3   Existential Sentences in Chinese and (In)definiteness*

This chapter addresses four questions: What do existential sentences look like in Chinese? What is the structure of such sentences? Under what conditions do they exhibit the definiteness effect, requiring an indefinite but disallowing a definite argument? How is this distribution of the definiteness effect to be explained? These questions are taken up in turn in the four major sections that follow.

1   KINDS OF EXISTENTIAL SENTENCES

In Chinese all existential sentences may be considered to involve a string having the general form depicted in (1).

(1)   . . . (NP) . . . V . . . NP . . . (XP) . . . .
             1   2   3   4

Position 1 is the position of the subject, and position 3 that of the NP whose existence is being asserted. The phrase in position 4 is an expression of predication, generally a descriptive clause or phrase, semantically associated with the NP in position 3. Based on the different kinds of verbs involved, four kinds of existential sentences may be distinguished. These are (a) sentences with the existential verb *you* 'have,' (b) those with a verb of appearance or disappearance, (c) those with a locative verb, and (d) those with a verb expressing the existence of an event or experience. Each type is illustrated in the paragraphs that follow.

You-sentences are the closest counterparts to *there be*-sentences in English.

(2)   You gui
        have ghost
        'There are ghosts (here)'

(3)   You yige ren   hen xihuan ni
      have one man very like   you
      'There is a man who likes you very much'

(4)   Zhuo-shang you yiben shu
      table-top   have one   book
      'On the table there is a book'

(5)   Zhuo-shang you yiben shu   hen youqu
      table-top   have one   book very interesting
      'On the table there is a very interesting book.'

As these examples illustrate, both positions 1 and 4 are optional. Position 1, if filled, may be filled with a locative NP, as in (4) and (5),[1] or it may be filled with an NP assuming the role of a possessor, as in (6).

(6)   Wo you yiben shu   hen youqu
      I   have one   book very interesting
      'I have a very interesting book.'

   The locative phrase need not always occupy the subject position. It may occur as a PP anywhere in the sentence.

(7)   a. Zai zheli (wo) you   yiben shu
         at here   I have one   book
         'I have a book here' (or 'There is a book here')

      b. Wo zai Taipei you   yige pengyou hen youqian
         I   at Taipei have one   friend   very rich
         'I have a very rich friend in Taipei'

      c. You yiben shu   hen youqu   zai zhuo-shang
         have one   book very interesting at   table-top
         'There is a book very interesting on the table'

      d. You yiben shu   zai zhuo-shang hen youqu
         have one   book at table-top   very interesting
         'There is a very interesting book on the table.'

   Sentences of the second type involve verbs like *lai* 'come,' *fasheng* 'happen,' and *dao* 'arrive,' which have to do with "coming into existence," or verbs like *si* 'die,' *pao* 'escape,' and *qu* 'go,' which have to do with "going out of existence."

(8)   Fasheng-le   yijian chehuo
      happen-PERF one   accident
      'An accident happened'

(9)   Si-le   liangge ren
      die-PERF two   men
      'Two men died'

Positions 2 and 4 may also be optionally filled, position 2 with a locative (or temporal) phrase and position 4 with a descriptive clause.

(10)   a. Zuotian fasheng-le   yijian chehuo
          yesterday happen-PERF one   accident
          'An accident happened yesterday'
          (Lit. 'Yesterday happened an accident')

       b. Zheli fasheng-le   yijian chehuo   hen kepa
          here happen-PERF one   accident very terrible
          'A very terrible accident happened here'
          (Lit. 'Here happened an accident very terrible')

The third type of existential sentence is exemplified in (11) and (12):

(11)   a. Chuang-shang tang-zhe yige bingren
          bed-top   lie-DUR   one patient
          'In the bed lies a patient'

       b. Shu-dixia   zhan-zhe   liangge xiaohai
          tree-bottom stand-DUR two   child
          'Below the tree stand two children'

(12)   a. Fangjian-li fang-le   xuduo xingli
          room-inside put-PERF many luggage
          'In the room are put many pieces of luggage'

       b. Qiang-shang gua-zhe   yiding maozi
          wall-top   hang-DUR one   hat
          'On the wall hangs a hat'

The verbs used in sentences of this type are locational verbs—transitive or intransitive verbs that subcategorize for a locative phrase. These include intransitives like *zhu* 'live,' *zuo* 'sit,' *tang* 'lie,' *piao* 'float,' and transitives like *fang* 'put,' *gua* 'hang,' and *xie* 'write.' Each of these verbs is usually suffixed with the durative aspect–*zhe*, as in (11a–b) and (12b). In the case of a transitive locational verb the perfective aspect *-le* is also acceptable, as in (12a).

Like the other two types of existential sentences illustrated in (2)–(10), a locative existential sentence may also optionally take a predication clause in position 4.

(13)   Hebian   gui-zhe   liangge guniang zai xi   yifu
       river-side kneel-DUR two   lass   at wash clothes
       'By the river kneel two girls washing clothes'

(14) Qiang-shang gua-zhe   yifu hua   hen haokan
       wall-top   hang-DUR one picture very pretty
       'On the wall hangs a very pretty picture.'

An important special feature of the third type of existential sentence is that the subject position must be filled with a lexical phrase. In each sentence of (11)–(14) this requirement is fulfilled with the locative phrase appearing in position 1 in the form of an NP without the preposition *zai* 'at.' If the initial position is not filled, the sentences are ill-formed.

(15) a. *Tang-zhe yige bingren zai chuang-shang
         lie-DUR   one patient at bed-top

      b. *Zhan-zhe liangge xiaohai zai shu-dixia
         stand-DUR two   child   at tree-bottom

      c. *Gua-zhe   yiding maozi zai qiang-shang
         hang-DUR one   hat   at wall-top

Furthermore, if the locative phrase appears in initial position in the form of a PP, the sentences are also unacceptable.

