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CHINESE PASSIVES: Transformational or Lexical?

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Abstract: There are two types of passive constructions in Chinese. Type I is a syntactic passive since it is derived through a transformational rule. Type II is a lexical passive. It has certain properties in common with the predicate adjectives in Chinese and in English. It is derived through a semantic function in lexical causative-inchoative constructions.

Under the framework of Universal Grammar, the differences in the syntactic function of verbs in a language may be attributed to a lexical representation. Thus English passives are analyzed in two ways. Certain passives are derived by lexical rules where the passive verbs demonstrate the properties of adjectives. Other passives are derived by syntactic rules where the passive verbs initiate syntactic movement.

In this paper, we will show that the different derivations of English passives are not language-specific properties. They are also found in other languages such as Hebrew (Borer and Wexler, 1987), and Chinese. The construction of Chinese passives varies in the syntactic realization which indicates the different lexical properties of verbs. Lexical meanings may determine syntactic constructions. Certain verbs in Chinese passives are verbal, whereas the others are adjectival. In order to demonstrate the lexical and syntactic derivations of Chinese passives, we distinguish the essential properties of Chinese verbs and adjectival verbs in the first part of this paper. In the latter part of the paper, we compare the 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 the others are syntactically transformational.
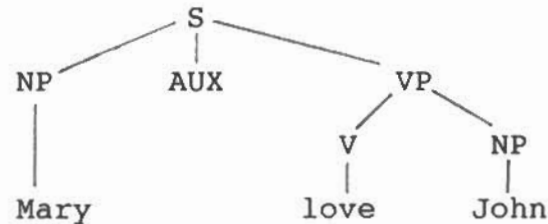
Analysis of English Passives

In the current transformational grammar, active and passive sentences are derived from different underlying representations. The deep structures of active and passive sentences only have the verb in common:
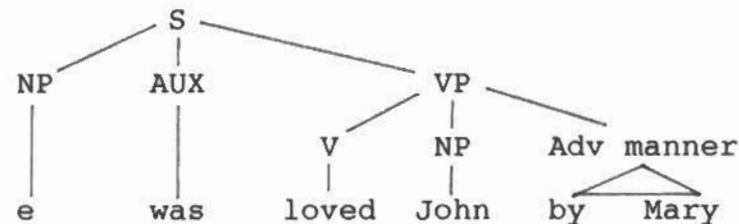
(1a)   Mary loved John.

(2a)   e is loved John by Mary.

(1b)   Active

```
                 S
        ┌────────┼────────────┐
       NP       AUX           VP
        │                  ┌───┴───┐
        │                  V       NP
        │                  │        │
       Mary              love     John
```

(2b)   Passive

```
                 S
        ┌────────┼──────────────────┐
       NP       AUX                 VP
        │        │         ┌────┬────┴─────────┐
        │        │         V    NP         Adv manner
        │        │         │     │          ╱╲
        e       was      loved  John       by   Mary
```

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 described through the lexical transformational operation. In this transformation, the lexical item 'loved' has changed its category from a verb in (1) to an adjectival passive participle in (2). In sentence (1), 'John' is assigned objective case by the transitive verb 'loved'. Whereas in (2) 'John' is not assigned any case because the word 'loved' is an adjective which is unable to assign any 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 a case for the adjective 'loved' cannot assign any case. In this way the rules of the Case Filter and the NP-Trace condition have been met (Radford, 1981). Otherwise, if the word 'loved' in (2) and (3) were treated as a verb like in (1), we would have run into problems. The empty trace of 'John' in (3) would have an objective case assigned by the verb 'loved', which falls foul of the NP-Trace condition.

Thus, the 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. Whereas transitive verbs in active constructions obligatorily govern two arguments.

Wasow (1977) proposes that in English there are two sources for passive participles. Some passive participles are lexical adjectives while others are verbs. As such, 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 (1977) argues that passives whose derived subjects are their underlying direct objects should be able to exhibit adjectival behavior. He also states that when passive participles function as lexical adjectives, they may appear:

1. in the prenominal position, e.g.

    the open letter
    the opened letter

2. as complements to certain copula verbs, e.g. seem, act, and look.

    John seems
    happy.
    annoyed.

3. with prefixing of un-

    He is unlucky in many things.
    The island is uninhabited by humans.

4. with degree modification by very.

    Your family is very (much) respected.

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

1. Passives of double object constructions.

    Bill was told (the story).

2. Passives of the 'accusative subject' constructions.

Mary is thought to be a genius.
We were expected to be model citizens.

3. Passives of idiom chunks.

   Advantage is easily taken of John.

4. Passives of help and thank.

   John always seems to be $\left\langle\begin{array}{c}\text{helped}\\\text{thanked}\end{array}\right\rangle$ by his friends.

