Within the framework of Universal Grammar, differences in the syntactic function of verbs in a language may be attributed to their lexical representations. English passives have been analyzed in two ways: Certain passives are lexically derived, where passive verbs exhibit the properties of adjectives; other passives are derived transformationally, where passive verbs undergo syntactic movement.

In this paper, we propose that different derivations of English passives are not language-specific properties. These differences are observed in other languages such as Hebrew (Borer and Wexler [1]), and Chinese. Chinese passives vary in that the syntactic realization reflects lexical properties of the verbs in question. Lexical meaning may determine the form of the associated syntactic constructions. Certain verbs in Chinese passives are verbal in nature, whereas others are adjectival in nature. In order to illustrate the lexical and syntactic derivations of Chinese passives, we shall attempt to distinguish between the essential properties of Chinese verbs and adjectival verbs in the first part of this paper. In the latter part of the paper, comparisons are made between two syntactically different types of Chinese passives. The similarities between the constructions of adjectival verbs and Type II passives indicate that certain Chinese passives are lexical, while others are transformationally derived.

ANALYSIS OF ENGLISH PASSIVES

In current transformational grammar, active and passive sentences are derived from different underlying representations. The deep structures of active and passive sentences have only the verb in common:

(1) a. Mary loved John.
 b. ACTIVE

(2) a. e is loved John by Mary.
 b. PASSIVE

The S-structure of (2) is (3) where John moves to the empty node.

(3) John was loved by Mary.

The active-passive alternation of (1) and (2) is characterized by the lexical transformational operation. The lexical verb love in (1) has been converted to an adjectival passive participle in (2). In sentence (1), John is assigned objective case by the transitive verb loved. But in (2) John is not assigned any case because the word loved is an adjective which cannot assign case, even though it governs John. When John is moved to the empty node in (3), it is assigned nominative case by virtue of being the subject of a tensed clause. The trace of John is not assigned case because adjectives cannot assign case. In this way the requirements of the Case Filter and the NP-Trace condition have been satisfied (cf. [8]). If the word loved in (2) and (3) were treated as a verb as in (1), we would encounter problems. The empty trace of John in (3) would be assigned case by the verb loved, which violates the NP-Trace condition.

Thus, verbs in passive constructions are usually treated as adjectives. Passive participles, like most adjectives, directly govern only one surface argument; the other surface argument is directly governed by the preposition. Verbs in active constructions usually govern two arguments obligatorily.

Wasow [10] proposes that there are two sources of passive participles in
English. Some passive participles are lexical adjectives, while others are verbs. Therefore, there must be two rules in English relating transitive verbs in the active voice to passive constructions. The rule deriving adjectival passives must be a lexical redundancy rule, while the other must be transformational.

Wasow argues that passives whose derived subjects are their underlying direct objects should exhibit adjectival behavior. He also states that when passive participles function as lexical adjectives, they may appear:

(a) in the prenominal position:
   e.g. the open letter
   the opened letter
(b) as complements to certain copula verbs (e.g. seem, act, and look):
   e.g. John seems happy.
   John seems annoyed.
(c) with prefixing of un-
   e.g. He is unlucky in many things.
   The island is uninhabited by humans.
(d) with degree modification by very:
   e.g. Your family is very much respected.

Wasow proposes five kinds of verbal passive participles which require transformational derivation:

(a) Passives of double object constructions.
   e.g. Bill was told (the story).
(b) Passives of the accusative subject constructions.
   e.g. Mary is thought to be a genius.
   We were expected to be model citizens.
(c) Passives of idiom chunks.
   e.g. Advantage is easily taken of John.
(d) Passives of help and thank.
   e.g. John always seems to be helped by his friends.
   John always seems to be thanked by his friends.
(e) Passives followed by predicative expressions like a fool or president.
   e.g. John seems to be considered a fool.

COMPARISONS AMONG CHINESE VERBS

It is not easy to distinguish Chinese verbal passive constructions from adjectival passives. This is because most Chinese adjectives function in the same way as verbs. Most adjectives are a subset of verbs which may function as predicates. Some may take objects. In some grammar books, adjectives are called adjectival descriptive verbs ADV. We will discuss the differences between ADV and other verbs, and analyze these verbs in terms of lexical and transformational processes.

The following properties may be shared uniquely by action verbs AV, stative verbs SV, adjectival descriptive verbs ADV, or shared by all of them.

