Chinese: Parts of Speech

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1. Introduction

Whether Chinese has the same parts of speech (or categories) as the Indo-European languages has been the subject of much debate. In particular, while it is generally recognized that Chinese makes a distinction between nouns and verbs, scholars' opinions differ on the rest of the categories (see Chao 1968, Li and Thompson 1981, Zhu 1982, Xing and Ma 1992, inter alia). These differences in opinion are due partly to the scholars' different theoretical backgrounds and partly to the use of different terminological conventions. As a result, scholars use different criteria for classifying words and different terminological conventions for labeling the categories. To address the question of whether Chinese possesses the same categories as the Indo-European languages, I will make reference to the familiar categories of the Indo-European languages whenever possible.

In this chapter, I offer a comprehensive survey of the major categories in Chinese, aiming to establish the set of categories that are found both in Chinese and in the Indo-European languages, and those that are found only in Chinese. In particular, I examine the characteristic features of the major categories in Chinese and discuss in what ways they are similar to and different from the major categories in the Indo-European languages. Furthermore, I review the factors that contribute to the long-standing debate over the categorial status of adjectives, prepositions and localizers in Chinese.

2. Categories found both in Chinese and in the Indo-European languages

This section introduces the categories that are found both in Chinese and in the Indo-European languages: nouns, verbs, adjectives, adverbs, prepositions and conjunctions.

2.1 Nouns
2.1.1 Basic characteristics of nouns

The existence of nouns as an independent category in Chinese is uncontroversial (Chao 1968, Zhu 1982, Huang, Li and Li 2009: ch. 1). One characteristic of Chinese nouns is that they can be preceded by a [Numeral + Classifier] sequence (Chao 1968,

Zhu 1982), as shown in (1).[1] In this regard, Chinese nouns behave like mass nouns in the Indo-European languages, as they always require the presence of classifiers in the enumeration (see Chierchia 1998 and Cheng and Sybesma 1999 for discussion of the availability of the count-mass distinction in Chinese).[2,3]

(1) a. 一個   人   b. 三本   書
         yí-ge   rén   sān-běn shū
         one-Cl   person   three-Cl book
         'one person'   'three books'
     c. 兩杯   啤酒   d. 四磅   豬肉
         liǎng-bēi píjiǔ   sì-bàng   zhūròu
         two-glass beer   four-pound   pork
         'two glasses of beer'   'four pounds of pork'

Another characteristic of nouns is that they can neither be negated by *bù* 不 'not' (Chao 1968, Zhu 1982, Huang, Li and Li 2009: ch. 1) nor be modified by the intensifier *hěn* 很 'very' (Chao 1968, Zhu 1982), as shown by the ill-formedness of (2a–d) and (3a–d), respectively.[4] (Ill-formedness is indicated by "*" throughout.)

(2) a. *不   人   b. *不   書
        *bù   rén   *bù   shū
         not person   not book
     c. *不   啤酒   d. *不   豬肉
        *bù   píjiǔ   *bù   zhūròu
         not beer   not   pork

(3) a. *很   人   b. *很   書
        *hěn   rén   *hěn   shū
         very person   very book
     c. *很   啤酒   d. *很   豬肉
        *hén   pi jiǔ   *hěn   zhūròu

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[1] The term "classifier" here is used as a cover term equivalent to "numeral classifier." As I will discuss in section 3.1, classifiers can be subdivided into sortal classifiers and measure words.
[2] The following abbreviations are used in glossing examples: Cl: classifier; Dur: durative aspect marker; Exp: experiential aspect marker; Perf: perfective aspect marker; Poss: possessive marker; Prog: progressive aspect marker; Prt: sentence-final particle; Q: question particle; Res: resultative aspect marker.
[3] The romanization system used for the Chinese data is pīnyīn, and the tones given in the examples comply with the standard tone sandhi rules in Mandarin.
[4] As noted by Huang, Li and Li (2009: 10–11), there are examples such as *bù-rén-bù-guǐ* 不人不鬼 'not-human-not-ghost' in Chinese that seemingly allow a noun to be negated by *bù* 不. I follow Huang, Li and Li and regard these examples as idiomatic expressions rather than genuine counterexamples.

very beer   very pork

Although Chinese nouns behave like mass nouns in the Indo-European languages, Chinese nouns differ from those in the Indo-European languages in that they are not inflected for number, gender and case. This is because Chinese is an isolating language and is morphologically impoverished. Furthermore, unlike Indo-European languages, Chinese lacks definite and indefinite articles. Thus, the same form of a noun such as *xiǎohái* 小孩 'child' may appear in either subject or object position; and it can be interpreted as singular or plural and as generic, definite or indefinite, depending on context (Chierchia 1998, Cheng and Sybesma 1999, Li 1999).[5]

(4)   a. 小孩   喜歡   貓。
         xiǎohái   xǐhuan   māo.
         child   like   cat
         i.   'Children like cats.'   (generic)
         ii. 'The child/children like(s) cats.'   (definite)
      b. 他 會 去 找   小孩。
         tā huì qù zháo   xiǎohái.
         he will go find   child
         i.   'He will go find a/some child/children.' (indefinite)
         ii. 'He will go find the child/children.'   (definite)

2.1.2 Classification of nouns

While we have seen in (1a–d) that Chinese nouns behave syntactically like mass nouns in the Indo-European languages in requiring the presence of classifiers in the enumeration, the semantic distinction between count and mass nouns exists in Chinese. Based on the semantic properties of nouns and the types of classifiers being used, we can divide the class of nouns into four subclasses: count nouns, mass nouns, collective nouns and abstract nouns (Zhu 1982; see also Chao 1968).

2.1.2.1 Count nouns

Count nouns denote tangible and discrete entities that are countable. Typical examples are *kèrén* 客人 'guest', *shū* 書 'book', *shé* 蛇 'snake' and *huā* 花 'flower', among many others. Unlike count nouns in the Indo-European languages, which can

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[5] The opacity of bare nouns with respect to number is referred to as "transnumerality" by Greenberg (1974: 25), who proposes that it is correlated with the obligatory presence of classifiers in numeral-classifier languages (see Bisang 1998, 1999).

be directly combined with a numeral (e.g., *one guest*, *three books*), count nouns in Chinese require the use of sortal classifiers, such as *wèi* 位, *běn* 本 and *tiáo* 條, which encode distinctive features like shape, as illustrated in (5) (Zhu 1982; see also Chao 1968).

(5) a. 一位　　客人　　　　　　　b. 三本　　　書
　　　　yí-wèi kèrén　　　　　　　　　　sān-běn shū
　　　　one-Cl guest　　　　　　　　　　three-Cl book
　　　　'one guest'　　　　　　　　　　　'three books'
　　　c. 兩條　　　蛇　　　　　　　　d. 十朵　　花
　　　　liǎng-tiáo shé　　　　　　　　　shí-duō huā
　　　　two-Cl　　snake　　　　　　　　ten-Cl　flower
　　　　'two snakes'　　　　　　　　　　'ten flowers'

For instance, the sortal classifier *tiáo* 條 in (5c) classifies for long, cylindrical and flexible objects (Tai and Wang 1990), and thus it can serve as the classifier of *shé* 蛇 'snake' and entities with similar characteristics, as shown below:

(6) a. 一條　　　繩子　　　　　　　b. 三條　　魚
　　　　yì-tiáo　　shénzi　　　　　　　　sān-tiáo yú
　　　　one-Cl　　rope　　　　　　　　three-Cl fish
　　　　'one rope'　　　　　　　　　　'three fish'

Furthermore, a subset of count nouns designating human beings can be suffixed by the collective marker *-men* 們 to refer to a group of people that are known to both speakers and hearers (Iljic 1994, 2001, Li 1999; see also Huang, Li and Li 2009: ch. 8). This is shown by the fact that a count noun suffixed with *-men* 們 is interpreted as definite, as in (7a), in contrast with the bare count noun, which can be interpreted as indefinite or definite, as in (7b).

(7) a. 他 會　去　找　　孩子們。
　　　　tā huì qù zhǎo háizi-men.
　　　　he will go find child-MEN
　　　　'He will go find the children.'　　　　　　(definite)
　　　b. 他 會　去　找　　孩子。
　　　　tā huì qù zhǎo háizi.
　　　　he will go find child
　　　　i. 'He will go find a/some child/children.'　(indefinite)

ii. 'He will go find the child/children.'　　　(definite)

However, unlike count nouns with genuine plural markers in the Indo-European languages, count nouns suffixed with -*men* 們 cannot be preceded by a [Numeral + Classifier] sequence even when the numeral is greater than 'one' (Iljic 1994, 2001, Li 1998; see also Huang, Li and Li: ch. 8), as the contrast in (8) shows.[6]

(8)　a. *他 會　去　找　三個　　孩子們。
　　　　*tā huì　qù　zhǎo sān-ge　háizi-men
　　　　he will　go　find　three-Cl　child-MEN
　　　b. 他 會　去　找　三個　　孩子。
　　　　tā huì　qù　zhǎo sān-ge　háizi.
　　　　he will　go　find　three-Cl　child
　　　　'He will go find three children.'

2.1.2.2 Mass nouns

In contrast with count nouns, mass nouns denote entities that are not countable. Typical examples are *shuǐ* 水 'water', *jiǔ* 酒 'wine', *táng* 糖 'sugar', *qìyóu* 汽油 'petrol' and *bù* 布 'cloth', among many others. As noted by Chao (1968), there are four ways of classifying mass nouns. One way is to use a standard measure word such as *chǐ* 尺 'foot', *bàng* 磅 'pound', *jiālún* 加侖 'gallon' or *gōngjīn* 公斤 'kilo'.

(9)　a.　一兩　　　銀子　　　　b.　三磅　　　　糖
　　　　yì-liǎng　yínzi　　　　　　sān-bàng　　táng
　　　　one-ounce silver　　　　　　three-pound　sugar
　　　　'one ounce of silver'　　　　　'three pounds of sugar'
　　　c.　兩加侖　　汽油　　　　d.　十公斤　　　米
　　　　liǎng-jiālún　qìyóu　　　　　shí-gōngjīn　mǐ
　　　　two-gallon　petrol　　　　　ten-kilo　　rice
　　　　'two gallons of petrol'　　　　'ten kilos of rice'

Another way is to use a container measure word such as *bēi* 杯 'glass' or *píng* 瓶 'bottle' (10a–b) or a temporary measure word such as *shēn* 身 'body' or *wūzi* 屋子 'room' that indicates the temporary location of the mass (10c–d).

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[6] Li (1999) proposes that -*men* 們 can be analyzed as a collective marker as well as a plural marker. For detailed discussion, see Li (1999).

(10) a. 一杯　　　水
    yì-bēi shuǐ
    one-glass water
    'one glass of water'

  b. 三瓶　　　酒
    sān-píng jiǔ
    three-bottle wine
    'three bottles of wine'

  c. 一身　　　雪
    yì-shēn xuě
    one-body snow
    'a body of snow'

  d. 一屋子　　煙
    yì-wūzi yān
    one-house smoke
    'a houseful of smoke'

A third way is to use an indeterminate number/amount measure word such as *yìdiǎn* 一點 'a little' or *yìxiē* 一些 'some'.

(11) a. 一點　　水
    yìdiǎn shuǐ
    a.little water
    'a little water'

  b. 一些　　酒
    yìxiē jiǔ
    some wine
    'some wine'

A fourth way is to use a measure word that describes the shape in which the mass can be gathered: for example, *duī* 堆 'heap' or *tān* 灘 'pool'.

(12) a. 兩堆　　　泥
    liǎng-duī ní
    two-heap earth
    'two heaps of earth'

  b. 一灘　　　水
    yì-tān shuǐ
    one-pool water
    'one pool of water'

2.1.2.3 Collective nouns

Collective nouns are inherently plural. Some illustrative examples are given below:

(13) a. 父母
    fù-mǔ
    father-mother
    'parents'

  b. 飯菜
    fàn-cài
    rice-vegetable
    'food'

  c. 子女
    zí-nǚ
    son-daughter
    'children'

  d. 親友
    qīn-yǒu
    relative-friend
    'friends and relatives'

(14)　a.　紙張
　　　　　zhǐzhāng
　　　　　paper
　　　　　'papers'

　　　b.　花朵
　　　　　huāduǒ
　　　　　flower
　　　　　'flowers'

　　　c.　馬匹
　　　　　mápǐ
　　　　　horse
　　　　　'horses'

　　　d.　書本
　　　　　shūběn
　　　　　book
　　　　　'books'

The examples in (13) involve juxtaposition of two coordinate terms, whereas the examples in (14) are seemingly composed of a noun and a sortal classifier, as evidenced by the fact that the second element in the collective nouns in (14a–d) can be used as a sortal classifier, as shown in (15). The fact that the second member can be used as a sortal classifier in Modern Chinese is not surprising, as many sortal classifiers have their historical origin as nouns (Wang 1955, Liu 1965, among others).

(15)　a.　一張　　紙
　　　　　yì-zhāng　zhǐ
　　　　　one-Cl　　paper
　　　　　'a piece of paper'

　　　b.　三朵　　花
　　　　　sān-duǒ　huā
　　　　　three-Cl　flower
　　　　　'three flowers'

　　　c.　兩匹　　馬
　　　　　liáng-pí　mǎ
　　　　　two-Cl　　horse
　　　　　'two horses'

　　　d.　四本　　書
　　　　　sì-běn　　shū
　　　　　four-Cl　book
　　　　　'four books'

Because collective nouns are inherently plural, they cannot be preceded by a [Numeral + Classifier] sequence, as the ill-formedness of (16a–d) shows (Chao 1968, Zhu 1982).

(16)　a. *兩個　　　父母
　　　　　*liǎng-ge　fù-mǔ
　　　　　two-Cl　　father-mother
　　　　　Intended: 'two parents'

　　　b. *三碟　　　飯菜
　　　　　*sān-dié　　fàn-cài
　　　　　three-Cl　rice-vegetable
　　　　　Intended: 'three plates of food'

　　　c. *一張　　　紙張
　　　　　*yì-zhāng　zhǐzhāng
　　　　　one-Cl　　paper
　　　　　Intended: 'one piece of paper'

　　　d. *四朵　　　花朵
　　　　　*sì-duǒ　　huāduǒ
　　　　　four-Cl　flower
　　　　　Intended: 'four flowers'

Instead, collective nouns can only take measure words concerned with grouping (e.g., *duì* 對 'pair' and *pī* 批 'batch'), temporary measure words concerned with location (e.g., *zhuō* 桌 'table') or indeterminate measure words (e.g., *yìxiē* 一些 'some').

(17) a. 兩對　　　父母
　　　liǎng-duì　fù-mǔ
　　　two-pair　father-mother
　　　'two pairs of parents'

　　　b. 一批　　　紙張
　　　yì-pī　　zhǐzhāng
　　　one-batch　paper
　　　'a batch of papers'

　　　c. 三桌　　　飯菜
　　　yì-zhuō　　fàn-cài
　　　one-table　rice-vegetable
　　　'a table of food'

　　　d. 一些　花朵
　　　yìxiē　huāduǒ
　　　some　flower
　　　'some flowers'

2.1.2.4 *Abstract nouns*

Abstract nouns, as their name implies, do not refer to concrete entities. Rather, they are often used to denote abstract notions, such as complex or sophisticated situations, experiences, processes, qualities or phenomena in diverse areas. Some illustrative examples of abstract nouns are given below:

(18) a. 真理
　　　zhēnlǐ
　　　truth
　　　'truth'

　　　b. 病
　　　bìng
　　　sickness
　　　'sickness'

　　　c. 矛盾
　　　máodùn
　　　contradiction
　　　'contradiction'

　　　d. 效果
　　　xiàoguǒ
　　　effect
　　　'effect'

Abstract nouns may be preceded by the general classifier *ge* 個, measure words indicating type (e.g., *zhǒng* 種 'type, kind, category') or indeterminate measure words (e.g., *yìxiē* 一些 'some' and *yìdiǎn* 一點 'a little') (Chao 1968, Zhu 1982).

