On the Mandarin Possessive and Existential Verb *You* and its Idiomatic Expressions

One-Soon Her

Executive Communication Systems

ABSTRACT

Three usages of *you3* 'exist, have' as a verb are recognized: (1) possessive; (2) existential; and (3) (subjectless) locational. This paper discusses these usages and also the stative use of *you3* in idiomatic expressions such as *you3-yi4si* 'interesting'. Semantically, we argue that the possessive and (subjectless) locational usages can both be explained within the concept of 'existence', and syntactically *you3* always requires both subject and object. We therefore reject the analysis of multiple *you3*'s and formulate a single lexical entry of *you3*, within Lexical–Functional Grammar. We then discuss the three possible treatments of expressions like *you3-yi4si*. We provide linguistic data to prove that they cannot be treated as regular verb phrases of [*you3* NP] nor can they be regarded as lexicalized complex verbs listed as separate entries in the lexicon. We argue that it is best to treat them as idioms whose internal syntactic structure is relevant to that of the sentence. We also demonstrate the similarities between English idiom chunks and these stative, gradeable [*you3*-NP] expressions. Finally, we expand the lexical entry of *you3* to account for the idiomatic expressions.

INTRODUCTION

This paper presents a discussion on the verb *you3* 'have, exist' in Mandarin Chinese. We will examine some previous analyses of this verb and also give our treatment of this verb in the framework of Lexical–Functional Grammar, or LFG (Kaplan and Bresnan 1982, Kaplan and Maxwell 1988). Generally, three usages of this verb can be recognized: (1) possessive; (2) existential; and (3) and (subjectless) locational. First we will discuss *you3* in these three usages. We will employ a common semantic interpretation of 'existence' to explain all three usages and also discuss the implications on the possessive construction of [NP *de* NP]. Then, we will examine another usage of *you3* where it is part of a stative, gradeable element, such as *you3-yi4si* 'interesting'

and argue for an idiomatic analysis. Finally, we will give an explicit formulation of the lexical entry accounting for all the above usages of *you3* in LFG.

THREE VERBAL USAGES OF *YOU3*

To facilitate discussion we will first show the following examples. Sentences in 1 are of the first usage, possessive; sentences in 2 show the existential usage of *you3* where its subject has to be place word; and in 3 *you3* may be preceded by a locational prepositional phrase and yet here it has no noun phrase subject.

1. a. Wo3 you3 hen3duo1 shu1.
      I   have many   book
      I have many books.

   b. Zai4 zuo1-shang wo3 you3 hen3duo1 shu1.
      at   desk top   I   have many   book
      On the desk I have many books.

2. a. Zuo1-shang you3 hen3duo1 shu1.
      desktop   exist many   books
      There are many books on the desk.

   b. Zai4 wu1zi-li   zuo1-shang you3 hen3duo1 shu1.
      at   house inside desktop   exist many   books
      In the house on the desk there are many books.

3. a. You3 hen3duo1 shu1   zai4 zuo1-shang.
      exist many   books at   desktop
      There are many books on the desk.

   b. Zai4 zuo1-shang you3 hen3duo1 shu1.
      at   desktop   exist many   book
      On the desk there are many books.

   c. Zai4 wu1zi-li   zai4 zuo1-shang you3 hen3duo1 shu1.
      at   house inside at   desktop   exist many   book
      In the house there are many books on the desk.

There have been some transformational accounts of the verb *you3* during the heyday of Transformational Grammar. For example, Li (1972) links verbs denoting 'be, exist, and have' (*shi4*, *zai4*, and *you3*) transformationally by posing a common deep structure. We can reject this analysis on the ground that it entails the grouping of *shi4*,

zai4, and *you3* into one single lexical entry and therefore the implication that the choice of *shi4*, *zai4*, or *you3* is not lexical but purely phonological. This analysis contradicts the fact that these three verbs do manifest different syntactic behaviors and semantic content.

While we distinguish the preverbal locational NP, *zuo1-shang*, in 2a and the preverbal locational PP, *zai4 zuo1-shang*, in 3b, Huang (1966), along with others, such as Li and Thompson (1981: 509–16), treats the two types of sentences as grammatically equivalent; in other words, the preverbal PP in 3b is taken to be the subject. This analysis, as Starosta (1985) protests, seems to be based on nothing more than the same English translations for these two types of sentences. Clearly, in 3a there is no preverbal subject since *you3* occupies the sentence-initial position. Furthermore, note the fact that in Mandarin Chinese non-subcategorized locational prepositional phrases usually occur preverbally, exemplified in 1b, 2b and 3c. In order to capture this generalization, sentences 3b–c would have to be considered as without overt subjects, just like 3a, and thus all preverbal locational PP's in 3b–c function adjunctively just like the preverbal PP's in 1b and 2b. In 2, however, as both Starosta (1985) and Ding *et al* (1979: 78–9) have pointed out, the preverbal unmarked place words should be regarded as subjects, just like the NP subjects of 1a–b. Yet, both Chao (1968: 530) and Li and Thompson (1981: 511) treat them as topics, for they do no distinguish subjects from topics syntactically.

