Abstract

A wide range of Burmese nominal data are considered. Selectional considerations support the structure of [N Num Cl Q] that is presented, which itself mandates an analysis of twei and myà as quantifiers generated in Q rather than true plural markers generated in Num. Li’s (1999) analysis of Mandarin -men is adapted to apply to Burmese towi, and a structure is given for Burmese DP. Certain exceptional data with pronouns allow us set the stage for refinements of the ideas developed to this point.

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1 Introduction

Burmese is a strongly analytic language. There appear to be some unproductive derivational affixes, but no inflectional morphology to speak of. Generally, Burmese is head-final, with postpositions and verbs that appear at the end of the sentence. It is generally accepted that Burmese is a member of the Sino-Tibetan family of languages (Ethnologue), and so is distantly related to Mandarin, another language which provides data for this paper. Both are counted among the world's classifier languages, meaning that many nominal constructions require an auxiliary member, known as a classifier. Classifiers often derive historically from nouns, and this is often clear in the Burmese system, where many classifiers have a form identical to the noun they modify. Even when this is not the case, for the most part, classifiers share their forms with semantically less specified nouns. Even the all-purpose classifier in Burmese, *hkū*, which can be used when a more specific classifier is not known, appears to derive from a noun meaning 'round thing', though its use is not limited to round objects.

An important finding of Greenberg (1972) is that numeral classifier constructions are modeled after measure constructions used with mass nouns. The latter is found even in English, as with

(1) two pounds rice

There is an open theoretical question about the precise relationship between numeral classifier and measure constructions in classifier languages. Cheng & Symesma (1999) provide diagnostics which show that the two constructions are distinguishable in Mandarin. Pending such diagnostics in Burmese, we will not dwell heavily on this question, treating measure constructions, where they arise, as a variation on the same syntactic pattern.

An oft-repeated corollary of this claim is that as a diachronic product of the creation of the numeral classifier construction, all nouns in classifier languages have been reanalyzed as mass nouns. As a result of the Mandarin diagnostics they demonstrate, Cheng & Symesma (1999) refine this claim, ascribing to the Mandarin nominal system an overarching syntactic masshood coupled with a purely semantic, but still visible, mass-count distinction.

Sanches (1971) appears to have been among the first to comment on the interaction between classifiers and plurality, claiming, 'If a language includes in its basic mode of forming quantitative expressions numeral classifiers, then it will also have facultative expression of the plural. In other words it will not have obligatory marking of the plural on nouns.' Moreover, classified nouns in general do not take plural marking. If this is taken as a purely morphological statement, Burmese does not seem to provide contradictory evidence. However, the reason for this implicational universal would

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1 Most of the structures that will be developed herein will be head-final; this was not intentional, but a happy and reassuring coincidence.

2 Curiously, round numbers (multiples of ten, hundred, etc.) often appear without an overt classifier. I conjecture that here the round part of the number plays the role of classifier: 'fifty fish' becomes 'five tens of fish'. But it is not trivial to show this convincingly.
appear to be as much semantic as formal; the co-appearance of numeral classifiers and plural-like functional heads provides a major impetus for this paper.

Indeed, Chierchia (1998a, 1998b) provides a theoretical connection between this implicational universal and the previously-noted purported abnegation of a mass-count distinction. His Inherent Plural Hypothesis suggests that mass nouns are inherently marked for plural number. If this is the case, overt marking of the plural on any noun in a classifier language would be extraneous, redundant, and superfluous.

In Section 2, I will elaborate on the details of the Burmese nominal system, with reference to the various subdimensions of number and quantity, namely enumeration, plurality, and associativity. Certain interesting surface phenomena will become apparent, involving both plural morphology and selectivity. In Section 3, the lower structure of the Burmese nominal will be considered, and an analysis of Burmese twei and myâ (both having a roughly plural meaning) will be offered and defended. In Section 4, I will compare certain of the data containing τóu (again, roughly plural) with similar Mandarin data, as analyzed by Li (1999). In Section 5, Li’s analysis of -men as a true Plural will be adapted to the analysis of Burmese τóu as a Determiner. In Section 6, the problem of doubly-marked plural pronouns will be revisited, and it will be shown that our analysis of the Burmese morphemes will help account for their distribution. In the final section, some further implications will be explored, and I will spell out some questions which remain unanswered.

2 A description of Burmese nominals

As a rule, Burmese nouns, as with most parts of the language, do not possess inflectional morphology. Instead, they are typically found accompanied by a coterie of functional categories, although they may also be found ‘bare’, without these paraphernalia. By ‘bare’ we also include nouns modified by adjectives, which occur within an NP internal to these functional projections.

2.1 Grammatical number

To mark something approximating the plural number, Burmese variously uses the morphemes τóu, twei, and myâ. Each may occur with otherwise bare nouns, as in (2).

(2)  a.  ḫāk mù τóu
    child PL
    ‘the children’
  b.  pōuñči twei
    monk PL
    ‘monks’
  c.  ŝinđê myâ
    lion PL
    ‘lions’
In contrast with *twei and *mya, *toù gives the noun a definite interpretation. In particular, phrases with *toù are not allowed in existential clauses.

(3) a. *hkâlei *toù hyi thi  
    child PL exist PART  
    'There are (exist) the children.'

b. *pouñci twei hyi thi  
    monk PL exist PART  
    'There are monks.'

c. *cinđë *mya hyi thi  
    lion PL exist PART  
    'There are lions.'

This incompatibility between definite expressions and existential clauses is a cross-linguistic tendency, as definiteness presupposes existence. This is also observable in English.

(4) a. *There is (exists) the pen.  

b. *There is that pen.  

c. There is a pen.

Here the English definite article *the and demonstrative *that give the noun phrase a definite interpretation. While Burmese lacks overt definite or indefinite articles, it does have a series of demonstratives, which cross-linguistically do imply definiteness. This paper deals primarily with *dì, *di 'here, this' and *èda, *da 'this, that (thing)', which occur at the left edge of a nominal. It is interesting then that *toù is incompatible, with *mya or *twei showing up in its stead.

