CHINESE PASSIVES: TRANSFORMATIONAL OR LEXICAL?*

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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.
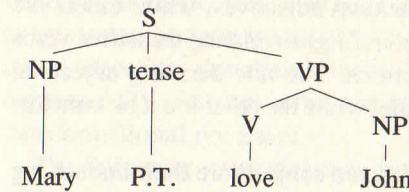
In this paper, we propose that different derivations of English passives are not language-specific properties. These differences are observed in other languages such as Hebrew (Borer and Wexler [1]), and Chinese. Chinese passives vary in that the syntactic realization reflects lexical properties of the 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:
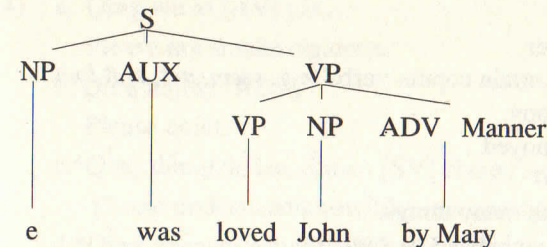
(1)   a. Mary loved John.
       b. ACTIVE

(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. Qǐng wù xī [AV] yān.
          Please not smoke cigarette.
       b. Qǐng ānjìng [ADV].
          Please quiet.
       c.*Qǐng dǒng/zhīdào/xǐhuān [SV] zhèige wèntí.
           Please understand/know/like this question.
       d.*Qǐng zhěngqí/gānjìng/qínláo/yǒnggǎn [ADV].
           Please tidy/clean/hardworking/brave.

2.   They may be modified by degree adverbs such as *hèn*, 'very', *tài*, 'extremely', and *fēicháng*, 'especially': -[AV], +[SV] on the condition that [SV] is followed by an object or a complement, +[ADV].
(5)   a.* Wǒ hěn mǎi [AV] zhèixie shū.
           I very much buy these books.
       b. ??Wǒ hěn zhīdào [SV].
           I very know.
       c. Wǒ hěn zhīdào/dǒng [SV] zhèige dàolǐ.
           I very know/understand this reason.
       d. Wǒ hěn/tài/fēicháng 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.* Chī [AV] de (Mod M = modifier marker) rén.
           eat Mod. M. person.
       b. ??Zhèngzài (Prog TM =progressive tense marker) chī de rén.
           eating Mod M person.

c. (Zhèngzài) chī fàn de rén.

(Prog TM) eat food Mod M person.

The person who eats (is eating).

(7) a.* Zǒu [A.V.] de rén.

Walk Mod M person.

b. Yǐjing zǒule de rén.

Already walked Mod M person.

The person who walked away.

c. Zàijiēshàng zǒu 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.* Zhèngzài ài de rén.

Prog. TM love Mod M person.

The person in love.

c. Ài háizi de rén.

The person who loves children.

(9) a. Hǎo [ADV] péngyǒu.

Good friend.

b. Hěn 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 kànqǐlai chuānle [AV].

Clothes seem wore.

b. Yīfu kànqǐlai chuānguole.

Clothes seem to have been worn.

(11) a.? Tā kànqǐlai hěn xǐhuān [SV].

He seems very like.

He seems to like it very much.

b. Tā kànqǐlai hěn xǐhuān nǐ zuòde fàn.

He seems to like the food you cooked very much.

(12).   Tā kànqǐlai hěn yǒnggǎn [ADV].

He looks very brave.

In sum, the comparisons of [AV], [SV], and [ADV] are presented in the following table.

Table One

	Imperative	Mod by degree Adv.	Attri.	Cop. comp
AV	+	–	+cond.	–/+ few & cond
SV	–	+cond.	+cond.	+many on cond
ADV	–/+ few	+	+	+

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.

CHINESE PASSIVE CONSTRUCTIONS

TYPE I: Patient + bèi (by) + (agent) + V + V Complement

The preposition bèi takes an agent as its object. In this sense the function of bèi is the same as that of the English by-phrase in passive constructions. Another essential function of bèi is to indicate that the verb is passivized. This is why (13b) is grammatical even when the object wo 'me' of the preposition bèi 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, bǎng gǒu, 'to tie the dog' does not necessarily indicate that the dog is tied. The post-verb complement qǐlai has to be added to express the result of the

action: *gǒu bèi bǎngqǐlái le,* 'the dog has been tied'. Verb complements in the passive express verb tenses and aspects.

(13) a. Nèige rén bèi wǒ dǎ le.

     That person PM (=passive marker) I beat V Comp.

     That person was beaten by me.

     b. Nèige rén bèi dǎ le.

     That person was beaten.

TYPE II: <u>S + V + V Complement</u>

(14) a. Zhuōzi cā gānjìng le.

     Table wipe clean V Comp.

     The table was wiped clean.

     b. Zhuōzi bèi (wǒ) cā gānjìngle.

     The table was wiped clean (by me).

Type II passives are not constructed with *bèi.* 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.

Borer and Wexler [1] distinguish two types of intransitive verbs in inflectional languages. Perlmutter [7] 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 order is significant, independent considerations will rule out the con-

figuration 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$_i$ moved [e]$_i$.

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[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. Zhuōzi cā gānjìng le.

     The table was wiped clean.

     b. Zhuōzi bèi e cā gānjìng le.

     The table was wiped clean.

     c. e cā gānjìng le zhuōzi.

     Somebody wiped the table clean.

[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 *zǒu* 'go', *shuì* 'sleep', *sǐ* 'die, and *dǎ pèntì* '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. Tāmen xiào tā. 'They laughed at him.'

ib. Tā xiào le. 'He laughed.'

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

iia. Tāmen qì/lèi/xià tā. 'They irritated/tired/frightened him.'

iib. Tā qìzhǎo/lèi/xiàzhǎo le. 'He is irritated/tired/frightened.'