5. Passives followed by predicative expressions like a
   fool or president.

Comparisons Among Chinese Verbs

   It is not easy to distinguish between Chinese
verbs and adjectives. 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
named adjectival descriptive verbs [A.D.V]. We will
discuss the differences between [A.D.V] and other
verbs, and analyze these verbs in terms of lexical and
transformational processes.

   The following properties may be shared uniquely
by actional verbs[A.V], stative verbs [S.V], adjectival
descriptive verbs [A.D.V.], or shared by all of them.

1. Appear in the imperative: +[A.V], -[S.V], -[A.D.V]/
   +very few.

       (4) a.   Qing wu xi [A.V] yan.
                Please not smoke cigarette
                Please do not smoke.

           b.   Qing anjing [A.D.V].
                Please quiet
                Please be quiet.

           c.   *Qing dong/ zhidao/ xihwan [S.V] zheige
                wenti.
                Please understand/ know/ like this
                question.

           d.   *Qing zhengqi/ ganjing/ qinlao/ yonggan
                [A.D.V].
                Please tidy/ clean/ hardworking/ brave.

2. Be modified by a degree adverb such as HEN (very), TAI (extremely), and FEICHANG (especially): -[A. V.], +[S. V.] on the condition that [S. V] is followed by an object or a complement, +[A. D. V].

    (5) a. *Wo hen mai [A.V] zhexie shu.
           I very buy these books.

        b. ??Wo hen zhidao [S.V].
           I very know.

        c. Wo hen zhidao/ dong [S.V] zhege daoli.
           I very know/ understand this reason
           I know/ understand this reason very well.

        d. Wo hen/ tai/ feichang gaoxing [A.D.V].
           I very/ extremely/ especially happy
           I am very/ extremely/ especially happy.

3. Modify nouns: +[A.V] +[S.V] both on the condition that they have to be VP in the form of V+O, V+ADV, or V+PP. +[A.D.V].

    (6) a. *Chi[A.V] de (Mod.M.=modifier marker) ren.
           Eat Mod.M. person

        b. ??Zhangzai (Prog.T.M.= progressive tense marker)chi de ren.
           Eating Mod.M. person

        c. (Zhengzai) chi fan de ren.
           (Prog.T.M.) eat food Mod.M. person
           The person who eats (is eating).

    (7) a. *Zou[A.V] de ren.
           Walk Mod.M. person

        b. Yijing zoule de ren.
           Already walked Mod.M. person
           The person who walked away.

        c. Zaijieshang zou de ren.
           On street walk Mod.M. person
           The person who walks on the street.

    (8) a. *Ai[S.V] de ren.
           Love Mod.M. person

         b. *Zhengzai ai de ren.
           Prog.T.M. love Mod.M. person

The person in love.

   c. Ai haizi de ren.
      The person who loves children

(9) a. Hao[A.D.V] pengyou.
      Good friend.

    b. Hen hao de pengyou.
       Very good friend.

4. Be the complement of certain copula verb (e.g.seem, look, sound). -/+very few and on conditions [A.V], +[S.V] many on the condition that [S.V] is either followed by an object or a complement, +[A.D.V].

   (10) a. *Yifu kanqilai chuanle[A.V].
        Clothes seem wore

      b. Yifu kanqilai chuanguole.
        Clothes see worn
        Clothes seem to have been worn.

   (11) a. ?Ta kanqilai hen xihwan[S.V].
        He seems very like
        He seems to like it very much.

      b. Ta kanqilai hen xihwan ni zwode fan.
        He seem very like you cook food
        He seems to like the food you cooked very much.

   (12) Ta kanqilai hen yonggan[A.D.V].
        He looks very brave.

In sum, the comparisons of [A.V], [S.V], and [A.D.V] are presented on the following table.

	Imperative	Mod. by degree Adv.	Attri.	Cop.comp.
A.V.	+	-	+cond.	-/+few & cond.
S.V.	-	+cond.	+cond.	+many on cond.
A.D.V.	-/+few	+	+	+

In Chinese though adjectival descriptive verbs function like general verbs, there are some

constructions which basically distinguish [A.D.V] from other verbs. Three features that distinguish [A.D.V] from both actional and stative verbs are that [A.D.V] can be modified by degree adverbs, be attributives, and the complements of certain copulas with no special conditions. Whereas actional and stative verbs usually have to become VP (e.g. V+O, V+Adv, V+Comp.) to accomplish these functions.

Chinese Passive Constructions

Type I: Patient + BEI (by) + (agent) + V. + V. complement.

BEI is a preposition which 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 when the verb is passivized. That is why the sentence (13b) is grammatical even when the object 'wo' (me) of the preposition BEI is absent.