Starosta (1985), in his localistic Lexicase analysis, makes exactly the same three distinctions; namely, he recognizes the possessive and the non-possessive *you3*, and he further divides the non-possessive *you3* into two subtypes: existential ($you3_1$) and locational ($you3_2$). Thus, this Lexicase analysis necessarily implies that in the lexicon there are three separate lexical entries: *you3*, $you3_1$, and $you3_2$. Since we do recognize that there are three different usages of the verb *you3*, it would be convenient, and it is also perfectly acceptable within the LFG framework, to simply pose three different lexical forms for *you3*. Nonetheless, we believe doing so fails to capture some important generalizations of the verb *you3* as a single lexical unit.

As Li and Thompson (1981: 516) have correctly pointed out, many languages of the world, including Mandarin Chinese, express both possession and existence with the same verb. To pose two (or three) different verbs for the possessive and existential usages in Chinese would be to render this phenomenon accidental and trivial. The fact that in many languages the same verb expresses possession and existence is, we believe, largely because the relation of possession between two entities is in fact a kind of relation of existence as well. That A possesses B is in effect equivalent to that B exists within the domain of A. To clarify this statement, first we have to point out that possession is NOT equivalent to ownership; rather, ownership is only a specific kind of, or an instance of, possession. That A owns B can be interpreted as B exists within the domain of A's ownership. In other words, existence subsumes possession, which

in turn subsumes ownership. Therefore, while it is possible to interpret sentences in 1 in terms of ownership (that is "I own many books"), it is not always appropriate. Look at the following sentences of similar usage:

4. a. Wo3 you3 hen3duo1 qin1qi.
   I   have many   relative
   I have many relatives.

   b. Hua1 you3 hen3duo1 zhong3lei4.
      flower have many   variety
      Flowers have many varieties.

   c. Tai2wan1 you3 hao3 qi4hou4.
      Taiwan   have good climate
      Taiwan has a good climate.

   d. Qi1yue4 you3 ji3   tian1?
      July   have how many day
      How many days are there in July?

All these sentences are better interpreted in terms of existence, namely that "A *you3* B" is viewed as "B exists in the domain of A." This is precisely the kind of interpretation most suitable for sentences in 2, where the subjects are always place words that semantically function as the universe or the domain in which the object exists. Once we have shown that sentences of 1 and 2 are both syntactically and semantically equivalent in structure, we have eliminated the plausibility of posing two different *you3*'s for 1 and 2. We thus also recognize that *you3* requires two arguments: SUBJ and OBJ. Note that Cheng (1979) lists some *you3* sentences like 4b and 4d to demonstrate the "approximative" use of *you3* in addition to the three uses we have listed above. It is clear that semantically our redefined concept of possessive and existential use of *you3* also covers this "approximative" use, and syntactically sentences in 4 as well as in 1 and 2 are all equivalent in terms of their requirement of subject and object.

Next, we shall examine sentences in 3. We have already pointed out that sentences 2a and 3a are not syntactically equivalent because 2a has an overt subject while 3a does not. However, semantically, sentences of 3 are also best interpreted in terms of existence, namely that "*you3* B" is viewed as "B exists" within an unspecified domain. The preverbal locational prepositional phrase is not a subcategorized element; rather it is an adjunctive element that denote the general location of the existence. Compare the following sentences:
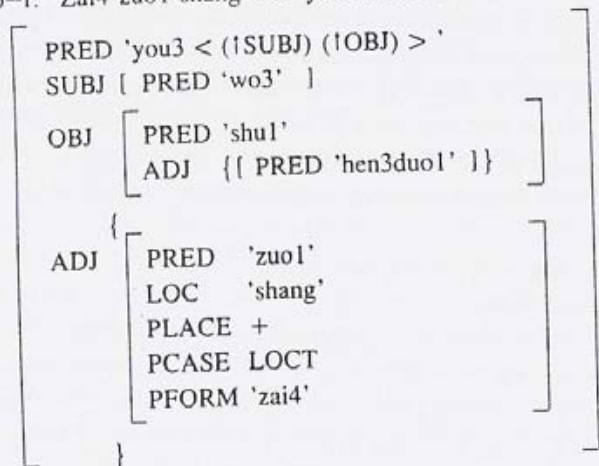
5. a. Zai4 wu1zi-li   wo3 you3 hen3duo1 shu1.
      at   house inside I   have many   book
      In the house I have many books.

   b. Zai4 wu1zi-li   zuo1-shang you3 hen3duo1 shu1.
      at   house inside desktop   exist many   books
      In the house there are many books on the desk.

   c. Zai4 wu1zi-li   you3 hen3duo3 shu1.
      at   house inside exist many   books
      In the house there are many books.

