Silent Nouns in English, Chinese and Naxi

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Abstract
This paper argues that the lexical item *grand* in DPs expressing the notion of “thousand” in colloquial American English is best considered to be a modifier of the silent noun *BUCKS* appearing after a silent *THOUSAND*. Certain facts concerning locality, the pronunciation of silent expressions and coordination indicate that *grand* cannot be part of a PP containing the silent expressions *IN* and *TOTAL*. Numerals can almost never be left out, a fact that has little bearing on silent nouns. The acquisition of silent expressions is unproblematic, insofar as their distributions can be deduced from that of the overt expressions to which they are related.

Keywords
adjectives, classifiers, coordination, locality, numerals, pronunciation and acquisition of silence
1. Introduction

In an inspiring article, Kayne (2012) suggests that the syntax of *grand* in colloquial American English is essentially related to that of adjectives, in particular, with the PP *in grand total*.

Thus, the sentence in (1a) is related to the sentence in (1b) in that it has silent expressions, in capital letters, that are in fact audible in the sentence to which it is related:

(1) a. It’ll cost you ten THOUSAND BUCKS IN grand TOTAL.
    b. It’ll cost you ten thousand bucks in grand total.

Kayne gives several syntactic arguments showing that *grand* is not a variant of *thousand*. For reason of space I will not repeat them here.

In this squib I would like to consider the analysis in the light of some other facts. To the extent it does not readily account for certain problems with the PP *IN grand TOTAL*, I propose a minor change to the account in order to bring these facts under its purview. In connection with the issue of whether or how the noun associated with the preceding or following numeral can be left silent, some empirical facts in Mandarin Chinese and Naxi (also spelled as Nahsi), a Tibeto-Burman language (Bradley 1997) spoken in Yunnan, China, appear to suggest that the numeral is associated with the classifier rather than with the noun. Lastly, I discuss the issue of how knowledge of silent nouns can be acquired.

2. Locality

Kayne does not specify the structural relation between the DP having the numeral and the associated noun *THOUSAND BUCKS* on the one hand and the PP *IN grand TOTAL* on the other. Nor does he specify the structural condition under which the silent expressions are sanctioned. Several facts indicate that the two are subject to some locality constraint.

The DP *thousand bucks* may or may not be contiguous with the PP *in grand total*, as the examples in (2)-(5) show:

(2) a. How many thousand bucks in (grand) total did you pay for that trip?
    b. How many thousand bucks did you pay in (grand) total for that trip?

(3) a. The two thousand bucks in (grand) total that they paid for that trip.
    b. The two thousand bucks that they paid in (grand) total for that trip.

(4) a. They credited two thousand bucks in (grand) total to his account.
    b. They credited two thousand bucks to his account in (grand) total.

(5) a. Two thousand bucks in (grand) total was credited to his account.
    b. Two thousand bucks was credited in (grand) total to his account.

In sharp contrast, the PP *IN grand TOTAL* must be contiguous with the DP containing the silent expression *THOUSAND BUCKS*:
(6) a. How many THOUSAND BUCKS IN grand TOTAL did you pay for that house?
b. *How many THOUSAND BUCKS did you pay for that house IN grand TOTAL?

(7) a. The two THOUSAND BUCKS IN grand TOTAL that they paid for that trip.
b. *The two THOUSAND BUCKS that they paid IN grand TOTAL for that trip.

(8) a. They credited two THOUSAND BUCKS IN grand TOTAL to his account.
b. *They credited two THOUSAND BUCKS to his account IN grand TOTAL.

(9) a. Two THOUSAND BUCKS IN grand TOTAL was credited to his account.
b. *Two THOUSAND BUCKS was credited to his account IN grand TOTAL.

The contrast between the b-examples in (2)-(5) with the PP in grand total and the b-examples in (6)-(9) with the PP IN grand TOTAL indicates that grand in the a-examples in (6)-(9) is not on the same footing as grand in the a-examples in (2)-(5), i.e., it is not part of the PP containing the silent IN and TOTAL.

3. Pronunciation of silence

Other facts show that more is at stake than contiguity. While the a-examples in (10)-(15), with the silent expressions, sound perfectly fine, the b-examples where the silent expressions are pronounced seem much less good, if grammatical at all:

(10) a. How many THOUSAND BUCKS IN grand TOTAL in (grand) total did you pay for that trip?
b. *??How many thousand bucks in grand total in (grand) total did you pay for that trip?

(11) a. The two THOUSAND BUCKS IN grand TOTAL in (grand) total that they paid for that trip.
b. *??The two thousand bucks in grand total in (grand) total that they paid for that trip.

(12) a. They credited two THOUSAND BUCKS IN grand TOTAL in (grand) total to his account.
b. *??They credited two thousand bucks in grand total in (grand) total to his account.

(13) a. Two THOUSAND BUCKS IN grand TOTAL in (grand) total to his account.
b. *??Two thousand bucks in grand total in (grand) total to his account.

(14) a. They paid a grand total of two THOUSAND BUCKS IN grand TOTAL.
b. *??They paid a grand total of two thousand bucks in grand total.

(15) a. A grand total of two THOUSAND BUCKS IN grand TOTAL was credited to his account.
b. *??A grand total of two thousand bucks in grand total was credited to his account.