(5) a. *di *hkâlei *toù  
    this child PL  
    'these children'

b. *di *hkâlei *twei  
    this child PL  
    'these children'

c. *di *cinđë *mya  
    this lion PL  
    'these lions'

*Sentence-final particles are glossed as PART.
2.2 Enumeration

Nouns can also be modified with numerals, though this typically requires an auxiliary numeral classifier. Here the word order is uniformly (noun + numeral + classifier), although certain nouns may appear in the classifier slot, leaving the pre-numeral slot empty.

(6) a. caūn  hnā caūn
    school two school.CLF
    ‘two schools’
    (Okell, vol. I, p. 76)

  b. cindē lei  kauūn
      lion four animal.CLF
    ‘four lions’

  c. hnā-hsē pa’
      two-ten week.CLF
    ‘twenty weeks’

Nouns appearing with such a quantity expression (number + classifier) cannot appear with either twei or myā, though they can appear with toū; often, in this case, their interpretation is restricted to that of a first- or second-person pronoun.

(7) kouyiūn  toū thouūn pa’a
    novice PL three monk.CLF
    ‘us three monks’

2.3 Augmentative and diminutive forms

An augmentative form ci and a diminutive hkāleι appear at the right edge of the nominal, after a quantity expression when it appears. These forms are homophonic with adjectives meaning ‘big’ and ‘little’, respectively, and when they occur without quantity expressions, this creates ambiguity.

(8) a. cindē ci
      lion big/AUG
    ‘big lion’, ‘friggin’ lion’

  b. kouyiūn hkāleι
      novice little/DIM
    ‘little novice’, ‘just a novice’

*It appears that all forms of hkāleι derive from the noun meaning ‘child’, also homophonic, which appears in (5).*
However, when a quantity expression intervenes, only the augmentative or diminutive reading is possible, as in (9).

(9) cindë lei kauñ ci
    lion four animal.CLF AUG
     'four friggin' lions' (*'four big lions')

It is possible to say things like 'four big lions', however; in this case, the adjective appears directly following the noun, as in

(10) cindë ci lei kauñ
    lion big four animal.CLF
     'four big lions'

This directly postnominal position is where adjectives are canonically generated, as in

(11) cindë ni lei kauñ
    lion red four animal.CLF
     'four red lions'

Such a (noun + adjective) sequence appears to be the Burmese NP.

Curiously, these forms are unable to co-occur with twei or myä:

(12) *cindë myä ci
    lion PL AUG
     'some friggin' lions'

2.4 Quantifiers

A number of quantifiers occur in approximately the same position as the augmentative and diminutive. These include tuiñ 'every', lau 'approximately', (sá)läñ 'all, without exception', and si 'each', but we only consider hte 'only, no more' as a representative element. Okell (1969) writes that hte, (sá)läñ, and si only occur after quantity expressions:
3 The lower structure

Even disregarding plural morphemes, we have observed a large number of semantic categories in the Burmese nominal. In the following table, we summarize these categories, along with the labels of the corresponding syntactic heads and representative elements.

<table>
<thead>
<tr>
<th>category</th>
<th>head</th>
<th>example</th>
</tr>
</thead>
<tbody>
<tr>
<td>demonstrative</td>
<td>D</td>
<td>édi ‘this’</td>
</tr>
<tr>
<td>noun</td>
<td>N</td>
<td>cindé ‘lion’</td>
</tr>
<tr>
<td>numeral</td>
<td>Num</td>
<td>thou ‘three’</td>
</tr>
<tr>
<td>noun/classifier</td>
<td>Cl</td>
<td>kaun ‘animal’</td>
</tr>
<tr>
<td>quantifier</td>
<td>Q</td>
<td>hte ‘only, no more’</td>
</tr>
<tr>
<td>diminutive</td>
<td>Q</td>
<td>hkâlei ‘just, little’</td>
</tr>
<tr>
<td>augmentative</td>
<td>Q</td>
<td>ci ‘great, friggin’</td>
</tr>
</tbody>
</table>

These occur, with minimal exceptions, in the order

(15) [D N Num Cl Q].

There is not obviously a one-to-one correspondence between semantic categories and syntactic heads. On the one hand, syntactic Classifiers appear to be derived from Nouns, and often are formally identical:

(16) cuñ hñá cuñ

island two island.clf

‘two islands’

"Of these three, si may be the most enticing for future study. In particular, inasmuch as its role overlaps with the Mandarin distributive dou, it may provide clues to a semantic mass–count distinction in the language (Cheng & Sybesma, 1999)."
This suggests that a theory of Burmese which treats classifiers and nouns as the same category will be more economical than the alternative. Another complication to this picture comes from the fact that rather often, there appears a surface string (number + noun). This string often appears when the noun references a length of time, as in (17a), although this does not completely describe the set of nouns for which this is possible.

(17) a. ḥsé-ngá pa'
   ten-five week
   'fifteen weeks'
   b. ḥcau'-hsé-hcau' ywe'
   six ten-six page
   'sixty-six pages'

However, I argue that this is, in reality, just [Num Cl]. A useful diagnostic here is that, in the full [N Num Cl] structure, a noun in N may be modified by an adjective, yielding a structure [[N A] Num Cl]. An element in Cl cannot be so modified by an adjective. That is, N is actually a maximal projection NP, while Cl is a lexical head. Thus the contrast in (18) is accounted for; if the structure in (17) is truly [Num Cl].

(18) a. * ḥcau'-hsé-hcau' ywe' ci
   six ten-six page big
   'sixty-six big pages'
   b. sa ywe' ci ḥcau'-hsé-hcau' ywe'
      page big six-ten-six page.clf
   'sixty-six big pages'

We note also that

(19) * ci ḥcau'-hsé-hcau' ywe'
    big six-ten-six page.clf
    'sixty-six big pages'

is unacceptable; it appears then that there is not a phonetically null noun in (18a), which we would predict would be able to be modified in situ. Thus there appears to be either no projected N head, or an instance of NP ([N A]) ellipsis.

This second analysis of NP ellipsis cannot easily capture the idiosyncrasy of the data. Not all NP may be so elided; for example, the utterance in (20) is quite ungrammatical without an overt N pañ 'flower'.