(19) a. 一個　　真理
　　　yí-ge　　zhēnlǐ
　　　one-Cl　truth
　　　'a truth'

　　　b. 一種　　病
　　　yì-zhǒng　bìng
　　　one-kind　sickness
　　　'a kind of sickness'

　　　c. 一些　　矛盾

　　　d. 一點　　效果

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yìxiē máodùn	yìdiǎn xiàoguǒ
some contradiction	a.little effect
'some contradictions'	'a little effect'

2.2 Verbs

Unlike nouns, verbs can be negated by *bù* 不 'not' in Chinese (Chao 1968, Huang, Li and Li 2009: ch. 1).

(20) a. 我 不 休息。　　　　　　　b. 他 不 喜歡 數學。
　　　　wǒ bù xiūxi.　　　　　　　　　tā bù xǐhuan shùxué.
　　　　I not rest　　　　　　　　　　he not like mathematics
　　　　'I do not rest.'　　　　　　　　'He does not like mathematics.'

　　　c. 他 不 批評 別人。　　　　　d. 我 不 送 他 禮物。
　　　　tā bù pīpíng biérén.　　　　　　wǒ bú sòng tā lǐwù.
　　　　he not criticize other.person　　I not give him present
　　　　'He does not criticize others.'　'I do not give him (a) present(s).'

2.2.1 Classification of verbs: Action verbs vs. stative verbs

Chinese verbs can be divided into two classes: action verbs and stative verbs. The former depict actions, whereas the latter express states of being. A well-known characteristic of action verbs is that they are compatible with aspect markers, such as the progressive aspect marker *zài* 在, as shown in (21) (see Li and Thompson 1981: ch. 6 and Smith 1991 for discussion of the aspect markers in Chinese). Stative verbs can be modified by the intensifier *hěn* 很, although its presence is not mandatory, as shown in (22) (Chao 1968, Zhu 1982, inter alia).[7]

(21) a. 他 在 休息。　　　　　　　b. 我 在 批評 他。
　　　　tā zài xiūxi.　　　　　　　　　wǒ zài pīpíng tā.
　　　　he Prog rest-Perf　　　　　　　I Prog criticize he
　　　　'He is resting.'　　　　　　　　'I am criticizing him.'

　　　c. 我 在 研究 這個 問題。　　　d. 他 在 教 我 法語。
　　　　wǒ zài yánjiū zhè-ge wèntí.　　tā zài jiāo wǒ Fáyǔ.
　　　　I Prog study this-Cl problem　　he Prog teach me French
　　　　'I am studying this problem.'　　'He is teaching me French.'

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[7] Parentheses are used as a notational convention. Specifically, an expression enclosed in parentheses is regarded as optional. For instance, in (22a–d), the parentheses indicate that the presence of *hěn* 很 is optional.

(22) a. 他 (很) 喜歡 數學。   b. 我 (很) 尊敬 他。
      tā (hén) xǐhuan shùxué.   wǒ (hěn) zūnjìng tā.
      he very like mathematics   I very respect him
      'He likes mathematics (a lot).'   'I respect him (a lot).'

   c. 他 (很) 羨慕 我。   d. 我 (很) 想念 他。
      tā (hěn) xiànmù wǒ.   wǒ (hén) xiǎngniàn tā.
      he very envy me   I very miss him
      'He envies me (a lot).'   'I miss him (a lot).'

2.2.2 Classification of verbs: Subcategorization properties

Another way of classifying verbs is based on the number of arguments for which they subcategorize. Like verbs in the Indo-European languages, verbs in Chinese can be classified into intransitive, transitive and ditransitive verbs.

2.2.2.1 Intransitive verbs

Intransitive verbs are those that subcategorize for a single argument. Typical examples are *lái* 來 'come', *sǐ* 死 'die', *shuì* 睡 'sleep', *fāshēng* 發生 'happen', *pǎo* 跑 'run', *xiūxī* 休息 'rest' and *líkāi* 離開 'leave'. For example:[8]

(23) a. 他 來了。   b. 他 死了。
      tā lái-le.   tā sǐ-le.
      he come-Perf   he die-Perf
      'He came.'   'He died.'

   c. 他 睡了。   d. 剛剛 發生了 車禍。
      tā shuì-le.   gānggāng fāshēng-le chē-huò.
      he sleep-Perf   just.now happen-Perf car-accident
      'He slept.'   'A car accident happened just now.'

   e. 他 跑了。   f. 他 休息了。
      tā pǎo-le.   tā xiūxi-le.
      he run-Perf   he rest-Perf
      'He ran.'   'He rested.'

Interestingly, many intransitive verbs in Chinese can be used transitively (see Chappell 1999, Xu 1999, 2001, Han 2000, Wen and Chen 2001, Shen, He and Gu

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[8] Note that intransitive verbs can be further divided into unergative and unaccusative verbs. For detailed discussion, see Li (1985), Lü (1987) and Huang (1989, 2007).

2002, Sun and Wu 2003, Tang 2004, Hole 2005, Zhu 2005, Pan and Han 2006, Huang 2007, inter alia), as shown in (24).

(24) a. 你　來　碗　牛肉　麵　吧？
　　　　nǐ　lái　wǎn　niúròu　miàn　ba?
　　　　you　come　bowl　beef　noodle　Prt
　　　　'Have a bowl of beef noodles, will you?'

　　b. 他　死了　父親。
　　　　tā　sǐ-le　fùqīn.
　　　　he　die-Perf　father
　　　　'His father died.'

　　c. 他們　昨天　發生了　車禍。
　　　　tāmen　zuótiān　fāshēng-le　chē-huò.
　　　　they　yesterday　happen-Perf　car-accident
　　　　'A car accident happened to them yesterday.'

　　d. 他　跑了　兩個　犯人。
　　　　tā　pǎo-le　liǎng-ge　fànrén.
　　　　he　run-Perf　two-Cl　criminal
　　　　'He had two criminals run away.'

2.2.2.2 *Transitive verbs*

Transitive verbs subcategorize for two arguments: an external argument that corresponds to the subject and an internal argument that corresponds to the object. Both action and stative verbs can be used as transitive verbs. Typical action verbs that are transitive are *zuò* 做 'do', *mǎi* 買 'buy', *qù* 去 'go' and *pīpíng* 批評 'criticize', and typical stative verbs that are transitive are *xǐhuan* 喜歡 'like', *zūnjìng* 尊敬 'respect', *xiǎngniàn* 想念 'miss' and *xiànmù* 羨慕 'envy'. As mentioned earlier, action verbs can be followed by aspect markers, such as the perfective aspect marker *-le* 了, as shown in (25), whereas stative verbs can be modified by the intensifier *hěn* 很, as shown in (26).

(25) a. 他　做了　很多　壞　事。　b. 他　買了　一本　書。
　　　　tā　zuò-le　hěnduō　huài　shì.　　　tā　mǎi-le　yì-běn　shū.
　　　　he　do-Perf　many　bad　thing　　　he　buy-Perf　one-Cl　book
　　　　'He did many bad things.'　　　　　'He bought a book.'

　　c. 他　去過　北京。　　　　　　　d. 他　批評了　別人。
　　　　tā　qù-guo　Běijīng.　　　　　　　　tā　pīpíng-le　biérén.

he go-Exp Beijing   he   criticize-Perf   other.people
'He has been to Beijing.'   'He criticized others.'

(26) a. 他 很   喜歡   數學。   b. 我 很   尊敬   他。
         tā hěn xǐhuan shùxué.   wǒ hěn zūnjìng tā.
         he very like   mathematics   I   very respect   him
         'He likes mathematics a lot.'   'I respect him a lot.'
      c. 他 很   羨慕   我。   d. 我 很   想念   他。
         tā hěn xiànmù wǒ.   wǒ hén xiǎngniàn tā.
         he very envy   me   I   very miss   him
         'He envies me a lot.'   'I miss him a lot.'

2.2.2.3 Ditransitive verbs

Ditransitive verbs subcategorize for three arguments: an external argument that corresponds to the subject and two internal arguments, one corresponding to an indirect object and the other corresponding to a direct object. Typical ditransitive verbs are *sòng* 送 'give', *jiāo* 教 'teach', *dì* 遞 'hand', *jì* 寄 'send', *huán* 還 'return', *mài* 賣 'sell' and *jièshào* 介紹 'introduce'. Unlike ditransitive verbs in English, which may appear in double object constructions (e.g., *I gave him a book*) and dative constructions (e.g., *I gave a book to him*), ditransitive verbs in Chinese may appear in three types of constructions: double object constructions of the form [verb + Noun Phrase + Noun Phrase], dative constructions of the form [verb + Noun Phrase + *gěi* 給 + Noun Phrase][9] and verb-*gěi* 給 double object constructions of the form [verb-*gěi* 給 + Noun Phrase + Noun Phrase], where the verb and *gěi* 給 form a verbal complex (see Zhu 1979, Li 1990 and Liu 2006 for more detailed discussion). As noted by Liu (2006), not all ditransitive verbs can appear in all three constructions. For example, while *sòng* 送 'give' can appear in all three constructions (27a–c), *jiāo* 教 'teach' can appear in double object constructions and verb-*gěi* 給 double object constructions but not dative constructions (28a–c) and *dì* 遞 'hand' can appear in dative constructions and verb-*gěi* 給 double object constructions but not double object constructions (29a–c) (the examples in (28)–(29) are adapted from Liu 2006).

(27) a. 他 送了   我 一本   書。
         tā sòng-le wǒ yì-běn   shū.

_____

[9] Note that the categorial status of *gěi* 給 in dative constructions is controversial: it has been analyzed as a coverb (Li and Thompson 1981), a preposition (Tang 1990, Zhang 1990, Yang 1991) or a verb (Chao 1968, Li 1985, 1990, Huang and Mo 1992, Huang and Ahrens 1999).

he give-Perf me one-Cl book
'He gave me a book.'

b. 他 送了 一本 書 給 我。
　　tā sòng-le yì-běn shū géi wǒ.
　　he give-Perf one-Cl book to me
　　'He gave a book to me.'

c. 他 送給 我 一本 書。
　　tā sòng-géi wǒ yì-běn shū.
　　he give-to me one-Cl book
　　'He gave me a book.'

(28) a. 他 教了 我 一個 方法。
　　　tā jiāo-le wǒ yí-ge fāngfǎ.
　　　he teach-Perf me one-Cl method
　　　'He taught me a method.'

b. *他 教了 一個 方法 給 我。
　　*tā jiāo-le yí-ge fāngfǎ géi wǒ.
　　 he teach-Perf one-Cl method to me
　　 Intended: 'He taught a method to me.'

c. 他 教給 我 一個 方法。
　　tā jiāo-géi wǒ yí-ge fāngfǎ.
　　he teach-to me one-Cl method
　　'He taught me a method.'

(29) a. *他 遞了 我 一杯 啤酒。
　　　*tā dì-le wǒ yì-bēi píjiǔ.
　　　he hand-Perf me one-glass beer
　　　Intended: 'He handed me a glass of beer.'

b. 他 遞了 一杯 啤酒 給 我。
　　tā dì-le yì-bēi píjiǔ géi wǒ.
　　he hand-Perf one-glass beer to me
　　'He handed a glass of beer to me.'

c. 他 遞給 我 一杯 啤酒。
　　tā dì-géi wǒ yì-bēi píjiǔ.
　　he hand-to me one-glass beer
　　'He handed me a glass of beer.'

2.3 Adjectives

Adjectives and stative verbs share many common properties in Chinese. For this reason, some scholars hold the view that adjectives should not be regarded as an independent category but instead should be subsumed under stative verbs (McCawley 1992; see also Chao 1968). Contrary to this view, many scholars argue that adjectives should be regarded as an independent category distinct from stative verbs (Zhu 1982, Paul 2006, 2010). Adopting the latter view, I review the common properties shared by adjectives and verbs (section 2.3.1) and then discuss the arguments for treating adjectives as an independent category (section 2.3.2).

2.3.1 *Common properties of adjectives and verbs*

Unlike adjectives in the Indo-European languages, adjectives in Chinese can function as predicates without the presence of the copular verb *shì* 是 'be'. Furthermore, they are typically accompanied by the intensifier *hěn* 很 in predicate position, as shown in (30).[10] In this regard, adjectives behave like stative verbs in Chinese (Zhu 1982).

(30) a. 他 很　　高。　　　　　　　　b. 他　很　　聰明。
　　　 tā　hěn　 gāo.　　　　　　　　　 tā　hěn　　cōngmíng.
　　　 he　very　tall　　　　　　　　　 he　very　　smart
　　　 'He is tall.'　　　　　　　　　　 'He is smart.'

　　 c. 這本　　　書　　很　貴。　d. 他　很　　傷心。
　　　 zhè-běn　 shū　hěn　guì.　　 tā　hěn　　shāngxīn.
　　　 this-Cl　　book　very　expensive　 he　very　　sad
　　　 'This book is expensive.'　　 'He is sad.'

In addition, like verbs, adjectives in predicate position can be negated by *bù* 不 'not'.

(31) a. 他 不　　高。　　　　　　　　b. 他　不　　聰明。
　　　 tā　bù　 gāo.　　　　　　　　　 tā　bù　　cōngmíng.
　　　 he　not　tall　　　　　　　　　 he　not　　smart
　　　 'He is not tall.'　　　　　　　　 'He is not smart.'

　　 c. 這本　　　書　　不　貴。　d. 他　不　　傷心。
　　　 zhè-běn　 shū　bú　guì.　　 tā　bù　　shāngxīn.
　　　 this-Cl　　book　not　expensive　 he　not　　sad
　　　 'This book is not expensive.'　　 'He is not sad.'

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[10] As pointed out by Aoun and Li (2003: 251 fn.14), although *hěn* 很 is generally translated as 'very', it is a "bleached" element in the sense that it does not carry much meaning when it precedes an adjective (see Huang 1997, 2006, Liu 2010, He and Jiang 2011 and Grano 2012 for detailed discussion of the function of the intensifier *hěn* 很).

2.3.2 Distinguishing adjectives from verbs

Despite these similarities, there is a need to distinguish adjectives from verbs and to treat adjectives as an independent category (Zhu 1982, Huang, Li and Li 2009: ch. 1, Paul 2010). Specifically, Zhu (1982) notes that adjectives crucially differ from verbs in that they cannot subcategorize for an internal argument or an object, as the ill-formedness of (32a–d) illustrates. In this regard, adjectives behave like on a par with intransitive verbs in being one-place predicates.