Passive constructions usually express the result of the action. However, the majority of Chinese verbs do not include the actional result. For example, 'bang gou' (to tie the dog) does not necessarily indicate that the dog is tied. Qilai (the post verb complement) has to be added to express the result of the action: 'Gou bei bangchilai le' (The dog has been tied). Verb complements in the passive express basically verb tenses and aspects.

    (13) a. Neige ren bei wo da le.
         That person P.M.(=passive mark) I beat
         V.comp.
         That person was beaten by me.

       b. Neige ren bei da le.
         That person P.M. beat V. Comp.
         That person was beaten.

Type II: S. + V. + V. complement.

    (14) a. Zhwozi ca ganjing le.
         Table wipe clean V.Comp.
         The table was wiped clean.

       b. Zhwozi bei (wo) ca ganjing le.
         Table P.M. (me) wipe clean V. Comp.
         The table was wiped clean (by me).

Type II passives are not constructed with BEI.
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. (1983) believe that this is a
passive construction. Teng (1977) believes that this
structure is derived through the processes of
topicalization and agent deletion. Chao (1968) thinks
that one might take it as an intransitive verb
construction, rather than a passive.

We have discovered that 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.

Borer and Wexler (1987) distinguish two types of
intransitive verbs in inflectional languages.
(Perlmutter 1978 made this observation first).

(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 orders are significant, independent
considerations will rule out the configuration 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 by Burzio (1981), or unaccusatives by Permutter (1978). The verbs in Type II Chinese passives are ergative verbs in this sense. They are intransitive.[1]

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. Zhwozi ca ganjing le.
> The table was wiped clean.
>
> b. Zhwozi bei e ca ganjing le.
> The table was wiped clean.
>
> c. e ca ganjing le zhwozi.
> (Somebody) wiped the table clean.

It is true that (17b) is transformationally derived from (17c). This transformation can be illustrated by (18).

> (18) a. e ca ganjing le zhwozi.
> (Somebody) wiped the table clean.
>
> b. Zhwozi bei e ca ganjing 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. (17a) triggers elimination of the agent θ-role; (17b) absorbs it. (17a) externalizes the internal θ-role; (17b) does not. Due to the ergativity of the verb, Type II Chinese passives are lexical derivations. The tensed clause directly assigns case to the [NP,S] position as most adjectival verbs do. Whereas Type I passives (17b) go through the transformational movement. They are full verb passives.

Type II passives (17a) can also be described using the lexical rules proposed by Guerssel et al. (1985). 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 'zhwozi' (table) is understood to be the passive argument in the state depicted by the verb 'ca' (wipe):

(19)　Y (table)
　　　became wiped clean.

```
              V'
          ___/ \___
      arg.          V
       |
      Y became wiped clean.
```
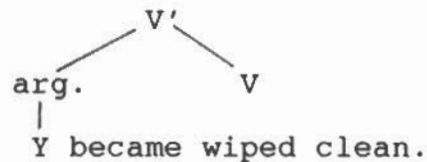
When the lexical structure is mapped into syntax, the argument in the lexical structure is realized as an NP bearing the object relation to the verb. By the prediction requirement, a subject is required. NP movement is applied and 'zhwozi' (table) is transformed to the [NP, S] position. In this way, 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 'ca' (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 come to be STATE" and derives a dyadic LCS of the form "X cause (Y come to be STATE)"' (Guerssel, 1987, pp. 54-55). Thus, the inchoative construction 'zhwozi ca ganjin le' (the table is wiped clean) is embedded as the complement of a dyadic causative predicator:

(20)
```
                          V'
                      ___/ \___
                  arg          V
                   |
          X cause (Y 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 presented below.

(21) a. Che yong huai le.
Car use broken V.Comp.
The car has been used to the extent that
it is broken.

   b. Yifu chwan zang le.
Clothes wear dirty V.Comp.

The clothes have been worn to the extent
that they are dirty.

   c. Xie ran hong le.
Shoe dye red V.Comp.
The shoes were dyed red.

   d. Beizi da swei le.
Cup hit broken V.Comp.
The cup was hit and became pieces.

(22) a. Qianbao bei (ta) tou le.
Purse P.M. (he) steal V.Comp.
The purse was stolen (by him).

   b. Zhangsan bei (Lisi) kun qilai le.
Zhangsan P.M. (Lisi)tie up V.Comp.
Zhangsan was tied up (by Lisi).

   c. Fan bei (Zhangsan) chi wan le.
Food P.M. (Zhangsan) eat finish V. Comp.
The food was eaten up (by Zhangsan).

   d. Neige haizi bei (mama) piping le.
Child P.M. (mother) criticize V. Comp.
The child was criticized (by the mother).

Following the terminology of Burzio (1981), all
the verbs in (21) are ergative whereas those in (22)
are not.

One may argue that (21) has the same syntactic
structures as (22) because the passive marker BEI can
be added to (21), (e.g. 21a, Che bei ta yong huai le.).
However, the crucial point is that BEI is optional in
(21)[2], but obligatory in (22). In other words, the
sentence 'Chianbau 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 (22e):

(22) a. Qianbau bei (ta) tou le [e].
The purse was stolen by (him).

(22) e. e bei (ta) tou le qianbau.
(He) stolen the purse.

In (22e) 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 the 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
(hwaile) 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) become 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 the case in regular adjectival verb
constructions.

Since (21), Type II passives, are not full verb
passives, (i.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 mark is required. This function of the verb in (21) is the same as the function of [A.D.V].

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

b. Chwan zangle de yifu.
The clothes that are dirty through being worn too much.

c. Ran hongle de xie.
The shoes that are dyed red.

d. Da sweile 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 wanle de fan.
The eaten food.

*Bei chi wanle de fan.
The food that is eaten.

?Bei Zhangsan chile de fan.
The food that eaten by Zhangsan.

d. *Piping le de haidz.
The criticized child.

?Bei piping le de haidz.
The child who is criticized.

Borer and Wexler (1987) 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 [A.D.V].

Further evidence is that the verb phrases in TYPE II passives can occur as complements to certain copula verbs, (e.g. 'kanqilai' (seem), 'haoxiang' (look as if), 'tingqilai' (sound). This property is similar to that of Chinese adjectival descriptive verbs [A.D.V] and to English adjectives. Whereas the verb phrases in Type I passives cannot function as these copula complements unless the passive mark BEI is added.

(25) a. Zheliang qiche kanqilai yong huai le.
This car seems broken by being used (too much).

b. Zhejian yifu kanqilai chwan zangle.
This clothes look dirty by being wearing (too much).

c. Zheshwang xie kanqilai ran hongle.
This pair of shoes seem dyed red .

d. Zhege beizi haoxiang da sweile.
This cup looks as if broken by being hit.

(26) a. *Qianbao haoxiang toule.
(But: qianbao haoxiang bei toule.)
The purse seems to have been stolen.

b. *Zhangsan haoxiang kunqilai le.
(But: Zhangsan haoxiang bei kunqilai le.)
Zhangsan seems to have been caught.

c. *Fan haoxiang chi wan le.
(But: Fan haoxiang bei chi wan le.)
The food seems to have been eaten up.

d. *Haizi haoxiang piping le.
(But: Haizi haoxiang bei piping 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 actions of their passive constructions. Thus, sentences in (21) can answer 'how' questions as the verbs function like manner adverbs.

(27) a. Che zemma hwaile?
Car how broken V.Comp?
How did car become broken?

Che yong hwaile.
The car became broken by being used.

b. Yifu zemma zangle?
Clothes how dirty V.Comp.?
How did the clothes become dirty?

Yifu chwan zangle.
The clothes became dirty by being worn.

c. Xie zemma hongle?
How did the shoes become dirty?

Xie ran hongle.
The shoes were dyed red.

d. Beizi zemma sweile?
How did the cup become pieces?

Beizi shwai sweile.
The cup became broken into pieces by
being thrown away.

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. Che yong gwole.
Car use PT.M.
The car has been used.

b. Che hwai le.
Car broken V.Comp.
The car is broken.

c. Che yong hwaile.
The car is broken by being used.

(29) a. Baozhi fang le.
Newspaper put V.Comp.
The newspaper is put away.

b. Baozhi zai ner.
Newspaper in there.
The newspaper is there.

c. Baozhi fang zai nerle.

The newspaper is put there.

Whereas 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 A.D.Vs

Type II passives express an after-the-fact observation on the state of beings even though the verbs in Type II are actional. This semantic propert is similar to those of the constructions of adjectival descriptive verbs. When A.D.Vs are predicates, they usually describe the state and characteristic 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 A.D.V.

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

The essential difference between Type II passives and A.D.V. constructions is that A.D.V. 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 the predicate adjectives in Chinese and English. It is derived through the 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.

	Type I	Type II	A.D.V.
Ergative	-	+	NA
BEI	+oblig.	+opt./-neg. S.	-
Attributive	-/+cond.	+	+

	-	+	+
Cop. Comp.	-	+	+
Stative	-	+	+
V./Adv. manner	-	+	NA

NOTES

1 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 'zou' (go), 'shwei' (sleep), 'si' (die) and 'da penti' (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:

(ia)   Tamen xiao ta (They laugh at him).

(ib)   Ta xiaole (He laughed).

(ib) is not a passive construction. The verb 'xiao' in (ia) and (ib) has different meanings. Compare:

(iia)   Tamen qi/ lei/ xia ta. (They irritate/ tired/ frightened him)

(iib)   Ta qizhao/ lei/ xiazhao le. (He is irritated/ tired/ frightened)

(iib) are Type II passive constructions which express an inchoative state.

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