(20) * (pañ) thōn' pwi'
    flower three flower.clf
    'three flowers'
Neither can NP ellipsis be properly motivated by phonetic identity between N and Cl. While it appears possible to say

(21) ?hná cuñ
    two island.CLF

'two islands'

given the right context, the version with overt N cuñ is far more natural. That is, NP ellipsis is not available whenever NP and Cl are identical. Nor is it the case that NP ellipsis is only available when NP and Cl are identical, for although it is natural to say hcau'-hsé-hcau' ywe' 'sixty-six pages', the corresponding NP, which can be elicited in combination with the adjective ci 'big', appears not as ywe' but sa ywe'. It appears then that the appearance of a surface string (number + noun) cannot be predicted without reference to the particular noun. Certain Classifiers necessarily select for an element in N(P), while other Classifiers (like pa' 'week', hcau' 'page') allow for, but do not require, N(P). That is, Classifiers vary in whether they have or do not have an uninterpretable feature [uN]. Under this analysis, the structures of (17b) and (20) are as follows:

(22)

Example (20) and the preceding hide certain complexity which arises with the use of ci. In these examples it is glossed as 'big', an adjective with little emotional weight. In contrast, Robin (my primary consultant, and a native speaker of the language) just as often translates ci as 'friggin'', and describes a certain minimum emotional investiture that would be required for its usage. This is the augmentative reading of ci, and may appear in certain environments where the adjectival reading is impossible.6

(23) a. sa ywe' ci
    page big/AUG
    'big pages' or 'friggin' pages'

b. hcau'-hsé-hcau' ywe' ci
    six ten six page.CLF AUG
    'sixty-six friggin' pages' ('sixty-six big pages')

6The augmentative and diminutive are glossed as AUG and DIM, respectively.
The diminutive *hkālei* also has an adjectival reading 'little', and a similar contrast arises.

(24) a. *saywe* *hkālei*
    *little/DIM*
    'little pages' or 'just pages''

b. *hcau*-hsé-*hcau* *ywe* *hkālei*
    *six-ten-six page.CLF DIM*
    'just sixty-six pages' ("sixty-six little pages")

c. *sa ywe* *hkālei* *hcau*-hsé-*hcau* *ywe*
    *little six-ten-six page.CLF*
    'sixty-six little pages' ("just sixty-six pages")

When *ci* and *hkālei* appear directly after N, in NP, they are read as adjectives. When they appear at the right edge of the nominal, they are read as augmentative or diminutive. Either structure, and thus either reading, may be inferred when they appear directly after a bare N. This is not generally the case for adjectives, which for the most part may only appear directly following N.

The quantifier *htē* 'only, no more', on the other hand, cannot appear directly following N, whether or not this would place it at the right edge of the nominal. Instead, it must appear after a surface string (number + classifier), as in (25c).

(25) a. *cindé hte*
    *lion only*
    'only lions, no more than lions'

b. *cindé hte thoui kauč*
    *lion only three animal.CLF*
    'only three lions, no more than three lions'

c. *cindé thoui kauč hte*
    *lion three animal.CLF only*
    'only three lions, no more than three lions'

Although *htē* 'only, no more' and the diminutive reading of *hkālei* 'just' might appear to overlap, *htē* does not have the emotional force of *hkālei*. There are certain nouns which, owing to the status accorded their referent, would be semantically incongruous with *hkālei* but not with *htē*.

(26) a. *pounči* *hkālei*
    *monk DIM*
    'just a monk'
b. ?pou̱iči thou̱i pa’ * hkâléi
          monk three monk.clf dim
          ‘just three monks, three just-monks’

c. pou̱iči thou̱i pa’  * hte
          monk three monk.clf only
          ‘only-three monks, no-more-than-three monks’

As will become relevant later when we consider the selectivity of hkâléi, this does not
appear to have anything to do with the Classifier pa’, as hkâléi is acceptable with the
Noun kouyii’ novice’, which takes the same Classifier.

(27)

a. kouyii  hkâléi
          novice dim
          ‘just a novice’

b. kouyii  thou̱i pa’  * hkâléi
          novice three monk.clf dim
          ‘just three novices, three just-novices’

c. kouyii  thou̱i pa’  * hte
          novice three monk.clf only
          ‘only-three novices, no-more-than-three novices’

But there is also quite a lot that the quantifier hte has in common with diminutive
hkâléi and augmentative ci. Although hkâléi and ci appear at first blush to be semanti­
cally compatible with the plural, neither they (with their diminutive and augmentative
readings, respectively) nor hte may co-occur with twei or myâ.

(28)

a. * cindé myâ  hte, * cindé hte myâ
          ‘only some lions’

b. * cindé myâ  hkâléi, * cindé  hkâléi myâ
          ‘just some lions’

c. * cindé myâ  ci, * cindé  ci myâ
          ‘some friggin’ lions’

On the other hand, adjectival readings of hkâléi and ci are possible in

(29)  cindé  hkâléi/ci  myâ
          lion big/little pl
          ‘some big/little lions’
This does not seem to be a restriction on the lexical items *hkälei* and *ci*, but rather on the occurrence of a syntactic head (here, Q) in which quantifiers, the diminutive, and the augmentative are all generated. Seeing as the quantifier *hte*, but not diminutive *hkälei* or augmentative *ci*, only co-occurs to the right of quantity expressions (number + classifier), Q appears to vary in terms of whether or not it necessarily has a uninterpretable feature [uNum] or [uCl]: *hte* is necessarily [uNum] or [uCl], while diminutive *hkälei* and *ci* may either be [uNum] or [uCl] or instead select for a bare noun. Presumably, this would correspond to an uninterpretable feature [uN].

