Contemporary Research in Modern Chinese

創刊・第2期（2001. 4. JAPAN）

現代中國語研究

When Causatives mean Passive
in Mandarin Chinese(2)

Ya-Ming SHEN   Keiko MOCHIZUKI
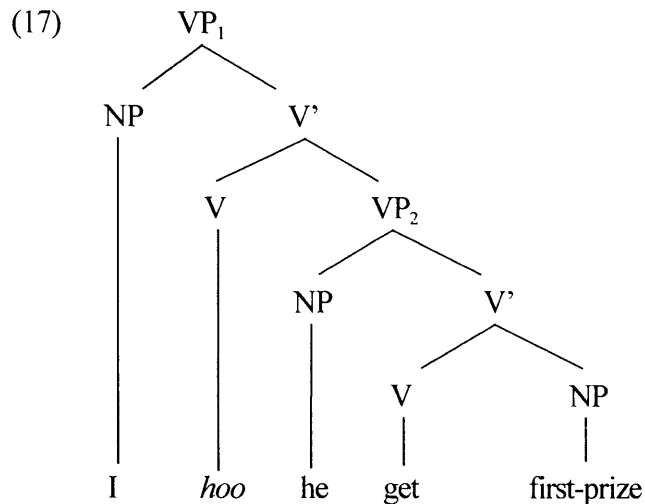
（申亜敏：英国倫敦大学）

（望月圭子：日本 東京外国語大学）

(This paper is continued from the issue 1, October, 2000)

2. The Structure of the Causative *rang/jiao* Construction

As mentioned in the introduction, *rang* and *jiao* are traditionally treated as functional verbs (so-called causative '*jian-yu-shi*' (pivotal construction) verbs), which select an external NP subject and an internal clause. The NP following *rang/jiao* functions both as an object of *rang/jiao* and as a subject of the embedded clause. This analysis implies that *rang/jiao* construction is bi-clausal.

In analyzing *hoo* causative construction in Taiwanese, Cheng, Huang, Li, Tang (henceforth, C.H.L.T, 1997 b, p.4-5) suggest that causative structure in Taiwanese is a bi-clause, in which the causative verb semantically selects (s-selects) an event/situation/state as its complement. This eventuality is syntactically realized as a VP, given a VP is the 'core' clause following the VP-internal Subject Hypothesis. Therefore, a causative sentence (16) has the structure (17) below:

(16) wa   hoo   i   de   dei-mia.[1]
      I   HOO   he   get   first-prize
      'I had him get the first prize.'

(17)

```
                    VP₁
                   /    \
                 NP      V'
                 |      /   \
                 |     V     VP₂
                 |     |    /    \
                 |     |   NP     V'
                 |     |   |     /   \
                 |     |   |    V     NP
                 |     |   |    |     |
                 I    hoo  he  get  first-prize
```

Following this analysis, we assume that the *rang/jiao* causative in Mandarin is also bi-clausal. However, being different from *hoo* in Taiwanese, the clause selected by *rang/jiao* is not a VP, but an IP (or AspP, according to the 'split-IP hypothesis'). In the following sections, we will show some evidence that supports that rang/jiao selects an IP as its complement.

2.1 Aspect and Causative/Passive Ambiguity

As mentioned in 1.2, perfective aspect denoting the accomplishment of an event plays a role in interpreting the ambiguity of the *rang/jiao* construction (see (7))[2]. The contrast below shows further evidence.

(18) a. wo *bu* rang ta da (wo).

      I   Neg. RANG he hit (me)

      'I won't let him hit me.'

   b. wo *mei* rang ta da.

      I   Neg.   RANG he hit

      'I didn't let him hit (someone).'

      'I wasn't hit by him.'

The difference between the negatives *bu* and *mei* is that the latter denotes an accomplishment but the former does not. That is why (18a) with *bu* can receive only a causative reading.

Furthermore, not only can the perfective occur in the *rang/jiao* construction but also with other aspect markers[3] :

(19)   wo meitian dou rang ta guangshu <u>zhe</u>.

      I   everyday all   RANG he   bind   Durative

      'I am bound by him everyday.'

2.2 Pronominal Reference

Consider pronominal references in the *rang/jiao* construction:

(20) a. Zhangsan$_i$ sha le *ta$_i$ / ta-ziji$_i$.

               kill Perf. him / himself

      'Zhangsan killed himself.'

   b. Zhangsan$_i$ rang Lisi$_j$ sha ta$_{i/*j}$.

            RANG   kill him

      'Zhangsan had Lisi kill him (Zhangsan).'

   c. Zhangsan$_i$ rang Lisi$_j$ sha ta-ziji$_{*i/j}$.

            RANG   kill himself

      'Zhangsan had Lisi kill himself.'

Assuming that a pronoun is free while an anaphor must be bound in a certain local domain, such a local domain in Mandarin is an IP, as seen in (20a). The contrast between (20b) and (20c) shows that the clause selected by *rang* must be an IP.

2.3 Quantifiers in the Causative Construction

Let us consider the case where the interpretation of a quantificational scope is ambiguous in the *rang/jiao* construction :

(21) mama rang haizi chi liang-ci yao.

      mother RANG child eat two times medicine

  a. 'It happened twice that the mother caused her child to have medicine .'

  b. 'The mother caused her child to have medicine two times.'

(22) mama gei haizi chi liang-ci yao.[4]

      mother GEI child eat two-times medicine

  ' It happened twice that the mother caused her child to have medicine.'