(32) a. *他　高　　那個　　男孩。
       *tā　gāo　nà-ge　nánhái.
        he　tall　that-Cl　boy

     b. *他　聰明　　那個　　學生。
       *tā　cōngmíng　nà-ge　xuésheng.
        he　smart　　that-Cl　student

     c. *這本　　書　貴　　　那本　書。
       *zhè-běn　shū　guì　　nà-běn　shū.
        this-Cl　book　expensive　that-Cl　book

     d. *他　傷心　　這件　　事。
       *tā　shāngxīn　zhè-jiàn　shì.
        he　sad　　this-Cl　matter

Even though adjectives are akin to intransitive verbs in not being able to take an object, adjectives should not be subsumed under intransitive verbs, since adjectives show different reduplication patterns from verbs in Chinese (Zhu 1956, 1980, 1982, Li and Thompson 1981: ch. 3, Lü 1984, Huang, Li and Li 2009: ch. 1, Paul 2010). Specifically, while disyllabic adjectives of the AB form can undergo reduplication to give rise to the AABB pattern, as shown in (33a–b), disyllabic verbs of the AB form typically give rise to the ABAB pattern after reduplication, as shown in (34a–d).

(33) a. *gānjìng* 乾淨 'clean' → *gāngānjìngjìng* 乾乾淨淨 'thoroughly clean'
      b. *lǎoshi* 老實 'honest' → *láolǎoshishi* 老老實實 'honest and frank'
      c. *jiǎndān* 簡單 'simple' → *jiánjiǎndāndān* 簡簡單單 'rather simple'
      d. *hútu* 糊塗 'muddleheaded' → *húhútutu* 糊糊塗塗 'rather muddleheaded'

(34) a. *qǐngjiào* 請教 'inquire' → *qǐngjiàoqǐngjiào* 請教請教 'inquire a little'
      b. *pīpíng* 批評 'criticize' → *pīpíngpīpíng* 批評批評 'criticize a little'
      c. *yánjiū* 研究 'research' → *yánjiūyánjiū* 研究研究 'research a little'

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d. *tăolùn* 討論 'discuss' → *tăolùntăolùn* 討論討論 'discuss a little'

Reduplicated adjectives and verbs also differ in terms of interpretational properties (Paul 2010). Specifically, reduplication of adjectives often yields a higher degree of liveliness or intensity (Zhu 1956, Chao 1968: 209, Tang 1988), while reduplication of verbs often gives rise to the so-called tentative aspect according to Chao (1968: 204). The different reduplication patterns and interpretational properties thus constitute another piece of evidence for distinguishing adjectives from verbs.

Additional evidence for analyzing adjectives as an independent category is that adjectives come in both predicative and non-predicative varieties (Li 1996, Aoun and Li 2003, Paul 2005, 2010), just like those in the Indo-European languages.[11] If adjectives were subsumed under intransitive verbs, one would expect that all adjectives could be used predicatively like intransitive verbs, contrary to fact. Two examples of non-predicative adjectives are given in (35) (see Aoun and Li 2003 and Paul 2005, 2010 for more examples).

(35) a. *這條　　道路　很　　主要。
　　　 *zhè-tiáo dàolù hén zhǔyào.
　　　 this-Cl　road　very　main
　　　 Intended: 'This road is main.'

　　 b. *他們的　　目標　　很　共同。
　　　 *tāmen-de mùbiāo hěn gòngtóng.
　　　 they-Poss goal　　very common
　　　 Intended: 'Their goals are common.'

Finally, it is worth mentioning that both predicative and non-predicative adjectives can function as attributive adjectives when they precede *de* 的 and a noun, as shown below (Aoun and Li 2003, Paul 2005, 2010; see also Cheung 2012):

(36) a. 聰明　　　的　學生　　　　b. 貴　　　　的　書
　　　 cōngmíng de xuésheng　　　　 guì　　　 de shū
　　　 smart　　 DE student　　　　　 expensive DE book
　　　 'intelligent students'　　　　　 'expensive books'

(37) a. 主要　　的　道路　　　　　b. 共同　　　的　目標
　　　 zhǔyào de dàolù　　　　　　　 gòngtóng de mùbiāo

[11] Note that although Chinese makes a distinction between predicative and non-predicative adjectives, the inventory of the so-called non-predicative adjectives in Chinese is not identical to that in English. For fuller discussion of the properties of non-predicative adjectives in Chinese, see Li (1999).

main   DE road   common   DE goal
'main roads'   'common goals'

2.4 Adverbs

2.4.1 Basic properties of adverbs

Adverbs typically occur between the subject and a verb or an adjective, as shown in (38). The presence of the verb or adjective is mandatory, as adverbs, unlike verbs and adjectives, cannot serve as predicates.[12]

(38) a. 他　剛　　*(來)。   b. 他　常常　　　*(跳舞)。
         tā   gāng *(lái).   tā   chángcháng *(tiàowǔ).
         he   just arrive   he   often   dance
         'He just arrived.'   'He dances often.'
      c. 他　非常　　*(高)。   d. 他　真　*(聰明)。
         tā   fēicháng   *(gāo).   tā   zhēn *(cōngmíng).
         he   extremely tall   he   truly smart
         'He is extremely tall.'   'He is really smart.'

2.4.2 Classification of adverbs: sentence-level adverbs vs. VP-level adverbs

Adverbs in Chinese can be roughly divided into two types: sentence-level adverbs and VP-level adverbs (Li and Thompson 1981: ch. 8, Paul to appear). The former may appear before or after the subject, whereas the latter can only appear after the subject.[13]

2.4.2.1 Sentence-level adverbs

The sentence-level adverbs can be further divided into time adverbs and attitude adverbs, both of which can immediately precede or follow the subject (Li and Thompson 1981: ch. 8), with only a few exceptions (Paul, to appear).

2.4.2.1.1   Time adverbs

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[12] Parentheses are used as a notational convention. An asterisk "*" immediately preceding the left parenthesis indicates that the presence of the parenthesized expression is mandatory and that omitting it will result in ill-formedness. In (38a–d), this means that the presence of the parenthesized verb or adjective is obligatory.
[13] There are many alternative ways to classify adverbs in Chinese. For alternative means of classifying adverbs and their different categorizations, see Li (1924), Wang (1934), Zhang (1959), Hu (1962), Lü (1979), Liu, Pan and Gu (1983), Zhang (1987) and Qian (1990).

Typical examples of time adverbs are *jīntiān* 今天 'today', *qùnián* 去年 'last year', *zànshí* 暫時 'temporarily', *jiānglái* 將來 '(in the) future', *xiànzài* 現在 'now' and *xiàwǔ* 下午 '(in the) afternoon', among many others. Time adverbs can occur either in sentence-initial position or immediately after the subject.

(39) a. 今天　他　很　　高興。
　　　jīntiān tā hěn gāoxìng.
　　　today he very happy
　　　'He is very happy today.'

b. 他　今天　　很　　　高興。
　　tā jīntiān hěn gāoxìng.
　　he today very happy
　　'He is very happy today.'

(40) a. 去年　　他　沒有　　回來。
　　　qùnián tā méiyǒu huílai.
　　　last.year he not.have return
　　　'He did not return last year.'

b. 他　去年　　沒有　　回來。
　　tā qùnián méiyǒu huílai.
　　he last.year not.have return
　　'He did not return last year.'

(41) a. 暫時　　　　他　住　在　這裏。
　　　zànshí tā zhù zài zhèli.
　　　temporarily he live at here
　　　'He lives here temporarily.'

b. 他　暫時　　　住　在　這裏。
　　tā zànshí zhù zài zhèli.
　　he temporarily live at here
　　'Helives here temporarily.'

The time adverbs in these examples clearly function as sentential adverbs, as they signal the time at which or during which the event described by the sentence occurs.

2.4.2.1.2 Attitude adverbs

Attitude adverbs denote the speaker's attitude toward or evaluation of the event described by the sentence. Typical examples of attitude adverbs are *xiǎnrán* 顯然 'obviously', *yéxǔ* 也許 'perhaps', *dàgài* 大概 'probably', *xìngkuī* 幸虧 'fortunately', *dāngrán* 當然 'of course', *tūrán* 突然 'suddenly' and *qíshí* 其實 'in fact', among many others. The following examples show that like time adverbs, they can occur in sentence-initial position or immediately after the subject:

(42) a. 顯然　　他　不　喜歡　　你。
　　　xiǎnrán tā bù xǐhuan nǐ.
　　　obviously he not like you
　　　'Obviously, he does not like you.'

b. 他　顯然　　不　喜歡　　你。
　　tā xiǎnrán bù xǐhuan nǐ.
　　he obviously not like you
　　'Obviously, he does not like you.'

(43) a. 也許　他　會　來。

b. 他　也許　　會　來。

yéxǔ	tā	huì	lái.		tā	yéxǔ	huì	lái.
perhaps	he	will	come		he	perhaps	will	come
'Perhaps he will come.'					'Perhaps he will come.'			

(44) a. 大概　　他　是　感冒　了。 b. 他　大概　　是　感冒　　了。

dàgài	tā	shì	gǎnmào le.		tā	dàgài	shì	gǎnmào le.
probably	he	be	cold	Prt	he	probably	be	cold	Prt
'Probably he has caught a cold.'					'Probably he has caught a cold.'			

However, as noted by Paul (to appear), a few attitude adverbs, especially those containing *shuō* 說 'speak', such as *lǎoshí shuō* 老實說 'frankly speaking', *tǎnbái shuō* 坦白說 'honestly speaking' and *huàn jù huà shuō* 換句話說 'in other words', are confined to sentence-initial position, as the contrast in (45) shows.

(45) a. 老實說，　　　我　不　喜歡　　他。

lǎoshí-shuō,	wǒ	bù	xǐhuan	tā.
frankly-speaking	I	not	like	him
'Frankly speaking, I do not like him.'				

b. *我　老實說　　　　不　喜歡　　他。

wǒ	lǎoshí-shuō	bù	xǐhuan	tā.
I	frankly-speaking	not	like	him
Intended: 'Frankly speaking, I do not like him.'				

2.4.2.2 VP-level adverbs

VP-level adverbs can be subdivided into manner and non-manner adverbs, both of which occur between the subject and the verb (Li and Thompson 1981: ch. 8).

2.4.2.2.1 Manner adverbs

Manner adverbs modify the verb phrase by describing the manner in which the action depicted by the verb phrase is carried out. The majority of manner adverbs are derived from adjectives by adding the suffix *-de* 地: for example, *xìngfèn-de* 興奮地 'excitedly', *yánlì-de* 嚴厲地 'sternly', *kuàilè-de* 快樂地 'happily', *zǐxì-de* 仔細地 'meticulously', *jiǎndān-de* 簡單地 'simply', *zhèndìng-de* 鎮定地 'calmly'. As mentioned earlier and illustrated in (46), they occur between the subject and the verb.

(46) a. 他　興奮地　　跑　進來。

tā   xīngfèn-de pǎo jìnlái.

he   excitedly   run   enter

'He excitedly ran in.'

  b. 他 嚴厲地 責備了 我。

tā   yánlì-de   zébèi-le   wǒ.

he   sternly   reproach-Perf   me

'He sternly reproached me.'

  c. 他們 快樂地 跳舞。

tāmen   kuàilè-de   tiàowǔ.

they   happily   dance

'They danced happily.'

For many monosyllabic and disyllabic adjectives, reduplication applies before they are suffixed by *-de* 地. Examples are *mànmàn-de* 慢慢地 'slowly', *jìngjìng-de* 靜靜地 'quietly', *kuàikuài-de* 快快地 'quickly', *qīngqīng-de* 輕輕地 'softly', *rènrènzhēnzhēn-de* 認認真真地 'seriously', *shūshūfufu-de* 舒舒服服地 'comfortably', *gāogāoxìngxing-de* 高高興興地 'happily' and *qīngqīngchǔchǔ-de* 清清楚楚地 'clearly'; see (47a–c). In this respect, the Chinese suffix *-de* 地 behaves like the *-ly* suffix in English, which can turn an adjective into an adverb (e.g., *slow* → *slowly, quiet* → *quietly*).

(47) a. 他 慢慢地 回答 我的 問題。

tā   mànmàn-de   huídá   wǒ-de   wèntí.

he   slowly   answer   I-Poss   question

'He slowly answered my question(s).'

  b. 他 靜靜地 躺在 草地 上。

tā   jìngjìng-de   tǎng-zài   cǎodì   shang.

he   quietly   lie- at   grass   on

'He quietly lay on the grass.'

  c. 他 會 認認真真地 考慮 這個 問題。

tā   huì   rènrènzhēnzhēn-de   kǎolǜ   zhè-ge   wèntí.

he   will   seriously   consider   this-Cl   problem

'He will consider this problem seriously.'

Furthermore, there is a subset of disyllabic manner adverbs that can be optionally followed by *-de* 地 (Zhu 1982).

(48) a. 他們 趕緊(地) 往 屋裏 跑。

	tāmen	gánjǐn(-de)	wǎng	wū-li	pǎo.
	they	rapidly	toward	house-inside	run

'They rapidly ran inside the house.'

b. 樹葉　在　微　風中　　悠悠(地)　　落　下。

	shùyè	zài	wēi	fēng-zhōng	yōuyōu(-de)	luò	xia.
	leave	at	light	wind-in	slowly	drop	down

'The leaves slowly fluttered down in the light wind.'

c. 他們　　認真(地)　　討論了　　　這個　　問題。

	tāmen	rènzhēn(-de)	tǎolùn-le	zhè-ge	wèntí.
	they	seriously	consider-Perf	this-Cl	problem

'They seriously considered this problem.'

2.4.2.2.2 Non-manner adverbs

The set of non-manner adverbs is mainly composed of VP-level temporal adverbs, such as *yǐjīng* 已經 'already', *zǎo* 早 'long ago', *cháng* 常 'often', *gāng* 剛 'just' and *mǎshàng* 馬上 'immediately', among many others (see Li and Thompson 1981: ch. 8, Zhu 1982, Yip and Rimmington 1997: ch. 14, 2004: ch. 9.1.2).[14] Unlike sentence-level time adverbs that can occur before the subject, VP-level temporal adverbs are restricted to the position between the subject and the verb.

(49) a. 他　已經　　離開了。　　　　　b. 他　早　　　知道了。

	tā	yǐjīng	líkāi-le.		tā	zǎo	zhīdào-le.
	he	already	leave-Perf		he	long.ago	know-Perf

　　'He has already left.'　　　　　　　'He knew that long ago.'

c. 他　常　　來　　這裏。　　　　　d. 他　剛　　回來。

	tā	cháng	lái	zhèli.		tā	gāng	huílai.
	he	often	come	here		he	just	return

　　'He often comes here.'　　　　　　　'He just returned.'

2.5 Prepositions

Prepositions are one of the most poorly defined categories in Chinese, partly because

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[14] Another type of adverb that is commonly discussed is exemplified by *yòu* 又 'again', *zài* 再 'again', *jiù* 就 'only, immediately, emphatic, thereupon (then)', *zhǐ* 只 'only', *cái* 才 'just now, only then', *hái* 還 'still', *yě* 也 'also' and *dōu* 都 'all' (Li and Thompson 1981: ch. 8, Zhu 1982, among others). Many adverbs of this type are associated with multiple meanings. For detailed discussion of *jiù* 就, *cái* 才, *hái* 還 and *yě* 也 in relation to information structure, see Hole (2004); and for detailed discussion of *dōu* 都, see Lee 1986, Cheng 1995, Li 1995, Lin 1996, 1998, Zhang 1997: sec. 7.5, 2008 and Xiang 2008, inter alia.

many Chinese prepositions have their historical origin as verbs (Li and Thompson 1974a, Zhu 1982, Norman 1988, Heine, Claudi and Hünnemeyer 1991, Hopper and Traugott 1993) and partly because Chinese has no inflectional morphology to mark prepositions or verbs. Furthermore, some prepositions have characteristics of verbs (Chao 1968, Li and Thompson 1974a, b, 1981, Zhu 1982). For these reasons, some scholars consider prepositions as a "mixed" category containing verbs and prepositions (McCawley 1992), while others maintain that prepositions form an independent category distinct from verbs (Li and Thompson 1974a, b; see also Huang, Li and Li 2009). In this section, I will first focus on the basic properties of prepositions and their categorization (section 2.5.1) and then discuss the verbal properties of a subset of prepositions (section 2.5.2), seeking to provide a better understanding of the characteristic features of prepositions and the factors that give rise to the debate over the categorial status of prepositions in Chinese.