The preverbal prepositional phrases in all three sentences are of the same adjunctive function. Now, to claim that the *you3* in 3a–c and 5c is the same verb as in 2 and 3 is in effect to also claim that all of these sentences have the same syntactic structure, that is they all have a SUBJ and an OBJ. Following the preliminary analysis of *you3* of Her (1989a), this is indeed our position by formulating the following lexical entry for *you3*.
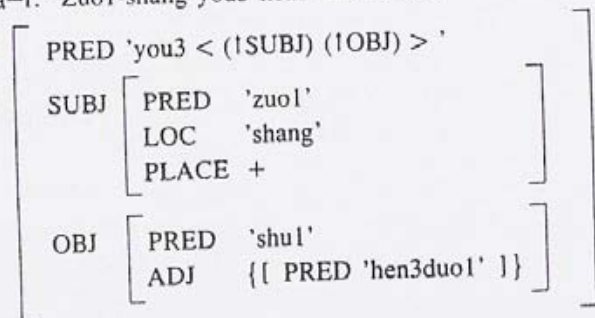
you3   V,   ($\uparrow$ PRED) = 'you3 < ($\uparrow$SUBJ) ($\uparrow$OBJ) > '
              ($\uparrow$ SUBJ PRED) $\approx$ PRO

We are therefore treating *you3* as a single verb with a single lexical form which subcategorizes two grammatical functions, SUBJ and OBJ, with a special default condition on its SUBJ in the functional structure. Note that while = indicates unification, $\approx$ indicates extension, sometimes called overwriting, or unification by default inheritance (Shieber 1986: 59–61, Her 1989b: 86–7). It is very important to point out that when unifying by default inheritance, if there is a conflict in terms of the value of a certain feature, unification will NOT fail; rather, the value specified in the functional structure on the left overwrites the conflicting value to be unified on the right. Thus, if the SUBJ of the *you3* sentence is overt, then whatever the existing value of its SUBJ's PRED is, it will overwrite the default value PRO; only when its SUBJ is not overt and therefore with no feature PRED, will the value PRO be assigned to a PRED attribute in the SUBJ. This accounts for the fact that the missing subject behaves like a pronoun, in that it may have a whole range of antecedents (Sells 1985: 171). We will illustrate the f-structures of 1b, 2a and 3b as examples.
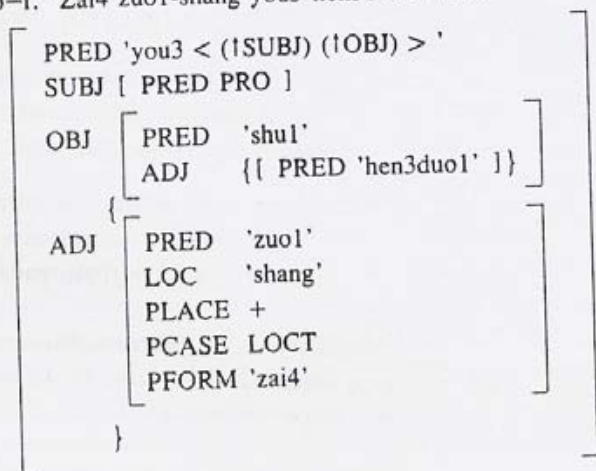
1b–f. 'Zai4 zuo1-shang wo3 you3 hen3duo1 shu1.

$$
\begin{bmatrix}
\text{PRED 'you3} < (\uparrow\text{SUBJ}) (\uparrow\text{OBJ}) > ' \\
\text{SUBJ [PRED 'wo3']} \\[4pt]
\text{OBJ}
\begin{bmatrix}
\text{PRED 'shu1'} \\
\text{ADJ} \quad \{[\text{PRED 'hen3duo1' }]\}
\end{bmatrix} \\[6pt]
\text{ADJ}
\left\{
\begin{bmatrix}
\text{PRED} \quad \text{'zuo1'} \\
\text{LOC} \quad \text{'shang'} \\
\text{PLACE} \;+ \\
\text{PCASE LOCT} \\
\text{PFORM 'zai4'}
\end{bmatrix}
\right\}
\end{bmatrix}
$$

2a–f. 'Zuo1-shang you3 hen3 duo1 shu1.

$$
\begin{bmatrix}
\text{PRED 'you3} < (\uparrow\text{SUBJ}) (\uparrow\text{OBJ}) > ' \\[4pt]
\text{SUBJ}
\begin{bmatrix}
\text{PRED} \quad \text{'zuo1'} \\
\text{LOC} \quad \text{'shang'} \\
\text{PLACE} \;+
\end{bmatrix} \\[6pt]
\text{OBJ}
\begin{bmatrix}
\text{PRED} \quad \text{'shu1'} \\
\text{ADJ} \quad \{[\text{PRED 'hen3duo1' }]\}
\end{bmatrix}
\end{bmatrix}
$$

3b–f. 'Zai4 zuo1-shang you3 hen3duo1 shu1.

$$
\begin{bmatrix}
\text{PRED 'you3} < (\uparrow\text{SUBJ}) (\uparrow\text{OBJ}) > ' \\
\text{SUBJ [PRED PRO]} \\[4pt]
\text{OBJ}
\begin{bmatrix}
\text{PRED} \quad \text{'shu1'} \\
\text{ADJ} \quad \{[\text{PRED 'hen3duo1' }]\}
\end{bmatrix} \\[6pt]
\text{ADJ}
\left\{
\begin{bmatrix}
\text{PRED} \quad \text{'zuo1'} \\
\text{LOC} \quad \text{'shang'} \\
\text{PLACE} \;+ \\
\text{PCASE LOCT} \\
\text{PFORM 'zai4'}
\end{bmatrix}
\right\}
\end{bmatrix}
$$