1. They may appear in the imperative: +[AV], -[SV], -[ADV]/+[ADV] (very few cases and on conditions).

   (4) a. Qing wu xi [AV] yan.
       Please not smoke cigarette.
   b. Qing anjing [ADV].
       Please quiet.
   c.* Qing dòng/zhidào/xihuan [SV] zheige wenti.
       Please understand/know/like this question.
   d.* Qing zhēngqi/ganjing/qinlao/yōnggān [ADV].
       Please tidy/clean/hardworking/brave.

2. They may be modified by degree adverbs such as hén, ‘very’, tài, ‘extremely’, and feichang, ‘especially’: -[AV], +[SV] on the condition that [SV] is followed by an object or a complement, +[ADV].

   (5) a.* Wo hén mái [AV] zheixie shì.
       I very much buy these books.
   b. ??Wo hén zhidào [SV].
       I very know.
       I very understand/this reason.
   d. Wǒ hěn/tái/feichang gāoxìng [ADV].
       I very/extremely/especially happy.

3. They may modify nouns: +[AV], +[SV] both on the condition that they be VP in the form of V+O, V+ADV, or V+PP,+[ADV].

   (6) a.* Chì [AV] de (Mod M = modifier marker) rén.
       eat Mod M person.
   b. ??Zhèngzài (Prog TM =progressive tense marker) chì de rén.
       eating Mod M person.
   Walk Mod M person.
   The person who walks.

b. Yǐjīng zōule de rén.
   Already walked Mod M person.
   The person who walked.

c. Zàijiēshàng zōu de rén.
   On street walk Mod M person.
   The person who walks on the street.

(8) a. *Ài [SV] de rén.
   Love Mod M person.

b. *Zhēngzài ài de rén.
   Prog. TM love Mod M person.
   The person in love.

c. Ài háizi de rén.
   The person who loves children.

   Good friend.

b. Hén hǎo de péngyǒu.
   Very good friend.

4. They may be the complement of certain copula verbs (e.g. seem, look, sound). –[AV]/+[AV] (very few cases and on conditions), +[SV] (many on the condition that [SV] is either followed by an object or a complement), +[ADV].

(10) a. *Yīfu kānqǐlái chūanle [AV].
    Clothes seem wore.

b. Yīfu kānqǐlái chuānguóle.
    Clothes seem to have been worn.

(11) a. *Ta kānqǐlái hén xīhuàn [SV].
    He seems very like.
    He seems to like it very much.

In Chinese, although adjectival descriptive verbs function like general verbs, there are some constructions which distinguish [ADV] from other verbs. Three features that distinguish [ADV] from both action and stative verbs are: 1) [ADV] can be modified by degree adverbs; 2) they may be attributives and; 3) they may be the complements of certain copulas with no conditions. Action and stative verbs usually have to be phrasal (e.g. V+O, V+ADV, V+Comp.) to accomplish these functions.

**CHRINESE PASSIVE CONSTRUCTIONS**

**TYPE I: Patient + bei (by) + (agent) + V + V Complement**

The preposition bei takes an agent as its object. In this sense the function of bei is the same as that of the English by-phrase in passive constructions. Another essential function of bei is to indicate that the verb is passivized. This is why (13b) is grammatical even when the object wo ‘me’ of the preposition bei is absent.

Passive constructions usually express the result of an action. However, the majority of Chinese verbs do not include the result of the action. For example, bāng gòu, ‘to tie the dog’ does not necessarily indicate that the dog is tied. The post-verb complement qǐlái has to be added to express the result of the
action: *gǒu bēi bāngqílái le*, 'the dog has been tied'. Verb complements in the passive express verb tenses and aspects.

(13) a. Neige rén bēi wǒ dǎ le.
That person PM (=passive marker) I beat V Comp.
That person was beaten by me.
b. Neige rén bēi dǎ le.
That person was beaten.

**TYPE II: S + V + V Complement**

(14) a. Zhuózi cā gānjǐng le.
Table wipe clean V Comp.
The table was wiped clean.
b. Zhuózi bēi (wǒ) cā gānjǐngle.
The table was wiped clean (by me).

Type II passives are not constructed with *bēi*. There are no indications that the construction is passive. Yet the objective thematic role of the grammatical subject and the meaning of the sentence imply that it is a passive construction. Many authors, such as Liu et al [6], take this to be a passive construction. Teng [9] derives this structure by topicalization and agent deletion. Chao [3] considers it an intransitive verb construction, rather than a passive.

In fact, when verbs are used in Type II passives, the sentences indicate the result of the action or the state of the patient. For example, (14a) implies that someone wiped the table, therefore the table was clean. Such a relationship is causative and inchoative. They have an aspectual sense of completion as well.