It cannot be that the b-examples in (10)-(15) sound odd because of the two
occurrences of *total*, for they appear in the grammatical a-examples as well.

The oddness of these examples may well be due to the fact that adjuncts of the same type, much like arguments, can only appear once per clause. It is the same reason why the examples in (16) are not good:\(^1\)

   b. John spoke politely to Mary (*in a polite manner).
   c. John totally (*totally) ignored the warning.
   e. John painted the house red (*red).

The examples in (17) are of special interest, for the PP *in (grand) total* apparently co-occurs with the PP *IN grand TOTAL* in the same clause:

(17) a. How many THOUSAND BUCKS IN grand TOTAL did you pay in (grand) total for that trip?
   b. The two THOUSAND BUCKS IN grand TOTAL that they paid in (grand) total for that trip.
   c. They credited two THOUSAND BUCKS IN grand TOTAL to his account in (grand) total.
   d. Two THOUSAND BUCKS IN grand TOTAL was credited to his account in (grand) total.

Given that in general no more than one adverbial of the same type, including PPs, may appear in the same clause, it is doubtful that the examples in (17) contain both the PP *IN grand TOTAL* and the PP *in grand total*, these being of the same type. The grammaticality of these examples also shows that the two occurrences of *total* do not result in redundancy. If this is correct, then the first *grand* in (17) is most likely not part of a PP with silent *IN* and *TOTAL*.

4. Coordination

Syntactic locality does not seem to suffice to explain why the example in (18a) with the silent expressions is fine, while that in (18b) is most probably ungrammatical with the meaning of the example in (18a) to which it is presumably related:\(^2\)

(18) a. They paid \([\text{DP} \ [\text{DP} \text{two THOUSAND BUCKS IN grand TOTAL}] \text{ and } \ [\text{DP} \text{eight hundred bucks}] \)] for that trip.
   b. *They paid \([\text{DP} \ [\text{DP} \text{two thousand bucks in grand total}] \text{ and } \ [\text{DP} \text{eight hundred bucks}] \)] for that trip.

\(^1\) Examples (16c,e) with two occurrences of *totally* or *red* may be possible for emphatic effect in colloquial speech, but the same cannot be said of the b-examples in (10)-(15) with two instances of *total*.

\(^2\) The example in (18b) seems fine on the reading where *for that trip* is part of the second conjunct. That is, they paid a grand total of two thousand dollars for something unspecified and eight hundred dollars for that trip.
In (18a) the second conjunct is semantically in the scope of *IN grand TOTAL*, i.e., they paid for that trip a grand total of two thousand and eight hundred dollars. If scope correlates with structural c-command, then it is very unclear how the second conjunct can fall under the scope of *IN grand TOTAL* in the first conjunct without being c-commanded by it.

A similar problem arises in the examples in (19) even though *IN grand TOTAL* is superficially contiguous with *THOUSAND BUCKS*:

(19)  
\begin{enumerate}  
\item a. They paid \([DP [DP two million] and [DP three hundred THOUSAND BUCKS]]\) \textit{IN grand TOTAL} for that mansion.  
\item b. They paid \([DP [DP two million] and [DP three hundred thousand bucks]]\) in grand total for that mansion.  
\end{enumerate}  

Both sentences in (19) are fine, regardless of whether the silent expressions are pronounced or not. Semantically, the PP *in grand total* in (19b) scopes over the conjoined DP. It is therefore conceivable that the PP is syntactically associated with the conjoined DP *two million and three hundred thousand bucks* as a whole. Given that the sentence in (19b) has the same interpretation as that in (19a), it is but natural to take the PP *IN grand TOTAL* in (19a) to be structurally on par with the PP *in grand total* in (19b), i.e., they stand in the same structural relation with the DP *two million and three hundred THOUSAND BUCKS*. After all, when the silent expressions in (19a) are pronounced the result is the sentence in (19b).

A slightly formal way to state the condition licensing the silent *THOUSAND BUCKS* is to say that the PP *IN grand TOTAL* licenses *THOUSAND BUCKS* if the latter is part of a DP appearing to the immediate left of the former. The constraint is admittedly not sufficiently precise, e.g., what is “part of” and “immediate left”? but the intuitive idea behind it seems clear enough. Nevertheless, the problem with (19a) is actually not that straightforward.

The examples in (20) are much like those in (19), except that *THOUSAND BUCKS* is in the left conjunct:

(20)  
\begin{enumerate}  
\item a. *They paid \([DP [DP two THOUSAND BUCKS] and [DP eight hundred bucks]]\) \textit{IN grand TOTAL} for that trip.  
\item b. They brought in \([DP [DP two thousand beds] and [DP eight hundred tents]]\) in grand total for the refugees.  
\end{enumerate}  

If *IN grand TOTAL* can be associated with the conjoined DP in (19a) and license the silent *THOUSAND BUCKS* in the right conjunct, then the same should be applicable to (20a) as well. *THOUSAND BUCKS* in the left conjunct in (20a) should be licensed by the PP *IN grand TOTAL*, for it bears the same structural relation to the conjoined DP just as it does in (19a). In (20b) the PP *in grand total* has scope over both conjuncts, i.e., the total number of goods they brought in is two thousand beds and eight hundred tents. The PP *IN grand TOTAL* in (20a), apparently in the
same position, should therefore be able to scope over both conjuncts and license the silent \textit{THOUSAND BUCKS}.