2.5.1 Basic properties of prepositions and categorization

In Chinese, prepositions (also referred to as "coverbs" in Li and Thompson 1974a, b, 1981) are typically followed by a noun phrase. Moreover, most prepositions and their following noun phrase appear between a subject and a verb phrase, as the generalized schema in (50) shows (Li and Thompson 1974a, b, 1981).

(50)   Subject + Preposition + Noun Phrase + Verb (+ Noun Phrase)

According to Huang, Li and Li (2009: ch. 1), there are mainly four classes of words that are considered as prepositions.

(51)   a. *zhìyú* 至於 'as regards', *guānyú* 關於 'concerning', etc.
       b. *cóng* 從 'from', *duì* 對 'toward,' etc.
       c. *gěi* 給 'to/for', *zài* 在 'at', etc.
       d. *bǎ* 把, *bèi* 被, *jiào* 叫, *ràng* 讓, etc.[15]

All four classes of prepositions can be followed by a noun phrase, as shown in (52)–(55). However, as noted by Huang, Li and Li (2009), the class of prepositions in (51a) requires the preposition and the following noun phrase to precede the subject (see also

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[15] The absence of gloss here is due to the fact these words have grammaticalized into function words and lack descriptive content. Following Li and Thompson (1981), *bǎ* 把 could be regarded as an object marker (see Liu 1997, Sybesma 1999, Li 2006 for fuller discussion of *bǎ* 把), whereas *bèi* 被, *jiào* 叫, *ràng* 讓 could be regarded as agent markers that serve to introduce the agent in passive sentences (Zhu 1982; see Feng 1995, Ting 1995, 1998, Huang 1999 for detailed discussion of *bèi* 被).

Li and Thompson 1981), as shown in (52), unlike the classes in (51b–d), which can appear after the subject, as shown in (53)–(55).

(52) a. 至於　　其他 問題，　我們　以後 再　　說。
　　　 Zhìyú　 qítā wèntí,　 wǒmen yǐhòu zài　 shuō.
　　　 as.regards other question we　　 later　 again speak
　　　 'As regards other questions, we will talk about them later.'

　　 b. 關於　　　這件　　事，　我 沒有　　意見。
　　　 Guānyú　 zhè-jiàn shì,　 wǒ méiyǒu yìjiàn.
　　　 concerning this-Cl　 matter I　　 not.have opinion
　　　 'Concerning this matter, I do not have an opinion.'

(53) a. 他 從　北京　　帶　　回來 很多　禮物。
　　　 tā cóng Běijīng dài　 huílai hěnduō lǐwù.
　　　 he from Beijing bring back　 many　 present
　　　 'He brought back many presents from Beijing.'

　　 b. 他 對　　這件　　事　　沒有　　　意見。
　　　 tā duì　 zhè-jiàn shì　 méiyǒu　 yìjiàn.
　　　 he toward this-Cl　 matter not.have　 opinion
　　　 'He does not have an opinion on this matter.'

(54) a. 他 給 學生　　寫過　　不少　推薦　　　　　信。
　　　 tā gěi xuésheng xiě-guo bùshǎo tuījiàn　　　　 xìn.
　　　 he for student　 write-Exp not.few recommendation letter
　　　 'He wrote quite a few recommendation letters for students.

　　 b. 他 在 桌子 上　　放了　　一本　書。
　　　 tā zài zhuōzi shang fàng-le　 yì-běn shū.
　　　 he at table top　　 put-Perf one-Cl book
　　　 'He put a book on the table.'

(55) a. 他 把 花瓶　　打破　　了。
　　　 tā bǎ huāpíng dǎ-pò　 le.
　　　 he BA vase　　 hit-break Prt
　　　 'He broke the vase.'

　　 b. 那個　警察　　被 流氓　打傷　　了。
　　　 neì-ge jǐngchá　 bèi liúmáng dǎ-shāng le.
　　　 that-Cl policeman BEI hooligan hit-wound Prt
　　　 'That policeman was wounded by some hooligans.'

Interestingly, as noted by Huang, Li and Li (2009: ch. 1), the classes of prepositions in (51b–c) and the following noun phrase can also appear in pre-subject position like those in (51a) (see (56)–(57)), while the class of prepositions in (51d) cannot (see (58)).

(56) a. 從　北京，他 帶　　回來　很多　　禮物。
　　　cóng Běijīng, tā dài　　huílai hěnduō lǐwù.
　　　from Beijing he bring　back　many　　present
　　　'From Beijing, he brought back many presents.'

　　 b. 對　　這件　事，　他 沒有　　意見。
　　　duì　　zhè-jiàn shì,　tā méiyǒu　yìjiàn.
　　　toward this-Cl　matter he not.have opinion
　　　'On this matter, he does not have an opinion.'

(57) a. 給 學生，　他 寫過　　不少　推薦　　　　信。
　　　gěi xuésheng, tā xiě-guo　bùshǎo tuījiàn　　　xìn.
　　　for student　　he write-Exp not.few recommendation letter
　　　'For students, he wrote quite a few recommendation letters.'

　　 b. 在 桌子　上，　他 放了　　一本　　書。
　　　zài zhuōzi shang, tā fàng-le　yì-běn　shū.
　　　at table　top　　he put-Perf one-Cl　book
　　　'On the table, he put a book.'

(58) a. *把　花瓶，　他 打破　　了。
　　　*bǎ　huāpíng, tā dǎ-pò　　le.
　　　　BA vase　　　he hit-break Prt

　　 b. *被　流氓，　那個　警察　　　打傷　　了。
　　　*bèi liúmáng, neì-ge jǐngchá　　dǎ-shāng le.
　　　　BEI hooligan that-Cl policeman hit-wound Prt

While the two classes of prepositions in (51b–c) behave alike in that the prepositions and the following noun phrase can appear in either pre-subject or post-subject position, the two classes differ in that a subset of the prepositions in (51c) can form complex verbal predicates such as *sòng-gěi* 送给 'give-to' and *fàng-zài* 放在 'put-at', as in (59), whereas those in (51b) cannot (Huang, Li and Li 2009: ch. 1).

(59) a. 他 送給了　　我 一件　毛衣。
　　　tā sòng-gěi-le　wǒ yí-jiàn　máoyī.

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he give-to-Perf me   one-Cl   sweater

'He gave me a sweater.'

b. 他　把　書　放在　　桌子　上。

tā　bǎ　shū　fàng-zài　zhuōzi shang.

he　BA　book　put-at　　table　top

'He put a book on the table.'

In sum, all four classes of prepositions must be followed by a noun phrase. In this respect, they behave like prepositions in the Indo-European languages. In addition, the preposition and the following noun phrase generally form a syntactic unit that serves to modify the verb phrase.[16]

2.5.2　The verbal nature of prepositions

Even though prepositions in Chinese can generally take a noun phrase as their object on a par with those in the Indo-European languages, many prepositions share some properties of verbs as a result of their historical transition from verbs to prepositions. Two properties that show the verbal nature of prepositions are discussed below.

2.5.2.1　Compatibility with aspect markers

One property shared by verbs and many prepositions in Chinese is that they are compatible with aspect markers. For instance, a subset of prepositions can be followed by the durative aspect marker *-zhe* 着 (see Li and Thompson 1981: ch. 6.2 for detailed discussion of the durative aspect marker *-zhe* 着), similar to verbs (Chao 1968, Li and Thompson 1974a, b, 1981). Examples of prepositions that can be followed by *-zhe* 着 are given in Table 1 (adapted from Li and Thompson 1981: 361).

Table 1. Examples of prepositions that can be followed by *-zhe* 着

àn 按	'according to'	*píng* 憑	'depend on, according to'
āi 挨	'adjacent to'	*shùn* 順	'along'
cháo 朝	'facing'	*xiàng* 向	'facing'
chòng 沖	'facing'	*wǎng* 往	'toward'
duì 對	'toward'	*wèi* 為	'for'
kaò 靠	'on the strength of'	*yán* 沿	'along'

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[16] Recent syntactic studies have shown that *bǎ* 把 and *bèi* 被 and the following noun phrase do not form a constituent. For syntactic analyses of the *bǎ* 把 construction, see Sybesma (1999), Li (2006) and Huang, Li and Li (2009: ch. 5); and for syntactic analyses of the *bèi* 被 construction, see Feng (1995), Ting (1995, 1998), Huang (1999) and Huang, Li and Li (2009: ch. 4).

Examples showing that the prepositions in Table 1 can be followed by *-zhe* 着 are given in (60). As noted by Li and Thompson (1981: ch. 9), the presence of *-zhe* 着 does not contribute to the meaning of the sentence, as evidenced by the fact that (60a–c) have the same meanings with or without *-zhe* 着.

(60)　a.　你們　　得　　按(着)　　　　次序　發言。
　　　　　nǐmen　déi　àn(-zhe)　　　cìxù　fāyán.
　　　　　you　　must　according.to-Dur　order　speak
　　　　　'You must speak in order.'

　　　b.　他　朝(着)　　　我　走　　過來。
　　　　　tā　cháo(-zhe)　wó　zǒu　guòlái.
　　　　　he　toward-Dur　me　walk　come
　　　　　'He walked over to me.'

　　　c.　他　對(着)　　　我　點了　　　點　頭。
　　　　　tā　duì(-zhe)　wǒ　diǎn-le　　diǎn　tóu.
　　　　　he　toward-Dur　me　nod-Perf　nod　head
　　　　　'He nodded to me.'

The fact that *-zhe* 着 is devoid of durative meaning when it occurs with the prepositions in Table 1 suggests that these words have undergone grammaticalization into prepositions and are on the verge of losing their verbal properties. Additional support for this view comes from the fact that the list of prepositions that can take *-zhe* 着 is fairly restricted (Li and Thompson 1981: ch. 9) and must be memorized; that is, *-zhe* 着 cannot be added freely to just any preposition, as shown in (61).

(61)　a.　*他　從着　　　北京　帶　　回來　很多　　　禮物。
　　　　　*tā　cóng-zhe　Běijīng　dài　　huílai　hěnduō　lǐwù.
　　　　　he　from-Dur　Beijing　bring　back　　many　　present

　　　b.　*他　給着　　　學生　　　寫　推薦　信。
　　　　　*tā　gěi-zhe　xuésheng　xiě　tuījiàn　xìn.
　　　　　he　for-Dur　student　　write　recommendation　letter

　　　c.　*他　在着　　　圖書館　　看　書。
　　　　　*tā　zài-zhe　túshūguǎn　kàn　shū.
　　　　　he　at-Dur　library　　　read　book

A few prepositions can be followed by *-le* 了, akin to verbs (Chao 1968, Li and Thompson 1981).

(62)　　他　為了　　你的　　　事　一　整　　晚　　都　沒　　　睡。
　　　　　tā　wèi-le　nǐ-de　　shì　yì　zhéng　wǎn　dōu　méi　　shuì.
　　　　　he　for-Perf　you-Poss　matter　one　whole　night　all　not.have　sleep
　　　　　'Because of your matter, he didn't sleep for the whole night.'

However, whether *-le* 了 still marks the perfective aspect when it occurs with a preposition is far from clear when prepositions suffixed with *-le* 了 are compared with true verbs suffixed with *-le* 了 (cf. (25)). The fact that a limited set of prepositions is compatible with *-le* 了 should thus be regarded as evidence for their historical transition from verbs to prepositions.

2.5.2.2　*Prepositions functioning as verbs*

The verbal nature of prepositions is also reflected in their dual categorial status: many prepositions in Chinese can be used both as verbs and as prepositions (Chao 1968, Li and Thompson 1974a, b, 1981), as shown in Table 2 (adapted from Li and Thompson 1981: 368–369).

Table 2. Prepositions functioning as prepositions and as verbs

Prepositions	As prepositions	As verbs
āi 挨	'next to'	'be next to'
àn 按	'according to'	'press'
bǐ 比	'compare'	'compare'
chǎo 朝	'facing'	'face'
chéng 乘	'take advantage of'	'ride on'
chòng 沖	'facing'	'face'
chúle 除了	'except, besides'	'remove'
dàitì 代替	'in place of'	'take the place of'
dāng 當	'in front of'	'serve as'
dào 到	'to'	'arrive'
duì 對	'to'	'face'
gěi 給	'to, for'	'give'
gēn 跟	'with'	'follow'
jiě 解	'from'	'untie, relieve'
kào 靠	'on the strength of'	'lean against, depend on'
nì 逆	'against'	'be opposed to'
píng 憑	'depend on, according to'	'depend on'
shùn 順	'along'	'follow'
tì 替	'in place of'	'substitute for'
wǎng 往	'facing'	'face'
xiàng 向	'facing'	'face'

The following examples illustrate that the prepositions in Table 2 can be used both as prepositions ((63a), (64a), (65a)) and as verbs ((63b), (64b), (65b)):

(63)　a.　我們　　會　按　　　　　你的　　　意思　辦　這件　　　事。

wǒmen huì àn   nǐ-de   yìsī bàn zhè-jiàn shì.

we   will according.to you-Poss idea do   this-Cl   matter

'We will do this matter according to your ideas.'

b. 是不是 有 人 在 按 門鈴？

shì-bu-shì yǒu rén   zài àn   mén-líng?

be-not-be have person Prog press door-bell

'Is someone ringing the doorbell?'

(64) a. 他 朝   我 笑了   笑。

tā cháo wǒ xiào-le   xiào.

he facing me smile-Perf smile

'He smiled at me.'

b. 他的   房子   朝   海。

tā-de   fàngzi cháo hái.

he-Poss house   face sea

'His house faces the sea.'

(65) a. 他 常   到 北京   去。

tā cháng dào Běijīng qù.

he often to   Beijing go

'He often goes to Beijing.'

b. 春天   到了。

chūntiān dào-le.

spring   arrive-Perf

'Spring has come.'

While many prepositions have verbal counterparts, there are quite a few that do not, such as *zhìyú* 至於 'as regards', *guānyú* 關於 'concerning', *cóng* 從 'from', *bǎ* 把 and *bèi* 被.

Given that many prepositions show verbal properties and have dual categorial status, a natural question that arises is whether prepositions in Chinese are best analyzed as a "mixed" category consisting of verbs and prepositions. This is a plausible view that has been explored in the literature (McCawley 1992). An alternative is to maintain that prepositions form an independent category distinct from verbs and to attribute the verbal properties of a subset of prepositions to their historical development from verbs (Li and Thompson 1974a, b). On this view, these prepositions should be distinguished from their verbal counterparts, which are best analyzed as homophonous verbs. An advantage of this view is that it provides a

natural explanation for the verbal properties of a subset of prepositions while maintaining a clear distinction between prepositions and verbs.

2.6   Conjunctions

Like conjunctions in the Indo-European languages, conjunctions in Chinese are function words in that they form a closed class and have grammatical rather than content meaning. In Chinese, conjunctions can be divided into two major types: those that conjoin phrases (section 2.6.1) and those that conjoin clauses (section 2.6.2).