(15) a. NP V
b. V NP

In (15a), the only argument of the verb is generated in the [NP, S] position. In (15b), the argument of the verb is generated in the [NP, VP] position, the object position. In inflectional languages, the nominative case can be assigned to the post-verbal position directly. In English and Chinese, where word order is significant, independent considerations will rule out the construction in (15b). No nominative case can be assigned in the post-verbal position, or the post-verbal argument has to move to the subject position to be assigned case. For example, the intransitive verb move is base-generated in the structure shown in (15b). It takes one argument which is base-generated in the object position (16a). The argument has to move to the [NP, S] position to receive case (16b).

(16) a. e moved the doll.
b. the doll, moved [e].

Verbs which exhibit a causative-intransitive alternation, such as move, have the NP appear as the intransitive subject and the transitive object. They are referred to as ergative verbs in English by Burzio [2], or unaccusatives by Perlmutter [7]. The verbs in Type II Chinese passives are ergative verbs in this sense. They are also intransitive verbs.

**COMPARISON OF TYPE I AND TYPE II PASSIVES**

It is generally believed that (17a) is derived from (17b) through the deletion of the logical subject; and (17b) is derived from (17c) through passive transformational rules. Therefore, (17a) is derived by syntactic transformation.

(17) a. Zhuózi cā gānjǐng le.
The table was wiped clean.
b. Zhuózi bēi e cā gānjǐng le.
The table was wiped clean.
c. e cā gānjǐng le zhuózi.
Somebody wiped the table clean.

'Only the verbs which exhibit a causative-intransitive alternation can occur in Type II passives. Intransitive verbs which do not have a causative alternation cannot occur in Type II passives. Thus, verbs like *zǒu* 'go', *shuì* 'sleep', *sǐ* 'die, and *dǎ pǐn* 'sneeze' cannot occur in passive constructions. Some verbs can be both transitive and intransitive. Yet if they do not exhibit a causative-intransitive alternation, the intransitive verb construction is not passive: i. Támen xiào tā. 'They laughed at him.'
ii. Tá xiào le. 'He laughed.'
(b) is not a passive construction. The verb *xiào* in (ia) and (ib) has different meanings. Compare:
iiia. Támen qǐ/lèi/xià tā. 'They irritated/tired/frightened him.'
iiib. Tá qǐzhào/le/xiàzhào le. 'He is irritated/tired/frightened.'
The sentences in (iiib) are of Type II passive constructions which express an inchoative state.
It is true that (17b) is transformationally derived from (17c). This transformation can be illustrated by (18).

(18) a. e că gânjing le zhuózi.
    Somebody wiped the table clean.

b. Zhuózi, bèi e că gânjing le [e].
    The table was cleaned by somebody.

However there is no transformational derivation which relates (17a) to (17b). These two sentences are semantically identical and syntactically different. We can see that (17a) triggers elimination of the agent θ-role; (17b) absorbs it. And (17a) externalizes the internal θ-role; (17b) does not. Due to the ergativity of the verb in (17a), Type II Chinese passives are lexical derivations. The tensed clause directly assigns case to the [NP,S] position as most adjectival verbs do. Type I passives (17b) go through the transformational movement and they are full verb passives.

Type II passives (17a) are derived through lexical processes which can also be demonstrated by the lexical rules proposed by Guerssel et al [5]. Guerssel et al argue that a verb expresses an action or state with one or more arguments. The arguments are indicated in the Lexical Conceptual Structure (LCS) by means of variables (X and Y) which are expressed in the syntax by NPs bearing the subject and object relations, respectively. The verbs in Type II Chinese passives are in the inchoative construction (17a) which arises from the syntactic realization of the lexical conceptual structure. The single argument zhuózi ‘table’ is understood to be the passive argument in the state depicted by the verb că ‘wipe’:

(19) Y (table) became wiped clean.

\[ V' \\
\text{arg.} \quad V \\
Y \text{ became wiped clean.} \]

When the lexical structure is mapped into syntax, the argument in the lexical structure is realized as an NP bearing the object relation to the verb. By the prediction requirement, a subject is required. NP movement is applied and zhuózi ‘table’ is moved to the [NP,S] position. In this way, it bears the subject relation to the verb. By the case marking rule, it is assigned nominative case.