(16) a. ?*Zai chuang-shang tang-zhe yige bingren
          at bed-top   lie-DUR one patient

      b. ?*Zai shu-dixia   zhan-zhe liangge xiaohai
          at tree-bottom stand-DUR two   child

      c. ?*Zai qiang-shang gua-zhe   yiding maozi
          at wall-top   hang-DUR one   hat

The unacceptability of (16a–c) shows that the locative phrase must not only occur in preverbal position but also occupy the subject position. This is because only subjects must be filled by NPs. Other preverbal positions, such as the position of a topic or of an adjunct, may be filled by PPs.

(17) Zai jiali   wo xihuan gen didi   wan
       at   home I   like   with brother play
       'At home, I like to play with my brother'

(18) Wo zai jjali   changchang ma   ta
        I   at home often   scold he
       'I often scold him at home'

Note that under certain circumstances the following sentences may be felt to be well-formed, where the subject position is unfilled and the verb is a transitive locative verb (with the suffix–*le*).

(19) a. *e* fang-le   xuduo xingli   zai fangjian-li
         put-PERF many   luggage at   room-inside
         '*e* put many pieces of luggage in the room'

   b. *e* zai fangjian-li   fang-le   xuduo xingli
         at room-inside put-PERF many   luggage
         '*e* put many pieces of luggage in that room'

(20) a. *e* gua-le   yiding maozi zai qiang-chang
         hang-PERF one   hat   at wall-top
         '*e* hung a hat on the wall'

   b. *e* zai qiang-shang gua-le   yiding maozi
         at wall-top   hang-PERF one hat
         '*e* hung a hat on the wall'

However, these sentences are well-formed only if an understood agent is implied. In this respect, they differ from sentences like those in (11)–(12), where no agent is implied. In other words, in the context of an existential sentence like any of those in (11)–(12), but not in the context of the sentences in (19)–(20), the D-Structure subject position is dethematized; that is, the verb does not assign it a thematic role as a lexical property. Thus, in (19)–(20) the empty subject is a "small pro" in the sense of Chomsky (1982), analogous to the empty subject of a null-subject language like Italian. In each of the ill-formed examples in (15), however, the empty subject is an expletive. The correct generalization is therefore that only the expletive subject position must be filled with a lexical NP. Those with a D-Structure thematic subject are not considered members of the third type of existential sentence.

The fourth type of existential sentence generally involves a verb with the experiential suffix *-guo*, as in (21)–(22), or a verb with the perfective suffix–*le*, as in (23)–(24).[2]

(21) Wo jiao-guo   yige xuesheng hen congming
      I   teach-EXP one student   very clever
      'I have the experience of teaching a student who is very clever'

(22) Wo ai-guo   yige nühai hen piaoliang
      I   love-EXP one girl   very pretty
      'I have the experience of falling in love with a girl who is very pretty'

(23) Wo xuan-le   yimen ke   hen nandong
      I   elect-PERF one   course very hard-to-understand
      'I look a course which was hard to understand'

(24) Ta song-le   yiben shu   gei wo hen youqu
      he give-PERF one   book to I   very interesting
      'He gave a book to me that was very interesting'

This final class of sentences differs from the others in the following two ways. First, position 1 is always occupied by a D-Structure subject (agent in the examples given here), whereas verbs in the other types of sentences are generally "unaccusative" in the sense of Perlmutter (1978)—or "ergative" in the sense of Burzio (1981)—in that they do not have a D-Structure subject—with the single exception of *you* 'have,' which may or may not have a D-Structure subject. Second, the verbs in this last type (though not those in the other three types) belong to an open class, in that any transitive verb, as long as it is suffixed with the experiential *-guo* or the perfective *-le*, may qualify as the verb of a sentence of this type. On the other hand, sentences of this type are similar to the other three types in two other ways. First, the verbs used all have to do with "existence" of some sort. A verb with the experiential suffix conveys the existence of an experience, and a verb in the perfective denotes the existence of an event. (Recall that the English perfective is *have*; also see [35].) Second, all four types of sentences may optionally contain a clause of predication in position 4. The examples in (21)–(24) all contain such a clause of predication. The following sentences show that the predication clause is optional.

(25) Wo jiao-guo   yige xuesheng
     I   teach-EXP one student
     'I have the experience of teaching a student'

(26) Ta song-le   yiben shu   gei wo
     he give-PERF one   book to I
     'He gave a book to me'

If the verb is not suffixed with *-guo* or–*le*, then often no expression of predication may appear.

(27) Ta meitian   jiao   yige xuesheng (*hen congming)
     he every-day teach one student   very clever
     'He teaches a student (*very clever) every day'

These two points of similarity—existentiality of the verb and the possible occurrence of XP—tie together our four types of sentences, to the exclusion of other sentence types.

2   THE STRUCTURE OF EXISTENTIAL SENTENCES

We have seen that existential sentences in Chinese have the linear form (NP) V NP (XP). Let us now consider the possible hierarchical structure of such sentences. The only thing that appears to be really worth discussing is the structural relationship of XP and the NP in position 3: does the

sequence NP—XP form a constituent? If so, what category is that constituent? The other aspects of the structure of an existential sentence appear to be relatively uncontroversial. For example, the NP in position 1 is the subject under the immediate domination of S but not VP. The sequence V—NP—(XP) is dominated by VP. That the XP, when it appears, is under VP but not immediately under S is assumed in all discussions of existential sentences in the literature that I am aware of and is further confirmed by the fact that in Chinese a sentential adjunct can only appear preverbally. I will further assume, without any comment, that the NP in position 3 is in object position in both D-Structure and S-Structure, regardless of whether the sentences are, in traditional terms, transitive or intransitive. That is, I assume that no "subject-inversion" whatsoever is involved in any of the earlier sentences. All intransitive existential verbs are unaccusative in the sense of Perlmutter (1978), and they all are assumed to select, as a lexical property, only complements but no subjects. (A "pure intransitive" or "unergative" verb does not qualify as an existential verb since it does not subcategorize for an object: *Ku-le yige ren* '*There cried a man.')