5. \textit{Grand} as an adjective

The insight in Kayne’s analysis of \textit{grand} is that it relates the occurrence of \textit{grand} in DP expressing the notion of “thousand” to the syntax of \textit{grand} elsewhere, in particular, to the PP \textit{in grand total}. We should bear this point in mind when exploring an alternative account that does not have the problems discussed above. In particular, we should exclude from consideration analyses in which \textit{grand} is simply a special lexical item, e.g., it is much like \textit{thousand} but does not have the properties of \textit{thousand}, as Kayne discusses.

A possibility that comes to mind is that \textit{grand} in DP expressing the notion of “thousand” is an adjective, as Kayne suggests, but it modifies a silent noun \textit{BUCKS}, not \textit{TOTAL}, and occurs after the silent \textit{THOUSAND} as in (21a), much as it appears between the overt \textit{thousand} and \textit{palaces} in (21b):

\begin{enumerate}
\item two THOUSAND grand BUCKS
\item two thousand grand palaces
\end{enumerate}

That is, silent \textit{THOUSAND} and \textit{BUCKS} are licensed when they flank two sides of \textit{grand}.

Along these lines, the sentence in (22a) expressing the same idea as that in (22b) basically has the same lexical items in the same order as the sentence in (22b), except for the presence of \textit{grand} (example (22b) is hence not the result of pronouncing the silent expressions in (22a)):\footnote{\textit{Thousand} is noun-like in that it takes plural morphology, though not when it is followed by an overt noun:
\begin{enumerate}
\item a. The thousands that turned out at the rally.
\item b. The thousand/*thousands people that turned out at the rally.
\end{enumerate}

Given that \textit{grand} may not precede the overt \textit{thousand} in (ii), there is no reason to take \textit{grand} to precede the silent \textit{THOUSAND} in (21b):
\begin{enumerate}
\item two grand thousand palaces\end{enumerate}
\item a. It’ll cost you a grand TOTAL THOUSAND BUCKS ...
\item b. *It’ll cost you grand TOTAL ten THOUSAND BUCKS ...
\item c. It’ll cost you ten grand.

The contrast between (ib) and (ic) is expected in the proposal in the text, (ic) being underlingly as in (22a). I thank a reviewer for pointing out the similarity between (ia) and a structure I had in an earlier version of the paper.}

\begin{enumerate}
\item a. It’ll cost you ten THOUSAND grand BUCKS.
\item b. It’ll cost you ten thousand bucks.
\end{enumerate}
This view explains why the b-examples in (6)-(9), repeated in (23), are impossible:

(23) a. *How many THOUSAND BUCKS did you pay for that house grand? (=6b))
   b. *The two THOUSAND BUCKS that they paid grand for that trip. (=7b))
   c. *They credited two THOUSAND BUCKS to his account grand. (=8b))
   d. *Two THOUSAND BUCKS was credited to his account grand. (=9b))

In (23), the silent THOUSAND and BUCKS fail to be licensed, for they do not flank grand on two sides. These examples are also ruled out, because grand, as an adjective, is illicit in this position. Adjectives generally occur in either predicate position (including secondary predicates) or pre-nominal position. But it is in neither position in (23).

The contrasts in (10)-(15) are due to the two grand’s being in different phrases. In the a-examples, the first grand occurs between THOUSAND and BUCKS that are part of a DP, while the second grand is in a PP, as in (24):

(24) a. How many THOUSAND grand BUCKS in (grand) total did you pay for that trip?
   b. The two THOUSAND grand BUCKS in (grand) total that they paid for that trip.
   c. They credited two THOUSAND grand BUCKS in (grand) total to his account.
   d. Two THOUSAND grand BUCKS in (grand) total was credited to his account.
   e. They paid a grand total of two THOUSAND grand BUCKS. (=14b))
   f. A grand total of two THOUSAND grand BUCKS was credited to his account. (=15b))

On the other hand, in the b-examples the two grand’s are in two PPs in grand total that are of the same type. These are excluded, since a particular type of adverbial, including PPs, cannot occur more than once in the same clause (see the discussion of (16)).

The non-contiguous co-occurrence of grand and the PP in (grand) total in (17) is possible because the PP can be independently generated in that position, regardless of the presence of the PP IN grand TOTAL or THOUSAND BUCKS:

(25) a. How much did you pay in (grand) total for that trip?
   b. The two thousand dollars that they paid in (grand) total for that trip.
   c. They credited five hundred bucks to his account in (grand) total.
   d. Five hundred dollars was credited to his account in (grand) total.

The surface forms of the examples in (17) are thus underlyingly as in (26):

(26) a. How many THOUSAND grand BUCKS did you pay in (grand) total for that trip?
   b. The two THOUSAND grand BUCKS that they paid in (grand) total for that trip.
   c. They credited two THOUSAND grand BUCKS to his account in (grand) total.
   d. Two THOUSAND grand BUCKS was credited to his account in (grand) total.

The problems with coordination do not arise. The examples in (18a) and (19a) are in fact underlyingly as in (27):
(27) a. They paid two THOUSAND grand BUCKS and eight hundred bucks for that trip.
   b. They paid two million and three hundred THOUSAND grand BUCKS for that mansion.