By posing such a default condition on *you3*'s SUBJ we can account for the fact that it is possible for *you3* not to have an overt subject, as seen in sentences of 3. In other words, the functional structures of sentences in 3 will not be considered incomplete, in LFG terminology. Note also that, although when used in existential sentences such as the ones in 2 the SUBJ must be a place word, we do not need such a constraint because in the possessive usage in 1 there is no such selectional restriction on the SUBJ. Finally, it may be worth mentioning that in all the *you3* sentences thus far, negation is always marked by *mei2*, and in Mandarin Chinese *you3* is the only verb that can be negated with *mei2* regardless what temporal aspect the verb denotes; if this phenomenon is not purely due to phonological factors, it certainly serves as another indication that *you3* is a single lexical unit. This treatment of *you3* is most economical and therefore presumably captures most generalizations of this verb.

We now will discuss the implications of this unified treatment of *you3* on the possessive construction on [NP1 *de* NP2]. While it is most common to interpret such a construction as "NP2 possessed by NP1," we contend that, like the interpretation of [A *you3* B], it is more appropriate to interpret the *de* possessive of [NP1 *de* NP2] as "NP2 which exists in the domain of NP1." While it is absurd to interpret *hua4xue2 de zhi1shi4* as "the knowledge possessed by chemistry," it is entirely appropriate to interpret it as "the knowledge which exists in the domain of chemistry". Thus, if we take all the sentences of [NP1 *you3* NP2] in 4, each of them has a semantically equivalent counterpart of [NP1 *de* NP2] construction, as illustrated in 4'.

4'.a. Wo3 de qin1qi.
     I   DE relative
     Relatives of mine.

   b. Hua1 de zhong3lei4.
      flower DE variety
      Varieties of flowers.

   c. Tai2wan1 de qi4hou4.
      Taiwan   DE climate
      The climate of Taiwan.

   d. Qi1yue4 de san1shi2yi1 tian1.
      July   DE thirty-one   day
      The thirty-one days of July.

YOU3 AS A STATIVE, GRADEABLE VERB

Next we shall proceed to examine another usage of the verb *you3*, one in which *you3*

seems to be part of a stative element. Although Cheng (1979) has hinted that this type of *you3* constructions should be considered idiomatic, we are not aware of any previous detailed or formal account of this usage. Sentences listed in 6 are some examples.

6. a. Ta1 hen3 you3 yi4si.
       he   very have meaning
       He is very interesting.

   b. Ta1 hen3 you3 qian2.
      he   very have money
      He is very rich.

   c. Ta1 hen3 you3 jiao4yang3.
      he   very have up-bringing
      He has a very good up-bringing.

   d. Ta1 hen3 you3 huo3li4.
      he   very have energy
      He is very energetic.

The very first noticeable peculiarity of sentences in 6 is that it is semantically odd for *you3* which denotes the concept of 'existence' to be modified by *hen3* 'very' and therefore gradeable. To look at this from a different perspective, however, this of course can serve as a strong indication to us that in 6 *you3* has little to do with the concept of existence. More evidence comes from the fact that only when followed by certain abstract nouns can *hen3* and *you3* co-occur, as exemplified in 7, and that *you3* can never be modified by *hen3* when followed by a concrete noun, as shown in 8.

7. a. *Ta1 hen3 you3 xue2shuo1.
       he   very have theory.
       He is full of theories.

   b. *Ta1 hen3 you3 jin1qian2.
      he   very have money
      He is very rich.

   c. *Ta1 hen3 you3 jiao4yu4.
      he   very have education
      He is very educated.

   d. *Ta1 hen3 you3 jian4kang1.
      he   very have health
      He is very healthy.

8. a. *Ta1 hen3 you3 shu1.
   he   very have book
   He has many books.

   b. *Ta1 hen3 you3 xue2sheng.
      he   very have student
      He has many students.

   c. *Ta1 hen3 you3 mao1.
      he   very have cats
      He has many cats.

   d. *Ta1 hen3 you3 gong1si1
      he   very have company
      He has many companies.

It seems that no syntactic or semantic generalizations can be made as to what kind of abstract NP objects can be used for the *you3* phrase to be gradeable, since the ones in 7 are very similar to the ones in 6 in their semantic properties. Based upon this fact, clearly we can reject the analysis where sentences in 6 are to be treated just like other *you3* sentences such as the ones in 1, 2 and 3. Sentences in 6 cannot be analyzed syntactically as regular verb phrase of [*you3* NP]. We will examine the two other possible alternative analyses: one, to treat them as lexicalized elements generated through a lexical process; or two, to regard them as non-lexical, idiomatic expressions.

If we consider the [*you3*-NP] expressions in 6 as complex lexical items with incorporated objects, in effect we are also saying that the internal syntactic structure of the [*you3*-NP] expression is of no relevance to the syntactic structure of the sentence, and that it behaves like a basic, non-phrasal verb. This is how Bresnan (1982b: 51, 57) treats some fixed expressions, called complex verbs, in English, such as "go over," "look on," "make fun of," "catch sight of" and "look askance at". Some Chinese fixed expressions also clearly belong to this class, such as *shi1-yi4* 'to be depressed' whose literal meaning of "to lose sentiment" does not exist. Within this analysis, each expression of complex verbs, for example the [*you3*-NP] expressions in 6, should be listed as a separate entry in the lexicon. However, the following sentences in 9 clearly refute this lexical incorporation hypothesis.