It turns out that it is difficult to reconcile a Cl head that selects for N, a Q head which selects for Cl or Num, and the linear order [N Num Cl Q]. In particular, it is impossible if Q selects for Num; a structure cannot be derived for [N Num Cl[uN] Q[uNum]] without either crossing branches or leaving one of the uninterpretable features buried in the tree and unchecked. If Q selects for Cl, on the other hand, the two structures

\[
(30) \quad \begin{array}{c}
\text{Q} \\
\text{Cl} \\
\text{N}[uNum] \\
\text{Num}
\end{array}
\quad \text{and} \quad \begin{array}{c}
\text{Q} \\
\text{Cl} \\
\text{N}[uN] \\
\text{Cl}[uN, uCl]
\end{array}
\]

are possible. The first requires, rather implausibly, that N selects for Num. Even if N were able to optionally select for Num, thus accounting for all of the occurrences of nouns without numerals, this tree predicts that we would be able to generate [N Cl] or [N Cl Q] when Cl selects for a N which does not itself select for Num. Also disquieting is that this flies in the face of the general understanding of the semantic purpose of a classifier, which is to intercede between a noun and a numeral, in order either to make the noun countable, or the numeral able to count. Thus we adopt the second tree as our structure for [N Num Cl Q]. When *hkälei* or *ci* are allowed to select for N as well as Cl, the structure

\[
(31) \quad \begin{array}{c}
\text{Q} \\
\text{N} \\
\text{Q[uN]}
\end{array}
\]

\[\text{Depending on whether Cl or Q first attempts to Merge, we are immediately left with one of the mis-shaped mis-shapes}\]

[\[
\begin{array}{c}
\text{Cl} \\
\text{N}[uNum] \\
\text{Cl}[uCl] \\
\text{Q[uNum]}
\end{array}
\quad \text{or} \quad \begin{array}{c}
\text{Q} \\
\text{Cl} \\
\text{N}[uNum] \\
\text{Cl}[uN, uCl] \\
\text{Q[uNum]}
\end{array}
\]

allow us to continue a derivation.

\[\text{This second interpretation is favored by Krifka (1995) to explain quantification over kinds in Mandarin.}\]
One quick note: the identical distributions of \([N \ Num \ Cl]\) and \([N \ Num \ Cl \ Q]\) with respect to D may be captured, without inciting controversy, if the first has the same structure as the second, but with phonetically null \(Q\).

3.1 The position of \(twei\) and \(myà\) in the structure

We have noted that the plurals \(twei\) and \(myà\) do not co-occur with any subset of Num, Cl, and Q. However, with the structure we have just developed, \([\text{Num} \ Cl \ Q]\) is not a constituent. One thing that is clear is that \(twei\) and \(myà\) select for \(N\). If these plural morphemes are generated in \(CI\), the ungrammatical phrase

\[(32) \quad \ast \text{cindé } myà \ ci\]

'\text{some friggin'} lions'

is predicted. If the plural morphemes are generated in \(\text{Num}\), two problems arise: on the one hand, ungrammatical phrases like

\[(34) \quad \ast \text{cindé cindé myà kauñ}\]

lion lion PL animal.CL\(F\)

'some lions'

are generated if \(\text{myà}\) is allowed to select for either \(\text{Cl}\) or another \(Q\).
are predicted. These might be ruled out on independent grounds; a still-significant problem is that we would expect [N Num], of type Num, to have a significantly different distribution from [N Num Cl Q], of type Q. In fact, their distributions appear identical.

On the other hand, if twee and mya are generated in Q with the feature [uN], the structure (31) correctly predicts the distribution of twee and mya, and moreover, describes the identical distribution of [N pl.] and [N Num Cl Q].

3.2 The meaning of twee and mya

The position of the morphemes twee and mya is accurately predicted if they are generated in Q with an uninterpretable N feature. As will be seen in the next section with reference to Li (1999), the distribution of both the English and Chinese plural morphemes -s and -men is captured if both are generated in the Num head. A different syntax should, in a perfect world, correspond to a different semantics: here we will argue that just such a different semantics exists, so that even though twee or mya occurs in most cases that plural morphology would be expected, its role is distinct from that of plural morphology.

There are two circumstances in which twee and mya appear where, on the face of things, we would not expect plural morphology. The first is when a noun is used to modify another noun, as in (36).

(36) meïûmüyâ uhpoû me'gâziû
    woman PL for magazine
    ‘magazine for women’  (Okell, vol. I, p. 57)

Unfortunately, a complete analysis of this would be somewhat outside the scope of this paper.

Chierchia (1998a, 1998b) argues for an Inherent Plural Hypothesis: that every mass noun is inherently plural, and thus cannot take extra plural morphology. The general tendency of nouns in classifier languages not to have plural morphology is thus accounted for by every noun being a mass noun. On the other hand, Cheng & Sybesma (1999) argue that even in a language like Mandarin, where this prediction that all nouns are syntactically mass nouns holds up rather well, a semantic distinction between mass and count nouns still exists, and is visible in the distinct behaviors of mass-('massifier') and count-classifiers: 'a modification marker de can intervene in [massifier + N] sequences but not in [count-classifier + N] sequences' (pg. 515), as shown in the contrast between (37a-b)\(^6\):

(37) a. san bang (de) rou
two pound.CLF DE meat
    ‘three pounds of meat’  (Cheng & Sybesma, p. 515, ex. 12a)

\(^6\)Owing to the unresolved question of the nature of Mandarin de, we follow many authors in glossing it as de. Similarly, -men is glossed as MEN.
b. ba tou (*de) niu
eight head.CLF DE cow
‘eight cows’ (Cheng & Sybesma, p. 516, ex. 13a)

In Burmese, it is not so clear that a distinction between semantically mass and count nouns exists; pending such a diagnostic, it is still surprising that twei and myā should be able to occur with liquids, granular solids, and abstract nouns, as in (38).

(38) a. hcewei twei
   sweat PL
   ‘a lot of sweat’
   (Okell, vol. II, p. 430)

b. jouinihnou twei
   flour PL
   ‘a lot of flour’

c. yothahciih twei
   honesty PL
   ‘a lot of honesty’

With the caveat that even two of a countable noun may be thought of as ‘a lot of’ that noun, glossing twei and myā as such a quantifier better captures the data. However, I will continue to gloss twei and myā with PL, for consistency and expedience. This analysis further provides a semantic motivation for the incompatibility of twei and myā with precise quantity expressions (number + classifier); this is the same semantic oddness that is captured in the English data

(39) a. a lot of twenty books
b. twenty lots of books

where the intended total number of books is twenty, and lot is not to be read as the homophonic noun.