The question about the structural relationship of the object NP and the XP has been a point of controversy in recent discussions of *there be*-sentences in English. Three structures have been proposed for a sentence like (28), indicated in (29):

(28) There was a pig roasted.

(29) a. There was [$_{NP}$ a pig roasted]
       b. There was [$_{SC}$ a pig roasted]
       c. There was [$_{NP}$ a pig][$_{AP}$ roasted]

According to both (29a) and (29b), the sequence NP—XP is a constituent: in (29a) it is an NP (the "bare NP" analysis), and in (29b) it is a "small clause" in the sense of Williams (1975) (the clausal analysis). These two analyses differ with respect to whether NP or XP is the head of the constituent [NP XP]. According to (29c), NP and XP do not form a constituent but are both sisters of the verb (the "NP—XP" analysis). The "bare NP" analysis is championed by Williams (1984) and Jenkins (1975). The small clause analysis is proposed by Stowell (1981) and followed by many others (see, for instance, Safir 1982; Reuland 1983). The NP—XP analysis is assumed by Milsark (1974), among others. Let us consider these analyses with respect to existential sentences in Chinese.

The bare NP analysis claims that [NP XP] is a structure of postnominal modification, the XP being a postnominal modifier of the preceding NP. In English, nominal modifiers may often follow their heads. Therefore, as Williams (1984) puts it, a possible argument for the bare NP analysis is that it is not only possible to generate all *there be NP XP* strings with the structure *there be NP* but also quite impossible to prevent their generation

in this manner. If we consider Chinese existential sentences, however, a completely different conclusion can be reached. This is because the internal structure of Chinese noun phrases is, as is well known, strictly head-final. Given this general rule, it would be impossible, within the bare NP analysis, to generate any existential sentence in which an XP appears in position 4. That is, within this analysis one must allow for an exception to the general word order rule. The question then arises why a postnominal modifier may occur only in the four kinds of constructions just illustrated, and only in position 4 of such constructions. For example, if not in position 4, a nominal modifier is always prenominal.[3]

(30) a. Ta bei yige [hen keqi de] ren pian-le
          he by one   very polite REL man cheat-PERF
          'He was cheated by a very polite man'

      b. *Ta bei yige ren [hen keqi] pian-le
           he by one man very polite cheat-PERF

(31) a. Wo ba liangge [hen congming de] ren   pian-le
          I   BA two   very clever   REL man cheat-PERF
          'I cheated two very clever men'

      b. *Wo ba liangge ren   [hen congming] pian-le
           I   BA two   man very clever   cheat-PERF

This restriction on the distribution of the XP poses an important problem for the bare NP analysis, since there appears to be no general reason why the position of a given constituent should make a difference with respect to the relative order of its head and modifier. No similar problem arises, of course, within the NP–XP or the clausal analysis. According to these analyses, the NP–XP sequence is either a nonconstituent or a clause, but not an NP. Examples (30b) and (31b) are therefore ill-formed because such a sequence occurs in a position that must be filled by one and only one NP constituent (as the object of a preposition) but not by a nonconstituent or a clause, a requirement that is fulfilled in the case of (30a) and (31a), respectively. But the NP–XP sequence is not blocked from occupying positions 3 and 4 within a sentence, since the XP may be considered to fill either the position of a verb phrase complement or that of a small clause subcategorized by the higher verb.

Another way in which both the NP–XP analysis and the clausal analysis fare better than the bare NP analysis concerns the semantic difference between a prenominal and a postnominal XP that can be observed in (32) and (33).[4]

(32) a. There is a flying plane
      b. There is a plane flying

(33) a. Zhuo-shang you yiben hen youqu   de shu
           table-top   have one   very interesting REL book
           'On the table there is a very interesting book'

      b. Zhuo-shang you yiben shu   hen youqu
           table-top   have one   book very interesting
           'On the table there is a book [and it's] very interesting'

The phrases *flying* and *hen youqu* 'very interesting' each have a restrictive function when they appear prenominally, so that what is being asserted is specifically the existence of a flying plane (and not just a plane) in the case of (32a) and that of an interesting book (and not just a book) in the case of (33a). When they appear in position 4, however, the XPs have a descriptive but not a restrictive function. Example (32b) asserts merely the existence of a plane and goes on to give a description of the existing plane. Likewise, in (33b) the AP 'very interesting' is a continuative description of the existing book. In other words, a postnominal XP makes a comment about the preceding NP. If such an XP is to be represented as a postnominal modifier in accordance with the bare NP analysis, then it must he represented as a nonrestrictive modifier. However, this raises two problems. First, in English such XPs do not have the comma intonation characteristic of nonrestrictives. Second, in Chinese it is not clear why postnominal modifiers are possible only with nonrestrictives.[5] Within the NP–XP or the clausal analysis, these problems do not arise. According to these analyses, the XP is treated as a predicate. The relation that it has with the preceding NP is therefore that between subject and predicate, or between topic and comment.[6] And this is the correct interpretation of the XP.

Incidentally, the semantic difference between the (a)-examples and the (b)-examples of (32) and (33) is similar to that between (34a) and (34b).