In these examples, THOUSAND BUCKS is licensed by an intervening grand.

The example in (20a) is ungrammatical, for the same reason that those in (23) are. In its underlying structure in (28), THOUSAND and BUCKS do not flank two sides of grand and hence are not licensed. Moreover, not being in a pre-nominal or predicate position, grand is also illicit:

(28) *They paid two THOUSAND BUCKS and eight hundred bucks grand for that trip.

The alternative I propose has the virtue of keeping Kayne’s insight that grand in DPs expressing the notion of “thousand” is essentially an adjective, its syntactic distribution being like that of other adjectives. The contrast in (29c) is just the same as those in (29a,b), for adjectives do not take plural morphology in English:

(29) a. two big/*bigs cars
   b. two thousand grand/*grands palaces
   c. ten THOUSAND grand/*grands BUCKS

The position in which grand modifies the silent BUCKS in (29c) is just the same as that in (29b) where it modifies an overt noun.

My account nevertheless differs from Kayne’s with respect to the relation between grand and the silent THOUSAND BUCKS. In my analysis, grand is not part of the PP containing IN and TOTAL but occurs between THOUSAND and BUCKS. More significantly, THOUSAND BUCKS can never be pronounced when grand occurs between them:

(30) a. It’ll cost you ten THOUSAND grand BUCKS. (= (22a))
   b. *It’ll cost you ten thousand grand bucks. (cf. (22b))

In Kayne’s analysis, THOUSAND BUCKS can sometimes be pronounced, e.g., in (1a) (to yield (1b)) but not in (10b). It is precisely because THOUSAND BUCKS as well as IN and TOTAL can sometimes be pronounced with grand that the idea that grand is related to these silent expressions has empirical support.

The obligatory non-pronunciation of THOUSAND BUCKS in (31a) may at first glance appear problematic, but not more than the obligatory non-pronunciation of THOUSAND BUCKS when IN and TOTAL following it are silent (see (31b) vs (31c)):

(31) a. It’ll cost you ten thousand bucks in grand total.
   b. It’ll cost you ten THOUSAND BUCKS IN grand TOTAL.
   c. *It’ll cost you ten thousand bucks IN grand TOTAL.
   d. *It’ll cost you ten THOUSAND BUCKS in grand total.
Similarly, in the account with the PP IN grand TOTAL, it must be explained why IN and TOTAL in the ungrammatical (31c) can be pronounced to yield the grammatical (31a), but those in the grammatical (31b) may not be pronounced, example (31d) being ungrammatical. In the alternative I propose, example (31d) is ruled out, since THOUSAND BUCKS not flanking two sides of grand is not licensed. Therefore, insofar as it need not explain why IN and TOTAL cannot be pronounced when THOUSAND BUCKS is silent (see (31d)), taking grand to intervene between THOUSAND and BUCKS rather than as part of the PP with IN and TOTAL has a little edge.5

As grand is an adjective in my analysis as much as it is Kayne’s account, the facts accounted for by the latter are also covered by the former. Thus, Kayne attributes the contrasts in (32) to grand not being a numeral, in contrast with thousand:

(32) a. thousandth vs *grandth
   b. ?a thousand-ish vs *?a grandish

The same reason can be given in my account as well.

6. Silent noun, the numeral and the classifier

Kayne (2012: 78) suggests that a constraint having the effect in (33) explains why it is not possible to understand (34a) to have the numeral four left out before squibs:6

(33) Numerals cannot be left silent unless their (following) associated noun is also left silent.

(34) a. Mary has written four papers, whereas John has only written squibs.
   b. *Mary has four thousand dollars in her account, and John has thousand (dollars) in his.
   c. Mary has written four papers, whereas John has written only three.

5 Taking grand to modify the silent BUCKS recalls the relation between grand and total in (i), examples from Kayne (2012), in which total cannot be left out:

(i) a. The grand *(total) is 437.
   b. It’ll cost you a grand *(total) of a thousand bucks just to get into the game.

As a reviewer pointed out, if TOTAL can sometimes be silent, e.g., in (31b), then it is not clear why it cannot be silent in (i). No such problem arises in analyses like mine, in which grand is not related to a silent TOTAL. A more general question remains, though, as to why there is a silent BUCKS, but not a silent TOTAL.

6 It is not clear to me to what extent, in the analysis taking grand to be part of the PP IN grand TOTAL, the effect in (33) bears on the contrast in (i):

(i) a. You shouldn’t be asking for thirty THOUSAND BUCKS IN grand TOTAL for that car.
   b. *You shouldn’t be asking for thirty grand bucks/dollars for that car.

As IN grand TOTAL follows THOUSAND BUCKS in (ia) and grand precedes bucks in (ib), the two cannot be related by pronouncing the silent BUCKS in (ia) to derive (ib). Thus, the account for the ungrammaticality of (ib) need not having any bearing on the effect in (33), i.e., the numeral THOUSAND is left silent while the noun bucks/dollars associated with it is pronounced.
The example in (34a) with the reading in which the number of squibs is four would have a silent *FOUR* as in (35a). The example in (34b), understood to have the same numeral in the second conjunct as that in the first conjunct, would have a silent *FOUR* as well, as in (35b):

(35)  
a. Mary has written four papers, whereas John has only written (*FOUR) squibs.
    b. *Mary has four thousand dollars in her account, and John has FOUR thousand (dollars) in his.
    c. Mary has written four papers, whereas John has written only three PAPERS.