9. a. Ta1 hen3 you3 hua4huar de tian1cai2.
      he   very have paint   de talent
      He is very talented in painting.

   b. Ta1 hen3 you3 xie3 bao4gao4 de ji4qiao3.
      he   very have write report   de skill
      He is very skillful in writing reports.

c. Ta1 hen3 you3 xue2shu4 de jiao4yang3.
   he   very have academic de education
   He is very educated academically.

d. Ta1 hen3 you3 qing1chun1 de huo3li4.
   he   very have youth   de energy
   He is full of youthful energy.

Since syntactic adjacency is assumed to be a necessary condition for incorporation or any other morpholexical process such as compounding (Bresnan 1982a: 51), we would have to stipulate that in 9a–d the entire [you3-NP] expression is a single lexical unit. The fact that in 9a–d all the NP's following you3 are syntactically complex, and in fact may be potentially infinitely so, indicates that it is impossible in this case for the entire [you3-NP] to be analyzed as a single lexical item, for: (1) that will violate the lexical integrity hypothesis (Huang 1984); and (2) that will make our lexicon infinitely large and thus unformulatable. The fact that these stative [you3-NP] expressions, when negated, still have to be marked with mei2, but never with bu4 like other state verbs in Chinese, further indicates that they are not lexicalized.

This evidence of negation also repudiates the analysis which treats expressions like you3-qian2 'rich' and you3-yi4si 'interesting' as individual lexical items, where no intervening elements are allowed between you3 and the object NP. If indeed this kind of you3 expressions are lexicalized state verbs, they should allow negation by bu4. But that is not the case — they can only be negated by mei2. On the other hand, state verbs such as you3shan4 'friendly', although their initial syllable has the same phonological shape as you3 the existential verb, do allow negation by bu4. Clearly then, generalizations regarding the negative marker mei2 involve the verb you3 itself, but not its phonological shape. Consequently, ad hoc exceptions would have to be stipulated if any of the [you3-NP] expressions is taken be an individual lexicalized element.

We have therefore arrived at our final option: to analyze the you3 phrases in 6 and 9 as idiomatic expressions whose internal syntactic structure is relevant to that of the sentence. Again, this is how Bresnan (1982b: 45–50) treats another type of "idiom chunks" in English, idiomatic expressions such as "keep tabs on", "pull one's leg" and "kick the bucket".

None of the facts we have discussed thus far contradicts this analysis. Now, compare sentences in 6 and 7. We see that although the nouns following you3 in 6 are very similar to those in 7 syntactically and semantically, the you3 phrases in 7 cannot be modified by hen3. For instance, "hen3 you3 qian2" 'very rich' is good, while "*hen3 you3 jin1qian2" is not, and while "hen3 you3 jiao4yang3" 'to have a very good upbringing' is good, "*hen3 you3 jiao4yu4" is not. This observation clearly points to an idiomatic solution. Further facts indicate the same solution.

10. a.   Ta1 hen3 you3 qian2.
         he   very have money.
         He is very rich.

    b. *Ta1 hen3 you3 mai3 shu1 de qian2.
         he   very have buy   book de money.
         He has lots of money for buying books.

11. a.   Ta1 hen3 you3 kan4fa3.
         he   very have opinion
         He is very insightful.

    b. *Ta1 hen3 you3 bu4tong2 de kan4fa3.
         he   very have different de money.
         He is full of different opinions.

Although, as we have shown with examples in 9, the NP following *you3* may be syntactically complex, whether this is allowed seems to be arbitrarily restricted with each *you3* expression of this sort. Thus, within the specification of the idiom "you3 qian2" 'rich', it has to be specified that *qian2* cannot take any modifier (10b), while the idiom "you3 ji4qiao3" 'skillful' has no such restriction (9b). Only an idiomatic analysis is compatible with this finding. A similar fact can be observed in English idioms. For "kick the bucket" to have its idiomatic reading no modifier is allowed on the noun "bucket". For the same reason "he is pulling my right leg" has no idiomatic reading. Yet idiomatic expressions like "take a look" does allow certain modifiers on the noun, e.g. "take a long look" and "take a hard look." Similarly all sentences in 9 are good.

Another piece of evidence in support of the idiomatic analysis comes from topicalized and preposed positions.

12. a.   Wo3 you3 qian2.
         I   have money
         I have money. OR
         I am rich.

    b.   Qian2, wo3 you3.
         money I   have
         Money, I have.

    c. *Qian2, wo3 hen3 you3.
         money I   very have
         I am very rich.

d. *wo3 qian2 hen3 you3.
    I   money very have
    I am very rich.