(21) is ambiguous since the quantifier can modify both the matrix clause (the reading of (21a)) and the embedded clause (the (21b) reading). On the other hand, (22) can only have the quantifier modify the matrix clause. The scope interactions are shown as follows:

(23) a. [two times [the mother *rang* [her child have medicine]]. (21a)

        [the mother *rang* [two times [her child have medicine]]. (21b)

    b. [two times [the mother *gei*   [her child have medicine]]. (22)

According to Sasaki (1997, p.141), the contrast between *rang/jiao* and *gei* comes from the 'stronger properties' of *gei* as a lexical verb. In terms of structure, it is equal to say that the complement clause *rang/jiao* selects is different from that *gei* selects. In the former, it is an IP; therefore, the quantifier can adjoin to the embedded IP to get an additional reading. In the latter, it is a VP; therefore, no intermediate position can be adjoined by the quantifier to get the other interpretation. In other words, the former is a bi-clause, while the latter is a mono-clause.

2.4 Negatives and Modals in the Causative Construction

Some negatives and modal verbs can occur in the *rang/jiao* construction with the reading of the indirect imperative (Yang, 1989, p. 65-66; (24a,b) from p. 65, (24c) from p.88):

(24) a. jiao   ni   <u>bie</u>   qu,   ni   pian   yao qu.
       JIAO you forbid go you insistently want go
       'I told you not to go, but you insisted in going.'

    b. rang   ni   bu   gao ba, bu   xing, rang   ni   xuexi ne,
       RANG you Neg. do Prt. Neg. can   RANG you learn Prt.
       ni   you   bu   yuanyi.
       you again Neg. want
       'I can't just let you not do this, but you won't study even if I tell you to.'

    c. shuo da-sheng-dian, rang   dajia   neng   ting-jian.
       speak loudly   RANG everyone can   hear
       'Speak loudly so that everyone can hear you.'

As pointed out in Yang (ibid., p.66), there is no obvious distinction between the causative and the indirect imperative in Mandarin. Therefore, (24a) and (24b) above, although involving causative *rang* and *jiao*, are imperative. However, even if the *rang/jiao* construction is ambiguous in a causative/imperative reading, it is preferable to treat them in a uniform way, namely, *rang/jiao* as a main verb selecting an IP as its complement.

2.5 Indefinite Subject in the Causative Construction

Compare the following sentences.

(25) a. *(you) yi-ge ren   lai   le.
       have   one   man   come Perf.
       'A man came.'

    b. Zhangsan shuo *(you) yi-ge ren   lai   le.
              say   have   one   man come Perf.
       'Zhangsan said that a man came.'

    c. Zhangsan rang   (*you) yi-ge ren   lai   le.
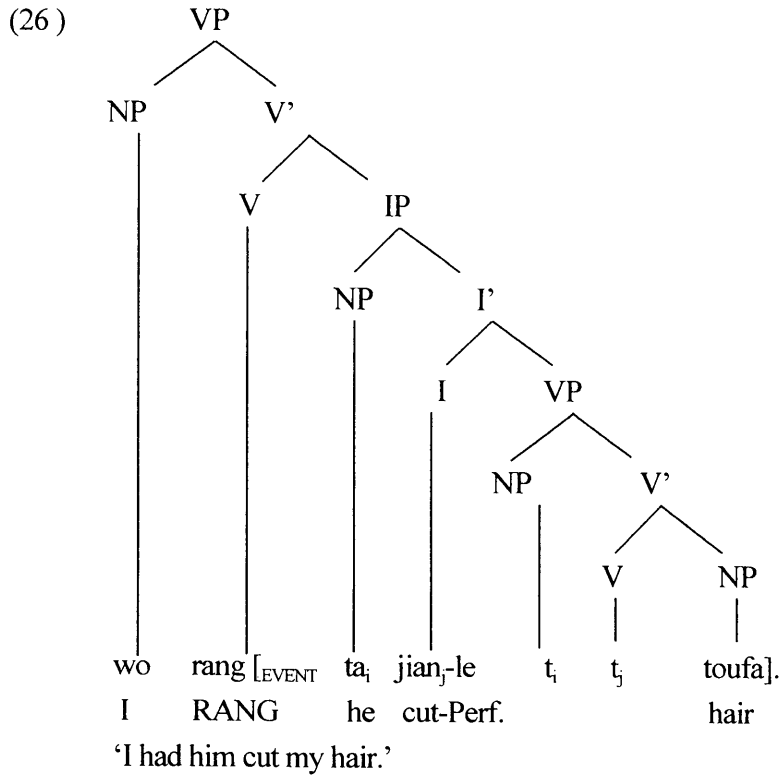   RANG have   one   man come Perf.
       'Zhangsan had a man come.'

As seen in (25a) and (25b), in Mandarin an indefinite NP cannot be in a subject position without licensing of the verb *you* (have). This seems to argue against the assumption that the embedded clause in the *rang/jiao* construction is an IP, since the indefinite NP can occur in the embedded subject position without licensing by the verb 'have', as in (25c). However, the problem will disappear, if we assume that in this case the indefinite is licensed by the causative verb directly, and IP is not a barrier for the licensing relation. On the other hand, a CP is a barrier, therefore, in (25b)

the verb 'say', selecting a CP, cannot govern onto the embedded subject, and the insertion of the licensor verb 'have' is necessary.