However, we should not lose track of the fact that twei and myā often have the force of a plural. This observation can be brought into line with Chierchia’s claim that mass nouns are inherently plural if we reinterpret this to mean that Num and N cannot select for each other if N is a mass noun. In Mandarin, the Num head selects for Cl, while in our analysis of Burmese, Cl selects for Num. Under this reinterpretation, a morpheme that is generated in a slot that is not Num but is otherwise ostensibly plural may happily coexist with mass nouns.

4 Li’s analysis of the Mandarin plural marker -men

In accordance with the view that plural marking is anathema to classifier languages, in which every noun is expected to have a mass extension\(^\text{15}\), morphemes like the Mand-
darin Chinese suffix -men are often given an associative\(^{12}\), rather than a plural, analysis. This describes data like

\[(40)\]  
\[wó qíng XiǎoQiánɡ-men/xiáozhǎnɡ-men sān-ge (rén) chīfàn.\]  
\[I invite XiaoQiánɡ-MEN/Principal-MEN three-CLE person eat\]  
\[‘I invited XiaoQiánɡ/Principal and two others (in the group) for a meal.’\]  
\[(Li 1997, p. 80, ex. 6c)\]

However, although an associative reading is possible for -men in (41), there is also a plural reading.

\[(41)\]  
\[wó qíng XiǎoQiánɡ-men/xiáozhǎnɡ-men chīfàn.\]  
\[I invite XiaoQiánɡ-MEN/Principal-MEN eat\]  
\[‘I invited the three principals for a meal.’\]

Li (1999) attempts to account for this and other odd behavior of -men. This odd behavior is summarized in the generalizations

P1: -Men is suffixed to pronouns, proper names, and some common nouns.

P2: Common nouns with -men must be interpreted as definite.

P3: Attachment of -men to proper names yields two different interpretations, a “plural” or a “collective” [associative] reading.

P4: A pronoun/proper name with -men can be followed, but not preceded, by a quantity expression (number + classifier) and even another noun. In the cases with proper names, only the “collective” [associative] reading is possible when a quantity expression follows. With common nouns, quantity expressions are generally impossible.

Following are provided Mandarin examples, taken from Li, to back up each of these generalizations, along with corresponding Burmese forms, as applicable. For P1 and P2,

\[(42)\]  
\[a.\]  
\[wó qu zhāo háizi-men\]  
\[I go find child-MEN\]  
\[‘I will go find the children.’\]  
\[(Li 1997, p. 78, ex. 3c)\]

\[b.\]  
\[wó qu zhāo háizi\]  
\[I go find child\]  
\[‘I will go find the/some child/children.’\]  
\[(Li 1997, p. 78, ex. 3d)\]

\(^{12}\) Li uses ‘collective’.
c. wo qing ta-men sange (haizi) chifan.
I invite them three-CLF (children) eat
'I invited them three-CLF (children) for a meal.' (Li 1997, p. 79, ex. 6b)

d. XiaoQiang-men shenme shihou lai?
Xiao-Qiang-MEN what time come
'When are XiaoQiang and the others coming?' (Li 1997, p. 78, ex. 4)

P3 and P4 are visible from (40) and (41). Li adopts a theory of the Chinese nominal that is basically right-branching. Although Mandarin lacks articles, she argues for the existence of a DP structure; in particular, [D [Num [Cl [N]]]]. With this, it is natural to account for data like (43) with the claim that pronouns and proper names, having reference, are generated in D.

(43) a. ta dui tamen liang-ge (ren) tebie hao
he to they two-CLF person especially good
'He is especially nice to them two (people).' (Li 1997, p. 82, ex. 8a)

b. ta dui XiaoMing, XiaoHua liang-ge (ren) tebie hao
he to XiaoMing XiaoHua two-CLF person especially good
'He is especially nice to XiaoMing, Xiaohua (them) two people.'

(Li 1997, p. 82, ex. 8b)

c. *ta dui xuesheng liang-ge (ren) tebie hao.
he to student two-CLF person especially good
'He is especially nice to the two students.' (Li 1997, p. 82, ex. 8c)

Nouns, on the other hand, cannot be generated in D. Li appeals to the Head Movement Constraint (Travis, 1984), which rules out a head crossing over another head in the process of movement. In this way, the movement of xuesheng to D in (43c) is blocked by the presence of an overt Num, liang, and Cl, ge. That is, elements that are base-generated in D can be followed by quantity (numeral + classifier) expressions, while elements that are in D as a result of movement from N may not.

It is an important tenet of Li's analysis that this movement from N to D occurs, and corresponds to definite interpretation. In fact, Li suggests that indefinite nouns may not project a DP, relying on some variation of existential closure. This analysis is a result of careful consideration of empirical Chinese data like that in (43), and is defended in Li (1997). With this hypothesis, the above claim becomes more meaningful: pronouns and proper names, generated in D, may be followed by a quantity expression, whereas definite common nouns, which would move from N to D, cannot be.

With this in mind, Li finally proposes a structure to account for this data: -men, when generated, is generated in Num. When N can move up to Num, -men may be realized as a suffix on N\(^{13}\). When N cannot move up to Num, owing to Cl blocking

\(^{13}\)It is a strength of Li's analysis that the English plural -s can be generated by the same structure, with
this movement, -men may move up to D and be realized as a suffix on any nominal element in this slot. The tree given below summarizes this.

(44) \[
\begin{array}{c}
\text{DP} \\
\text{D} \\
\text{NumP} \\
\text{Spec} \\
\text{Num}' \\
\text{san} \\
\text{Num} \\
\text{Cl} \\
\text{NP} \\
\text{ge xuesheng}
\end{array}
\]  
(Li 1997, p. 87, ex. 16)

Burmese tau operates along similar lines to -men; here are some examples, from which we will draw corresponding generalizations.

(45) a. cindê tau
   lion PL
   'the lions'

b. thu tau
   3 PL
   'they, them'

c. Htuñ tau
   Htuñ PL
   'Htuñ and his associates'

d. pouñci tau thouñ pa'
   monk PL three monk.CLF
   'we three monks'

As we explored previously with existential clauses, common nouns with tau must be interpreted as definite.