13. a. Wo3 you3 ji4qiao3.
        I   have skill
        Skills, I have. OR
        I am skillful.

    b. Ji4qiao3, wo3 you3.
        skill   I   have
        Skills, I have.

    c. *Ji4qiao3, wo3 hen3 you3.
        skill   I   very have
        I am very skillful.

    d. *Wo3 ji4qiao3 hen3 you3.
        I   skill   very have
        I am very skillful.

Notice that while it is possible for the object of *you3* in a non-idiomatic usage to be topicalized or preposed (thus only the literal reading for 12b and 13b), the idiomatic usage does not allow that (thus 12c–d and 13c–d are not acceptable). Again a similarity can be observed with certain English idiomatic expressions. The idiomatic analysis accounts for the fact that 14b is ungrammatical and 14d has no idiomatic reading.

14. a. Money, I take.
    b. *A look, I take.
    c. The basket, he kicked.
    d. The bucket, he kicked. (only literal reading)

We therefore conclude that for all the [*you3*–NP] expressions allowed to be modified by *hen3*, a non-lexical idiomatic treatment is most compatible with our findings on their syntactically idiosyncratic behaviors. The two other alternative analyses are ruled out because while a lexical treatment is far too rigid and would create an infinitely large lexicon impossible to formulate, a general syntactic analysis is excessively non-restrictive and thus constitutes a serious problem of over-generation.

Finally, incorporating the idiomatic expressions, we will reformulate the lexical entry of *you3* in the LFG formalism. First, however, let's look at Bresnan's (1982b: 46–7) formulation of an idiomatic expression such as "keep tabs on" in its (partial) lexical entry.

15.   keep V, (↑ PRED) = 'keep-tabs-on < (↑SUBJ), (↑ON OBJ),

(↑OBJ FORM) =$_c$ TABS > '

The notation =$_c$ indicates a constraint on the functional structure; for all practical purposes the constraint here may be understood as "the object must have a form feature whose value is TABS" (Bresnan 1982b: 83–4). The lexical form of this entry shows that "keep-tabs-on" requires three grammatical functions: SUBJ, ON OBJ, and OBJ. However, since semantically "keep-tabs-on" is very similar to individual verbs like "watch" or "investigate," thematically it should only require two arguments, agent and theme. Likewise, in the case of [you3-NP] idioms, for example you3-qian2 'rich', semantically they function like state verbs, such as fu4yu4 'rich', and thus thematically requires only one argument, theme. However, syntactically they require two grammatical functions, SUBJ and OBJ.

We should, at this point, explain that in the theory of Lexical Functional Grammar, grammatical relations are lexically encoded by mapping the predicate argument structure (PAS) to grammatical functions. The mapping process between PAS and grammatical functions is one of the foci of recent LFG developments known as Lexical Mapping Theory, highlighted by Bresnan and Kanerva (1989) and applied in Chinese by Huang (1989). Positions in the PAS are identified with thematic roles, such as "agent", "theme", "locations", etc. Lexical Mapping Theory associates these thematic roles with grammatical functions, such as SUBJ, OBJ, SCOMP, etc. The Function–Argument Biuniqueness Principle ensures that a unique grammatical function is mapped with each thematic role and a unique thematic role to each function associated with the PAS. However, the relation between thematic roles and grammatical functions may not always be one-to-one because of the possibility of non-thematic grammatical functions, e.g. raised subjects. The treatment of idioms like "keep-tabs-on" presents another case of non-thematic grammatical functions. "Keep-tabs-on" is thematically like verbs such as "watch" and "investigate" that require two arguments, and the assignment of grammatical functions is the following (Bresnan 1982a: 46):

16.   keep-tabs-on (agent, theme)

| |
SUBJ   ON OBJ   OBJ

Clearly then, the grammatical function of OBJ, whose PRED must have the value 'tab', is non-thematically assigned. For the same reason the OBJ function in the lexical form of you3-qian2 is also non-thematical. Yet, the notation in 16 that Bresnan (1982a) has adopted does not show this characteristic. We should follow the notation used in Bresnan (1982c: 289) where the non-thematical grammatical function of "seem-to" is placed outside of the angled brackets.

17. John seems sick to Mary.

seem-to

predicate argument structure: seem (1, 2)

grammatical function assignment: { (XCOMP), (OBL$_{go}$), (SUBJ) }

lexical form: 'seem-to < (XCOMP) (OBL$_{go}$) > (SUBJ)'

Following this more appropriate notation, we can now illustrate the relationship of the thematic argument structure, required grammatical functions, and the lexical form of idioms like *you3-qian2*.

18.   Ta1 hen3 you3 qian2.
       he   very have money
       He is very rich.

you3-qian2

predicate argument structure: you3 (theme)

grammatical function assignment: { (SUBJ), (OBJ) }
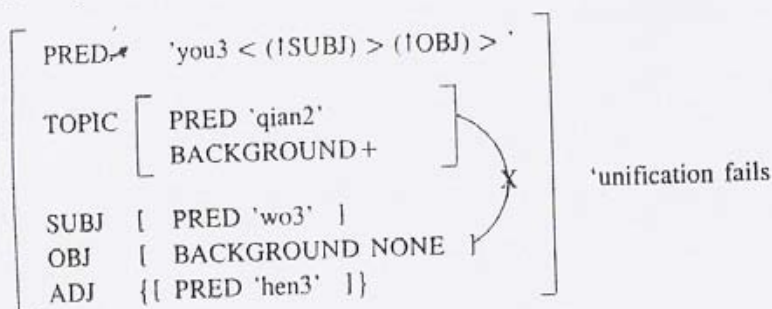
lexical form: 'you3-qian2 < (SUBJ) > (OBJ)'