(34) a. He ate the raw meat
      b. He ate the meat raw

Williams himself (1984: 136) assumes that (34b), unlike (34a), has an NP–XP structure, thus accounting for the fact that *raw* is a modifier in (34a) but a predicate in (34b). But if the NP–XP sequence in an existential sentence is analyzed as a bare NP, then it is not clear how a similar distinction can be made.

In short, I have argued against the bare NP analysis on two grounds. First, the internal structure of NP in Chinese is strictly head-final. Second, whereas an NP with a prenominal modifier clearly has a structure of modification, an NP–XP sequence has a structure of predication.

As for the choice between the clausal analysis and the NP–XP analysis, it seems to me that both structures may be involved in the existential sentences discussed here. On the one hand, the clausal analysis appears to be implausible for the sentences belonging to the second, third, and fourth

types. This is because, first, verbs like 'teach,' 'sit,' and 'die' in general subcategorize for an NP, but not for a clause, as their (D-Structure) object, and this makes them very different from verbs like 'consider,' which take only clausal objects. Second, a clausal analysis of the NP–XP sequence would treat the XP as the head of the sequence. But, as we have seen, XP is optional. Within the NP–XP analysis, the optionality can be easily accounted for by the parenthesis notation in the subcategorization frame of each of these verbs. Within the clausal analysis, however, it would be necessary to set up two separate subcategorization frames for each of these verbs.

On the other hand, there appears to be some reason for postulating the clausal analysis as a *possible* structure for the *you*-sentences. More specifically, suppose that *you* 'have' is an Aux, and that the rule expanding S is S → NP Aux XP, as proposed by Williams (1984); that is, Aux may subcategorize for any category. Then the NP–XP sequence in a *you*-sentence is forced to be a clause, given that Aux can only be followed by one XP. (The bare NP analysis is excluded by our earlier considerations.)

There is some evidence for analyzing *you* as an auxiliary. For one thing, it is well known (since Wang 1965) that *you* alternates with -*le* in marking the perfective aspect (an instance of Aux).

(35) a. Wo pian-le   Zhangsan
        I   cheat-ASP Zhangsan
        'I have cheated Zhangsan'

    b. Wo mei you pian   Zhangsan
        I   not have cheat Zhangsan
        'I have not cheated Zhangsan'

As suggested originally by Wang, this shows that the suffix -*le* is a suppletive allomorph of the Aux *you* that has undergone Affix Hopping. Given that *you* may be an Aux, it is plausible at least, though not necessary, to postulate that it is an Aux in existential sentences. The necessary assumption is that *you* as an Aux subcategorizes for both VP and clause, a possibility that is allowed by the rule S → NP Aux XP. It is even possible to assume that *you* subcategorizes for all categories (like *be* in English, following Williams). We have already seen that it can be followed by VP and NP.[7] For some speakers, it can also be followed by PP and AP.

(36) a. Ta mei you hen piaoliang
        she not have very pretty
        'She is not very pretty'

    b. Zhangsan you mei you zai nali?
        Zhangsan have not have at there
        'Is Zhangsan over there?'

In the related language Amoy there is even clearer evidence that 'have' subcategorizes for XP.

(37) Goa wu   ki-gue a
      I   have go-EXP PART
      'I have been there'

(38) Li wu gui-e   pingyiu?
      you have how-many friend
      'How many friends do you have?'

(39) I   wu sui   bo?
      she have pretty not-have
      'Is she pretty or not?'

(40) I   wu di chu   bo?
      he have at home not-have
      'Is he at home or not?'

Given that *you* may subcategorize for NP, VP, AP, and PP, it is only natural to assume that it may also subcategorize for a clause, another instance of XP.[8]

Summarizing, I have argued that the NP–XP sequence is best analyzed, not as a structure of modification in accordance with the bare NP theory, but as a structure of predication in accordance with the NP–XP or the clausal theory. Furthermore, although the NP–XP theory appears to be more reasonable for sentences of the second, third, and fourth types, with *you*-sentences the clausal analysis appears to be plausible as well, though more evidence is needed to determine whether it is indeed the only correct analysis.

3   DISTRIBUTION OF THE DEFINITENESS EFFECT

It is well known that some existential sentences in Chinese, as in every other language, exhibit what Safir (1982) calls *definiteness effects* (DEs), manifestations of the requirement that the NP in position 3 must be "indefinite."

(41) a.   You yiben shu   zai zhuo-shang
           have one   book at table-top
           'There is a book on the table'

      b. *You neiben shu   zai zhuo-shang
           have that   book at table-top
           'There is that book on the table'

A proper semantic characterization of the definite versus indefinite distinction is beyond the scope of this chapter (see Milsark 1974, 1977;

Barwise and Cooper 1981; Reuland 1983 and other chapters in that volume, especially Chapter 12 by Keenan). For present purposes it suffices to say that "definites" include proper names, pronouns, NPs with a definite article or a demonstrative, bare NPs interpreted as generic or definite, universally quantified NPs, and NPs with quantifiers like 'most.' "Indefinites," on the other hand, include NPs with existential quantifiers and bare NPs interpreted as nongenerics.

The sentences in (41) already show that an NP with a definite determiner is disallowed in *you*-sentences. The following sentence shows that the same restriction applies to proper names, pronouns, universals, and 'most-NPs.'

(42) *You Lisi/ta/meige ren/daduoshu-de ren   zai wuzi-li
         have Lisi/he/every man/most   man at room-in
         '*There is/are Lisi/him/everybody/most people in the room'

In the context of a nonexistential sentence, or in a position other than position 3 of an existential sentence, a bare NP may be interpreted as generic or definite (and sometimes as nongeneric).

