67.StuTS — Nominal Ellipsis in Mandarin: An nP-shell approach

Kuan TANG

Eberhard Karls Universität Tübingen
Department of Linguistics
Department of English

21. May 2020

Outline

Introduction

1.1. What is (NP-)Ellipsis?

Ellipsis : an omission of a word, phrase, clause, sentence, or whole section from a text without changing its original meaning.
In nominal domain, it is called **Noun Ellipsis (N-Ellipsis)** or **Noun Phrase Ellipsis (NPE)**.

(1)   NPE in English
    a.   I like Bill's yellow shirt, but not Max's [ ].
    b.   The committee endorses every bill the president proposes but the advisors approve only [NP a [few [ ]]].

(Lobeck 2005:145)

1.1. What is (NP-)Ellipsis?

Besides NPE, Yoshida et al. (2012) argue that **Nominal Gapping (N-Gapping)** is also a kind of nominal ellipsis.
Nominal gapping is possible both when the DP is in subject position (2a) and when it is in object position (2b):

(2)   N-Gapping in English
      a.   Hermione read Harry's book of poems and [Ron's ~~book~~ [of haikus]].
      b.   Harry read two books on quidditch and Ron read three ~~books~~ on the Dark Arts.

1.1. What is (NP-)Ellipsis?

Manlove (2016: 46) summarizes a comparison of English NPE and gapping and lists the licensors of English ellipsis and gapping like below:

(3)   English nominal ellipsis and gapping licensors
   a.   Saxon Genitive
   b.   Plural demonstrative
   c.   Numeral
   d.   Adjectives in 'the human construction'
   e.   Superlative

1.1. What is (NP-)Ellipsis?

(4)   English nominal ellipsis and gapping licensors

   a.   Saxon Genitive
        Harry's wand is more valuable than [Hermione's [~~wand~~]].
   b.   Plural demonstrative
        These hippogriffs like dead rats more than [those
        [~~hippogriffs~~]].
   c.   Numeral
        Two hippogriffs need less food than [three [~~hippogriffs~~]].
   d.   Adjectives in 'the human construction'
        Malfoy likes the rich wizards and Harry likes the poor
        ~~wizards~~.
   e.   Superlative
        Of all the hippogriffs, Harry's are the meanest ~~hippogriffs~~.

1.2. Mandarin NP-Ellipsis Puzzles

A Mandarin NP may contain: a demonstrative, a numeral, a classifier, modifiers and the head N itself. If a phrase contains all these elements, the base order is:

(5)   Dem Nume Cl Mod (DE) N

(6)   zhe san ben   hongse de shu
       this three Cl-book red   DE book
       'Those three red books'

The only deviation from this base order is that modifiers can also precede the demonstrative or the numeral:

(7)   Mod (DE) (Dem) Nume Cl N

(8)   hongse de (zhe) san ben   shu
       red   DE this three Cl-book book
       'Red three books'

1.2. Mandarin NP-Ellipsis Puzzles

Two types of NP-Ellipsis of Mandarin are often mentioned, Classifier Constitution Ellipsis (**CLCE**) (9), and **DE** Constitution Ellipsis (**DECE**) (10) (see Cheng & Sybesma, 2009; Li & Wei 2017; Fu 2017......):

(9) Ta gangcai chi-le   yi-ge   pingguo, ni ye
     3s just-now eat-PERF one-CL-$_{indevidual}$ apple,   2s also
     yinggai chi yi-ge   [ ].
     should eat one-CL-$_{indevidual}$
     'he just ate an apple, you should also eat one (apple).'

(10) Wo xihuan Zhangsan de huangse   de chenshan, er
      is like   Zhangsan DE yellow-color DE shirt,   but
      bushi Lisi de [ ].
      not-BE Lisi DE
      'I like Zhangsan's yellow shirt, but not Lisi's (shirt)'

1.2. Mandarin NP-Ellipsis Puzzles

"DE" and Classifiers can appear in most cases.