The entire lexical entry of *you3* should not only account for its regular use as a non-stative verb, thus not allowed to be modified by degree adverbs, but also the stative use of idiomatic expressions which are gradeable by the modification of adverbs such as *hen3*. The following is our formulation of the lexical entry with some annotations. Note that NONE is a special value, which always fails when unifying with any other value (Shieber 1986). We impose the NONE value on the attribute ADJ of the OBJ of idioms like *you3-qian2*, where the OBJ cannot take any modifier and still maintain the idiomatic reading. We also have to account for the fact that the OBJ of the idiomatic *you3* has to be overt and cannot be topicalized. Since TOPIC is usually a placeholder of old, or background, information, we designate an attribute-value pair of (BACK-GROUND+) in TOPIC through the appropriate phrase structure rule. It is rather common for TOPIC to "long-distance" control an unbounded missing function; such long distance dependency is indicated by the functional equation (↑ ...) = ↓. Consequently, OBJ, being always postverbal and embedded in the predicate of a clause, which usually encodes new information, will get (BACKGROUND+) only when it is anaphorically controlled by the TOPIC. To make sure that the OBJ is lexically overt and therefore it is not anaphorically controlled by the matrix TOPIC, we assign (BACKGROUND NONE) in the OBJ of idioms like *you3-qian2*. The lexical entry of *you3* and relevant phrase structure rules are given in 19 and 20. No doubt, the lexical entry of *you3* will be rather lengthy due to the large number of [*you3*-NP] idioms; therefore, we will simply show some examples of the possible idioms and note that the following is still an incomplete, partial entry of *you3*.

19. a. S′ →   XP   S

          ($\uparrow$ TOPIC) = $\downarrow$ $\uparrow$ = $\downarrow$

          ($\downarrow$ BACKGROUND) = =

          ($\uparrow$ ...) = $\downarrow$

  b. S →   (NP)   VP

          ($\uparrow$ SUBJ) = $\downarrow$ $\uparrow$ = $\downarrow$

  c. VP →   V   (NP)   (NP)

          $\uparrow$ = $\downarrow$ ($\uparrow$ OBJ) = $\downarrow$ ($\uparrow$ OBJ2)+$\downarrow$

20. you3 V,

  {[($\uparrow$ PRED) = 'you3 < ($\downarrow$SUBJ) ($\downarrow$ OBJ) >'   'regular use

      ($\uparrow$ SUBJ PRED) ≈ PRO   'default condition on SUBJ

      ($\uparrow$ STATIVE) = MINUS   'non-stative, non-gradeable

  ];

  [($\uparrow$ PRED) = 'you3-ji4qiao3   'idiomatic use

             < ($\downarrow$SUBJ) > ($\downarrow$OBJ)'   'non-thematical OBJ

      ($\uparrow$ OBJ PRED) =$_c$ 'ji4qiao3'   'constraint on OBJ

      ($\uparrow$ STATIVE) = PLUS   'stative, gradeable

      ($\uparrow$ OBJ BACKGROUND) = NONE   'OBJ cannot be preposed

  ];

  [($\uparrow$ PRED) = 'you3-tian1cai2

             < ($\downarrow$SUBJ) > ($\downarrow$OBJ)'

      ($\uparrow$ OBJ PRED) =$_c$ 'tian1cai'

      ($\uparrow$ STATIVE) = PLUS

      ($\uparrow$ OBJ BACKGROUND) = NONE

  ];

  .
  .

  [($\uparrow$ PRED) = 'you3-qian2

             < ($\downarrow$SUBJ) > ($\downarrow$OBJ)'

      ($\uparrow$ OBJ PRED) =$_c$ 'qian2'

      ($\uparrow$ OBJ ADJ) = NONE   'OBJ cannot be modified

      ($\uparrow$ STATIVE) = PLUS

      ($\uparrow$ OBJ BACKGROUND) = NONE

  ];

  [($\uparrow$ PRED = 'you3-yi4si

             < ($\downarrow$SUBJ) > ($\downarrow$OBJ)'

      ($\uparrow$ OBJ PRED) =$_c$ 'yi4si'

      ($\uparrow$ OBJ ADJ) = NONE

      ($\uparrow$ STATIVE) = PLUS

      ($\uparrow$ OBJ BACKGROUND) = NONE

  ];

  .
  .
  .

  }

Accordingly, 12c, which has the following f-structure, is ill-formed because in its stative use the unification between TOPIC and OBJ fails due to conflict of (BACK-GROUND+) and (BACKGROUND NONE), and in its regular non-stative, non-gradeable use it is not allowed to be modified by *hen3*.