As a conclusion, we claim that *rang/jiao* in the causative is a main verb semantically selecting an eventuality as its complement, which is syntactically realized as an IP:

(26)
```
              VP
            /    \
          NP      V'
          |      /  \
          |     V    IP
          |     |   /  \
          |     |  NP    I'
          |     |  |    /  \
          |     |  |   I    VP
          |     |  |   |   /  \
          |     |  |   |  NP    V'
          |     |  |   |  |    /  \
          |     |  |   |  |   V    NP
          |     |  |   |  |   |    |
         wo   rang[EVENT taᵢ  jianⱼ-le  tᵢ   tⱼ  toufa].
          I    RANG      he   cut-Perf.          hair
```
'I had him cut my hair.'

3.   The structure of the Passive *Rang/Jiao* Construction

As mentioned in 1.1, the structural restriction for the *rang/jiao* construction in receiving a passive reading is the existence of the gap in the postverbal position. So far there have been two ways to treat this empty position in generative studies of Chinese syntax. One assumes that the gap is an NP trace caused by an NP movement. Another assumes that the gap is not a trace, but a deleted phonetically unrealized NP through its identity with the matrix subject[5].

In this section, we will show the problems caused by these two approaches, and suggest an alternative approach to solve these problems, following Huang (1997)'s analysis on the *bei* passive in Mandarin and C.H.L.T (1997b)'s analysis on the *hoo*-passive in Taiwanese.

3.1 Problems of the Previous Approaches

According to the movement approach, *rang/jiao* is a preposition taking the Agent NP as its complement, whose appearance dethematizes the subject and absorbs the Case-assignment properties from the verb, as in (27a). This causes the Caseless object to move to the subject position in S-structure to receive a Case, as in (27b):

116

(27)   wo rang ta da-shang le.

        I RANG he hit-hurt Perf.

        'I was hit and hurt by him.'

  a. D-structure: [e RANG he hit and hurt me]

  b. S-structure: [I_i RANG he hit and hurt t_i]

Consequently, two points are crucial in the movement hypothesis: a) *rang/jiao* is not a verb, but a preposition, contrary to its causative counterpart, as discussed in 2. b) the whole sentence is a mono-clause.

On the other hand, the complementation approach assumes that *rang/jiao* is a main verb selecting a clause. The object in the embedded clause is obligatorily deleted through its identity with the matrix subject:

  (28) a. D-structure: [$_{IP}$ I_i RANG [$_{IP}$ he hit and hurt me_i]].

    b. S-structure: [$_{IP}$ I_i RANG [$_{IP}$ he hit and hurt e_i]].

Consequently, for this analysis a) *rang/jiao* maintains its verbal status, as in its causative counterpart, and b) the whole sentence is bi-clausal.

However, the following properties of the *rang/jiao* construction are problematic for both approaches[6].

3.1.1 the obligatory empty object

  (29) a. Zhangsan rang Lisi da le.

         RANG   hit Perf.

    'Zhangsan was hit by Lisi.'

    b. $Zhangsan_i$ shuo Lisi da le *(ta_i).

       say   hit Perf. him

    'Zhangsan said that Lisi hit him.'

    c. $Zhangsan_i$ rang Lisi da le ta_i.

        RANG   hit Perf. him

    'Zhangsan had Lisi hit him.'

The complementation approach cannot explain why the deletion of the object is obligatory in the passive, why the object is obligatory in (29b), where even the object is referred to the matrix subject. Furthermore, it cannot explain why the *rang* construction only receives a causative reading when the object is not deleted, as in (29c).

3.1.2 Subject-oriented adverbs

(30) Zhangsan guyi   rang   Lisi   da-shang   le.
           intentionally   RANG   hit-hurt   Perf.
      'Zhangsan intentionally got hit and hurt by Lisi.'

Similar to the get-passive and contrary to the *be*-passive in English, an adverb predicating the subject such as 'intentionally' can occur in the *rang/jiao* passive. This phenomenon leads to the conclusion that the subject is base-generated. The movement approach cannot explain this phenomenon.

3.1.3 the Constituency of *rang/jiao* with the following NP

(31) a. * rang   wo   Zhangsan   da-shang   le.
        RANG   I   hit-hurt   Perf.
        'It's me that Zhangsan was hit by.'

    b.   gen   wo   Zhangsan   cong-bu   shuo-hua.
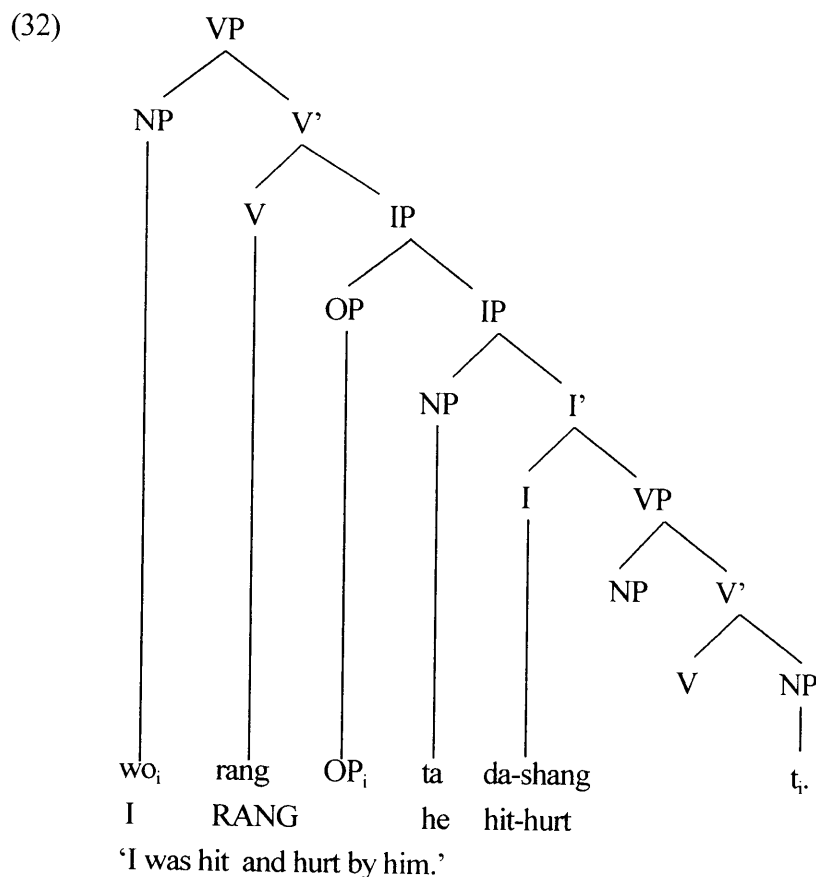   with me   never   talk
        'It's me that Zhangsan never talks with.'

