appearing outside a numeral phrase mark agreement. She compares the co-occurrence of classifiers with other nominal modifiers to gender agreement in Indo-European languages where all modifiers within the DP must agree with the phi-features of the noun. The problem with this account is that classifiers do not behave like gender agreement in that they are optional. The second approach (Jenks 2006) proposes that non-canonical classifiers preceding nominal modifiers form relative clauses. The problem with this analysis is that it only accounts for classifiers modifying an adjective such as (12b) but not those modifying a demonstrative as in baan lang nan (house-CL-that) ‘that house’. To form a relative clause, one would expect the classifier in (12b) to be optional, which is the case. However, it does not explain the singularity and specificity effect that classifiers give to the noun phrase. Consider (13a) and (13b). Specifically, baan yai ‘big house’ is different from baan lang yai ‘the big house’ in that the noun phrase containing the classifier is singular and specific while the absence of a classifier in (13a) makes the noun generic and of indeterminate number.
If we were to assume the relative clause approach, (13b) can mean ‘houses that are big’ or ‘a house that is big’. This certainly does not explain the singular and specific interpretations that distinguish (13a) from (13b).

The third proposal is that classifiers in non-quantified contexts are pronouns that head the DP while the noun serves as an adjunct (Piriyawiboon 2007). Under this approach, the literal interpretation of the noun phrase \textit{baan lang yai} in (13b) would be ‘house, the one that is big’. Although this approach is successful in explaining the interpretational difference between (13a) and (13b), it does not explain how and why a classifier can be used as a pronoun in this type of construction.

In the remainder of this paper, I will explore a new interpretation of non-canonical classifiers, which also applies to Mandarin. In brief, I propose that they mark topicalized or focalized nouns.

4. Proposal: Individuator vs. topic/focus marker

As shown in the previous section, classifiers are optional in non-quantified contexts. There is, however, a semantic difference between the presence and absence of a classifier. We will now review evidence from both Thai and Mandarin pointing to a discourse interpretation of non-quantified classifiers. When a classifier co-occurs with a demonstrative, it emphasizes the noun phrase.

(14) Mandarin
a. na fangzi
   that house
   ‘that house’

b. na \textbf{dong} fangzi
   that CL house
   ‘that very house’

(15) Thai
a. baan nan
   house that
   ‘that house’

b. baan \textbf{lang} nan
   house CL that
   ‘that very house’

c. baan kaw
   house old
   ‘the/an old house(s)’
In Thai, the object DP with a non-canonical classifier must be presupposed. That is, if the object is previously known in the discourse, it must contain a classifier. This is illustrated in (16).

(16) Thai
a. chan hen baan kaw muawaannii
   I see house old yesterday
   ‘I saw an old house yesterday’

b. chan hen baan *(lang) kaw muawaannii
   I see house CL old yesterday
   ‘I saw the old house yesterday’ (that we’ve talked about)

A presuppositional interpretation of the DP containing a classifier is further supported by the fact that classifiers are obligatory, in both languages, questions with the D-linked element ‘which’ (17 and 18) and NP-ellipsis (19 and 20).

(17) Mandarin
na *(zhi) mao shi nide
which CL cat be your
‘Which cat is yours?’

(18) Thai
maew *(tua) nai khong khun
cat CL which belong to you
‘Which cat belongs to you?’

When a noun is repeated, it is usually elided and pronominalized. In this case, the classifier is obligatorily used.

(19) Mandarin
wo mai le xin de dianna, zhiyu jiu de na dai, wo gei wo ma le.
I buy ASP new DE computer as.for old DE that CL I give my mom ASP
'I bought a new computer, as for the old one, I gave it to my mom’

(20) Thai
chan suu kom maa mai, suan khruang kaw hai mae pai
I buy computer ASP new as for CL old give mom ASP
'I bought a new computer, as for the old one, I gave it to my mom’

All of these pieces of evidence indicate that nouns modified by a classifier in a non-canonical context must be presupposed in the discourse in both Mandarin and Thai. The presence of a classifier in non-canonical contexts thus serves a discourse function. Thus, I conclude that classifiers in non-quantified contexts function as a Topic/Focus marker in both Mandarin and Thai.

I conflate the terms Topic and Focus here. However, Topic and Focus carry different information in the discourse. Topic refers to old information in the discourse while Focus refers to
new information. (19) and (20) are examples of topicalized DPs because the noun ‘computer’ has been mentioned in the previous sentence. (14) and (15) are examples of focused DPs, if stated for first time. To distinguish non-canonical classifiers from canonical ones, I posit that they bear different features that are responsible for their different functions. I follow Borer (2005) in assuming that canonical classifiers have the feature [divide], which is responsible for the individuating function in a noun phrase. For non-canonical classifiers, however, I propose that they possess the feature [topic] or [focus], which is responsible for marking topic/focus in a noun phrase. The difference between the two types of classifiers is illustrated in (21) and (22).

(21) Canonical classifier

(22) Non-canonical classifier

Let us apply the proposed structure to the data. (23) provides the structure for a focused DP in Mandarin. (24) provides the structure for a focused DP in Thai.
We have just seen one possible analysis of non-canonical classifiers in Mandarin and Thai. Another observation that lends support to the interpretation of Thai and Mandarin non-canonical classifiers as Topic/Focus markers is that these languages do not have specialized Topic/Focus markers. Languages such as Japanese and Korean, however, in which classifiers occur only in canonical contexts, do possess a Topic/Focus marker. Classifiers in Japanese and Korean can thus serve only as individuators. However, more data from discourse analysis are needed in order to strengthen the claim that classifiers can indeed be used as a topic and focus markers.

This paper presents a first sketch of an analysis and left many questions unanswered. The most important question we have not dealt with is that Topic and Focus are assumed to be sentence-related phenomena (Rizzi, 1997). How can we confine this discourse function within the DP domain? Moreover, the discourse-based analysis is silent about the singularity and specificity effect of the classifier. These questions will be explored in future research.

References