Sentence (17c) is a causative construction. The verb că ‘wipe’ has two arguments, an active participant and a passive participant. This relationship is captured in the LCS of the causative verb. The LCS of a causative verb is derived by a productive rule which takes an LCS of the form \( Y \text{ come to be State} \) and derives a dyadic LCS of the form \( X \text{ cause } Y \text{ come to be State} \) [5]. Thus, the inchoative construction Zhuózi că gânjingle ‘The table is wiped clean’ is embedded as the complement of a dyadic causative predicator:

\[
(20) \quad V' \\
\text{arg.} \quad V \\
X \text{ cause } Y \text{ became wiped clean} \\
\]

Constructions (19) and (20) demonstrate that Type II passives are generated lexically from causative constructions.

More detailed comparisons between Type II passives (21) and Type I passives (22) are represented below.

(21) a. Chē yòng huái le.
    The car has been used to the extent that it is broken.

b. Yīfrū chuān zāng le.
    The clothes have been worn to the extent that they are dirty.

c. Xīè rán hóng le.
    The shoes were dyed red.

d. Bēizi dǎ sūi le.
    The cup was hit and was broken into pieces.

(22) a. Qiánbāo bèi (tū) tòu le.
    The purse was stolen (by him).

b. Zhanɡsān bèi (Līsī) kūn qūāi le.
    Zhangsan was tied up (by Lisi).
Following the terminology of Burzio [2], all the verbs in (21) are ergative whereas those in (22) are not.

One may argue that (21) has the same syntactic structure as (22) because the passive marker bei can be added to (21), (e.g. Che bei ta yong huai le.). However, the crucial point is that bei is optional in (21), but obligatory in (22). In other words, the sentence Chianbao tou le is unacceptable. The verb tou 'steal' cannot directly assign an agent θ-role to the [NP, S] position, for it does not make any sense semantically. The verb assigns the theme role only to the argument in the [NP, VP] position. Thus, (22a) is derived from the D-structure of (22ai).

(22) a. Qianbao, bei (ta) tou le [e].
The purse was stolen by (him).
ai. e bei (ta) tou le qianbao.
(He) stole the purse.

In (22ai) the verb steal assigns the argument purse a θ-role in the [NP, VP] position. As this property may not be changed during the syntactic derivation, there must be an element in the [NP, VP] position at both S-structure and D-structure. In (22a) the argument purse has to move to the [NP, S] position to be assigned. Thus, the trace is left behind the verb. The passive marker bei has to appear right after the argument to indicate this transformation. The semantic relations between logical subjects and objects in (22) are agents and patients.

The sentences in (21) are different. They encode an inchoative state. In (21a), the car 'che' is broken 'huaiile' because somebody used it and caused it to become broken. In other words, the car became broken by the means of being used 'yong' too much. This relationship can be captured by lexical operations. The inchoative construction (21a) The car became broken by being used is derived from the causative construction: X cause [Y (the car) became broken by being used]. In Type II passives (21), the post-verbal position subcategorized by the verb is eliminated. If such a position were generated, it could not be assigned a θ-role. The NP has to be at the [NP, S] position to be assigned nominative case by INFL. Thus, the thematic role that would have been assigned in the [NP, VP] position is now assigned directly in the subject position. And nominative case is assigned to the [NP, S] position as is the case in regular adjectival verb constructions.

Since Type II passives (21), are not full verb passives, (e.g. they are not transformationally derived), the semantic relations between the two arguments are not confined to agents and patients as in (22). They are more varied. The grammatical subjects in (21) are usually inanimate nouns whereas in (22) the subjects are both animate and inanimate. Sentences in (21) state facts whereas those in (22) emphasize actions.

Additional evidence that Type II passives (21) are lexical derivations is that the VP in (21) can directly modify its noun at the prenominal position; whereas the VP in (22) cannot, or the passive marker is required. This function of the verb in (21) is the same as the function of [ADV].

(23) a. Yong huaiile de che.
Use broken Mod M car = the car that is broken by being used.

b. Chuan zangle de yifu.
The clothes that are dirty from being worn too much.
c. Ran hongle de xie.
The shoes that are dyed red.
d. Da suile de beizi.
The cup that is smashed into pieces.

(24) a.* Tou le de qianbao.
The stolen purse.
But: Bei tou le de qianbao.
The purse that is stolen.
b.* Kunqilai de Zhangsan.
Tied Zhangsan.
But: Bei kunqilai de Zhangsan.
Zhangsan who is tied.
c.* Chi wanie de fan.
The eaten food.
* Bei chi wanie de fan.
The food that is eaten.
?Bei Zhangsan chile de fan.
The food that eaten by Zhangsan.
Borer and Wexler [1] propose that most actional verbs give rise to derived adjectives in English. It seems that in Chinese, most ergative verbs with their suffix complements directly give rise to derived [ADV].