(43) Wo xihuan shu
       I   like   book
       'I like books'

(44) Wo mai-le   shu   le
       I   buy-PERF book PRT
       a. 'I bought a book/(some) books'
       b. 'I bought the book(s)'

(45) Ren si-le
       man die-PERF
       'The man died'

However, in position 3 of a *you*-sentence a bare NP has only the nongeneric, nondefinite interpretation.

(46) You ren   lai-le
       have man come-PERF
       'Someone came'

Moreover, in Chinese a possessive NP may be definite or indefinite in the context of (47) but only indefinite in (48).[9]

(47) Ta da-le   wo-de pengyou
       he hit-PERF my   friend
       'He hit (one/some of) my friends'

(48) You wo-de pengyou zai wuzi-li
      have my   friend   at room-in
      'There is/are a/some friend(s) of mine in the room'

Although these kinds of *you*-sentences exhibit a clear DE, it has also been a commonplace observation that not all existential sentences exhibit the same effects. The lack of a DE is observed not only in "list" contexts like (49) but also in other contexts such as (50) and (51).

(49) Who do we have here?
      Well, there are the two students of yours, you, and me,

(50) Chuang-shang tang-zhe Zhangsan
      bed-top   lie-DUR Zhangsan
      'In the bed lies Zhangsan'

(51) Tai-shang   zuo-zhe zhuxi-tuan
      platform-top sit-DUR presidium
      'On the platform sits the presidium'

As far as I know, there has been no clear description of where the DE occurs in Chinese existential sentences. In this section I attempt a systematic statement of its distribution.

There is a clear difference with respect to the distribution of the DE depending on whether or not a given existential sentence contains an expression of predication in position 4.[10] First of all, consider sentences in which the predication does not occur.

The DE is most often observed within a *you*-sentence. However, there is an asymmetry between *you*-sentences in which the subject position is lexically occupied and those in which it is not. In particular, in the examples in (52) and (53) the object of *you* can be definite or indefinite.

(52) a. Ni you-mei-you   yiben shu   zai zheli?
          you have-not-have one   book at here
          'Do you have a book here?'

      b. Ni you-mei-you   zheben shu   zai zheli?
          you have-not-have this   book at here
          'Do you have (a copy of) this book here?'

(53) a. Zheli you-mei-you yiben shu?
          here have-not-have one book
          'Is there a book here?'

      b. Zheli you-mei-you zheben shu?
          here have-not-have this book
          'Is there (a copy of) this book here?

In (52) position 1 is occupied by a D-Structure subject that has the thematic role of a possessor. In (53) the same position is occupied by a locative NP. Since no possessor is implied in (53), we may assume that the sentence does not have a D-Structure subject; that is, the subject position is an expletive position before the locative moves into it. The well-formedness of both (52) and (53) shows that, as long as the surface subject is filled with an NP, no DE obtains in a *you*-sentence.

Now, consider a *you*-sentence in which the subject position is not lexically occupied.

(54) a.   You-mei-you   yiben shu   zai zheli?
           have-not-have one   book at   here
           'Is there a book here?'

      b. *You-mei-you   zheben shu   zai zheli?
           have-not-have this   book at   here
           'Is there this book here?'

Example (54b) may be considered acceptable only in a context where an understood possessor is implied (that is, only when the empty subject is not an expletive but a pro with an independent thematic role—see [19]—[20]). In other words, (54) contrasts with (53), where no possessor is implied. Whereas (54a) may be used to ask the same question as (53a), (54b) may not be used to ask the same question as (53b). The relevant contrast shows that a DE obtains just in case a nonthematic subject position is lexically unoccupied on the surface.

Notice that although in some sentences—such as those in (52) and (53)—a definite NP may follow *you*, such an NP is only syntactically definite but not semantically so. Thus, a sentence like 'Do you have this book here?' does not ask the contradictory question whether you have *the* copy of the book I am holding in my hand. Rather, it asks whether you have another copy of the book. The relevant point being made here is that, although a *you*-sentence with a lexical subject allows an object that is syntactically definite but semantically indefinite, a *you*-sentence with an unoccupied nonthematic subject position cannot.

Turning now to sentences with an appearance or disappearance verb, we find that the DE obtains in the following examples.

(55) Lai-le   liangge ren /*Lisi/*ta/*neige ren/ *meige ren le
      come-PERF two   man /Lisi /he /that man/ every man PRT
      Lit. 'Came two men/*Lisi/*him/*that man/*everybody'

(56) Si-le   liangge ren /*Lisi/*ta /*neige ren /*meige ren   le
      die-PERF two   man /Lisi /he /that   man /every man PRT
      Lit. 'Died two men/*Lisi/*him/*that man/*everybody'

In each case a definite D-Structure object must be NP-Moved to the subject position.

(57) Lisi /ta /neige ren /meige ren lai-   /si-le
     Lisi /he /that man /every man come-/die-PERF
     'Lisi/he/that man/everybody came/died'

Even if the surface subject position is filled, the DE still obtains; this is one way the (dis)appearance sentences differ from *you*-sentences.

(58) Zheli si-le   yige ren /*ta /*neige ren /*meige ren le
     here   die-PERF one man /he /that man /every man PRT

Another different property of (dis)appearance sentences is that the DE obtains only if the existential verb is in the main clause, as in (58), or in an assertive clause, as in (59).

(59) Lisi shuo (zheli) si-le   yige ren   /*ta /*neige ren
     Lisi say   here die-PRT one man /he /that man
     'Lisi said that (here) died a man/*he/*the man'

If the existential verb is embedded in a nonassertive clause, such as an adjunct, the DE disappears.