12c–f.   '*Qian2, wo3 hen3 you3.

$$
\begin{bmatrix}
\text{PRED} & \text{'you3} < (\uparrow\text{SUBJ}) > (\uparrow\text{OBJ}) > \\[4pt]
\text{TOPIC} & \begin{bmatrix} \text{PRED 'qian2'} \\ \text{BACKGROUND}+ \end{bmatrix} \\[10pt]
\text{SUBJ} & [\text{ PRED 'wo3' }] \\
\text{OBJ} & [\text{ BACKGROUND NONE }] \\
\text{ADJ} & \{[\text{ PRED 'hen3' }]\}
\end{bmatrix} \quad \times \quad \text{'unification fails}
$$

CONCLUSION

To summarize, we recognize the idiomatic stative use of *you3* and its regular non-idiomatic use denoting existence. We have repudiated the notion that the different usages of the non-idiomatic *you3* are to be attributed to more than one lexical entry of *you3*. Based on a more general interpretation of the concept of existence denoted by *you3*, we formulated a single entry in LFG to account for its different usages. Also, for the stative use of [*you3*-NP] expressions, we showed that they cannot be treated as regular verb phrases of [*you3* NP] nor can they be regarded as lexicalized complex verbs listed as separate entries in the lexicon and established arguments for an idiomatic analysis where the internal syntactic structure of the idiom is relevant to that of the sentence. And, finally we formulated within the LFG formalism a lexical entry accounting for all the usages of this verb discussed in this paper.

ACKNOWLEDGEMENTS

NOTES

1.   Address correspondence to: Dr. One-Soon Her, Executive Communication Systems Inc., 455 N. University, Suite 202, Provo, UT 84601, U.S.A.

REFERENCES

Bresnan, J. (ed.)
  1982a   *The Mental Representation of Grammatical Relations*, Cambridge. Mass:
           MIT Press.
  1982b   "The Passive in Lexical Theory," in *The Mental Representation of Gram-
           matical Relations*, pp. 3–86, J. Bresnan (ed.), Cambridge, Mass: MIT
           Press.
  1982c   "Control and Complementation," in *The Mental Representation of
           Grammatical Relations*, pp. 282–90, J. Bresnan (ed.), Cambridge, Mass:
           MIT Press.

Bresnan, J. and J. Kanerva
  1989   "Locative Inversion in Chichewa: A Case Study of Factorization in
           Grammar," *Linguistic Inquiry* **20.** 1–50. Also appeared as CSLI Report
           No. CSLI-88-131, Center for the Study of Language and Information,
           Stanford University, Stanford, CA.

Chao, Y.
  1968   *A Grammar of Spoken Chinese*, Berkeley. CA: University of California
           Press.

Cheng, R.
  1979   "Taiwanese *u* and Mandarin *you*," *Proceedings of 1979 Conference of
           Language Teaching in the Asian and Pacific Regions*, pp. 141–80.

Ding, S., S. Lu, R. Li, D. Sun, X. Guan, Q. Fu, S. Huang and Z. Chen
  1979   *Xiandai Hanyu Yufa Jianghua* (Discussions on Modern Chinese Grammar),
           Beijing: Shangwu Publishing Co.

Her, O.
  1989a   "Chinese Verb Subcategorization in a Variant Lexical Functional Gram-
           mar," Paper presented at the XXII International Conference on Sino-Tibetan
           Languages and Linguistics, 5–8 October 1989, Honolulu, Hawaii.
  1989b   "An LFG Account of Chinese *bei* Sentences," *Journal of the Chinese
           Language Teachers Association* **24.** 67–89.
  1990   *Grammatical Functions and Verb Subcategorization in Mandarin Chinese*,
           Ph.D. dissertation, University of Hawaii. Also as 1991, Taipei: Crane
           Publishing Co.

Huang, C.
  1989   "Mandarin Chinese and the Lexical Mapping Theory," Paper presented
           at the XXII International Conference on Sino-Tibetan Languages and
           Linguistics, 5–8 October 1989, Honolulu, Hawaii.

Huang, J.
  1984   "Phrase Structure, Lexical Integrity, and Chinese Compounds," *Journal
           of the Chinese Language Teachers Association* **19.** 53–78.

Huang, S.
  1966   "Subject and Object in Mandarin," *POLA* **13**. 25–103.
Kaplan, R. and J. Bresnan
  1982   "Lexical–Functional Grammar: A Formal System for Grammatical Representation," in *The Mental Representation of Grammatical Relations*, pp. 173–281, J. Bresnan (ed.), Cambridge, Mass: MIT Press.
Kaplan, R. and J. Maxwell
  1988   "An Algorithm for Functional Uncertainty," in *Proceedings of COLING 1988*. 297–302.
Li, C. and S. Thompson
  1981   *Mandarin Chinese: A Functional Grammar*, Berkeley, CA: University of California Press.
Li, Y.
  1972   "Sentences with Be, Exist, and Have in Chinese," *Language* **48**. 573–83.
Sells, P.
  1985   *Lectures on Contemporary Syntactic Theories*, Stanford, CA: CSLI, Stanford University.
Shieber, S.
  1986   *Introduction to Unification-based Approaches to Grammar*, Stanford, CA: CSLI, Stanford University.
Starosta, S.
  1985   "Mandarin Case Marking," *Journal of Chinese Linguistics* **13**. 215–66.