Table: Licensing environments for NPE in English and Mandarin

Licensors	English	Mandarin
Saxon Genitive	✓	—
Possessive Pronoun	×	+ DE
Demonstrative	(plural)	+ Cl
Numeral	✓	+ Cl
Adjective	(Human const./ Superlative)	+ DE

1.2. Mandarin NP-Ellipsis Puzzles

Both classifiers and functional word DE in Mandarin can be ellipsis site, but the classifier can not license ellipsis after the word DE when they both appear in one sentence :

(11)   Wo maile   liang ben   hong de shu, Lisi ye
        I   buy-RERF two Cl-*book* red   DE book, Lisi also
        maile   [*ClP* yi ben] [*AdjP* lvse de].
        buy-RERF   one Cl-*book*   green DE
        'I bought two red notebooks, and Lisi also bought a green one.'

1.2. Mandarin NP-Ellipsis Puzzles

(12)   *Wo maile   liang ben   hong de shu,   Lisi ye
       I   buy-RERF two   Cl-$_{book}$ red   DE book, Lisi also
       maile   [$_{AdjP}$ lvse   de] [$_{ClP}$ yi   ben].
       buy-RERF   green DE   one Cl-$_{book}$
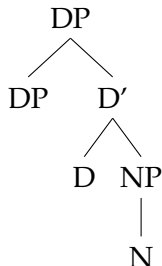   Intended:'I bought two red books, and Lisi also bought a
       green one.'

1.2. Mandarin NP-Ellipsis Puzzles

1. Why classifiers can not license ellipsis after 'DE'?

2. What is the syntactic status of 'DE'?

1.3. An nP-shell Proposal

After Abney (1987) taking the DP Hypothesis into the English NP, the NP analysis have been replaced gradually by the DP analysis.
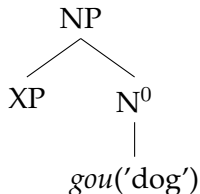
(13)   the DP Hypothesis:

```
            DP
           /  \
        DP     D′
              /  \
            D    NP
                  |
                  N
```
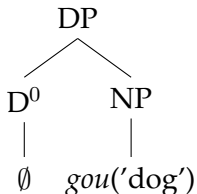
1.3. An nP-shell Proposal

In Mandarin, many scholars believe that there is a null D projection
above the NP (Tang 1990a, 1990b; Li 1998, 1999; X. Li 2011...) .

(14)   the NP analysis:

NP
├── XP
└── N^0
        │
      gou('dog')

(15)   the DP analysis:

DP
├── D^0
│   │
│   ∅
└── NP
        │
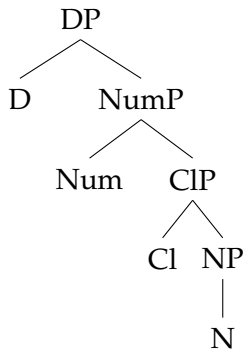   *gou*('dog')

1.3. An nP-shell Proposal

Li (1998, 1999) argues that the expression [Num + Cl + N] in Mandarin should be analyzed as a quantity-denoting expression represented by a NumP or an individual-denoting one represented by a DP containing an empty D.

(16)　　a.　　　　　[$_{NumP}$ san ge xuesheng] three CL student
　　　　b.　　[$_{DP}$ D [$_{NumP}$ san ge xuesheng]] three CL student
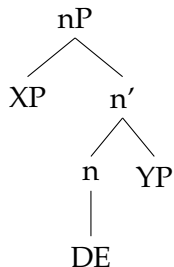
1.3. An nP-shell Proposal

The DP projection of Mandarin noun phrase (Li 1998, 1999)

(17)   Mandarin DP/NP:

```
                    DP
                   /  \
                  D    NumP
                      /    \
                   Num     ClP
                          /   \
                        Cl    NP
                               |
                               N
```

1.3. An nP-shell Proposal

(18)   Zhang (1999) nP analysis of 'DE'

```
              nP
             /  \
           XP    n'
                /  \
               n    YP
               |
              DE
```

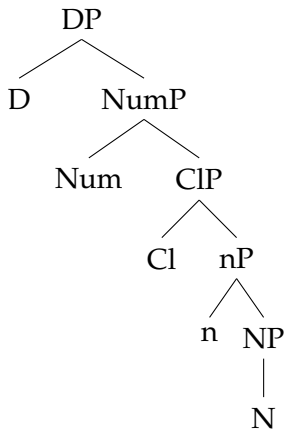# 1.3. An nP-shell Proposal

(19)   The Internal NP structure of Mandarin:
   a.   DP > NumP > ClP > nP > NP
   b.

```
                DP
              /    \
            D      NumP
                  /    \
               Num     ClP
                      /    \
                    Cl     nP
                          /  \
                         n   NP
                              |
                              N
```

NP-Ellipses in Mandarin

2. NP-Ellipses in Mandarin

2.1. D-Ellipsis

2.2. NP(N′)-Ellipsis

2.1. D-Ellipses

Mandarin allows arguments to be missing. E. g. subject (20) and object (21) can be missing, a sentence (22) is possible when the intended object is expressed as a variable bound by a topic, which can be empty.