2.6.1   Phrasal conjunctions

Conjunctions that conjoin phrases can be further divided into three types: (i) those that conjoin nouns or noun phrases, (ii) those that conjoin adjectives or adjectival expressions and (iii) those that conjoin verbs or verb phrases.

2.6.1.1   Conjunctions conjoining nouns

In Chinese, there are four conjunctions that conjoin nouns or noun phrases: *hé* 和 'and' (Cheung et al. 1994: 46), *gēn* 跟 'and, with', *tóng* 同 'and, with' and *yǔ* 與 'and, with' (Yip and Rimmington 2004: ch. 22.1).

(66)   a.   我的   學生   和 他的   學生   都 是 上海   人。
            wǒ-de xuésheng hé tā-de   xuésheng dōu shì Shànghǎi rén.
            I-Poss student   and he-Poss student   all be Shanghai person
            'My students and his students are Shanghaiese.'
       b.   北京   跟 香港   都 是 很 值得 去 看 的 地方。
            Běijīng gēn Xiānggǎng dōu shì hěn zhìdé qù kàn de dìfang.
            Beijing and Hong.Kong all be very worth go see DE place
            'Beijing and Hong Kong are both places worth seeing.'
       c.   他 同   妹妹的   關係   很 不   錯。
            tā tóng mèimei-de guānxi   hěn bú   cuò.
            he and sister-Poss relationship very not bad
            'The relationship between him and his sister is quite good.'
       d.   他 對 法國的   文化   與 歷史 都 很   感 興趣。
            tā duì Fǎguó-de   wénhuà yǔ lìshǐ   dōu hén gǎn xìngqù.
            he to France-Poss culture   and history all very feel interest
            'He is interested in the culture and history of France.'

Even though all four conjunctions have the meaning of 'and', they differ in terms of register; that is, some are more formal than others (Lü 1980).

2.6.1.2 Conjunctions conjoining adjectives

Conjunctions that conjoin adjectives include simplex conjunctions that involve a single word like *ér* 而 'also' (Yip and Rimmington 2004: ch. 22.1) and complex ones that involve more than one word, such as *yòu* 又…*yòu* 又… 'both…and…' (Cheung et al. 1994: 427). Both types can conjoin adjectives or adjectival expressions in either predicative (67a)/(68a) or attributive position (67b)/ (68b).

(67) a. 他 堅定　　而　勇敢。
          tā jiāndìng ér   yónggǎn.
          he steadfast and brave
          'He is steadfast and brave.'
      b. 他 是 個 認真　　而　嚴謹　　的　哲學家。
          tā shì-ge rènzhēn ér   yánjǐn   de   zhéxuéjiā.
          he be-Cl serious   and rigorous DE   philosopher
          'He is a serious and rigorous philosopher.'

(68) a. 這個　　西瓜　　　又　大　　又　甜。
          zhè-ge xīguā   yòu dà   yòu tián.
          this-Cl watermelon also large also sweet
          'This watermelon is large and sweet.'
      b. 他 是 個 又　聰明　　又　勤奮　　的　學生。
          tā shì ge yòu cōngmíng yòu qínfèn   de   xuésheng.
          he be Cl also smart   also diligent DE   student
          'He is a smart and diligent student.'

2.6.1.3 Conjunctions conjoining verbs

In addition to conjoining adjectives, *yòu* 又…*yòu* 又… 'both…and…' can conjoin verbs or verb phrases to emphasize the coexistence of the two situations they depict (Cheung et al. 1994: 427).

(69) a. 他們　對 他　又　打 又　罵。
          tāmen duì tā   yòu dǎ yòu mà.
          they   to   him also hit also scold

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'They hit and scolded him.'

b. 他們 又 唱 又 跳， 非常 高興。
   tāmen yòu chàng yòu tiào, fēicháng gāoxìng.
   they also sing also dance extremely happy
   'They sang and danced, and were extremely happy.'

Another conjunction used to conjoin verbs is *bìng* 並 'also'. Unlike *yòu* 又…*yòu* 又… 'both…and…', which is often used to conjoin intransitive verbs, *bìng* 並 is used to conjoin transitive verbs that share the same object (Yip and Rimmington 2004: ch. 22.1).

(70) a. 他們 討論 並 通過了 這個 計劃。
     tāmen tǎolùn bìng tōngguò-le zhè-ge jìhuà.
     they discuss also pass-Perf this-Cl project
    'They discussed and passed this project.'

   b. 大家 都 同意 並 擁護 我的 提議。
     dàjiā dōu tóngyì bìng yōnghù-wǒ-de tíyì.
     everyone all agree also support I-Poss proposal
    'Everyone agreed with and supported my proposal.'

In (70a), *zhè-ge jìhuà* 這個計劃 'this project' is the shared object of *tǎolùn* 討論 'discuss' and *tōngguò* 通過 'pass', both of which are transitive verbs. In (70b), the shared object is *wǒ de tíyì* 我的提議 'my proposal'.

2.6.2 Clausal conjunctions

Most of the conjunctions in Chinese are clausal conjunctions. They serve to conjoin two clauses and display three characteristic features. First, many occur in pairs, and in some cases one member of the pair can be omitted (Li and Thompson 1981: ch. 23, Yip and Rimmington 2004: ch. 22.2), as shown in (71).

(71) a. *búdàn* 不但…*érqiě* 而且…   'not only…but also…'
   b. *jíshǐ* 即使…*yě* 也…   'even though…still…'
   c. *níngkě* 寧可…*yěbù* 也不…   'would rather…and not…'
   d. (*rúguǒ*) (如果)…*jiù* 就…   'if…then…'
   e. *suīrán* 雖然…*dànshì* 但是…   'although…but…'
   f. *wúlùn* 無論…*dōu* 都…   'no matter what…still…'
   g. (*yàoshì*) (要是)…*jiù* 就…   'if…then…'

h. (*yīnwéi*) (因為)…*suǒyǐ* 所以…   'because…therefore…'
i. *zhǐyǒu* 只有…*cái* 才…   'only if…then…'

There are also clausal conjunctions that occur individually (Li and Thompson 1981: ch. 23, Yip and Rimmington 2004: sec. 22.2), as shown in (72).

(72) a. *búguò* 不過…   'but…'
b. …*de shíhòu* 的時候   'when…'
c. *kěshì* 可是…   'but…'
d. …*yǐqián* 以前   'before…'

Examples of the two types of clausal conjunction are given in (73) and (74).

(73) a. 他 不但 罵 人， 而且 還 打 人 呢。
tā búdàn mà rén, érqiě hái dǎ rén ne.
he not.only scold person but.also in.addition hit person Prt
'He not only swore at people, but also hit them.'

b. 我 寧可 吃 素， 也 不 吃 蝸牛。
wǒ níngkě chī sù, yě bù chī wòniú.
I rather eat vegetable and not eat snail
'I would rather be a vegetarian than eat snails.'

c. (如果) 他 喝醉了， 我們 就 送 他 回 家。
(rúguǒ) tā hē-zuì-le, wǒmen jiù sòng tā huí jiā.
if he drink-drunk-Perf we then take he return home
'If he is drunk, then we will take him home.'

d. 大家 雖然 很 累，但是 心情 都 很 愉快。
dàjiā suīrán hěn lèi, dànshì xīnqíng dōu hěn yúkuài.
everyone although very tired but mood all very cheerful
'Although everyone was tired, their mood was cheerful.'

e. 無論 你 走得 多 快，他 都 能 趕得 上。
wúlùn ní zǒu-de duō kuài, tā dōu néng gǎn-de shàng.
no.matter you go-Res how fast he still can catch-Res up
'No matter how fast you go, he can still catch up.'

f. (要是) 明天 不 下雨，我 就 一定 去。
(yàoshì) míngtiān bú xiàyǔ, wǒ jiù yídìng qù.
if tomorrow not rain I then definitely go
'If it doesn't rain tomorrow, I'll definitely go.'

g. (因為) 他 腿部 受了 傷， 所以 沒 參加 比賽。

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(yīnwéi) tā tuǐbù shòu-le shāng, suóyǐ méi cānjiā bǐsài.
because he leg bear-Perf wound therefore not.have join match
'Because he had a leg injury, he did not take part in the match.'

h. 只有 樂觀， 你的 病 才 能 恢復得 快。
zhíyǒu lèguān, nǐ-de bìng cái néng huīfù-de kuài.
only.if optimistic you-Poss sickness then can recover-Res quick
'Only by being optimistic would you be able to have a speedy recovery.'

(74) a. 他 不 是 很 聰明， 不過 考上 大學 了。
tā bú shì hěn cōngmíng, búguò kǎo-shàng dàxué le.
he not be very smart but exam-ascend university Prt
'He is not smart but he passed the university entrance exam.'

b. 我 回來 的 時候， 媽媽 已經 睡着了。
wǒ huílai de shíhòu, māma yǐjīng shuì-zháo-le.
I return DE time mother already sleep-fall-Perf
'When I returned home, my mother was already asleep.'

c. 我 本來 想 早 點 來， 可是 沒 趕上 飛機。
wǒ běnlái xiáng záo diǎn lái, kěshì méi gǎn-shàng fēijī.
I originally think early a.little come but not.have chase-ascend plane
'I had originally intended to come earlier, but I didn't catch the plane.'

d. 我 離開 以前， 弟弟 還 沒 回來。
wǒ líkāi yǐqián, dìdi hái méi huílai.
I leave before younger.brother still not.have return
'Before I left home, my younger brother still had not returned.'

Second, some of the clausal conjunctions have monosyllabic and disyllabic variants whose occurrence depends on rhythmic requirements (Yip and Rimmington 2004: ch. 22.2).

(75) a. *dànshì* 但是 'but' → *dàn* 但 'but'
b. *suīrán* 雖然 'although' → *suī* 雖 'although'
c. *rúguǒ* 如果 'if' → *rú* 如 'if'
d. *yīnwéi* 因為 'because' → *yīn* 因 'because'

The following examples illustrate the use of the monosyllabic variants:

(76) a. 你的 建議 很 好， 但 時機 還 不 成熟。
nǐ-de jiànyì hén hǎo, dàn shíjī hái bù chéngshú.

33

you-Poss　suggestion　very good　but　time　　still　not　ripe

'Your suggestion is good, but the time is still not ripe.'

b. 文章　　雖　　　　短，　卻　很　　有　　力。

wénzhāng suī　　　duǎn, què hěn　yǒu　lì.

article　　although　short　yet　very　have force

'Although the article is short, it is very forceful.'

c. 你　如 有　困難，　我 可以 幫助　　你。

nǐ　rú yǒu　kùnnán,　wǒ kěyǐ bāngzhù nǐ.

you if have problem I　can　help　　you

'If you have a problem, I can help you.'

d. 因　　年代　久遠，　　這件　　事　　已經　　無法　　考察。

yīn　　niándài jiúyuǎn,　zhè-jiàn shì　yǐjīng　wúfǎ　kǎochá.

because age　　remote.past this-Cl　matter already no.way check

'Because it was in the remote past, there is no ways to check this matter.'

Third, for clausal conjunctions that occur in pairs, the first member of the pair may appear before or after the subject (Yip and Rimmington 2004: ch. 22.2; see also Shi 1986: sec. 3.7, McCawley 1988, Gasde and Paul 1996, Tsao 1996, Zhou 2002: ch. 5, Zhang 2009).

(77) a. 要是　你　不　舒服，就　　別　來　　了。

yàoshì nǐ　bù　shūfu, jiù　bié lái　le.

if　　you not well　then not come Prt

'If you are not well, then don't come.'

b. 你　　要是　不　舒服，　就　　別　來　　了。

nǐ　　yàoshì bù　shūfu,　jiù　bié lái　le.

you if　　not well　　then not come Prt

'If you are not well, then don't come.'

(78) a. 雖然　　他 身體 不　好，但是　很少　　請假。

suīrán　tā shēntǐ bù　hǎo, dànshì hénshǎo qǐng-jià.

although he body not　good but　　rarely　request-leave

'Although he wasn't well, he rarely requested leave.'

b. 他 雖然　　身體　不　好，但是　很少　　請假。

tā suīrán　shēntǐ　bù hǎo, dànshì hénshǎo qǐng-jià.

he although body　not good but　rarely　request-leave

'Although he wasn't well, he rarely requested leave.'

Finally, it is worth mentioning that in Chinese, clauses can be conjoined without the presence of any explicit clausal conjunctions (Li and Thompson 1981: ch. 23, Yip and Rimmington 2004: ch. 22.2).

(79) a. (如果) 你　去，我　(就)　跟　你　去。
　　　(rúguǒ) nǐ　qù, wǒ (jiù) gēn　nǐ　qù.
　　　if　you　go　I　then　with　you　go
　　　'If you go, I'll go with you.'

　　b. 他　剛　想　出去　(的時候)，　忽然　下起　大雪　　來　了。
　　　tā　gāng xiǎng chūqù (de shíhòu), hūrán　xiàqǐ dà-xué　　lái　le.
　　　he just want go.out DE time　suddenly fall heavy-snow come Prt
　　　'When he was just thinking of going out, it suddenly began to snow heavily.'

3. Categories unique to Chinese

In this section, I discuss three categories that are available in Chinese but absent in the Indo-European languages: classifiers, localizers and sentence-final particles.

3.1 Classifiers

Classifiers (also referred to as "numeral classifiers") are a salient feature of classifier languages like Chinese. They are regarded as a semi-lexical category because many of them are historically derived from nouns. In the discussion of count and mass nouns in sections 2.1.2.1–2.1.2.2, I have implicitly assumed that sortal classifiers should be distinguished from measure words. However, whether sortal classifiers ought to be distinguished from measure words remains a point of contention in the literature. In fact, two traditional views can be identified. One tradition does not differentiate between sortal classifiers and measure words. For instance, Chao (1968: 584–620) regards classifiers as individual measures and subsumes them under the rubric of "measure words." A similar view is held by Li and Thompson (1981: 106), who state that "any measure word can be a classifier." One piece of evidence for this view is that both sortal classifiers (e.g., *wèi* 位, *běn* 本, *tiáo* 條 and *duǒ* 朵) and measure words (e.g., *chǐ* 尺 'foot', *bàng* 磅 'pound', *jiālún* 加侖 'gallon' and *gōngjīn* 公斤 'kilo') can appear between a numeral and a noun.

(80) a. 一位　　客人　　　　　　　　b. 三本　　書
　　　yí-wèi　kèrén　　　　　　　　　　sān-běn　shū

one-Cl   guest | three-Cl   book

    'a guest'   'three books'

  c. 兩條　　　蛇   d. 十朵　　花

    liáng-tiáo shé   shí-duǒ huā

    two-Cl   snake   ten-Cl   flower

    'two snakes'   'ten flowers'

(81) a. 一尺　　布   b. 三磅　　　糖

    yì-chǐ   bù   sān-bàng   táng

    one-foot cloth   three-pound   sugar

    'one foot of cloth'   'three pounds of sugar'

  c. 兩加侖　　　汽油   d. 十公斤　　米

    liǎng-jiālún   qìyóu   shí-gōngjīn   mǐ

    two-gallon   petrol   ten-kilo   rice

    'two gallons of petrol'   'ten kilos of rice'

The other tradition holds that measure words are distinguishable from sortal classifiers. One piece of evidence for this view is that measure words always allow the insertion of *de* 的, while sortal classifiers tend to resist it (Tai and Chao 1994, Kuo 1998, Cheng and Sybesma 1999).[17]

(82) a. 一尺　　的　布   b. 三磅　　　的　糖

    yì-chǐ   de   bù   sān-bàng   de   táng

    one-foot DE cloth   three-pound DE sugar

    'one foot of cloth'   'three pounds of sugar'

  c. 兩加侖　　　的　汽油   d. 十公斤　　的　米

    liǎng-jiālún de   qìyóu   shí-gōngjīn de   mǐ

    two-gallon   DE petrol   ten-kilo   DE rice

    'two gallons of petrol'   'ten kilos of rice'

---

[17] Note that although sortal classifiers have a tendency to resist the insertion of *de* 的, as illustrated by the ill-formedness of (83a–d), this should not be taken to mean that sortal classifiers never allow the insertion of *de* 的. As revealed by Li (2013) and Shi (2013), there are many counterexamples showing that *de* 的 can be inserted between a sortal classifier and the following noun. In particular, as noted in Shi (2013), insertion of *de* 的 becomes possible when the numeral+sortal classifier+*de* 的 is understood as a modifier of some kind, as shown in (i).