(60) Suiran lai-le   Lisi /neige ren, keshi. . .
     though come-PERF Lisi /that man but
     'Although Lisi/the man came, but. . .'

(61) Ruguo fasheng zhejian shiqing, jiu. . .
     if   happen this   matter then
     'If this thing happens, then. . .'

(62) Zicong zou-le   Zhangsan yihou, jiu. . .
     since   go-PERF Zhangsan after   then
     'Ever since Zhangsan left, . . .'

As for existential sentences of the third type, they exhibit no DE at all. This is true regardless of whether a given locational verb is in the main clause or an adjunct clause.

(63) a. Shu-dixia   zuo-zhe yige ren /Zhangsan /neige xiaohai
        tree-bottom sit-DUR one man /Zhangsan /that child
        'Under the tree sits a man/Zhangsan/the child'

     b. Zhuo-shang fang-le   yiben /neiben ni   yao de   shu
        table-top   put-PERF one   that   you want REL book
        'On the table is put a/the book that you want'

    c. Qiang-shang gua-zhe   rili
       wall-top   hang-DUR calendar
       'On the wall hangs a/the calendar'

(64) a. Suiran wuzi-li zhu-zhe zhege jiahuo, . . .
       though room-in live-DUR this   fellow
       'Although in this room lives this fellow, . . .'

    b. Yinwei limian tang-zhe neixie bingren, . . .
       because inside lie-DUR   those patient
       'Because inside (the room) lie those patients, . . .'

Finally, with sentences of the fourth type, the DE also does not obtain.

(65) a. Wo jiao-guo yige xuesheng /ta /Lisi /neige ren
       I   teach-EXP one student   /he /Lisi /that man
       'I have taught a student/him/Lisi/that man before'

    b. Wo mai-le   liangben /zheben /neiben shu
       I   buy-PERF two   /this   /that book
       'I bought two/this/that book(s)'

(66) a. Suiran wo jiao-guo yige /neige xuesheng, . . .
       though I   teach-EXP one /that   student
       'Although I have taught a/that student before, . . .'

    b. Zicong wo kan-le   liangben /zheben shu yihou, . . .
       since   I read-PERF two   /this   book after
       'Ever since I read two/this book(s), . . .'

We have seen the distribution of the DE in sentences that do not contain a predication phrase in position 4. Let us now consider what happens when they do contain such a phrase. Quite unlike the previous cases, no definite NP may appear in any such sentence.

(67) You yige /*neige ren hen youqian
     have one /that   man very rich
     'There is a/*the man [and he's] very rich'

(68) Lai-le   yige ren /*ta /*neige ren hen yonggan
     come-PERF one man /he /that   man very brave
     'There came a man/*he/*the man very brave'

(69) Di-shang zuo-zhe yige /*neige ren hen congming[11]
     floor-top sit-DUR one   /that man very clever
     'On the floor sat a/*the man very clever'

(70) Wo ai-guo yige nuhai/*Mali /*neige nuhai hen piaoliang
      I love-EXP one girl   /Mary /that girl   very pretty
      'I have been in love with a girl/*Mary/*that girl very pretty'

This restriction obtains without exception, regardless of whether or not the subject is lexically filled, and whether the verb is in the main clause or in an adjunct clause. Compare (71) with (52)–(53), (72) with (60)–(62), (73) with (64), and (74) with (66).

(71) Wo you yiben /*zheben shu   hen youqu
      I   have one /this   book very interesting
      'I have a/*the book which is very interesting'

(72) Fasheng-le   yijian /*neijian shiqing hen kepa   yihou, . . .
      happen-PERF one   /that   matter very terrible after
      'After there happened a/*the thing which is terrible, . . .'

(73) Suiran zheli zhu-zhe   yige /*neige ren   ben xiong, . . .
      though here live-DUR one /that   man very fierce
      'Although here lives a/*the man who is very fierce, . . .'

(74) Yinwei ni jiao-guo yixie /*neixie xuesheng hen congming
      because you teach-EXP some /those student very clever
      'Because you have taught some/*those students who were very clever, . . .'

Summarizing, the distribution of the DE in Chinese existential sentences is as follows. When a predication phrase occurs in position 4, the DE obtains without exception. In the absence of the predication the DE is observed with *you*-sentences when an expletive subject is empty and with (dis)appearance verbs when they appear in the main clause or in an assertive clause, but not with locative existential sentences or sentences of experiential existence, with *you*-sentences whose subject position is filled, or with (dis)appearance clauses in nonassertive contexts.

4   ON DERIVING DEFINITENESS EFFECTS

Now that we have seen the distribution of the DE in existential sentences in Chinese, the next questions to be addressed are why such sentences may exhibit the DE, and why the distribution of the DE is precisely as it is.

There have been a number of approaches to the theory of the DE. These are either syntactic, semantic, or pragmatic in nature—or a combination thereof. A syntactic, and by now well-known, account is that of Safir (1982) and Reuland (1983). According to this account, the presence of the DE is

closely tied to the fact that most existential sentences involve verbs that do not select D-Structure subjects. The essence of this theory is based on the generalization in (75).

(75)   The DE is found in unbalanced θ-chains.

A θ-chain, as defined in Chomsky (1981), is a c-command chain (X, Y), X c-commanding Y, where X is a nonthematic position and Y is a thematic position. Typical examples of θ-chains are those established when an argument is moved. A normal chain established in this way has the form (NP, EC), where NP is a lexical phrase and EC is an empty category. An unbalanced chain, on the other hand, is one of the form (EC, NP). In each of the sentences (76) and (77) there is an unbalanced chain if we assume that the NP in position 3 is coindexed with the subject position.