(20)   (ta) zou-le   ma?
        he   leave-le Q
        "Has (he) left?"

(21)   ta kandao-le yi-ge nanhai; wo ye   kandao-le (yi-ge nanhai).
        he see-le   one-cl boy   I also see-le   one-cl boy
        "He saw a boy; I also saw (a boy)."

(22)   (tamen), wo hen xihuan [ ].
        they   I   very like
        "(Them), I like [ ]."

2.1. D-Ellipses

Li and Wei (2014) argue that missing objects in Mandarin can be indefinite and they can occur within islands co-indexed with their antecedents across island boundaries.

First, missing objects interpreted as indefinite expressions:

(23)   Ta song yi-ge   nanhai yi-ben shu; wo song yi-ge   nuhai
        he give one-Cl boy   one-Cl book I   give one-Cl girl
        ~~(yi-ben shu)~~.
        one-Cl-book
        "He gave a boy a book; I gave a girl (a book)."

(24)   Ta song yi-ge   nanhai yi-ben shu; wo song ~~(yi-ge nanhai)~~
        he give one-Cl boy   one-Cl book I   give one-Cl-boy
        yi-zhi bi.
        one-Cl pen
        "He gave a boy a book; I gave (a boy) a pen."

2.1. D-Ellipses

Second, missing objects insensitive to island conditions:

(25)   Zhe-ge laoshi   hen hao$_i$, wo mei kandao-guo [e_j bu xihuan
       this-Cl teacher very good I   not see-exp   not like
       e_i de] xueshengj].
          DE student
       "This teacher$_2$ is very good. I have not seen students$_1$ who e_1
       do not like (him$_2$)."

2.1. D-Ellipses

Subject/object asymmetry.
When a null argument is to be anteceded by a nominal across island
boundaries, the antecedent for an empty subject must be the closest
nominal, but the requirement does not apply to empty objects.

(26)   ta kandao yi-ge   keren dian-le longxia; wo kandao *(yi-ge
        he see   one-Cl guest order-le lobster I   see   one-Cl
        keren) dian-le yu.
        guest order-le fish
        "He saw a guest ordered lobster; I saw (a guest) ordered fish."

2.1. D-Ellipses

Unaccusative verbs.
What is relevant is that when only one argument surfaces, this
argument must be interpreted as the theme, rather than the
experience, of the event.

(27)   Zhangsan si-le fuqin; Lisi ye si-le *(fuqin).
        Zhangsan die-le father Lisi also die-le father
        "Zhangsan had (his) father died; Lisi also died."

(28)   tamen zuotian lai-le   keren; women ye lai-le   *(keren)
        they yesterday come-le guest; we   also come-le guest
        "They had guests coming yesterday; we also came."

2.1. D-Ellipses

The data above shows that some empty elements in the position of argument in Mandarin can be true and some can not, so it is necessary to define which kind of sentences are the real D-ellipsis.

2.2. NP(N')-Ellipses

An important characteristic of the nominal expressions in Mandarin is that the head can be empty when a modifying phrase XP with DE appears, DE being a modification marker.

(29) $[_{DP/NP}$ XP   DE $[_{NP}$ Ø]]

(30)   a.   Mutou de Ø 'wooden' [NP + DE]
        b.   Hong de Ø 'red' [AdjP + DE]
        c.   Xie de Ø 'writing' [VP + DE]

2.2. NP(N′)-Ellipses

Split DE Evidence 1: Licensing differences in the phrases of "DE".

(31)   Mutou de ~~[zhuozi]~~ naiyong. [NP+DE+NP]
          wood   DE table   durable
          'Wooden tables are durable.'

(32)   Hong de ~~[chuanglian]~~ hen xiqing. [AdjP+DE+NP]
          red   DE curtain   very joyous
          'The red curtains are very joyous.'