From the perspective of (33), example (35a) is excluded, as the noun *squibs* after *FOUR* is not left silent. As the presence of *dollars* in (35b) makes no difference to the grammaticality of the example, what is illicit here is apparently the association of the silent numeral *FOUR* with the pronounced noun-like *thousand*. Example (35c) has little bearing on (33), as the numeral *three* is not left out.

The patterns in (34) recall those in Mandarin Chinese. Much like English, the numeral associated with a pronounced noun may not be left out. The sentence in (36a) cannot be understood to contain the silent numeral *SAN* ‘three’ in the second conjunct, for the associated noun *lunwen* ‘thesis’ is pronounced (abbreviations: Cl=classifier, Perf=perfective):

(36)  
a. *Zhangsan xie-le san pian wenzhang, Lisi xie-le SAN Zhangsan write-Perf three Cl essay Lisi write-Perf three pian lunwen.
    ‘Zhangsan wrote three essays, and Lisi wrote theses.’
    b. *Zhangsan you san qian kuai qian, Lisi ye you SAN Zhangsan have three thousand Cl money Lisi also have three qian kuai qian.
    ‘Zhangsan has three thousand dollars, and Lisi has thousand.’
    c. Zhangsan xie-le san pian wenzhang, Lisi xie-le liang zhangsan write-Perf three Cl essay Lisi write-Perf two pian WENZHANG.
    ‘Zhangsan wrote three essays, and Lisi wrote two.’

The ungrammaticality of example (36b) can be likened to that of (35b), for the silent numeral *SAN* ‘three’ is impossible in the presence of the associated noun *qian* ‘money’.

7 Much like example (34c), that in (36c) with the silent *WENZHANG* ‘essay’ has little bearing on (33), for the numeral *liang* ‘two’ is pronounced. It thus

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7 One might argue that (36a) is ruled out because the classifier in Chinese DP usually requires a numeral in front of it. This explanation is not general enough to exclude cases where the classifier is absent (see the discussion around (46)-(48)).
seems that Mandarin Chinese is quite similar to English with respect to the effect in (33).

Kayne raises the question of whether languages in which numerals follow their associated noun work the same way as languages in which the numeral precedes. Naxi seems to work this way. In this language, the numeral follows the noun (He and Jiang 1985, He 1987):

(37) a. ɕi\textsuperscript{33} ndɯ\textsuperscript{33} kv\textsuperscript{55}
    person one Cl
    ‘one person’

b. tsu\textsuperscript{33} ŋ\textsuperscript{i33} ly\textsuperscript{33}
    bed two Cl
    ‘two beds’

With a clear antecedent, the noun associated with a numeral can be left out. Thus, the silent nouns (enclosed in square brackets) ɕi\textsuperscript{33} ‘person’ and tsu\textsuperscript{33} ‘bed’ in (38) are possible:

(38) a. ŋə\textsuperscript{31} ɕi\textsuperscript{33} ndɯ\textsuperscript{33} kv\textsuperscript{55} ndø\textsuperscript{31}
    I person two Cl see. person one Cl
    ‘I saw two persons. One is tall and one is short.’

b. ŋə\textsuperscript{33} ɡɯ\textsuperscript{31} tsu\textsuperscript{33} lu\textsuperscript{33} tsu\textsuperscript{31} ha\textsuperscript{31} se\textsuperscript{31}
    we bed four Cl buy Perf bed two
    tsu\textsuperscript{31} tʂ\textsuperscript{h\textsuperscript{i33}} we\textsuperscript{55} tɕ\textsuperscript{hi33}.
    Cl this place put
    ‘We bought four beds. Two of them are put in this place.’

Silent nouns in Naxi in fact have a wider distribution than co-occurrence with a numeral. Much like those in Chinese, nouns with a modifier in Naxi can be left out (abbreviations: C=complementizer, Poss=possessor):

(39) a. ŋə\textsuperscript{33} ɡə\textsuperscript{33} [t\textsuperscript{he33} ɣɯ\textsuperscript{33}]
    I Poss book
    ‘my book(s)’

b. ŋə\textsuperscript{33} sur\textsuperscript{55} ɡə\textsuperscript{33} [ci\textsuperscript{33}]
    I know C person
    ‘people who know me’

(40) a. wo de SHU
    I Poss book
    ‘my book(s)’

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8 It is quite possible that the morphemes ɡə\textsuperscript{33} in (39a,b) is the same, just as the morpheme de in (40a,b). This issue need to be resolved on independent grounds.
b. rensi wo de REN
know I person
‘people who know me’

It therefore comes as no surprise that the nouns in (38) can be left silent. Of course, the examples in (39)-(40) have no bearing on the effect in (33), there being no numeral.