Thus the corresponding generalizations about Burmese tau are:

(46) B1: Tau appears after pronouns, proper names, and some common nouns.
B2: Common nouns with *tau* must be interpreted as definite.

B3: Attachment of *tau* to proper names yields an associative reading.

B4: A pronoun/proper name can be followed, but not preceded, by a quantity expression (number + classifier). In the cases with proper names. With common nouns, quantity expressions are possible but mandate a first- or second-person referent.

4.1 Demonstratives

Another important datum which connects Mandarin and Burmese is the behavior of demonstratives. We previously noted that Burmese demonstratives do not co-occur with *tau*, even though expressions with demonstratives have definite interpretations. It is also the case that Mandarin *-men* does not occur with demonstratives.

(47) * zhe-ge/na-ge renmen
    this-CLF/that-CLF person-MEN
    'this/that person and the others'

Note that Mandarin demonstratives occur with classifiers; this is a substantive difference from Burmese, where classifiers are not used for this purpose. The contrast is seen between the grammatical utterances in (48).

(48) a. zhe-ge ren
    this-CLF person
    'this person'

b. edi lu
    this person
    'this person'

One possible cause of the ungrammaticality of (47) is the classifier *ge* blocking head movement. But this cannot explain the ungrammaticality of something like

(49) * edi lu tau
    this person PL
    'these people/this person and the others'

in Burmese. Alternatively, the ungrammaticality of both the Chinese and Burmese examples can be accounted for if the demonstratives are both generated in D. This is in line with existing literature.
The higher structure

In this section, we consider what it means for *tou* to be in D. As there is no Burmese equivalent of Mandarin *-xie*, we may still adopt the bulk of Li’s analysis without necessarily agreeing with her that *tou* is generated in Num before moving upwards to D. Indeed, an analysis will be presented here that *tou* is base-generated as a definite Determiner.

The main set of Determiners we have seen in Burmese thus far are the demonstratives. These select for a QP element on their right, in the structure

\[(50) \quad \text{DP} \rightarrow \text{D[VP]} \quad \text{QP}\]

It should be noted that this is the first Burmese structure we have seen which is not head-final. Demonstratives, as a rule, do not occur with *tou*:

\[(51)\]

a. *èdi* tou
   
   this PL
   
   ‘these’

b. *èdi* cindé tou
   
   this lion PL
   
   ‘these lions’

c. èdi cindé myà
   
   this lion PL
   
   ‘these lions’

Although (51a) could be ungrammatical for independent reasons, the theory that *tou* is realized on the element in D does not predict on its own the ungrammaticality here. As such, we will adopt the hypothesis that *tou* is a Determiner in its own right.

A clear structural distinction between demonstratives and *tou* is that, while demonstratives appear at the left edge of a nominal, *tou* appears directly after NP. This behavior is demonstrated in (52).

\[(52)\]

a. cindé tou
   
   lion PL
   
   ‘the lions’

b. cindé ni tou
   
   lion red PL
   
   ‘the red lions’

20
c. cinđe toŭ thouŋ kaun
   lion PL three animal.CLF
   'the three lions'

d. cinđe toŭ thouŋ kaun  hkâlei
   lion PL three animal.CLF DIM
   'just the three lions'

We do not anticipate that toŭ is able to move into QP. So it appears that either NP
is able to be generated outside of QP, say in the structure

\[
\begin{array}{c}
\text{DP} \\
\text{SpecD} \\
\text{NP} \\
\text{cinđe ni} \\
\text{toŭ} \ (\text{cinđe ni}) \ thouŋ \ kaun \ hkâlei \\
\end{array}
\]

or NP moves out of QP under strong selectional pressure from toŭ:

\[
\begin{array}{c}
\text{DP} \\
\text{SpecD} \\
\text{NP} \\
\text{cinđe ni} \\
\text{toŭ} \ t_i \ thouŋ \ kaun \ hkâlei \\
\end{array}
\]

This second structure is more likely, as we do not ever see overt redundant NPs like
in (53).

There is another important fact to which we need attend. In general, twoi and myá
cannot appear after toŭ. (There are restricted cases involving pronouns or pronoun-like nouns; these will be addressed in the next section.) Given the above considerations, why is the structure

\[\text{This phrase does not have an idiomatic reading; in fact, it is somewhat nonsensical, but grammatical.}\]
unacceptable? We recall that the only difference between *twei/myā* and *htē* is that the former selects for N, while the latter selects for Cl. The augmentative *ci* and diminutive *hkālei*, recall, can select for either. It so happens that *ci* and *hkālei* can appear after *tou*, but not directly: a quantity expression must intervene.

(56) a. *cindē toū twee*
   lion FL FL
   'lions'

b. *cindē toū *(thου kauñ) hkkālei*
   lion FL three animal CLF DIM
   'just three lions'

c. *cindē toū *(thου kauñ) ci*
   lion FL three animal CLF AUG
   'three friggin’ lions’

That is, only heads which select for Cl may appear in Q. This suggests that the reason for the general incompatibility of *tou* and *twei/myā* stems from the [uN] feature on the latter. It appears, then, that this feature must be checked locally, and not by the trace of an NP which has moved. That is, the uninterpretable N feature on Q is, like the same feature on D, strong [uN*]. Thus NP must be in two places at once in order to correctly check all features, which is, apparently, not allowed by the language.

6 *Doubly-plural pronouns*

Generally, it is unusual for *tou* to co-occur with one of *twei* or *myā*. It is, however, not impossible, as (57) attests:
The presence of *twei* does not seem to contribute any additional meaning. Moreover, this double plural marking can be used with some common nouns.

Here there is a fascinating interpretative restriction. When this restriction is in effect, a referent is inferred who is participating in the discourse (that is, a first or second person). When *twei* is absent, *pouνci tou* can be interpreted as either a discourse participant or simply as a definite noun. The use of a common noun to refer to a discourse participant would seem to violate the cooperative principle sensu stricto; in particular, it would flout Grice's (1989) maxims of Quantity and Manner:

As such, it is best to interpret these common noun phrases, when their reference is limited to discourse participants, as relatively extemporaneous pronouns (hence, pseudo-pronouns), and generate them in the same way as we do canonical pronouns.