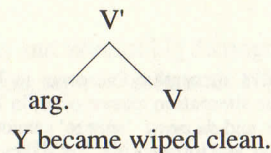The sentences in (iib) are of Type II passive constructions which express an inchoative state.

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

(18) a. e cā gānjìng le zhuōzi.

      Somebody wiped the table clean.

    b. Zhuōzi$_i$ bèi e cā gānjìng le [e]$_i$.

      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 *zhuōzi* 'table' is understood to be the passive argument in the state depicted by the verb *cā* '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 *zhuōzi* '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 *cā* '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'* [5]. Thus, the inchoative construction *Zhuozi ca ganjingle* '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 represented below.

(21) a. Chē yòng huài le.

      Car use broken V Comp.

      The car has been used to the extent that it is broken.

    b. Yīfu chuān zāng le.

      Clothes wear dirty V Comp.

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

    c. Xié rǎn hóng le.

      Shoes dye red V Comp.

      The shoes were dyed red.

    d. Bēizi dǎ suì le.

      Cup hit broken V Comp.

      The cup was hit and was broken into pieces.

(22) a. Qiánbāo bèi (tā) tōu le.

      Purse P.M. (he) steal V Comp.

      The purse was stolen (by him).

    b. Zhangsan bèi (Lisi) kǔn qǐlái le.

      Zhangsan P.M. (Lisi) tie up V Comp.

      Zhangsan was tied up (by Lisi).

c. Fàn bèi (Zhangsan) chī wán le.

The food was eaten up (by Zhangsan).

d. Háizi bèi (māma) pīpíng le.

The child was criticized (by the mother).

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 *bèi* can be added to (21), (e.g. *Chē bèi tā yòng huài le.*). However, the crucial point is that *bèi* is optional in (21), but obligatory in (22). In other words, the sentence *Chiánbāo tōu le* is unacceptable. The verb *tōu* '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. Qiánbāo$_i$ bèi (tā) tōu le [e]$_i$.

The purse was stolen by (him).

ai. e bèi (tā) tōu le qiánbāo.

(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 *bèi* 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 'chē' is broken 'huàile'* because somebody used it and caused it to become broken. In other words, the car became broken by the means of being used '*yòng*' 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. Yòng huàile de chē.

Use broken Mod M car = the car that is broken by being used.

b. Chuān zāngle de yīfu.

The clothes that are dirty from being worn too much.

c. Rǎn hóngle de xié.

The shoes that are dyed red.

d. Dǎ suìle de bēizi.

The cup that is smashed into pieces.

(24) a.* Tōu le de qiánbāo.

The stolen purse.

But: Bèi tōu le de qiánbāo.

The purse that is stolen.

b.* Kǔnqǐlái de Zhangsan.

Tied Zhangsan.

But: Bèi kǔnqǐlái de Zhangsan.

Zhangsan who is tied.

c.* Chī wánle de fàn.

The eaten food.

* Bèi chī wánle de fàn.

The food that is eaten.

?Bèi Zhangsan chīle de fàn.

The food that eaten by Zhangsan.

d.* Pīping le de háidz.

    The criticized child.

    ?Bèi pīping le de háidz.

    The child who is criticized.

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. *kànqilái* 'seem', *hǎoxiàng* 'look as if', *tīngqilǎi* '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 qìchē kànqilái yòng huài le.

    This car seems broken from being used (too much).

  b. Zhèijiàn yīfu kànqilái chuān zàngle.

    These clothes look dirty from being worn (too much).

  c. Zhèishuāng xié kànqilái rǎn hóngle.

    This pair of shoes seem dyed red.

  d. Zhèige bēizi hǎoxiàng dǎ suìle.

    This cup looks broken as if from being hit.

(26) a.* Qiánbāo hǎoxiàng tōule.

    But: Qiánbāo hǎoxiàng bèi tōule.

    The purse seems to have been stolen.

  b.* Zhangsan hǎoxiàng kǔnqilái le.

    But: Zhangsan hǎoxiàng bèi kǔnqilái le.

    Zhangsan seems to have been tied.

  c.* Fàn hǎoxiàng chī wán le.

    But: Fàn hǎoxiang bèi chī wán le.

    The food seems to have been eaten up.

  d.* Háizi hǎoxiàng pīping le.

    But: Háizi hǎoxiàng bèi pīping 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 zěnme huài le?

    Car how broken V Comp.

    How did the car become broken?

    Chē yòng huài le.

    The car became broken by being used.

  b. Yīfu zěnme zāng le?

    Clothes how dirty V Comp

    How did the clothes become dirty?

    Yīfu chuān zàng le.

    The clothes became dirty by being worn.

  c. Xié zěnme hóng le?

    How did the shoes become red?

    Xié rǎn hóng le.

    The shoes were dyed red.

  d. Bēizi zěnme suìle?

    How did the cup become broken?

    Bēizi shuāi suìle.

    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 guòle.

    Car use PT M

    The car has been used.

  b. Chē huài le.

    Car broken V Comp

    The car is broken.

c. Chē yòng huài le.

The car is broken by being used.

(29) a. Bàozhǐ fàng le.

Newspaper put V Comp

The newspaper was put away.

b. Bàozhǐ zài nèr.

Newspaper in there.

The newspaper is there.

c. Bàozhǐ fàng 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 differ-

ences and the similarities among the two types of passives and adjectival descriptive verbs.

Table Two

	Erg.	Bei	Attri.	Cop Com	Stative	V/Adv manner
Type I	–	+oblig	–/+cond	–	–	–
Type II	+	+opt/-neg S	+	+	+	+
ADV	NA	–	+	+	+	NA

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