As in English and Chinese, the numeral in Naxi cannot be left silent if the associated noun is pronounced. The example in (41a) cannot be understood to contain a silent numeral [sɯ33] ‘three’ associated with the noun lui35ve31 ‘thesis’ in the second conjunct, and the example in (41b) cannot be understood to contain a silent numeral [sɯ33] ‘three’ and [tv31] ‘thousand’ associated with the noun tɕə55 ‘money’ in the second conjunct, even though the same numeral is present in the first conjunct and can act as its antecedent:

(41) a. *ɑ55lia13 tʰɛ33ɣ33 sɯ55 pʰɛ33 mbə55 se31, ɑ55xua33 lui55ve31
Alian essay three Cl write Perf Ahua thesis
three Cl write Perf
‘Alian wrote three essays, and Ahua wrote thesis.’

b. *ɑ55lia13 tɕiə55 sɯ33 tv31 mbe31 ndʑy33, ɑ55xua33 la33
Alian money three thousand Cl have Ahua also
[stu55] [tv31] mbe31 ndʑy33.
money three thousand Cl have
‘Alian has three thousand dollars, and Ahua has three thousand.’

If this is correct, then it seems that the way the numeral can remain silent in Naxi is pretty much the same as that in English and Chinese, even though the numeral in Naxi follows and that in English and Chinese precedes the associated noun. It thus appears that regardless of its position relative to the associated noun, the numeral cannot be left out. That is, the parenthesized following in (33) can be removed.

Apart from the exclusion of a silent numeral being associated with a pronounced noun, the effect in (33) has little bearing on the case in which both the numeral and the associated noun are silent. The ungrammatical examples in (42) show that it is in fact not possible for both of them to be silent at the same time:9

9 Cantonese exceptionally allows the numeral jat ‘one’ or the demonstrative go ‘that’ associated with an overt noun in singular DPs to be silent (cf. Cheng and Sybesma 1999), in contrast with Mandarin Chinese:

(i) a. Ngo maai zo (jat) bun syu.
I buy Perf one Cl book
‘I bought a book.’
(42) a. *Mary has written four papers, whereas John also has written FOUR PAPERS.
   b. *Zhangsan xie-le san pian wenzhang, Lisi ye
      Zhangsan write-Perf three Cl essay Lisi also
      xie-le SAN pian WENZHANG.
      ‘Zhangsan wrote three essays, and Lisi also wrote three papers.’
   c. *ɑ liâ t he33 ɤ sɯ 55 p he33 mbə 55 se 31, ɑ xua lî la 33
      Alian essay three Cl write Perf Ahua also
      ‘Alian wrote three essays, and Ahua also wrote three essays.’

One might argue that in languages like English in which null argument is
impossible, a DP cannot be totally devoid of phonetic content. The example in
(42a) is therefore impossible. For the examples in (42b,c), one might make the
argument that these are ruled out independently, for the classifier usually must be
preceded by a numeral in Chinese and Naxi:

(43) a. Zhangsan xie-le yi pian wenzhang, Lisi ye xie-le *(yi) pian.
      Zhangsan write-Perf one Cl essay Lisi also write-Perf one Cl
      ‘Zhangsan wrote an essay, Lisi also wrote one.’
   b. ɑ liâ t he33 ɤ sɯ 55 p he33 mbə 55 se 31, ɑ xua lî la 33
      Alian essay three Cl write Perf Ahua also
      *(sɯ 55) p he33 mbə 55 se 31.
      ‘Alian wrote three essays, and Ahua also wrote three.’

The explanation for the ungrammatical example in (42a) in terms of null

b. (Go) go jan lai zo.
   that Cl person come Perf
   ‘That person came.’
(ii) a. Wo mai le *(yi) ben shu.
   I buy Perf one Cl book
   ‘I bought a book.’
   b. *(Na) ge ren lai le.
      that Cl person come Perf
      ‘That person came.’

For plural DPs with the morpheme di, the numeral jat ‘one’ may be left out but the classifier may
not appear; the same is true of Mandarin Chinese plural DPs with the morpheme xie (see Li 1999):

(iii) a. Ngo maai zo (jat) di (*bun) syu.
   buy Perf one Pl Cl book
   ‘I bought some books.’
   b. Wo mai le (yi) xie (*ben) shu.
      Cl Perf one Pl Cl book
      ‘I bought some books.’
argument being impossible in English does not explain why the examples in (44) are ungrammatical:

(44) a. *Mary has written two long papers, and John has written TWO short PAPERS.
    b. *Mary has bought two books about phonology, and John has bought TWO BOOKS about syntax.

The DP containing silent TWO and PAPERS in (44a) and the DP containing TWO BOOKS in (44b) are not totally devoid of phonetic content, the former having overt short in it and the latter overt about syntax.

The ungrammaticality of the examples in (43) is of special interest, for it shows that the numeral cannot be left out in Chinese and Naxi, even when the associated noun is silent. This is surprising from the perspective of (33). However, if the numeral is in fact associated with the classifier, which is most probably of the category noun, then the reason why the numeral cannot be silent is quite straightforward. As the classifier associated with it is almost always present, the exceptions being generic bare nouns and a few other cases (see note 9), the numeral associated with it may therefore not be left silent. So the effect in (33) holds in Chinese and Naxi as much as it does in English.