(31a) shows that *rang/jiao* is not a 'true' preposition, since the PP it heads cannot be preposed unlike ordinary PPs . Therefore, this is another problem for the movement analysis.

To summarize, theoretically the complementation approach to the *rang/jiao* passive might be preferable, since according to this approach, the passive structure can be treated as a parallel structure to the causative structure in that a) *rang/jiao* in both cases are all main verbs, and b) both are bi-clausal. However, on the other hand, the existence of an empty object in the passive predicts that there must be a movement involved in the *rang/jiao* passive.

An approach that can solve these problems is the Null Operator Movement, suggested by Huang (1997) following the proposal in Feng (1995).

3.2 *Rang/Jiao* Passive as Null OP Movement

According to the Null OP Movement approach, *rang/jiao* maintains the status of a main verb, which selects an external NP and an internal clause. Hence, parallel to the causative structure, the passive is also a bi-clause. The difference between them is simply that there is an empty object in the passive. In contrast to the canonical passive such as the *be*-passive in English, the empty object is an operator, which has to adjoin to an A'-position to get interpreted:

118

(32)

```
                        VP
                    ┌───┴───┐
                   NP       V'
                    │    ┌───┴───┐
                    │    V       IP
                    │    │   ┌────┴────┐
                    │    │   OP        IP
                    │    │   │     ┌────┴────┐
                    │    │   │    NP         I'
                    │    │   │     │     ┌────┴────┐
                    │    │   │     │     I        VP
                    │    │   │     │     │     ┌───┴───┐
                    │    │   │     │     │    NP       V'
                    │    │   │     │     │     │    ┌───┴───┐
                    │    │   │     │     │     │    V       NP
                    │    │   │     │     │              │
                   wo_i  rang OP_i  ta  da-shang              t_i.
                    I    RANG       he  hit-hurt
```

'I was hit and hurt by him.'

In (32) the empty operator in the object position adjoins to IP, where it is controlled by the matrix subject through the strong binding[7]. Since the subject is base-generated, the problem seen in (30) disappears. Given that *rang/jiao* is not a preposition, the problem seen in (31) also disappears. Most importantly, the causative and passive in the *rang/jiao* construction can be captured in a uniform way. They differ from each other only in the status of the postverbal object.

Semantically, the null OP movement correlates to a lambda abstraction, in which the trace left by the OP turns to a variable bound by the OP. Since the OP is strongly bound by the matrix subject, the variable is co-referential with the subject. The semantic representation of (32) is as (33):

(32) I_i RANG [OP_i [he hit t_i]].

(33) I_x RANG [λ_x [he hit x]].

In the semantic representation, the OP is revealed as a lambda predicate, denoting a property. In other words, the null OP movement turns the embedded clause into a predicate denoting a property. Therefore, in this sense, the embedded clause functions as a secondary predicate, which combines with the causative verb *rang/jiao* to form a complex predicate. The complex predicate is a one-place predicate, which selects only an external NP argument. This precisely predicts the fact that the (direct) passive is always intransitive, with only an external argument.

To conclude, the causative and passive in the *rang/jiao* construction are common in that:

a) In both cases *rang/jiao* is a main verb, syntactically selects a NP subject and an IP complement,

b) consequently, both are bi-clausal.

However, they are different in that:

a) syntactically, there is a null OP movement in the passive, but not in the causative,

b) semantically, the embedded IP in the passive turns to a predicate through a lambda abstraction, denoting a property of the matrix subject, whereas the embedded IP in the causative is maintained as the internal argument of the causative verb, denoting a proposition,

c) consequently, the causative contains a two-place predicate, whereas the passive contains a one-place predicate.

In the next section, we will show how this conclusion can be applied to the restrictions for a passive reading in the *rang/jiao* construction, discussed in section 1 and repeated as follows:

The *rang/jiao* construction can receive a passive reading if and only if the following conditions are satisfied:

a) there is an empty object,

b) the embedded verb implies a resultative / accomplished /achieved state of an event,

c) the subject is involved in the second event denoted by the embedded IP.

4. Null OP Movement and the Conditions on the Passive
4.1 Argument Structure
Consider the following examples.

(34) a. wo rang ta da wo.

I RANG he hit me

'I had him hit me.'

b. wo rang ta da le.