(76) EC_i you   yiben shu$_i$ zai zheli
         have one   book at   here
     'There is a book here'

(77) EC_i fasheng-le   yjjian shiqing$_i$ hen kepa
         happen-PERF one   matter   very terrible
     'There happened something terrible'

Since in an unbalanced chain the lexical NP is A-bound, if nothing else is said such a chain would be excluded by Principle C of the Binding Theory, which requires all R-expressions to be A-free. Safir's theory then postulates that indefinite NPs, but not definites, are exempt from Principle C—on the ground either that indefinites are less referential than definites (the "Indefinite NP Property" proposed in Safir 1982: 237) or that they are predicates in some sense in existential sentences (the "Predicate Principle" proposed by Safir in Chapter 4). The result is, then, that when an unbalanced chain must be formed (for whatever reason), a sentence is well-formed just in case the chain can escape Principle C. And this is the DE.

This approach appears to be quite plausible in view of some of the facts we have seen in Chinese. For one thing, we saw that, in the absence of a predication clause in position 4, the DE obtains only in existential sentences of the first two types but not in those of the third and fourth types. Consider sentences of the fourth type, in which the verb has a thematic subject. Obviously, in such sentences there can be no unbalanced chain connecting the subject with the NP in position 3—in fact, they cannot form a θ-chain at all, or the θ-Criterion would be violated. The absence of an unbalanced chain thus correctly predicts that no DE obtains in such sentences. The same applies to sentences of the third type. As noted earlier, an important property of locative existential sentences is that the subject

position must be filled with a locative NP. The locative phrase cannot occur as a PP either postverbally or preverbally. It is not clear what forces the subject position to be filled, but it is clear that no unbalanced chain is present in such sentences, and again there is no DE. On the other hand, sentences of the first two types are clearly those in which an unbalanced chain may be formed, because the verbs do not select a D-Structure subject—except for *you*, which may or may not have a D-Structure subject—and because their expletive subjects need not always be lexically filled. The fact that the first two types of sentences differ from the last two types thus comes as no surprise.

Another piece of support for the syntactic approach comes from distribution of the DE in *you*-sentences. We have seen that a *you*-sentence exhibits the DE just in case an expletive subject position is left lexically unoccupied (see the discussion centering around [52]–[54]). If an expletive subject position is filled with a locative phrase, or if the subject of a *you*-sentence is not expletive (either filled with a lexical possessor NP or a pro), then the DE does not obtain. Obviously, in these cases no unbalanced chain can be involved, and the lack of the DE is correctly predicted. In the case of an unfilled expletive subject position it is plausible to assume that it always entails the existence of an unbalanced chain. The obligatory existence of such a chain may be forced by Case inheritance, as suggested by Safir (1982), or by a principle that requires an expletive subject to be coindexed with something in VP at LF, as suggested by Reuland (1983). In either case the existence of the DE is predicted. This syntactic explanation is particularly appealing, especially in view of the fact that what is prohibited in the DE context is not just an NP that is semantically interpreted as definite but one that cannot have a definite syntactic form. A semantic explanation would not be sufficient to make the necessary distinction.

We thus see that Safir's and Reuland's account receives some support from certain existential sentences in Chinese. It does not appear to be capable of deriving the full range of DE facts that we have observed, however. First, we have seen that within a (dis)appearance sentence the DE may obtain regardless of whether the subject position is occupied by a locative or temporal NP (see [55]–[59]). In the absence of an unbalanced chain in such sentences as (58), Safir's and Reuland's theory is too weak to account for the presence of the DE. Second, given that the DE disappears when a (dis)appearance sentence is embedded within an adverbial adjunct (see [60]–[62]), this theory also appears to be too strong in predicting a DE that actually does not occur even when the subject is unfilled. There appears to be no general reason why the difference between main and adverbial clauses should make a difference with respect to the presence of an unbalanced chain. Third, whenever a predication clause is present in position 4, the DE obtains in all sentences without exception, regardless of whether the subject is thematic or expletive, filled or empty, and therefore regardless of whether there is an unbalanced chain (see [67]–[74]). This last case suggests

that, in addition to "Safir's generalization" (75), the generalization in (78) is operative.

(78)   The DE is found in existential sentences with a clause of predication.

The three facts just mentioned apparently cannot be derived from Safir's and Reuland's theory. It seems, however, that they may be partially derived from a theory that is less syntactic in nature. Consider first the distribution of the DE when no predication is present. It seems that the four kinds of sentences differ with respect to the degree of existentiality inherent in the verbs involved. In particular, *you* appears to be purely existential in meaning. A (dis)appearance verb conveys existence primarily but also something else. A locative verb appears to convey primarily the location of a given object, though also its existence. Similarly, an experiential or perfective verb denotes primarily an action, and only secondarily the existence of an experience or event. More specifically, *you* is completely existential; a (dis)appearance verb is highly existential since the verb stem itself expresses existence; and a locative, experiential, or perfective verb is less so since the existentiality is associated only with its suffix.

If this is correct, then it makes sense to assume that whereas the DE obtains with *you* in most cases, it obtains with (dis)appearance verbs only when they appear in positions where an assertion of existence can be most easily made—that is, when the relevant NP is in focus, as in main or assertive clauses.[12] The DE docs not obtain with locative, experiential, or perfective verbs since the existence component of the verb, being within a suffix, is too weak to make the verb sufficiently existential. The DE is found, then, only when a given sentence is "highly existential"—presumably because a definite NP is highly inappropriate with the semantics of existence. In the words of Barwise and Cooper (1981: 183), a "strong" determiner will result in either tautology or contradiction.