(i)　一套　二十本　　的　紅樓夢

    yí-tào èrshí-běn de Hónglóumèng

    one-Cl twenty-Cl DE Dream.of.the.Red.Chamber

    'an edition of Dream of the Red Chamber that consists of twenty volumes'

(83) a. *一位　　的　客人　　　　　b. *三本　　　的　書
　　　*yí-wèi　de　kèrén　　　　　　*sān-běn　de　shū
　　　 one-Cl　DE　guest　　　　　　 three-Cl　DE　book
　　c. *兩條　　　的　蛇　　　　　　d. *十朵　　　的　花
　　　*liǎng-tiáo　de　shé　　　　　　*shí-duǒ　de　huā
　　　 two-Cl　　DE　snake　　　　　　 ten-Cl　　DE　flower

Additional support for the distinction between sortal classifiers and measure words comes from their different semantic functions. According to Tai (1990: 312), "[a] classifier categorizes a class of nouns by picking out some salient perceptual properties, whether physically or functionally based, which are permanently associated with the entities named by the class of nouns; a measure word does not categorize but denotes the quantity of the entity named by a noun." The semantic difference becomes more transparent if we compare the sortal classifier *tiáo* 條 in *yì-tiáo shé* 一條蛇 'a snake' with the measure word *chǐ* 尺 'foot' in *yì-chǐ bù* 一尺布 'a foot of cloth': *tiáo* 條 picks out the salient properties of *shé* 蛇 'snake' (i.e., it has a long and cylindrical body), whereas *chǐ* 尺 'foot' does not pick out any salient properties of *bù* 布 'cloth', nor does it categorize a particular type of cloth. Rather, it denotes the quantity.

The different semantic functions of sortal classifiers and measure words are also shown by their selectional restrictions. In particular, while sortal classifiers can only be used to classify a limited and specific set of nouns (e.g., count nouns; see section 2.1.2.1), measure words can be used with a wide variety of nouns (Tai 1990). For instance, container measure words such as *xiāng* 箱 'box' and *dài* 袋 'bag' can be used with count nouns as well as mass nouns.

(84) a. 一箱　　書　　　　　　　　b. 三袋　　　蘋果
　　　 yì-xiāng　shū　　　　　　　　 sān-dài　píngguǒ
　　　 one-box　book　　　　　　　　three-bag　apple
　　　 'one box of books'　　　　　　'three bags of apples'

(85) a. 一箱　　酒　　　　　　　　b. 三袋　　　米
　　　 yì-xiāng　jiǔ　　　　　　　　 sān-dài　mǐ
　　　 one-box　wine　　　　　　　　three-bag　rice
　　　 'one box of wine'　　　　　　'three bags of rice'

In light of these arguments, I follow the second view and maintain that sortal classifiers should be distinguished from measure words. I discuss sortal classifiers and

measure words in the following sections.

3.1.1 Sortal classifiers

Sortal classifiers often reflect the intrinsic features of the nouns they classify. Somewhat similar to gender in the Indo-European languages, the choice of classifiers is to some extent predictable from the meaning of the noun, especially when the classifiers are encoded with specific semantic information, such as shape or animacy. Let us consider some common sortal classifiers that classify nouns in terms of shape. These can be divided into three subclasses: those denoting long and narrow entities (86), those denoting round and oval entities (87) and those denoting entities with a flat surface (88).

(86) Sortal classifiers denoting long and narrow entities:
   a. zhī 支: yì-zhī xuějiā 一支雪茄 'a cigar', yì-zhī làzhú 一支蠟燭 'a candle', yì-zhī qiāng 一支槍 'a gun', yì-zhī jiàn 一支箭 'an arrow', etc.
   b. gēn 根: yì-gēn zhēn 一根針 'a needle', yì-gēn xiàn 一根线 'a thread', yì-gēn tóufà 一根頭髮 'a hair', yì-gēn huǒchái 一根火柴 'a match', yì-gēn xiāngcháng 一根香腸 'a sausage', yì-gēn zhúzi 一根竹子 'a piece of bamboo', etc.
   c. tiáo 條: yì-tiáo chóng 一條蟲 'a worm', yì-tiáo shé 一條蛇 'a snake', yì-tiáo yú 一條魚 'a fish', yì-tiáo shéngzi 一條繩子 'a rope', yì-tiáo hé 一條河 'a river', yì-tiáo tuǐ 一條腿 'a leg', yì-tiáo huángguā 一條黃瓜 'a cucumber', yì-tiáo chuán 一條船 'a boat', yì-tiáo gǒu 一條狗 'a dog', etc.

(87) Sortal classifiers denoting round and oval entities:
   a. kē 顆: yì-kē zhēnzhū 一顆珍珠 'a pearl', yì-kē zhǒngzi 一顆種子 'a seed', yì-kē zhàdàn 一顆炸彈 'a bomb', yì-kē zǐdàn 一顆子彈 'a bullet', yì-kē shǒuliúdàn 一顆手榴彈 'a hand grenade', yì-kē xīn 一顆心 'a heart', yì-kē yáchǐ 一顆牙齒 'a tooth', yì-kē xīng 一顆星 'a star', yì-kē tang 一顆糖 'a piece of candy', etc.
   b. lì 粒: yí-lì mǐ 一粒米 'a grain of rice', yí-lì dòuzi 一粒豆子 'a bean', yí-lì huāshēng 一粒花生 'a peanut', yí-lì pútáo 一粒葡萄 'a grape', yí-lì shāzi 一粒沙子 'a grain of sand', etc.
   c. tuán 團: yì-tuán máoxiàn 一團毛線 'a ball of wool', yì-tuán miàn 一團麵 'a ball of dough', yì-tuán huǒ 一團火 'a fire', yì-tuán yún 一團雲 'a dense patch of cloud'

(88)   Sortal classifiers denoting entities with a flat surface:
   a.   zhāng 張: yì-zhāng zhǐ 一張紙 'a piece of paper', yì-zhāng biǎo 一張表 'a chart', yì-zhāng piào 一張票 'a ticket', yì-zhāng yóupiào 一張郵票 'a stamp', yì-zhāng chuáng 一張牀 'a bed', yì-zhāng zhuōzi 一張桌子 'a table', etc.
   b.   piàn 片: yí-piàn yèzi 一片葉子 'a leaf', yí-piàn miánbāo 一片麵包 'a slice of bread', yí-piàn ānmiányào 一片安眠藥 'a sleeping tablet', yí-piàn tǔdì 一片土地 'a stretch of land', yí-piàn wāngyáng 一片汪洋 'a vast sheet of water', etc.
   c.   miàn 面: yí-miàn jìngzi 一面鏡子 'a mirror', yí-miàn luó 一面鑼 'a gong', yí-miàn qí 一面旗 'a flag', etc.

Animacy also plays a role in the choice of sortal classifier. For instance, animate beings, including mammals, birds and insects, are commonly classified by *zhī* 隻, as shown in (89)–(91), whereas plants are generally classified by *kē* 棵, as shown in (92).

(89)   a.   一隻　　羊
            yì-zhī　　yáng
            one-Cl　sheep
            'a sheep'
       c.   三隻　　老虎
            sān-zhī　láohǔ
            three-Cl　tiger
            'three tigers'
       b.   兩隻　　狼
            liǎng-zhī　láng
            two-Cl　　wolf
            'two wolves'
       d.   六隻　　老鼠
            liù-zhī　láoshǔ
            six-Cl　mouse
            'six mice'

(90)   a.   一隻　　鳥
            yì-zhī　niǎo
            one-Cl　bird
            'a bird'
       c.   三隻　　麻雀
            sān-zhī　máquè
            three-Cl　sparrow
            'three sparrows'
       b.   四隻　　燕子
            sì-zhī　yànzi
            four-Cl　swallow
            'four swallows'
       d.   十隻　　雞
            shí-zhī　jī
            ten-Cl　chicken
            'ten chickens'

(91)   a.   一隻　　甲蟲
            yì-zhī　jiǎchóng
            one-Cl　beetle
       b.   兩隻　　蜻蜓
            liǎng-zhī　qīngtíng
            two-Cl　dragonfly

'a beetle'   'two dragonflies'

   c. 三隻   蝴蝶   d. 五隻   毛蟲
      sān-zhī húdié   wǔ-zhī   máochóng
      three-Cl butterfly   five-Cl   caterpillar
      'three butterflies'   'five caterpillars'

(92) a. 一棵   樹   b. 兩棵   蔥
      yì-kē   shù   liǎng-kē   cōng
      one-Cl   tree   two-Cl   spring.onion
      'a tree'   'two spring onions'

   c. 三棵   麥子   d. 四棵   草
      sān-kē màizi   sì-kē   cǎo
      three-Cl wheat   four-Cl grass
      'three stalks of wheat'   'four tufts of grass'

The most versatile sortal classifier is *ge* 個, which can be used to classify a wide range of nouns, including nouns denoting humans (93), inanimate objects (94) and abstract concepts (95).

(93) a. 一個   人   b. 兩個   朋友
      yì-ge   rén   liǎng-ge péngyǒu
      one-Cl   person   two-Cl   friend
      'a person'   'two friends'

   c. 三個   老師   d. 六個   醫生
      sān-ge   lǎoshī   liù-ge   yìshēng
      three-Cl teacher   six-Cl   doctor
      'three teachers'   'six doctors'

(94) a. 一個   手錶   b. 三個   西瓜
      yí-ge   shóubiǎo   sān-ge   xīguā
      one-Cl   watch   three-Cl   watermelon
      'a watch'   'three watermelons'

   c. 兩個   島   d. 十個   城市
      liǎng-ge dǎo   shí-ge   chéngshì
      two-Cl   island   ten-Cl   city
      'two islands'   'ten cities'

(95) a. 一個   主意   b. 三個   目的

yí-ge	zhǔyì		sān-ge	mùdī

yí-ge   zhǔyì
one-Cl idea
'an idea'

sān-ge   mùdī
three-Cl purpose
'three purposes'

c. 兩個　　願望
liǎng-ge yuànwàng
two-Cl wish
'two wishess'

d. 一個　　機會
yí-ge   jīhuí
one-Cl opportunity
'an opportunity'

In the literature, *ge* 個 has been viewed as a "general classifier" (also referred to as a "neutral classifier"), since it can be used with a wide range of nouns of different semantic properties (Huang and Ahrens 2003). More often, however, particular sets of nouns with common characteristics or belonging to the same type are classified by more specific sortal classifiers rather than *ge* 個 (see Ahrens 1994).

Furthermore, many nouns may be classified by two or more alternative sortal classifiers.

(96) a. 一個　　客人
yí-ge   kèrén
one-Cl guest
'a guest'

b. 一位　　客人
yí-wèi kèrén
one-Cl guest
'a guest'

(97) a. 一個　　窗
yí-ge   chuāng
one-Cl window
'a window'·

b. 一扇　　窗
yí-shàn chuāng
one-Cl window
'a window'

(98) a. 一條　　金魚
yì-tiáo jīnyú
one-Cl goldfish
'a goldfish'

b. 一尾　　金魚
yì-wěi jīnyú
one-Cl goldfish
'a goldfish'

(99) a. 一支　　步槍
yì-zhī bùqiāng
one-Cl rifle
'a rifle'

b. 一杆　　步槍
yì-gān bùqiāng
one-Cl rifle
'a rifle'

(100) a. 一支　　毛筆
yì-zhī máobǐ

b. 一管　　毛筆
yì-guǎn máobǐ

one-Cl   writing.brush   one-Cl   writing.brush
'a writing brush'   'a writing brush'

In many cases, the choice of the classifiers is determined by the register, discourse types, the age and dialectal background of the speakers.

3.1.2   Measure words

Measure words are used to denote the quantity or amount of the entity named by a noun. In Chinese, they can be subdivided into four types: standard measures, collective measures, container measures and generic measures (Chao 1968, Li and Thompson 1981: ch. 4.2.1, Zhu 1982, Yip and Rimmington 2004: ch. 2.8, among others).

3.1.2.1   Standard measures

Standard measure words express nationally or internationally accepted standards of measurement, indicating standards for weight, quantity, volume or size. Typical examples include *jīn* 斤 'catty', *dǎ* 打 'dozen', *liǎng* 兩 'ounce', *bàng* 磅 'pound', *gōngjīn* 公斤 'kilo', *gōngshēng* 公升 'liter', *chǐ* 尺 'foot' and *jiālún* 加侖 'gallon'.

(101) a.   一斤　　白菜   b.   兩打　　雞蛋
　　　　　yì-jīn　　báicài   liáng-dǎ　jīdàn
　　　　　one-catty   Chinese.cabbage   two-dozen egg
　　　　　'a catty of Chinese cabbage'   'two dozens eggs'

　　　c.   三兩　　　銀子   d.   五磅　　　茶葉
　　　　　sān-liǎng　yínzi   wǔ-bàng　chá-yè
　　　　　three-ounce   silver   five-pound   tea-leaf
　　　　　'three ounces of silver'   'five pounds of tea'

　　　e.   四公斤　　蘋果   f.   六公升　　　水
　　　　　sì-gōngjīn　píngguǒ   liù-gōngshēng   shuǐ
　　　　　four-kilo   apple   six-liter　　　water
　　　　　'four kilos of apples'   'six liters of water'

3.1.2.2   Collective measures

Collective measure words resemble collective nouns in English. In most cases,

specific collective measures are used for nouns denoting humans and inanimate beings, whereas *qún* 群 'a group' is typically used for nouns denoting non-human animate beings such as mammals and insects.