(33)   Luxun xie   de ~~[shu]~~ zhide xingshang. [VP+DE+NP]
          Luxun write DE book worth appreciation
          'Luxun's books are worth appreciation.'

2.2. NP(N′)-Ellipses

Split DE Evidence 1: Licensing differences in the phrases of ″DE″.

(34) *Riben dizhen   de ~~xiaoxi~~ shi yaochuan.
      Janpan earthquake DE news BE rumour
      ′News of the Japanese earthquake is rumored.′

(35) *Xiuche   de ~~jishu~~ youyong.
      repair-car DE skills useful.
      ′The skills of repairing cars are useful.′

(36) *[Ta changge de ~~shengyin~~] hai bucuo
      3s sing   DE voive   also not-bad
      ′His singing voice is not bad.′

2.2. NP(N')-Ellipses

The NP after "DE" should be used as the antecedent of topic structures in advance in some clauses.

(37)   Appositive Clause
   a.   *Riben dizhen   de xiaoxi shi yaochuan
         Janpan earthquake DE news BE rumour
         'News of the Japanese earthquake is rumored.'
   b.   Shuoqi xiaobao shang de xiaoxi, riben dizhen   de
         Speak-of tabloid on   DE news Japan earthquake DE
         [ ] shi yaochuan.
              is   rumour
         'Speak of the news in the tabloid, the news of Japanese earthquake was rumoured.'

31 / 54

2.2. NP(N′)-Ellipses

(38)   Additional Clause

    a.   *Xiuche   de ~~jishu~~ youyong.
        repair-car DE skills useful.
        'The skills of repairing cars are useful.'

    b.   Shuoqi   wo xueguo   de jishu, zhiyou xiuche de [ ]
        Speak-of is   learn-Asp DE skill   only   fix-car DE
        hen   youyong.
        very useful
        'Speak of skills that I have learned, only the technical skill
        of repairing cars are very useful.'

2.2. NP(N′)-Ellipses

(39) Gapless Relative Clause
  a. *[Ta changge de ~~shengyin~~] hai bucuo
     3s sing   DE voive   also not-bad
     'His singing voice is not bad.'
  b. Shuoqi   shengyin, ta changge de [ ] hai bucuo.
     speak-of voice   3s sing   DE   also not-bad
     'Speak of voice, his singing voice is not bad.'

2.2. NP(N′)-Ellipses

Split DE Evidence 1: Licensing differences in the phrases of "DE".

Phrases of DE: object after DE to be missing, but the other one is not.

2.2. NP(N')-Ellipses

Split DE Evidence 2: Licensing differences in the clauses of "DE". According to Huang (2016), the pronominal complement of Mandarin NP can be dived into Relative Clauses (RCs) and Noun complements (NCs).

(40)   [$_{RC}$ women zhengzai kaolu   de] wenti
             we   right-at   consider DE question
          'the question that we are considering right now'

(41)   [$_{NC}$ yao-bu-yao   kuoda zhaosheng   de] wenti
             want-not-want expand recruit-student DE question
          'the question whether we should increase student
       enrollment'

2.2. NP(N′)-Ellipses

Split DE Evidence 2: Licensing differences in the clauses of "DE".

(42)   [$_{NC}$ Ta tan-gangqin de] ~~shengyin~~ gen [$_{NC}$ wo chui-koushao
          3s paly-piano DE sound   and   1s whistle
        de] shengyin.
        DE sound
        'The sound of his playing the piano and my whistle.'

(43)   [$_{RC}$ Wo suo zhizao de] ~~shengyin~~ gen [$_{RC}$ ta suo ting-dao
          1s SUO make   DE sound   and   he SUO hear
        de] shengyin.
        DE sound
        'The sound he made and I heard.'

2.2. NP(N′)-Ellipses

Split DE Evidence 2: Licensing differences in the clauses of "DE".

(44)   [$_{NC}$ wo chui-koushao de] ~~shengyin~~ gen [$_{RC}$ Ta suo   ting-dao
            1s whistle   DE sound   and   3s SUO hear
        de]shengyin.
        DE   sound
        'The sound I whistled and he heard.'