I RANG he hit Perf.

'I was hit by him.'

(34a) with an overt object has a causative reading, while (34b) with an empty object receives a passive reading.

Following the discussion so far, the syntactic structures and semantic representations of the two sentences are as (35) and (36) respectively.

(35) (=34a.) a. [$_{IP}$ I RANG [$_{IP}$ he hit me]].

b. RANG (I, EVENT [he hit me]).

(36) (=34b) a. [$_{IP}$ I$_i$ RANG [$_{IP}$ OP$_i$ [$_{IP}$ he hit t$_i$]]].

b. (RANG (λ_x [he hit x])) (I$_{=x}$)

In the causative case (e.g.(35)), RANG is a two-place predicate, and the embedded IP is a proposition argument, denoting an EVENT. In the passive case (e.g.(36)), the null OP movement

120

turns the embedded IP into a predicate denoting a property through the lambda abstraction, and this second predicate combines RANG to form a complex predicate. Given that the internal argument has been lost, there is only the external argument existing.

Furthermore, because of the different argument structures they have, RANG in (35b) and (36b) receive different interpretations. In the causative, it is interpreted as a 'cause', which selects an external Causer and an internal Event argument. In the passive, it combines with the lambda predicate to form a complex predicate with the interpretation of 'end up with the property of being an x', in which 'the property of being an x' is denoted by the lambda predicate. The whole complex predicate, in turn, selects an external Experiencer argument[8]. Thus, (34a) and (34b) have the following distinct interpretations respectively:

(37) a. CAUSE (CAUSER $_{=I}$, EVENT $_{=[\text{he hit me}]}$)
'I caused the event that he hit me.'

b. (END UP with (the PROPERTY of being x $_{[\text{he hit x}]}$)) (EXPERIENCER $_{=I}$)
'I ended up with the property of being x such that he hit x.'

Therefore, the empty object is crucial for a passive reading in the sense that it is both quantificational and anaphoric[9]. It is quantificational, therefore it can undergo operator- raising to change the argument structure. It is also anaphoric, therefore it can undergo strong binding to ensure the co-referential relation between it and the Experiencer subject.

This, in turn, explains why every sentence with an overt object (ignoring the indirect passive at this moment), be it an anaphoric pronoun or a quantificational NP, must receive a causative reading:

(38) wo rang ta da wo/ yi-ge ren.

I RANG he hit me/ a man

'I had him hit me / a man.'

In (38) the pronoun 'I' is anaphoric, but it is not an operator, therefore no OP-raising can occur. Similarly, an existential phrase ' a man' is quantificational, but not anaphoric, therefore it cannot refer to the matrix subject[10].

4.2 Causative / Ergative Alternation

Consider the following examples.

(39) a. women da-bai le tamen.

we hit-defeated Perf. them

'We defeated them.'

b. tamen da-bai le.

they hit-defeated Perf.

'They were defeated. '

(40) a. tamen rang women da-bai tamen.

they RANG we hit-defeated them

'They had us defeat them .'

121

b. tamen rang women da-bai le.
   they RANG we hit-defeated Perf.
   'They were defeated by us.'

The pair in (39) is a lexical causative/ergative alternation, whereas the pair in (40) is a productive causative/passive alternation[11].

The two pairs in (39) and (40) are common in that:

a) in the interpretation, both causative (39a) and (40a) have the meaning of 'we caused the state / event in which they are defeated', and both passive (39b) and (40b) have the meaning of ' they ended up with the state / property of being defeated', and

b) structurally, both involve the alternation of a two-place predicate (the causative) with a one-place predicate (the passive), assuming that passive in (40b) involves a null OP movement, as discussed in 3.2 and 4.1[12].

Following C. H. L. T. (1997b, p.41-44) in treating the *hoo* passive in Taiwanese, we assume that the causative/passive alternation seen in the *rang/jiao* construction is also parallel to the causative/ergative alternation. In other words, the passive in the *rang/jiao* construction displays a parallelism to the ergative as shown in (41)-(44).

(41) a. wo yijing sha le tamen.   (Causative)
        I already kill Perf. them
        'I have already killed them.'

     b. tamen yijing sha le.   (Ergative)
        they already kill Perf.
        'They have already been killed.'

     c. tamen rang wo sha tamen.   (Causative)
        they RANG I kill them
        'They had me kill them.'

     d. tamen rang wo sha le.   (Passive)
        they RANG I kill Perf.
        'They were killed by me.'

(42) a. wo yijing la le ta.   (Active)
        I already pull Perf. him
        'I have already pulled him.'

     b. wo yijing la le.   (Active / * Ergative)
        I already pull Perf.
        ' I have already pulled (someone).'
        '* I have already been pulled.'

     c. ta rang wo la ta.   (Causative)
        he RANG I pull him
        ' He had me pull him.'

d. ta   rang   wo   la   le.   (Causative / *Passive)

  he   RANG   I   pull   Perf.

  ' He had me pull (someone).'

  '*He was pulled by me.'

(43) a. women da-bai   le   tamen.   (Causative)

  we   · hit-defeated Perf.   them

  'We defeated them.'

  b. tamen da-bai   le.   (Ergative)

  they   hit-defeated Perf.

  'They were defeated.'

  c. tamen rang   women   da-bai   tamen.   (Causative)

  they   RANG   we   hit-defeated them

  'They had us defeat them.'

  d. tamen rang   women   da-bai   le.   (Passive)

  they   RANG   we   hit-defeated Perf.