Further evidence is that the verb phrases in Type II passives can occur as complements to certain copula verbs, (e.g. kānqǐlái ‘seem’, hāoxiāng ‘look as if’, tīngqǐlái ‘sound’). This property is similar to that of Chinese adjectival descriptive verbs [ADV] and to English adjectives. But the verb phrases in Type I passives cannot function as these copula complements unless the passive marker bei is added.

(25) a. Zhèiliàng qíché kānqǐlái yòng huái le.
   This car seems broken from being used (too much).

b. Zhèiějiān yīfù kānqǐlái chuān zāngle.
   These clothes look dirty from being worn (too much).

c. Zhèishuāng xiē kānqǐlái rán hóngle.
   This pair of shoes seem dyed red.

d. Zhèige bèizi hāoxiāng dā suīle.
   This cup looks broken as if from being hit.

(26) a. Qiánbāo hāoxiāng tōule.
   But: Qiánbāo hāoxiāng bèi tōule.
   The purse seems to have been stolen.

b. Zhāngsān hāoxiāng kūnqǐlái le.
   But: Zhāngsān hāoxiāng bèi kūnqǐlái le.
   Zhāngsān seems to have been tied.

c. Fān hāoxiāng chī wán le.
   But: Fān hāoxiāng bèi chī wán le.
   The food seems to have been eaten up.

d. Háiźi hāoxiāng píng le.
   But: Háiźi hāoxiāng bèi píng le.
   The child looks to have been criticized.

The final evidence is that though the verbs in Type II passives are actional, they describe manners rather than the actions of their passive constructions. Thus, sentences in (21) can answer how questions since the verbs function like manner adverbs.

(27) a. Chē zhěnme huái le?
   Car how broken V Comp.
   How did the car become broken?
   Chē yòng huái le.
   The car became broken by being used.

b. Yīfù zhěnme zāngle?
   Clothes how dirty V Comp.
   How did the clothes become dirty?
   Yīfù chuān zāngle.
   The clothes became dirty by being worn.

c. Xīe zhěnme hóng le?
   How did the shoes become red?
   Xīe rán hóng le.
   The shoes were dyed red.

d. Bēizi zhěnme suīle?
   How did the cup become broken?
   Bēizi shuāi suīle.
   The cup became broken into pieces by being thrown on the floor.

In the above analyses, it seems that the verb complements (the adjectives such as broken, dirty, and red), rather than the verbs, function as predicates. This is because these verbs and their complements can function separately and independently in sentences. Adjectival descriptive verbs and PPs in Chinese can be predicates.

(28) a. Chē yòng guōle.
   Car use PT M
   The car has been used.

b. Chē huái le.
   Car broken V Comp
   The car is broken.
c. Che yòng huái le.
The car is broken by being used.

(29) a. Báozhǐ fāng le.
Newspaper put V Comp
The newspaper was put away.
b. Báozhǐ zài nèr.
Newspaper in there.
The newspaper is there.
c. Báozhǐ fāng zài nèrle.
The newspaper was put there.

But Type I passives cannot be analyzed in this way. The verb complements in Type I are not independent from their verbs. Further, verb complements in Type I are usually shorter in form and less complete in meaning than they are in Type II passives.

COMPARISONS BETWEEN TYPE II PASSIVES AND ADVs

Type II passives express an after-the-fact observation on the state-of-being even though the verbs in type II are actional. This semantic property is similar to that in the construction of adjectival descriptive verbs. When ADVs are predicates, they usually describe the state and characteristics of the subjects.

The VP in Type II passives can directly modify its subject at the prenominal position. This property is in common with that of the ADV.

The VP in Type II passives can occur as complements to certain copula verbs. The ADV has the same property as demonstrated in (9).

The essential difference between Type II passives and ADV constructions is that ADV can be modified by degree adverbs whereas the passive verbs in Type II cannot.

SUMMARY

There are two types of passive constructions in Chinese. Type I is a verbal passive since it is derived through a transformational rule. Type II is a lexical passive. It has certain properties in common with predicate adjectives in Chinese and English. It is derived through semantic function and in lexical causative-inchoative constructions. The table below illustrates the differences and the similarities among the two types of passives and adjectival descriptive verbs.

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<th>Cop Com</th>
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REFERENCES