(102) a. 一班　　　年輕　　人　　　　　b. 一隊　　　戰士
　　　　yì-bān　　niánqīng　rén　　　　　 yí-duì　　zhànshì
　　　　one-bunch　young　　person　　　　one-file　soldier
　　　　'a bunch of young people'　　　　　'a file of soldiers'

　　　c. 一幫　　　孩子　　　　　　　　　d. 一股　　　土匪
　　　　yì-bāng　　háizi　　　　　　　　　 yì-gǔ　　túfěi
　　　　one-group　child　　　　　　　　　one-gang　bandit
　　　　'a group of children'　　　　　　　'a gang of bandits'

(103) a. 一束　　　花　　　　　　　　　　b. 一串　　　鑰匙
　　　　yí-shù　　huā　　　　　　　　　　 yí-chuàn　yàoshí
　　　　one-bunch　flower　　　　　　　　one-bunch　key
　　　　'a bunch of flowers'　　　　　　　'a bunch of keys'

　　　c. 一挂　　　鞭炮　　　　　　　　　d. 一筆　　　錢
　　　　yí-guà　　biānpào　　　　　　　　yì-bǐ　　qián
　　　　one-string　firecracker　　　　　　one-sum　money
　　　　'a string of firecrackers'　　　　　'a sum of money'

(104) a. 一群　　　羊　　　　　　　　　　b. 一群　　　牛
　　　　yì-qún　　yáng　　　　　　　　　 yì-qún　　niú
　　　　one-flock　sheep　　　　　　　　one-herd　cow
　　　　'a flock of sheep'　　　　　　　　'a herd of cows'

　　　c. 一群　　　蜜蜂　　　　　　　　　d. 一群　　　螞蟻
　　　　yì-qún　　mìfēng　　　　　　　　yì-qún　　máyǐ
　　　　one-swarm　bee　　　　　　　　　one-swarm　ant
　　　　'a swarm of bees'　　　　　　　　'a swarm of ants'

However, in some cases, nouns denoting humans, non-human animate beings or inanimate beings may occur with the same collective measure words. Two typical examples are *qún* 群 and *pī* 批: the former denotes 'a crowd' or 'a group' and is compatible with nouns denoting humans or non-human animate beings such as mammals, fish and insects, as shown in (105a–f), whereas the latter denotes 'a group', 'a batch' or 'a pile' and is compatible with nouns denoting humans or inanimate beings, as in (106a–d).

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(105) a. 一群　　　人
　　　yì-qún　　rén
　　　one-crowd　person
　　　'a crowd of people'

b. 一群　　　小孩
　　yì-qún　　xiǎohái
　　one-crowd　child
　　'a crowd of children'

c. 一群　　　狼
　　yì-qún　　láng
　　one-pack　wolf
　　'a pack of wolves'

d. 一群　　　魚
　　yì-qún　　yú
　　one-shoal　fish
　　'a shoal of fish'

e. 一群　　　蜜蜂
　　yì-qún　　mìfēng
　　one-swarm　bee
　　'a swarm of bees'

f. 一群　　　螞蟻
　　yì-qún　　máyǐ
　　one-swarm　ant
　　'a swarm of ants'

(106) a. 一批　　　人
　　　yì-pī　　rén
　　　one-group　person
　　　'a group of people'

b. 一批　　　學生
　　yì-pī　　xuésheng
　　one-group　student
　　'a group of students'

c. 一批　　　貨
　　yì-pī　　huò
　　one-batch　goods
　　'a batch of goods'

d. 一批　　　文件
　　yì-pī　　wénjiàn
　　one-pile　document
　　'a pile of documents'

In addition, there are specific collective measures such as *duì* 對 and *shuāng* 雙, both meaning 'a pair', that are used with nouns that denote humans, non-human animate entities or inanimate entities that come in pairs:

(107) a. 一對　　　夫婦
　　　yí-duì　　fū-fù
　　　one-pair　husband-wife
　　　'a couple'

b. 一對　　　天鵝
　　yí-duì　　tiāné
　　one-pair　swan
　　'a pair of swans'

c. 一對　　　枕頭
　　yí-duì　　zhěntóu
　　one-pair　pillow
　　'a pair of pillows'

d. 一對　　　耳環
　　yí-duì　　ěr-huán
　　one-pair　ear-ring
　　'a pair of ear-rings'

(108) a. 一雙　　　手
　　　yì-shuāng　shǒu
　　　one-pair　hand

b. 一雙　　　眼睛
　　yì-shuāng　yǎnjing
　　one-pair　eye

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‘a pair of hands’   ‘a pair of eyes’

c. 兩雙　　　鞋　　　　　　　　d. 三雙　　　襪子

  liǎng-shuāng　xié　　　　　　　　sān-shuāng　wàzi

  two-pair　　　shoe　　　　　　　　one-pair　　sock

  ‘two pairs of shoes’　　　　　　　‘three pairs of socks’

Note that even though English nouns such as *trousers*, *scissors* and *spectacles* are treated as pairs (*a pair of trousers*, *a pair of scissors*, *a pair of spectacles*), they are incompatible with *duì* 對 or *shuāng* 雙 in Chinese, as the ill-formedness of (109a), (110a) and (111a) shows. Instead, they are classified by sortal classifiers, as shown in (109b), (110b) and (111b).

(109) a. *一對/一雙　　　褲子　　　　　b. 一條　　　褲子

    *yí-duì/yì-shuāng　kùzi　　　　　　　yì-tiáo　　kùzi

    one-pair/one-pair　trousers　　　　　one-Cl　　trousers

    Intended: ‘a pair of trousers’　　　　‘a pair of trousers’

(110) a. *一對/一雙　　　剪刀　　　　　b. 一把　　　剪刀

    *yí-duì/yì-shuāng　jiǎndāo　　　　　yì-bǎ　　　jiǎndāo

    one-pair/one-pair　scissors　　　　　one-Cl　　scissors

    Intended: ‘a pair of scissors’　　　　‘a pair of scissors’

(111) a. *一對/一雙　　　眼鏡　　　　　b. 一副　　　眼鏡

    *yí-duì/yì-shuāng　yǎnjìng　　　　　yí-fù　　　yǎnjìng

    one-pair/one-pair　spectacles　　　　one-Cl　　spectacles

    Intended: ‘a pair of spectacles’　　　‘a pair of spectacles’

Indeterminate numbers or amounts may also be expressed through the use of the collective measure words *yìxiē* 一些 ‘some’ and *yìdiǎn* 一點 ‘a little’: the former is applicable to count and mass nouns (112a–b), whereas the latter is applicable to mass nouns (113a–b) (see section 2.1.2.2).

(112) a. 一些　　朋友　　　　　　　　b. 一些　　酒

    yìxiē　　péngyǒu　　　　　　　　yìxiē　　jiǔ

    some　　friend　　　　　　　　　some　　wine

    ‘some friends’　　　　　　　　　‘some wine’

(113) a. 一點　　酒　　　　　　　　　　b. 一點　　牛奶

yìdiǎn jiǔ	yìdiǎn niúnǎi
a.little wine	a.little milk
'a little wine'	'a little milk'

3.1.2.3 Container measures

Container measure words are typically used with nouns denoting food and drink. Typical examples include *bēi* 杯 'cup', *píng* 瓶 'bottle', *hé* 盒 'box', *guō* 鍋 'pot', *wǎn* 碗 'bowl', *xiāng* 箱 'box', *guàn* 罐 'can', *hú* 壺 '(tea) pot', *dài* 袋 'bag' and *bāo* 包 'packet', among many others (Chao 1968, Li and Thompson 1981: 109, Zhu 1982). Some illustrative examples are given below:

(114) a. 一杯　　茶　　　　　　　b. 兩瓶　　　酒
　　　yì-bēi　　chá　　　　　　　　liǎng-píng　jiǔ
　　　one-cup　tea　　　　　　　　two-bottle　wine
　　　'a cup of tea'　　　　　　　　'two bottles of wine'

　　c. 三盒　　巧克力　　　　　　d. 一鍋　　燉肉
　　　sān-hé　　qiǎokèlì　　　　　　yì-guō　　dùnròu
　　　three-box　chocolate　　　　　one-pot　stew
　　　'three boxes of chocolate'　　'a pot of stew'

　　e. 四碗　　飯　　　　　　　　f. 六箱　　書
　　　sì-wǎn　　fàn　　　　　　　　liù-xiāng　shū
　　　four-bowl　rice　　　　　　　six-box　　book
　　　'four bowls of rice'　　　　　'six boxes of books'

Note that these container measure words can be used as nouns in their own right, in which case they are classified by sortal classifiers and some of them must be followed by the suffix *-zi* 子 (see Li and Thompson 1981: 42–43 for detailed discussion of *-zi* 子; see also Cheng 2009).

(115) a. 一個　　杯子　　　　　　b. 兩個　　瓶子
　　　yí-ge　　bēizi　　　　　　　liǎng-ge　píngzi
　　　one-Cl　cup　　　　　　　　two-Cl　bottle
　　　'a cup'　　　　　　　　　　'two bottles'

　　c. 三個　　盒子　　　　　　d. 一個　　鍋
　　　sān-ge　　hézi　　　　　　　yí-ge　　guō
　　　three-Cl　box　　　　　　　one-Cl　pot
　　　'three boxes'　　　　　　　'a pot'

e. 四個　　碗
　　sì-ge　　wǎn
　　four-Cl　bowl
　　'four bowls'

f. 六個　　箱子
　　liù-ge　xiāngzi
　　six-Cl　box
　　'six boxes'

　　　Another type of container measure word may use a body part or an enclosed area as a temporary "container." Such words are typically preceded by the numeral *yī* 一 'one' and can be optionally followed by *de* 的 (Chao 1968, Li and Thompson 1981: 111–112).

(116) a. 一臉　　(的)　灰
　　　　yì-liǎn　(de)　huī
　　　　one-face　DE　dust
　　　　'a faceful of dust'

b. 一屋子　　(的)　煙
　　yì-wūzi　(de)　yān
　　one-house　DE　smoke
　　'a houseful of smoke'

c. 一頭　　(的)　白　　髮
　　yì-tóu　(de)　bái　fà
　　one-head　DE　white　hair
　　'a headful of grey hair'

d. 一地　　(的)　麵粉
　　yí-dì　(de)　miànfěn
　　one-floor　DE　flour
　　'a floorful of flour'

e. 一肚子　　(的)　氣
　　yí-dùzi　(de)　qì
　　one-stomach　DE　anger
　　'a stomachful of grievance'

f. 一桌　　(的)　客人
　　yì-zhuō　(de)　kèrén
　　one-table　DE　guest
　　'a tableful of guests'

Since any noun denoting a body part or an enclosed area can serve as a temporary container measure, this type of container measure word forms an open class. This derivation is akin to suffixing *-ful* to nouns to derive measure words in English (e.g., *house* → *houseful*, *head* → *headful*).

3.1.2.4 Generic measures

Generic measure words, denoting types and kinds, can be used with count nouns, mass nouns and abstract nouns. Typical examples are *zhǒng* 種 'kind', *lèi* 類 'category' and *yàng* 樣 'type'.

(117) a. 一種　　水果
　　　　yì-zhǒng　shuíguǒ
　　　　one-kind　fruit
　　　　'a kind of fruit'

b. 兩種　　　蔬菜
　　liáng-zhǒng　shūcài
　　two-kind　　vegetable
　　'two kinds of vegetables'

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c. 四種　　酒
sì-zhóng　jiǔ
four-kind　wine
'four kinds of wine'

d. 一種　　病
yì-zhǒng　bìng
one-kind　illness
'a kind of illness'

(118) a. 這類　　動物
zhè-lèi　dòngwù
this-species　animal
'this species of animal'

b. 這類　　紅酒
zhè-lèi　hóng-jiǔ
this-kind　red-wine
'this kind of red wine'

c. 這類　　問題
zhè-lèi　wèntí
this-genre　problem
'this genre of problem'

d. 這類　　角色
zhè-lèi　juésè
this-kind　role
'this kind of role'

(119) a. 幾樣　　東西
jǐ-yàng　dōngxi
several-kind　thing
'several kinds of things'

b. 各樣　　商品
gè-yàng　shāngpǐn
different-kind　commodity
'several kinds of commodities'

c. 幾樣　　飯菜
jǐ-yàng　fàn-cài
several-kind　rice-vegetable
'several kinds of food'

d. 四樣　　食物
sì-yàng　shíwù
four-kind　food
'four kinds of food'

3.2 Localizers

Localizers (also referred to as *fāngwèicí* 方位詞 in Zhu 1982: 40) express the spatial location of the entities denoted by nouns. Most localizers are monosyllabic: for example, *shàng* 上 'up', *xià* 下 'down', *qián* 前 'front', *hòu* 後 'back', *lǐ* 裏 'inside', *wài* 外 'outside', p*áng* 旁 'side' and *nèi* 內 'inside' (Chao 1968, Li and Thompson 1981: ch. 11, Zhu 1982: ch. 4.4, Chappell and Peyraube 2008). Most of the disyllabic localizers are derived from the monosyllabic ones through the addition of suffixes such as *-bian* 邊, *-mian* 面 and *-tou* 頭 (Chao 1968, Li and Thompson 1981: ch. 11, Zhu 1982: ch. 4.4, Chappell and Peyraube 2008). Representative localizers are listed in Table 3 (adapted from Li and Thompson 1981: 391 and Zhu 1982: 40–41).

Table 3. Examples of localizers in Chinese

Localizers				Gloss
shàng 上	*shàngbian* 上邊	*shàngmian* 上面	*shàngtou* 上頭	'on top of, above'
xià 下	*xiàbian* 下邊	*xiàmian* 下面	*xiàtou* 下頭	'under, below'
lǐ 裏	*lǐbian* 裏邊	*lǐmian* 裏面	*lǐtou* 裏頭	'in, inside'
wài 外	*wàibian* 外邊	*wàimian* 外面	*wàitou* 外頭	'outside'
qián 前	*qiánbian* 前邊	*qiánmian* 前面	*qiántou* 前頭	'in front of'
hòu 后	*hòubian* 後邊	*hòumian* 後面	*hòutou* 後頭	'in back of, behind'
páng 旁	*pángbian* 旁邊			'beside'
zhōngjiā 中間				'in the center of'
	zuǒbian 左邊	*zuǒmian* 左面		'left of'
	yòubian 右邊	*yòumian* 右面		'right of'
dōngbù 東部	*dōngbian* 東邊	*dōngmian* 東面		'east of'
nánbù 南部	*nánbian* 南邊	*nánmian* 南面		'south of'
xībù 西部	*xībian* 西邊	*xīmian* 西面		'west of'
běibù 北部	*běibian* 北邊	*běimian* 背面		'north of'
nèi 內				'inside'

In terms of distribution, localizers are preceded by a noun phrase, as shown in the generalized schema (120) (Chao 1968; see also Li and Thompson 1981: ch. 11) and illustrated in (121).

(120) Noun Phrase + Localizer

(121) a. 他 在 房子 裏 修理 電視機。
     tā zài fángzi li xiūlǐ diànshìjī.
     he at room inside repair television
     'He fixed the television inside the room.'
   b. 車子 停 在 學校 外邊。
     chēzi tíng zài xuéxiào wàibian.
     car stop at school outside
     'The car is parked outside the school.'

An important debate about localizers concerns their categorial status. As noted by Chappell and Peyraube (2008), scholars have entertained almost every possibility regarding the categorial status of localizers. For instance, localizers have been analyzed as adjectives (Ma 1898: ch. 3), adverbs (Lü 1947, Li and Liu 1955), nominal suffixes (Cartier 1972), postpositions forming a discontinuous constituent with the prepositions they frequently co-occur with (Hagège 1975: 220ff., Peyraube 1980: 53ff.; see also Tai 1973, Ernst 1988), spatial clitics (Liu 1998, Sun 2008) and even pronouns (Rygaloff 1973: 143). However, a dominant view is that localizers are best analyzed as a subclass of nouns (Zhu 1982, A. Li 1990, Huang, Li and Li 2009: ch. 1). One piece of evidence is that like a noun phrase, the noun phrase plus the following localizer can function as the subject (122a) or object (122b) (Huang, Li and Li 2009:

ch. 1; see also Y. Li 1983, 2003, A. Li 1990).

(122) a. 城　　外　　很　美麗。
　　　　chéng wài　　hén　měilì.
　　　　city　outside very　beautiful
　　　　'The outside of the city is beautiful.'
　　b. 他　去過　　城　　外。
　　　　tā　qù-guo　chéng wài.
　　　　he　go-Exp　city　outside
　　　　'He has been to the outside of the city.'