  'They were defeated by us.'

(44) a. women da-ying   le   tamen.   (Active)

  we   hit-win   Perf.   them

  'We defeated them.'

  b. tamen   da-ying   le.   (Intransitive/ *Ergative)

  they   hit-win   Perf.

  ' They won.'

  '* They were defeated.'

  c. tamen rang   women   da-ying   tamen.   (Causative)

  they RANG   we   hit-win   them

  'They had us defeat them.'

  d. tamen rang   women   da-ying   le.   (Causative/ *Passive)

  They RANG   we   hit-win   Perf.

  ' They had us defeat (them).'

  '*They were defeated by us.'[13]

As mentioned in 1.2, the verbs that reveal an alternation with the ergative must be verbs that implicate a resultative/accomplished/achieved state/event/action. Hence, they must be causative verbs or causative RVCs, their lexical conceptual structure is represented as [x ACT ON y] CONTROL [y BECOME [y BE AT z], (x:external argument, y:internal argument). Given that the passive is an ergative alternation of the *rang/jiao* causative, it is natural to conclude that the verbs involved in the passive also have to have the implication of a resultative/accomplished/achieved state of an event, i.e. they are lexical causative verbs. Therefore, the causative verb 'kill' in (41) can have the causative/ passive (ergative) alternation, whereas the active verb 'pull' in (42) cannot.

Similarly, the causative RVC 'hit-defeated' in (43) reveals the causative/ passive alternation in the *rang/jiao* construction, whereas the active RVC 'hit-win' in (44) cannot[14].

4.3 Outer Subject and the Inclusive

Consider the following sentences.

(45) a. wo rang ta jian le toufa.

      I RANG he cut Perf. hair

      'I had him cut my hair.'

      'I suffered by his cutting of my hair.'

    b. wo rang ta jian le Zhangsan de toufa.

      I RANG he cut Perf.   Poss. hair

      'I had him cut Zhangsan's hair.'

(46) a. wo rang ta fa le (wo) sanbai kuai.

      I RANG he fine Perf. me 300 dollar

      'I had him fine (me) 300 dollars.'

      'I was fined 300 dollars by him.'

    b. wo rang ta fa Lisi sanbai kuai.

      I RANG he fine   300 dollar

      'I had him fine Lisi 300 dollars.'

Recall that the inclusive can be ambiguous in a causative or passive reading, while the exclusive only has a causative reading in Mandarin, as mentioned in 1.3. (45a) and (46a) are inclusive in the sense that the matrix subjects are involved in the second event, denoted by the embedded clause, through some pragmatic relation such as possession.
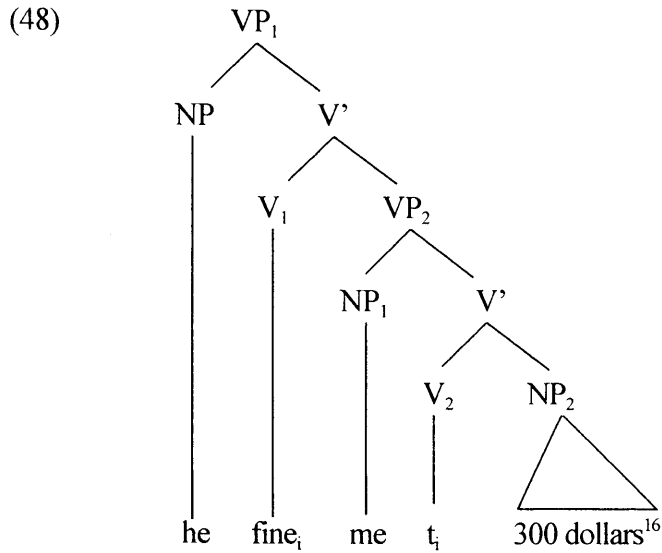
Furthermore, (45a) and (46a) are called indirect passive in the sense that it is not the (direct) object that is interpreted as Affectee. Put into another way, the objects are always phonetically realized. Therefore, the null OP movement from a postverbal object position is not available in these cases[15].

However, following Huang (1997, p.37-39), I assume that the indirect passive in the *rang/jiao* construction actually involves a null OP movement, similar to the pattern in the direct *rang/jiao* passive as discussed so far. The only difference is that in the indirect passive it is an outer empty object that undergoes the movement, while in the direct passive it is the postverbal empty object that undergoes the movement.