We assume with Li and many others that pronouns are generated in D. Thus we adopt a structure

---

1Robin tends to use plural pronouns with *twei*. I have tried and failed to elicit an inclusive/exclusive contrast for the first person, and to elicit a plural-of-plurals reading for all three persons.
The only case I have observed of QP being pronounced with an otherwise formally singular pronoun is *thu myā ‘other people’, whose details will be examined later.

Moreover, Burmese pronouns seem to mark two features consistently\(^\text{16}\): person, which is dictated by the choice of lexical item, and number, which is marked by the presence or absence of *tōu*. This morphological separation makes an analysis of pronouns as complex heads especially maintainable, with a structure

\[(61) \quad \text{D} \]
\[\quad \text{D} \quad \text{D} \]
\[\quad \text{nga tōu} \]

Here singular pronouns may be generated in the same structure with a null second D. If pseudo-pronouns are generated in the first D head, this also generates (58), as

\[(62) \quad \text{DP} \]
\[\quad \text{D[uQ]} \quad \text{QP} \]
\[\quad \text{D} \quad \text{D} \quad \text{NP} \quad \text{Q[uN*]} \]
\[\quad \text{pouići tōu} \quad \emptyset \quad \text{twei} \]

Crucially, if an element is generated pronominally, in D, it has not left behind a trace, with which *twei* cannot Merge; instead, there is room in the structure for a null NP, which may Merge with *twei*.

Further evidence for this analysis of pronouns as complex heads comes from the ill-formedness of singular pronouns with non-singular quantity expressions, as in (63),

\[(63) \quad \text{a. } \,*thu lei yau\]
\[3 \quad \text{four person_CLF} \quad \text{‘them four’}\]
\[\text{b. } \,thu tōu lei yau\]
\[3 \quad \text{pl. four person_CLF} \quad \text{‘them four’}\]
\[\text{c. cindë lei kauνi} \]
\[\text{lion four animal_CLF} \quad \text{‘four lions’}\]

\(^{16}\text{Other features, like gender, may also be marked; these forms are just as easily segmentable.}\)
and the acceptability of demonstratives with \textit{twei}:

\begin{enumerate}
\item \textit{eda} \textit{twei pyō-pi}
\quad \text{that PL say-finish}
\quad \text{‘After saying that, ...‘}
\end{enumerate}

\hfill \text{(Okell, vol. I, p. 103)}

\subsection*{6.1 Thu myā (twei)}

When postposed to proper names, \textit{toū} gives an associative reading. When postposed to common nouns, a definite reading is implied; and when the (noun + \textit{toū}) complex is further followed by a quantity expression, its reading is necessarily first or second-person. On the other hand, when \textit{toū} appears after a pronoun, it appears simply to pluralize the pronoun.

Put simply, \textit{toū} does not cause a pronoun to be interpreted as definite because pronouns are seemingly inherently definite. English pronouns certainly presuppose existence, even in intensional contexts where existence would not otherwise be imputed.

\begin{enumerate}
\item \text{I'm seeking a unicorn, though one may not exist.}
\item *\text{I'm seeking him, though one may not exist.}
\item ?\text{I'm seeking him, though he may not exist.}
\end{enumerate}

Additionally, English pronouns must be salient, and uniqueness or maximality is implied with singular or plural pronouns, respectively. In Burmese, it is also impossible to assert or deny the existence of the referent of a pronoun, as visible in (66). Though uniqueness and maximality are more difficult effects to elicit, salience would seem to be a pragmatic given.

\begin{enumerate}
\item *\text{nga hyi te}
\quad 1 \text{ exist PART}
\quad \text{‘There is me; I exist.’}
\item *\text{miā mā hyi bu}
\quad 2 \text{ NEG exist PART}
\quad \text{‘There aren’t you; you don’t exist.’}
\item *\text{thu toū hyi te}
\quad 3 \text{ PL exist PART}
\quad \text{‘There are them; they exist.’}
\end{enumerate}

Similarly, plural pronouns should not be thought of as exclusively plural; very often, they are more accurately characterized as associative. Moravcsik (1994) describes first- and second-person plural pronouns in particular as having almost universally

\hfill \text{25}
associative (her 'group plural') force: ‘We and you-pl are semantically group plurals in that we normally means “I and some others” (rather than “more than one speaker”) and the normal meaning of you is also “you and some others” rather than “more than one listener”.’ Corbett & Mithun (1996) trace the genesis of this notion to Jespersen (1924), and go on to claim that the associative is not a separate grammatical number on an equal footing with the plural, but rather a ‘different “dimension” or category, not a part of the number category.... It might be argued that it is impossible to separate associativity from number because associativity implies non-singular. However, as Martin Haspelmath points out (personal communication), the inclusive–exclusive distinction similarly implies non-singular; this distinction is not considered part of the category of number and, we would argue, associativity is a comparable case.’

Inasmuch as Burmese first- and second-person pronouns, singular and plural, behave much as those in most other languages, it appears they may be interpreted as associative forms. In the third person plural, however, an associative interpretation is not the only possible one. Indeed, there does not seem to be much daylight between the notions of ‘multiple other people’ and ‘someone else and people associated with them’, when members of the second conjunct in this latter, associative interpretation might be related to the first conjunct only inasmuch as they share the quality of not being present at an utterance.

However, with its myriad plural lexemes, Burmese appears to be able to draw this distinction. The third-person plural pronoun thu can appear with either toù or myâ.

\[(67)\]
\[
\begin{align*}
\text{a.} & \quad \text{thu toù} \\
& \quad \text{‘they, them’} \\
\text{b.} & \quad \text{thu myâ} \\
& \quad 3 \quad \text{PL} \\
& \quad \text{‘other people’}
\end{align*}
\]

Here thu toù is used as a typical third-person plural pronoun, whereas thu myâ has a rather purely compositionally plural meaning of ‘lots of third persons’. Compounding the interpretive difference, existence can be directly predicated to the referent of thu myâ:

\[(68)\]  
\[
\text{thu myâ twee mā hyī bu} \\
3 \quad \text{PL} \quad \text{PL} \quad \text{NEG} \quad \text{EXIST} \quad \text{PART}
\]

‘There’s no one else around.’