(45)   *[$_{RC}$ Ta suo   ting-dao de] ~~shengyin~~ gen [$_{NC}$ wo chui-koushao
            3s SUO hear   DE sound   and   1s whistle
        de] shengyin.
        DE sound
        '*The sound he heard and I whistled.'

2.2. NP(N′)-Ellipses

Split DE Evidence 2: Licensing differences in the clauses of ″DE″.

Clauses of DE: NC > RC

2.2. NP(N′)-Ellipses

Split DE Evidence 3: *E* in Taiwanese Min (Li 2012)
DE in Mandarin = E in Taiwanese Min

(46) e_0 and e_5 in [XP E YP]:

   a.   tsiok sui(-e_0)-e_5 gin-a
         very pretty(-e)-e children
         'very pretty children'

   b.   I   ka gua tso-e_0(-e_5) long theh-khi   a.
         he ka I   make-e(-e) all   take-away Part
         'He took away all that I made.'

2.2. NP(N′)-Ellipses

Split DE Evidence 3: *E* in Taiwanese Min (Li 2012)
DE in Mandarin = E in Taiwanese Min

(47)   The distribution of e_0 and e_5 in [XP E YP]
    a. e_5 is used when the YP is overt (but undergoes tone
         sandhi to become e_7).
    b.   When the YP does not appear overtly, the category of XP
         determines the value of e. It is e_5 if XP is a DP (possessor
         in a very broad sense); when XP is adjectival or clausal,
         the form is e_0 .

2.3. Summary

(48)   **Split DE**:
    a.   Phrases of DE: object after DE to be missing, but the other one is not.
    b.   Clauses of DE: NC > RC
    c.   DE in Mandarin = E (e_0 and e_5) in Taiwanese Min

The nP Hypothesis

The nP Hypothesis

1. Do we need an nP projection?

2. The nP analysis of Mandarin DE

The nP Hypothesis

Paralleling to the syntax of verb phrases, which are contained in a little v projection: vP > VP, so noun phrases should also be contained within a little nP: nP > NP.

An nP-shell analysis means that mid-level functional projection nP intervenes between DP and NP, a "shell" above the NP core projected by a "light" noun (nP). DP contains nP and NP.

The nP Hypothesis

(49) Carstens (2000)

```
                    DP
                   /  \
                  D    FP
                      /  \
                     F    nP₁
                         /   \
                  Possessor   n'1
                             /   \
                           n1    nP2
                                /   \
                            Agent   n'2
                                   /   \
                                 n2    NP
```
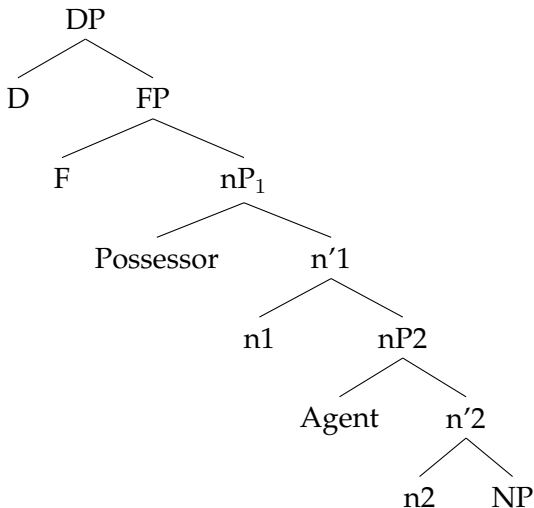
The nP Hypothesis

(50) Adger (2003)
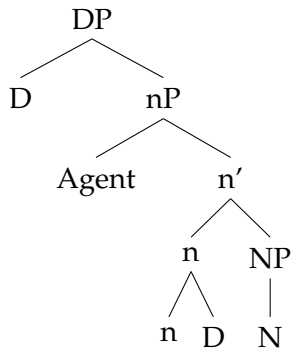
The nP Hypothesis

(51) Satik (2017)

```
              nP
          ┌────┴────┐
         DP         n′
                ┌───┴───┐
                n       DP
              ┌─┴─┐  ┌───┴───┐
              n  D  DP       D′
                          ┌──┴──┐
                          D    NP
```
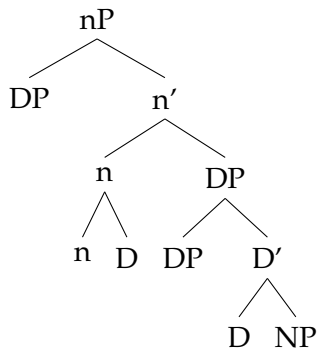
The nP Hypothesis