A plausible account of the asymmetry between *you*-sentences and (dis)appearance sentences thus appears to be one that is lexical-semantic in nature—one that appeals to the semantic difference between *you* and other verb types.[13] If correct, however, this account would undermine the syntactic account regarding the absence of the DE in locative, experiential, and perfective sentences (where the subject is either filled or thematic), though the contrast between certain *you*-sentences (see [52]–[54]) appears to continue to resist a semantic account.[14]

Now consider generalization (78), when a predication clause does occur. Example (78) apparently has no similar explanation within the lexical-semantic approach, given that the DE obtains uniformly with verbs of all four types, in the presence of a predication. In fact, the possible occurrence of a predication probably has nothing to do with the inherent features of a verb. Although I have indicated that XP occurs most typically with an existential verb or one that contains some feature of existentiality (as in an

experiential or perfective sentence), it is also possible to find sentences like
(79)–(80), in which the verb appears to have nothing to do with existence.

(79) Wo hen xiang xuan yimen ke   tamen shuo hen youqu
     I   very hope elect one   course they   say   very interesting
     'I very much hope to elect a course, which they say is very interesting'

(80) Wo zheng zai kan yiben shu   hen youyisi
     I   right at read one   book very interesting
     'I am right now reading a book which is very interesting'

Furthermore, there is in fact a condition more strict than the DE on
sentences with a predication clause. In addition to being indefinite, the NP
in position 3 must contain a numeral quantifier (as in [79]–[80] and other
previous examples) but cannot be a bare NP. Compare (81) and (82).

(81) a. Wo renshi yige nuren   hen piaoliang
        I   know one woman very pretty
        'I know a woman who is very pretty'

     b. *Wo renshi nuren   hen piaoliang
        I   know woman very pretty

(82) a. Wo jiao-guo yige xuesheng hen congming
        I   teach-EXP one student   very clever
        'I have taught a student who is very clever'

     b. *Wo jiao-guo   xuesheng hen congming
        I   teach-EXP student   very clever

The (b) sentences are ill-formed even if the object NP is interpreted as an
indefinite nongeneric on a par with a bare plural in English. Clearly, this is
not an instance of the DE, and it is not observed with sentences that exhibit
a DE but contain no predication clause.

(83) a. Si-le   yige ren le
     die-ASP one man ASP
     'A man died'

     b. Si-le   ren le
     die-ASP man ASP
     'Someone/People died'

What (80) and (81) show is that they require the NP in position 3 to be
referential. Together with the DE, this means that the NP must be specific,
that is, referentially indefinite. The generalization is that these sentences
exhibit a "specificity effect" (and not just a DE).

(84) In sentences with a predication clause in position 4 the NP in
      position 3 must be specific.

There is further evidence that this generalization is correct. It is well
known that in Chinese a numerically quantified NP is generally specific.
Thus, such an NP does not occur naturally in the scope of negation.[15]

(85) *Wo meiyou kanjian yige ren
       I   not   see   one man
       'I did not see a certain man'

Furthermore, a sentence with a clause of predication cannot occur as a
question.

(86) *Ni   shenme shihou jiao-guo yige ren hen congming?
       you what   time   teach-EXP one man very clever
       '*When did you teach a certain man who is very clever?'

(87) *Shei renshi yige nuren hen piaoliang?
       who know one woman very pretty
       '*Who knows a certain woman who is very pretty?'

Questions like (86)–(87) are as odd as their English translations. Given
the generalization (84), the object NP in each of (86)–(87) is necessar-
ily specific—that is, an NP whose reference is known to the speaker but
assumed by the speaker to he unknown to the addressee. The oddness of
these questions thus follows—for the simple reason that the interrogator is
not being cooperative in the sense of Grice (1975).

What, then, might be the explanation for generalization (84)? Notice
that the syntactic account proposed by Safir and Reuland is not intended
to deal with "specificity effects" and one need not regard (84) as a problem
for their theory. However, it is possible to factor (84) into two parts: an
indefiniteness requirement (the DE) and a referentiality requirement. In this
case it is reasonable to hope to derive the indefiniteness requirement from
whatever principle it is that derives the DE in general terms. It is unclear,
however, how either the syntactic account described here or any account
based on lexical semantics can provide an adequate explanation for both
parts of (84). A functional-pragmatic account may be plausible in this case.
Intuitively, the predication clause seems to exist solely for the purpose of
elaborating on some NP being introduced into the discourse. Such an NP
is necessarily indefinite (see Heim 1982). Furthermore, such an NP must be
referential, inasmuch as the predication clause is a continuative description.
(As in the case of a nonrestrictive relative clause, it is impossible to pro-
vide a continuative description of something that is entirely nonreferential.)
Since the NP cannot be definite or nonreferential, it can only be specific.

This intuitive remark, however, cannot stand as a real explanation for the "specificity effect." Unfortunately, I am not able to formulate in precise terms a better theory of definiteness and specificity effects, and I must leave the problems observed for future studies.

5   CONCLUSION

In this chapter I have provided a description of some general properties of existential sentences in Chinese and discussed, in a rather preliminary fashion, how some of these properties may be derived in a proper theory of grammar. I have argued that existential sentences cannot be properly analyzed along the lines of the bare NP theory, and I have suggested that most of them may be best analyzed along the lines of the NP–XP theory, though the clausal analysis may also be quite plausible for some of them. Regarding the distribution of the DE, I have shown that although some facts appear to support a syntactic account of the DE, others appear to resist such an account and favor instead an account that is either lexical-semantic or functional-pragmatic in nature. This discussion is inconclusive regarding which account might provide the right solution to the problem of explaining the DE. I hope to have at least given a fair survey of the problems involved that any adequate theory of the DE must be prepared to deal with.