Another piece of evidence is that like a noun phrase, the noun phrase plus the localizer can be preceded by the preposition *zài* 在 'at' (Huang, Li and Li 2009: ch. 1).

(123) a. 他 在 房　　裏　　修理　電視機。
　　　　tā zài fáng　li　　xiūlǐ　diànshìjī.
　　　　he at　room　inside　repair television
　　　　'He fixed the television inside the room.'
　　b. 他 在 這個　　房子　修理　　電視機。
　　　　tā zài zhè-ge　fángzi xiūlǐ　diànshìjī.
　　　　he at　this-Cl　room　repair television
　　　　'He fixed the television in this room.'

Despite these similiarities, there are reasons for distinguishing localizers from nouns. For one thing, whereas nouns can be preceded by a [Numeral + Classifier] sequence (see section 2.1), localizers cannot. For another, if localizers were nouns, they should always be able to function as subject or object on their own without the preceding noun phrase, but they cannot (cf. (122)).[18]

(124) a. *外　　很　　美麗。
　　　　*wài　　hén　měilì.
　　　　outside　very　beautiful
　　　　Intended: 'The outside is beautiful.'
　　b. *他 去過　　外。

---

[18] Note that the sentences in (124a–b) become well-formed if the disyllabic localizer *wàimian* 外面 'outside' is used instead. However, this fact does not suffice to undermine the arguments for differentiating localizers from nouns, since localizers, whether monosyllabic or disyllabic, are always incompatible with [Numeral + Classifier] sequences.

```
*tā    qù-guo    wài.
 he    go-Exp    outside
 Intended: 'He has been to the outside.'
```

For these reasons, I adopt the view that localizers should be regarded as an autonomous category, in line with Li (1992) and Chu (1997, 2006), among others. The fact that localizers, in particular the disyllabic ones, have properties similar to those of nouns may be attributed to the fact that they are historically derived from nouns (Chappell and Peyraube 2008).

3.3 Sentence-final particles

Sentence-final particles are one of the most distinctive features of Chinese. As their name implies, they are used in sentence-final position, serving various semantic and pragmatic functions. In the following sections, I examine the semantic and pragmatic functions of six sentence-final particles in Chinese, namely *le* 了, *ne* 呢, *ma* 嗎, *ba* 吧, *ou* 喔 and *a/ya* 啊/呀 (Li and Thompson 1981: ch. 7; see also Chao 1968, Zhu 1982).

3.3.1 le 了

As noted by Li and Thompson (1981: ch. 7), the sentence-final *le* 了 is different from other sentence-final particles in that it can be followed by another sentence-final particle, such as *a* 啊, *ou* 喔 or the yes-no question particle *ma* 嗎.

```
(125) Q: 他 是 學生     嗎？
         tā shì xuésheng ma?
         he be student   Q
          'Is he a student?'
      A: 他 當然     是 了 啊。
         tā dāngrán    shì le a.
         he of.course  be Prt Prt
         'Of course he is!'

(126)    我 告訴  他 那件  事    了 喔。
         wǒ gàosù tā nà-jiàn shì  le ou.
         I  tell   him that-Cl matter Prt Prt
         'I told him about that matter.'
```

(127)　　他 去 買　 東西　 了 嗎？

　　　　　tā qù mǎi dōngxi le ma?

　　　　　he go· buy thing Prt Q

　　　　　'Did he go shopping?'

　　　In terms of its semantic and pragmatic functions, scholars have noted that the sentence-final *le* 了 can mark a change of state or indicate that what is expressed is contrary to expectation (Chao 1968, Li and Thompson 1981, Ross 1995, Sybesma 1999, Soh 2009). The change-of-state reading becomes more transparent when we compare sentences with and without this particle.[19]

(128) a.　他 當了　　　 父親。

　　　　　tā dāng-le　　 fùqīn.

　　　　　he become-Perf father

　　　　　'He became a father.'

　　 b.　他 當了　　　 父親 了。

　　　　　tā dāng-le　　 fùqīn le.

　　　　　he become-Perf father Prt

　　　　　'He is now a father. (He wasn't one before and now he has a child).'

(129) a.　他 不 怕 鬼。

　　　　　tā bú pà guǐ.

　　　　　he not fear ghost

　　　　　'He is not afraid of ghosts.'

　　 b.　他 不 怕 鬼 了。

　　　　　tā bú pà guǐ le.

　　　　　he not fear ghost Prt

　　　　　'He is no longer afraid of ghosts (and he was before).'

Examples (128a) and (129a) are simple declarative sentences, while the addition of the sentence-final *le* 了 in (128b) and (129b) conveys a change of state. More precisely, the addition of the sentence-final *le* 了 in (128b) signals that the person referred to as *tā* 他 'he' was not a father before and has become a father. In (129b), the sentence-final *le* 了 signals a change of state from being afraid of ghosts to no longer being afraid of ghosts.

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[19] As shown in (128b), the sentence-final *le* 了 may co-occur with the perfective aspect marker *-le* 了. For detailed discussion of the similarities and differences between the two and the different analyses of the sentence-final *le* 了, see Chao (1968), Rohsenow (1978), Li and Thompson (1981), Li, Thompson and Thompson (1982), Ross (1995), Sybesma (1999), Lin (2003) and Soh (2009), among others.

As for the contrary-to-expectation reading, consider the following pair of sentences with and without the sentence-final *le* 了 (examples taken from Soh 2009: 632):

(130) a. 這片　　西瓜　　　很　甜。　不 必　加 糖。
　　　　　zhè-piàn xīguā　　hěn tián.　bú bì　jiā táng.
　　　　　this-Cl　watermelon　very sweet　not need add sugar
　　　　　'This watermelon is sweet. It is not necessary to add sugar.'

　　　 b. 這片　　西瓜　　　很　甜　了。不 必　加 糖　　了。
　　　　　zhè-piàn xīguā　　hěn tián le.　bú bì　jiā táng le.
　　　　　this-Cl　watermelon　very sweet Prt　not need add sugar Prt
　　　　　'This watermelon is sweet (contrary to what one may assume/expect). It is not necessary to add sugar (contrary to what one may assume/expect).'

(130a) is a simple declarative sentence asserting that the watermelon is sweet. In contrast, the speaker uttering (130b) not only makes the same assertion, but also implies that someone in the discourse context may think otherwise; the sentence is intended to correct this wrong assumption (see Li and Thompson 1981: 263–270).

3.3.2 ne 呢

The sentence-final particle *ne* 呢 can be used in declarative and interrogative sentences. In declarative sentences, it is mainly used to indicate that the sentence is the speaker's response to some previous claim, expectation or belief on the part of the hearer. Pragmatically, it has the effect of drawing the hearer's attention to the information conveyed by the sentence (Li and Thompson 1981: ch. 7; see also Chao 1968, Hu 1981, Chu 1984, 1985a, b, 1998, Lin 1984, King 1986, Shao 1989, Wu 2005, Li 2006). The following pair of sentences highlights the function of *ne* 呢:

(131) a. 他們　有　五條　　牛。
　　　　　tāmen yóu wǔ-tiáo niú.
　　　　　they　have five-Cl　cow
　　　　　'They have five cows.'
　　　 b. 他們　有　五條　　牛　呢。
　　　　　tāmen yóu wǔ-tiáo niú ne.
　　　　　they　have five-Cl　cow Prt
　　　　　'(Listen,) they have five cows.'

(131a) is a simple declarative sentence asserting that the people referred to as 'they' have five cows. In contrast, the speaker uttering (131b) not only makes the same assertion, but also draws the hearer's attention to this piece of information. It could be a perfect response if the hearer has previously claimed that the people referred to as 'they' do not have anything. In such a context, (131b) could be construed as a response challenging the hearer's expectation.

The sentence-final *ne* 呢 can also be used in four types of interrogative sentences: A-not-A questions (132), disjunctive questions (133), *wh*-questions (134) and truncated questions consisting of only one noun (135B) (Li and Thompson 1981: ch. 7; see also Hu 1981, Chu 1984, 1985a, b, 1998, King 1986, Shao 1989, Jin 1996, Li 2006).

(132)　　他們　　來不來　　　　呢？
　　　　　tāmen　lái-bu-lái　　　ne?
　　　　　they　　come-not-come　Q
　　　　　'Will they come?'

(133)　　你　想　喝　茶　還是　咖啡　呢？
　　　　　nǐ　xiǎn　hē　chá　háishi　kāfēi　ne?
　　　　　you　want　drink　tea　or　　coffee　Q
　　　　　'Do you want tea or coffee?'

(134)　　他們　什麼　　時候　　來　　呢？
　　　　　tāmen　shénme　shíhòu　lái　ne?
　　　　　they　　what　　time　　come　Q
　　　　　'When will they come?'

(135) A: 他　明天　　　要　　去　學校。
　　　　　tā　míngtiān　yào　qù　xuéxiào.
　　　　　he　tomorrow　need　go　school
　　　　　'He needs to go to school tomorrow.'
　　　B: 你　呢？
　　　　　nǐ　ne?
　　　　　you　Q
　　　　　'How about you?'

3.3.3 ma 嗎

Unlike *ne* 呢, which can be used in A-not-A questions, disjunctive questions, *wh*-questions and truncated questions, the sentence-final particle *ma* 嗎 is confined to yes-no questions such as (136) (Li and Thompson 1981: ch. 7, Zhu 1982).

(136)　　你　　想　　她　　嗎？
　　　　nǐ　　xiǎng　tā　　ma?
　　　　you　miss　her　　Q
　　　　'Do you miss her?'

3.3.4 ba 吧

According to Li and Thompson (1981: ch. 7), the sentence-final particle *ba* 吧 signals the speaker's desire to solicit approval or agreement from the hearer with regard to the information conveyed by the sentence (Chao 1968, Zhu 1982: ch. 16; see Han 1995, Chu 1998 and Li 2006 for more detailed discussion and for analyses of the sentence-final *ba* 吧). The particle can be used in different types of speech acts, such as commands (137) and advice (138) (examples taken from Li and Thompson 1981: 307–308).

(137)　　我們　　走　　吧！
　　　　wǒmen　zǒu　ba!
　　　　we　　　go　　Prt
　　　　'Let's go!'

(138)　　你　　想一想　　　　吧！
　　　　nǐ　　xiǎng-yi- xiǎng　　ba!
　　　　you　think-one-think　　Prt
　　　　'Why don't you think about it a little?'

The sentence-final *ba* 吧 can also be used in declarative sentences to solicit agreement or confirmation from the hearer with respect to the information conveyed by the sentence.

(139)　　她　很　　漂亮　　　吧！
　　　　tā　hěn　piàoliang　ba!
　　　　she　very　pretty　　　Prt
　　　　'She is pretty, don't you agree?'

For instance, the speaker uttering (139) intends to solicit agreement from the hearer that the person referred to as 'she' is pretty. This function of *ba* 吧 is comparable to the function of tag questions in English: for example, *She is pretty, isn't she?*, where *isn't she?* is intended to seek the hearer's confirmation of the statement *She is pretty*.

Finally, the sentence-final *ba* 吧 can also be used in interrogative sentences to seek confirmation from the hearer (Zhu 1982: ch. 16).

(140)　　今天　是　星期天　　吧？
　　　　　jīntiān shì Xīngqītiān ba?
　　　　　today be Sunday　　Prt
　　　　　'Today is Sunday, isn't it?'

Example (140) is most naturally used when the speaker is fairly certain that today is Sunday and would like to seek further confirmation from the hearer.

3.3.5 ou 嘔

As noted by Li and Thompson (1981: ch. 7), the sentence-final particle *ou* 嘔 is used to indicate that the sentence preceding *ou* 嘔 is intended to be construed as a friendly warning, showing care and concern on the part of the speaker (see also Chao 1968). In light of its semantic function, *ou* 嘔 can be used to soften a command and convert it into a concerned warning.

(141)　　小心　　嘔！
　　　　　xiǎoxīn ou!
　　　　　careful Prt
　　　　　'Be careful, okay?'

The sentence-final *ou* 嘔 can also appear in conditionals when they are construed as concerned warnings (Li and Thompson 1981: ch. 7).

(142)　　如果　你　吃　太多　　就　會　肚子　　疼　嘔。
　　　　　rúguǒ nǐ chī tàiduō jiù huì dùzi téng ou.
　　　　　if　　you eat too.much then will stomach hurt Prt
　　　　　'Let me tell you, if you eat too much, you'll have a stomachache'

Given the semantic nature of *ou* 嘔, it is commonly found in the speech of adults addressing children (Li and Thompson 1981: ch. 7). For instance, it is perfectly

natural for a mother to utter (142) to warn her child while expressing her concern that her child might have eaten too much.

3.3.6 a/ya 啊/呀

According to Li and Thompson (1981: ch. 7), the sentence-final particle *a/ya* 啊/呀 reduces the forcefulness of the information conveyed by a sentence (Chao 1968, Zhu 1982, Dow 1983; see Shie 1991, Chu 2002 and Wu 2004 for detailed discussion of the discourse functions of the sentence-final *a* 啊). When used in interrogative sentences such as A-not-A questions (143), *wh*-questions (144) and truncated questions with a *wh*-word alone (145), the addition of *a/ya* 啊/呀 has the pragmatic effect of softening the query.

(143)　　你　　去不去　　啊/呀？
　　　　nǐ　　qù-bu-qù　a/ya?
　　　　you　go-not-go　Prt/Prt
　　　　'Will you go?'

(144)　　你　要　　去　哪兒　啊/呀？
　　　　nǐ　yào　　qù　nǎr　　a/ya?
　　　　you　want　go　where　Prt/Prt
　　　　'Where do you want to go?'

(145)　　誰　啊/呀？
　　　　shéi　a/ya?
　　　　who　Prt/Prt
　　　　'Who is it?'

　　A/Ya 啊/呀 can also be used in imperative sentences, serving to reduce the forcefulness of a command (Li and Thompson 1981: ch. 7). This becomes more transparent if we compare the following pair of sentences with and without *a/ya* 啊/呀:

(146) a.　你　　過來！
　　　　　nǐ　　guòlái!
　　　　　you　come
　　　　　'You come here!'
　　　b.　你　　過來　啊/呀！

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nǐ   guòlái a/ya!
you   come Prt/Prt
'You come here.'

(146a) is a simple imperative sentence expressing a command. With the addition of *a/ya* 啊/呀 in (146b), it is interpreted as a suggestion or an encouragement rather than a command.

4. Conclusion

In this chapter, I have provided a comprehensive survey of the categories in Chinese. In particular, we have seen that Chinese has six major categories, including nouns, verbs, adjectives, adverbs, prepositions and conjunctions, which are also available in the Indo-European languages. In addition, I have shown that Chinese possesses three categories that are absent in the Indo-European languages: classifiers, localizers and sentence-final particles. These findings suggest that while some basic categories such as nouns, verbs, adjectives, adverbs, prepositions and conjunctions may potentially be considered as universal, other categories such as classifiers, localizers and sentence-final particles are language-specific and may be viewed as distinctive features of Sinitic languages.

Among the three categories whose categorial status is considered debatable, I have argued that adjectives and localizers are best analyzed as distinct categories, refuting alternative views that take adjectives to be a subclass of verbs and localizers to be a subclass of nouns. As for prepositions, I have demonstrated that they may be analyzed either as a mixed category consisting of verbs and prepositions or as an independent category consisting of prepositions only. Under the latter view, the verbal properties of prepositions can be traced back to their historical origin as verbs.

gratefully acknowledged. As usual, all remaining errors and shortcomings are my own responsibility.

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