Nevertheless, when certain cases where the classifier can be omitted are considered, it becomes clear that the effect in (33) is actually simpler, namely, the numeral can never be left out, regardless of whether the noun or classifier associated with it is pronounced or not. For example, in modern Mandarin Chinese the classifier associated with the noun *ren ‘person’ can be silent:

(45) a. Nei chang huo you yi bai (ge) ren shoushang, san shi (ge) (ren) shizong.
    ‘In that fire, a hundred people were injured and thirty people were missing.’
    b. *Nei chang huo you yi bai (ge) ren shoushang, YI BAI (ge) (ren) shizong.
    ‘In that fire, a hundred people were injured and a hundred people were missing.’

But the numeral cannot be left out. The sentence in (45b) is ungrammatical with the silent YI BAI ‘one hundred’.

In list contexts and certain fixed expressions, the classifier is optional,\(^{10}\)

\(^{10}\) The optionality of ge in (46a) is consistent with classifiers for count nouns in headlinese sentences, e.g., of the sort in (46), being omissible in contrast with those associated with mass nouns (Tang 1998: 109 fn24). Although tang ‘soup’ is ordinarily understood to be a mass noun, the fact that it may be associated with the classifier ge for count nouns in (46a) (see Cheng and Sybesma 1998)
recalling the same of earlier period of Chinese:

(46) a. liu (dao) cai yi (ge) tang
   six Cl dish one Cl soup
   ‘six dishes, one soup’

b. yi (jian) fang liang (ge) ting
   one Cl room two Cl living room
   ‘one room, two living rooms’

(47) a. qian yan wan yu
   thousand speech ten thousand speech
   ‘endless talk’

b. qi shou ba jiao
   seven hand eight foot
   ‘many people’

But again, the numeral cannot be left silent. The expressions in (48) are good, if at all, only if the two nouns are understood to be conjoined, i.e., the total number of dishes and soups in (48a) is three and the total number of rooms and living rooms is two in (48b):

(48) a. *san cai SAN tang
   three dish three soup
   ‘three dishes, three soups’

b. *liang fang LIANG ting
   two room two living room
   ‘two rooms, two living rooms’

In Naxi, too, the classifier mostly cannot be left out, the exception being generic bare nouns. In a few cases, it is possible for both the noun ɕi33 ‘person’ and the associated classifier kv55 to be silent. But the classifier may not be left out if the noun associated with it is pronounced:

(49) a. mi33 tʂɔh33 tsa31 lo31 [ɕi33] ndu33 ɕi33 [kv55]
   fire this Cl in person one hundred Cl
   injured get one hundred Cl missing reportedly
   ‘In this fire, a hundred people reportedly got injured and a hundred people were missing.’

shows that it can also be a count noun, with the reading of a particular kind of soup. For a discussion for the count/mass distinction in Chinese and the difference between the two classes of classifiers, see Cheng and Sybesma (1999).

The noun guo ‘pot’ can appear in position of the classifier ge in (46a). In this case, guo is a measure phrase rather than a classifier. The expression yi guo tang is thus much like a pot of soup in English.
b. *mi₃₃ tɕ₃₃ lo³₁ ci¹³ ndu³³ ci³³ kv⁵⁵
   fire this Cl in person one hundred Cl
   sa³³ ma³³ ci³³ ndu³³ ci³³ [kv⁵⁵] ph i₅₅ tsu₅₅.
   injured get person one hundred Cl missing reportedly
   ‘In this fire, a hundred people reportedly got injured and a hundred people
   were missing.’

c. *mi₃₃ tɕ₃₃ lo³₁ ci¹³ ndu³³ ci³³ kv⁵⁵
   fire this Cl in person one hundred Cl
   sa³³ ma³³ ci³³ [ndu³³] [ci³³] (kv⁵⁵) ph i₅₅ tsu₅₅.
   injured get person one hundred Cl missing reportedly
   ‘In this fire, a hundred people reportedly got injured and a hundred people
   were missing.’

The numeral may not be silent, however, regardless of the presence of the following
classifier (see (49c)).

In list contexts, the classifier associated with a pronounced noun cannot be
left out, in contrast with Chinese (see (46)):

(50) a. xop h₅₅ tɕ₃₃ uɑ₅₅ *(sy³³) xo³³ ndu³³ *(sy³³)
   dish six Cl soup one Cl
   ‘six dishes, one soup’

b. see₅₅ ka³³ ɲi³³ tʰi³³
   three Cl two living room
   ‘three rooms, two living rooms’

Example (50b) may seem to be borrowed in toto from the Chinese example in
(46b), as the classifier tʰi³³ ‘living room’ is not used as a classifier elsewhere. But
it is in fact just the opposite of the Chinese example in (46b). In (50b), the noun
is silent but the classifier is pronounced. The expression tʰi³³ is borrowed from
Chinese, but is placed in the classifier position. In (46b), the noun is pronounced
and the classifier is silent.

The numeral in list contexts, too, cannot be silent. It is not possible to
interpret the expressions in (51) as conjunctions of two nouns (cf. the discussion of
the Chinese examples in (48)), for the two nouns are separated by a numeral and a
classifier associated with the first noun:

(51) a. *xop h₅₅ ndu³³ sy³³ xo³³ [ndu³³] sy³³
   dish one Cl soup one Cl
   ‘one dish, one soup’

b. *ɲi³³ ka³³ [ɲi³³] tʰi³³
   two Cl two living room
   ‘two rooms, two living rooms’

Thus, to the extent that no case can be found where the numeral is silent, it
may very well be that silent numerals are in general impossible, independently
from the pronunciation of the associated noun. In other words, the *unless*-clause in (33) may very well be irrelevant.