An nP-shell Proposal of Mandarin NPE

(52)   Split **DE** to De and de

$$
\begin{array}{c}
nP_1 \\
\diagup \quad \diagdown \\
XP \qquad n'_1 \\
\diagup \quad \diagdown \\
n_1 \qquad nP_2 \\
| \\
De \quad YP \qquad n'_2 \\
\diagup \quad \diagdown \\
n_2 \qquad NP \\
| \qquad \diagup \diagdown \\
de \quad ZP \quad N
\end{array}
$$
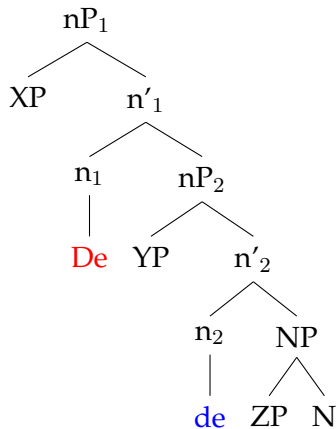
Conclusion

Differences of DP/nP/NP Ellipsis
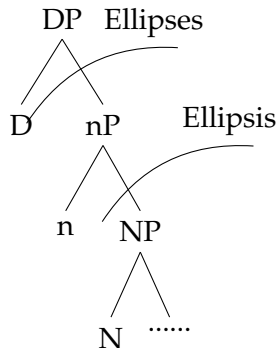
Conclusion

Conclusion

we discuss the internal syntactic structure of Mandarin NPE and assume there is a little n projection between DP and NP, DE is the head of nP (n0) and can be devided into two: De and de. The syntactic differences lie in De and de are De is higher than de, and de can not be the ellipsis site.

📄 Bill Haddican, 2007. The Structural Deficiency of Verbal Pro-Forms. Linguistic inquiry,Vol. 38, No. 3 (Summer, 2007), pp. 539-547.

📄 Kathleen Manlove. 2016. How peripheral a phenomenon is it?: On the interaction of DP-internal ellipsis, degree inversion, and islands. Ph.D. Dissertation. University of Washington, Seattle.

📄 Li, Y.-H. A. 1998. Determiner phrases and number phrases. Linguistic Inquiry 29: 693-702.

📄 Li, Y.-H. A. and Wei, T.-C. 2014. Ellipsis. In The Handbook of Chinese Linguistics (eds C.-T.J. Huang, Y.-H.A. Li and A. Simpson). doi:10.1002/9781118584552.ch11

📄 Li, Y.-H. A. de in Mandarin e in Taiwanese. 2012. Studies in Chinese Linguistics, Volume 33, Number 1, 2012, 17-40.

📄 Chao, Y.-R. 1968. A Grammar of Spoken Chinese. Berkeley and Los Angeles: University of California Press.

📄 Li, H.-J. G. 2002. Ellipsis constructions in Chinese. Ph.D. Dissertation. University of Southern California, Los Angeles.

📄 Li, C. N. and Thompson, S. A. 1981. Mandarin Chinese: A Functional Reference Grammar. Berkeley and Los Angeles: University of California Press.

📄 Pan, H.H. 2019. Null object constructions, VP-ellipsis, and sentence interpretation. Interfaces in Grammar, Edited by Jianhua Hu and Haihua Pan. John Benjamins Publishing Company: Amsterdam. 283-299.

📄 Li, X.P. 2011. On the Semantics of Classifiers in Chinese. Ph.D. dissertation. Bar-Ilan University, Israel.

📄 Huang, C.-T. J. 2016. The syntax and semantics of prenominals: construction or composition? Language and Linguistics 17:431-47.

📄 Yoshida, Masaya, Tim Hunter, and Michael Frazier. 2012. Parasitic Gaps Licensed under Sluicing. Ms. Northwestern University.

Tang, C.-C. Jane. 1990. A note on the DP analysis of the Chinese noun phrases.Linguistics 28: 337-354.

Zhang, N. N. 1999. Chinese de and the de-construction. Syntaxis 2: 27-49.

Figure: "Thank You!!!"