Consider the following sentence, which is an active counterpart of (46a).
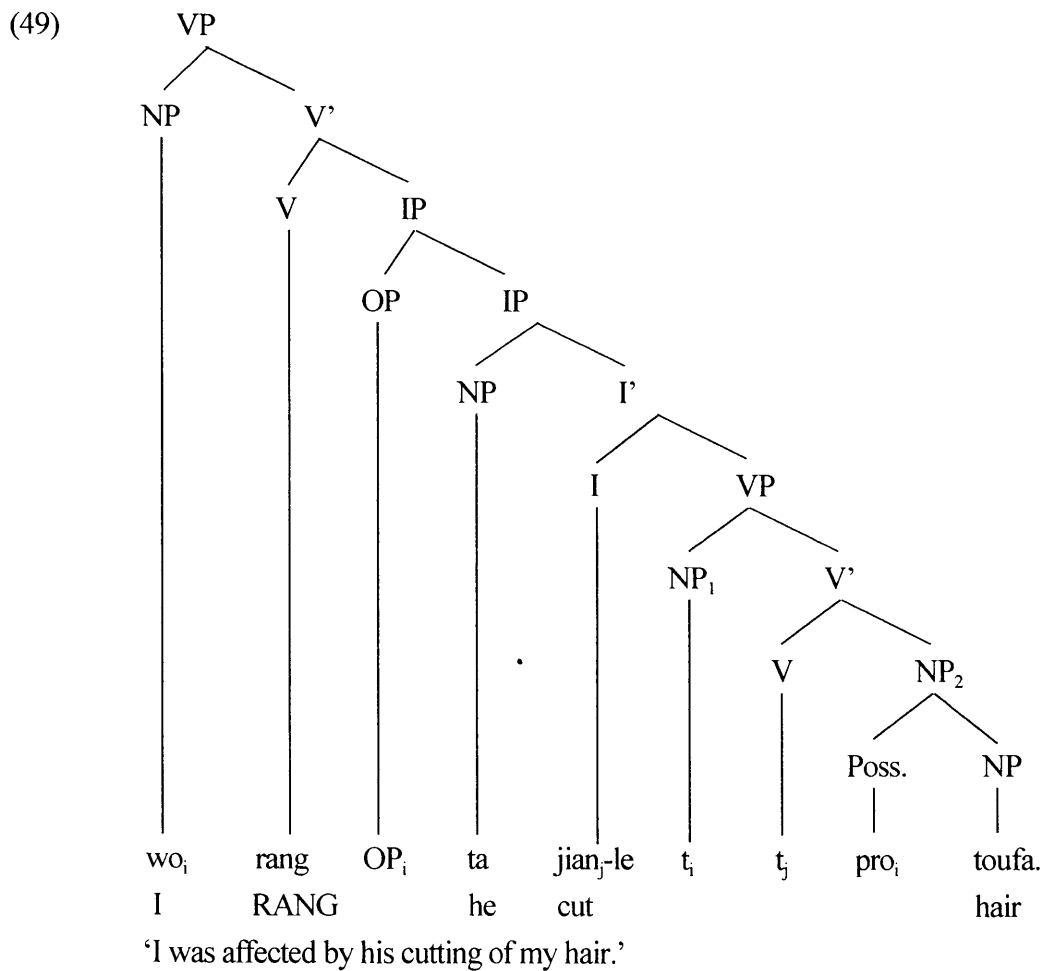
(47) ta fa le wo sanbai kuai.

      he fine Perf. me 300 dollar

      'He fined me 300 dollars.'

'fa' (fine) in (47) is a so-called 'outward transaction' verb, which requires an 'inner' object as well as an 'outer' object in the sense of C. H. L. T. (1997b, p.29-31):

(48)

```
                    VP₁
             ┌───────┴───────┐
            NP              V'
             │        ┌──────┴──────┐
             │       V₁           VP₂
             │        │       ┌─────┴─────┐
             │        │      NP₁         V'
             │        │       │     ┌─────┴─────┐
             │        │       │    V₂         NP₂
             │        │       │     │        ╱────╲
             │        │       │     │       ╱_____╲
            he     fineᵢ     me    tᵢ     300 dollars¹⁶
```

The NP₁ above is the outer object, whereas the NP₂ is the inner object. Therefore, an outer object is the specifier of the VP headed by an embedded verb, while an inner object is the complement of that verb.

An indirect inclusive passive like (45a) has a structure as follows:

(49)

```
        VP
   ┌─────┴─────┐
  NP          V'
   │      ┌────┴────┐
   │      V        IP
   │      │    ┌────┴────┐
   │      │   OP        IP
   │      │    │    ┌────┴────┐
   │      │    │   NP        I'
   │      │    │    │    ┌────┴────┐
   │      │    │    │    I        VP
   │      │    │    │    │    ┌────┴────┐
   │      │    │    │    │   NP₁       V'
   │      │    │    │    │    │    ┌────┴────┐
   │      │    │    │    │    │    V        NP₂
   │      │    │    │    │    │    │     ┌───┴───┐
   │      │    │    │    │    │    │   Poss.    NP
   │      │    │    │    │    │    │     │       │
  woᵢ   rang  OPᵢ  ta  jianⱼ-le tᵢ   tⱼ   proᵢ  toufa.
   I     RANG       he  cut                       hair
```

'I was affected by his cutting of my hair.'

In (49):

a) the phonetically unrealized possessor is a null pronoun controlled by the empty outer object,

b) the empty outer object undergoes the OP movement, adjoined into an A'-position to get interpreted,

c) the null OP is controlled by the matrix subject through the strong binding.

Furthermore, the inner object 'hair' is assigned the theta-role Theme by the verb 'cut' before moving. The inner object and the verb, in turn, form a complex predicate, i.e. [$_{VP}$ cut hair] to assign the outer object the role of Affectee.

Following the discussion of the Null OP movement in the direct passive, the OP movement turns the whole embedded IP into a predicate, denoting a property, which, in turn, combines with *rang* to form a complex predicate with the meaning of ' end up with the property of being a x'. Thus, the passive (49) has the interpretation of 'I (Experiencer) ended up with the property of being x, such that he cut x's (Affectee) hair'[17].

Furthermore, as mentioned in 1.3, all the direct passives in the *rang* construction must be inclusive in the sense that the matrix subject is co-referential with the postverbal gap. As a result, the conception of inclusiveness suggested by Washio(1993) can be related to Null OP Movement. Namely, all passives in the *rang* construction involve the null OP movement. The difference is simply that the direct passive undergoes the movement from the inner object, while the indirect passive undergoes the movement from the outer object. In both cases a one-place predicate is derived, with the meaning of 'end up with the property of being x'. In other words, both direct and indirect impassives are all ergative alternations of the causative.