7. Acquisition

If *THOUSAND BUCKS* licensed by the intervening *grand* can never be pronounced, then an issue that immediately arises is on what basis speakers come to posit these silent expressions.

Obviously the evidence for the silent *THOUSAND BUCKS* cannot be directly observed. It can nevertheless be inferred on the basis of the independent distribution and the semantics of the adjective *grand* as well as the interpretation of DPs with *grand* expressing the notion of “thousand”.

Upon exposure to the common expressions like those in (52) and the difference between (53a) and (53b), as Kayne points out, speakers would realize that *grand* cannot be a noun but is an adjective:

(52) a grand total/slam/palace/piano/opera/opening/jury/design/coalition

(53) a. two grand
    b. *two grands

As expressions with *grand* elsewhere, e.g., in (52), are not interpretively related to “thousand”, it must be that the interpretation of “thousand” in (53a) comes from some silent expression. Moreover, given its independent adjectival distribution, it must be that *grand* is followed by a silent nominal expression. Since DPs with *grand* expressing the notion of “thousand” are most appropriate in informal contexts in which *bucks* is used, it must be that the silent noun following *grand* is silent *BUCKS*. Overt evidence of the sort in (54) shows that *grand* can only follow *thousand*, not precede it. The learner, therefore, would posit for the example in (53a) the underlying representation in (55b), not that in (55a), even though both (55a,b) are pronounced identically (see also the discussion of (21)):

(54) a. *two grand thousand openings
    b. two thousand grand openings

(55) a. *two grand THOUSAND BUCKS
    b. two THOUSAND grand BUCKS

The acquisition of silent nouns in Chinese and Naxi can similarly be accounted for. Given that in many other cases a noun may follow the classifier in Chinese and precede the numeral in Naxi:

(56) a. yi ge ren
    one Cl person
    ‘one person’

    b. liang zhang chuang
    two Cl bed
    ‘two beds’
(57) a. çi\textsuperscript{33} ndu\textsuperscript{33} kv\textsuperscript{55}
   person one Cl
   ‘one person’
b. tsua\textsuperscript{33} ŋi\textsuperscript{33} ly\textsuperscript{33}
   bed two Cl
   ‘two beds’

it must be that when the noun is missing in Chinese and Naxi there is a silent noun
in the same position as the overt one:

(58) a. ... Lisi xie-le liang pian WENZHANG. (=36c)
   Lisi write-Perf two Cl essay
   ‘..., and Lisi wrote two.’
b. ... [çi\textsuperscript{33}] ndu\textsuperscript{33} kv\textsuperscript{55} sua\textsuperscript{31}, [çi\textsuperscript{33}] ndu\textsuperscript{33} kv\textsuperscript{55} cu\textsuperscript{31}. (=38a)
   person one Cl tall person one Cl short
   ‘..., one is tall and one is short.’

This is further re-enforced by the expressions containing a silent noun having the
same interpretations as those containing an overt one. The positing of silent nouns
would account for why these expressions have the interpretations they do.

8. Conclusion

In this squib, I argue that certain problems regarding locality, pronunciation of
silent expressions and coordination for the analysis taking \textit{grand} to be part of the
PP \textit{IN grand TOTAL} can be solved if \textit{grand} is taken to occur between \textit{THOUSAND}
and \textit{BUCKS}.

The alternative account I propose keeps the insight of Kayne’s analysis
according to which the syntax of \textit{grand} in DPs expressing the notion of “thousand”
is related to its independent syntactic distribution of an adjective.

The issue of how the numeral is licensed in connection with the pronunciation
of the associated noun (or classifier) is ill-posed insofar as no numeral other than
\textit{THOUSAND}, in co-occurrence with the silent noun \textit{BUCKS}, can be silent. An
important question that need to be addressed is why among the numerals only
\textit{THOUSAND} may be silent.

Knowledge of silent expressions is not particularly problematic, insofar as
they are inferrable from the co-occurring expressions that are related to them.
The inference can be made on the basis of the semantics and syntax of the overt
categories related to them as well as that of the constituents constituted by these
categories. If an expression has a certain interpretation that is not related to any of
the overt categories, then that interpretation must come from some silent categories.
The syntactic category of silent expressions can be determined by the syntactic
category of the overt expression occupying in the same position as well as by the
category of the overt categories to which the silent expressions are related.
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References


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英語、漢語及納西語裏的無聲名詞

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提要

本文討論美式英語口語帶“grand”表達“千”數字的名詞詞組裏的無聲數詞與名詞。基於定域條件，無聲詞的發音以及並列句法，我們主張“grand”並非出現在帶無聲的“IN”及“TOTAL”之間的介詞詞組裏面，而是出現在帶無聲的“THOUSAND”及“BUCKS”之間的名詞詞組。數詞一般不能是無聲的現象是跟無聲名詞無關。無聲詞類的存在可以從與其有關的顯性詞類推論，習得因此不是一個問題。

關鍵詞

形容詞，量詞，並列，定域，數詞，無聲成份的發音與習得