As thu myâ can be followed by twee, there is a surface similarity to the thu toù (twei) construction. Although this may appear particularly redundant, there are certain contexts which prefer one to the other. Examples (69) exhibit this.
It is difficult to see for certain how this would be generated given the theory we have developed so far. Perhaps the most plausible structure would be that illustrated as

This *thu* differs from the *thu* in *thu tou* *twei* only in that the latter first selects for D, rather than Q.

7 Implications and questions

While the surface forms of Mandarin and Burmese differ substantially in a number of ways, much of this variation may boiled down to a handful of structural differences. Just as Mandarin and Burmese share a Classifier projection which English lacks, Burmese possesses a projection Q whose varying selectivities determine much of the structure and for which we have seen no evidence in Mandarin. Besides this and a greater selectional freedom for elements in the Burmese D, the differences lie for the most part in the structure of enumerated nouns; in Mandarin, this structure is

while in Burmese it is
The Mandarin structure is strictly head-initial, while the Burmese structure is head-final. Besides this, the only structural difference is that in Mandarin, Num selects for Cl, while in Burmese, Cl selects for Num. As a result, the maximal projection in Mandarin is Num, while the maximal projection in Burmese is Cl. Whether we can account for the full variation of enumeration constructions in the world’s classifier languages with this collection of principles and parameters, or at least a not too much larger one, thus becomes a natural subject of inquiry. The following remarks are meant to contribute to such an undertaking.

Greenberg (1972) notes the generalization that, across languages with numeral classifiers, the head noun never intervenes between the numeral and classifier. That is, only four of the six possible word orders are encountered:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Num</th>
<th>Cl</th>
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</thead>
<tbody>
<tr>
<td>a</td>
<td>N</td>
<td>Num</td>
<td>Cl</td>
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<td>b</td>
<td>N</td>
<td>Cl</td>
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<td>c</td>
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<td>d</td>
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<td>e</td>
<td>Num</td>
<td>Cl</td>
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</tr>
<tr>
<td>f</td>
<td>Cl</td>
<td>Num</td>
<td>N</td>
</tr>
</tbody>
</table>

Of the remaining word orders, Burmese exhibits (a) and Mandarin exhibits (e). Languages with Cl-Num word orders (b) and (f) are less common but exist. Li holds that in Mandarin, Num is \([uCl]\) and Cl is \([uN]\). In our analysis of Burmese, Num does not select, while Cl is \([uNum, uN]\). Thus the difference between the two can be reduced to one parameter: which of Num and Cl selects for the other. We suppose there are universal reasons that N does not select for either Num or Cl, and that Cl always selects for N. Yet even within this restricted range of variation, all six word orders are predicted to be well-formed: *(c) and *(d) might have the derivations

(74)  Num, Cl and Cl, Num

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<tr>
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<th>N</th>
<th>Cl</th>
<th>Cl</th>
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<td></td>
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<td>Cl</td>
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</tr>
</tbody>
</table>
respectively. There does not seem to be a unique generalization which will rule out all four of these structures simultaneously. However, we might rule out both trees in (74) with Cl in the root with the generalization:

(75) Cl only selects for N after satisfying any selectional requirements for Num.

That is, Cl is either [uN] or [uNum,uN], never [uN,uNum]. Additionally, we can rule out the trees in (74) which have a Num root node with an appeal to consistent head-directionality between the Cl and Num projections. However, if these are the restrictions which prevent word orders *(c) and *(d) from appearing, they also restrict the possible derivations for the actual (a), (b), (e), and (f) word orders. In fact, each word order has only one possible derivation:

(76) a. 
```
   Cl
   /\  
  N   Cl
     /\  
    Num CI[uN, uN]
```

b. 
```
   Num
   /\  
  Cl   Num[uCh]
   /\  
  N   CI[uN]
```

e. 
```
   Num
   /\  
  Num[uCh] CI
   /\  
  Cl[uN] N
```

f. 
```
   Cl
   /\  
  Cl   N
   /\  
 CI[uN, uN] Num
```

We note that the root node always inherits the label of whichever one of Num or Cl is farther from N. It is interesting that this generalization seems to hold for different sets of assumptions; for example, even in the more general case that we allow Num to select for N, the set of generalizations
(77)  a. One of Num or Cl selects for the other.
    b. One of Num or Cl selects for N, and not before (though maybe not in addition to) selecting for the other.
    c. Num and Cl select for complements in the same linear order.

will also rule out *(c) and *(d) and, while allowing for more derivations, still dictate that the root node of (a) and (e) is Num while that of (b) and (f) is Cl. If the above considerations have merit, we predict that in a language in which both a Num-external and Cl-external word order are possible, the two are in complementary distribution. That this does not appear to be the case — as in Mandarin, where another word order (noun + numeral + classifier) is sometimes pragmatically conditioned (though this is likely a transformation of the default structure) — invites further work on the subject.

7.1 Left-overs

I have been unable to come up with a diagnostic to help distinguish between semantically mass and count nouns in Burmese. The most promising avenue towards this would be a closer examination of the quantifier si `each', whose meaning is similar to Mandarin dou, which Cheng & Sybesma (1999) use to distinguish between these two classes of nouns in Mandarin. If such a Burmese diagnostic is found, it might help refine Chierchia’s hypotheses, and furthermore put our analysis of the meaning of twei and myà on squarer footing.

We have suggested that twei and myà are generated in Q, while tau is generated in D, like Mandarin -men. Is there a tangible difference in interpretation between a conventional plural morpheme generated in Num, a plural morpheme in Q, and a quantifier whose meaning corresponds with that of a plural in Num? The morphemes -men in Mandarin and tau in Burmese, when they occur in D, often are interpreted as associative. Is there some similar kernel of meaning to a plural morpheme generated in Q? Definitive answers to these questions could pave the way for a more accurate typology of the plural.

Acknowledgments

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