5. Conclusion

In this paper we have examined the *rang/jiao* construction in Mandarin. The potentially causative *rang/jiao* construction can receive a passive reading under the following restricted environments:

a) when there is an empty object,

b) when the embedded verb implicates a resultative/accomplished/achieved state,

c) when there is an inclusive relation between the matrix subject and the embedded object.

These conditions can be explained in terms of the null OP movements:

d) The empty object in the embedded clause must be an anaphoric OP, therefore, it can undergo A'-movement syntactically and turn the internal argument of *rang/jiao* into a predicate semantically. Thus, the argument structure of the causative is changed to one in which a passive reading is available.

e) The causative/passive alternation in the *rang/jiao* construction is a kind of causative/ergative alternation by eliminating the internal argument, i.e. turning the internal argument into a predicate. Since it is required that an ergative always expresses a

126

resultative/accomplished/achieved state of an event, the passive in the *rang/jiao* construction must require the same condition.

f) The inclusive in the direct passive is expressed by the co-referential relation between the moved OP and the matrix subject through the strong binding (controlling). The indirect passive involves a null OP movement from the outer object position, in which the inclusive relation between the matrix subject and the embedded inner object is mediated by the OP in the outer object position.

Therefore, the causative and the passive in the *rang/jiao* construction can be explained in a uniform way:

g) *Rang/jiao* in both cases are all main verbs, c-selecting an embedded IP as its complement.

h) The matrix subjects in both cases are all base-generated.

The differences between them are simply that

i) There is an OP movement involved in the passive but not in the causative.

j) The causative includes a two-place predicate, while the passive includes a one-place predicate due to the OP movement.

In studies of the passive from a typological viewpoint, Huang (1997) points out that languages without passive voice morphology tend to 'resort to an embedding strategy and exploit the process of grammaticalization (from causative to ergative to passive) that eventually triggers A'-movement' (ibid.p.44). On the other hand, in languages with passive voice morphology like English, since the passive morpheme directly operates on the main verb and alters the argument structure through an NP movement, no additional process such as the null OP movement is necessary. The examination of causative/passive in the *rang/jiao* construction in this paper further supports this cross-linguistic generalization.

Notes

---

[1] *Hoo* is grammaticalized from a lexical verb meaning 'give'. In modern Taiwanese it can function as a transaction /causative verb as well as a passive marker. For a uniform analysis of these different functions of *hoo*, see C.H.L.T (ibid.)

[2] There is no perfective marker which corresponds to perfective 'le' in Taiwanese, where the accomplishment of an event is expressed mainly by resultative compounds:

i) wa hoo i ga taomen.
   I HOO he cut hair
   'I had him cut my hair.'

ii) wo hoo i ga –diao taomen.
   I HOO he cut-away hair
   'I was affected by his cutting of my hair.'

[3] Toshima (1988, p.102) argues the same phenomena for the *bei* passive in Mandarin.

[4] *Gei* in Mandarin with the original meaning of 'give' functions as a transaction /causative verb. Its causativity is called *sousa-shieki* (operational causative) (Sasaki, 1997,p.141). This paper will not consider the differences between *gei* and *rang/jiao* in detail. See Sasaki for detailed discussion.

[5] Hashimoto (1987,1988) are representative of the complementation approach.

[6] See Huang (1997) and C.H.L.T. (1997b) for the same argument for the *bei* passive in Mandarin and the *hoo* passive in Taiwanese.

[7] See Huang (1997, p. 11-14) and C.H.L.T. (1997b, p.37-40) for further evidence supporting A'-movement involved in Mandarin *bei* passive and Taiwanese *hoo* passive.

[8] As pointed out in C. H. L. T. (1997b, p.53 , note 17), it has been recently agreed among linguists that theta-roles are descriptive labels only, and their nature is derivative from the event structure which they are involved in.

[9] See C. H. L. T (1997b, p. 45).

[10] The question arises as to what happens if the object is a phonetically unrealized pronoun (i.e. pro):
    i) wo rang   ta da <u>pro</u>.
       I   RANG he hit
      ' I had him hit (somebody).'
      ' I was hit by him.'
    Note that it is always assumed that Chinese is a pro-dropped language not only in the subject but also in the object. For Sasaki (1997, p.148), a sentence like i) is ambiguous in a causative or passive reading. In terms of the discussion here, it is the causative if the empty object is a null pronoun (pro); it is the passive if the empty object is a null OP. However, according to C. H. L. T. (1997b, p. 45), a null pronoun is excluded from the object position in both S-structure and LF, given that theoretically, in that position it cannot satisfy the requirement of Binding and Control Theory. Therefore, for C.H.L.T i) has only a passive reading, in which the empty object must be a null OP and never a pro.

[11] See note 9 for the distinction between the lexical and the productive causative.

[12] However, they are different in the movement involved. For the canonical causative/ergative alternation in (39), the ergative is derived from the causative by eliminating the external argument and an NP-movement from the internal argument. On the other hand, for the causative/passive alternation in the *rang/jiao* construction (40), the passive is derived from the causative by eliminating the internal argument and a null OP movement from that position. As C. H. L. T. (1997b, p.42-44) points out, the former is parallel to the *be*-passive and the latter to the *get*-passive in English.

[13] The causative reading in this case is sometimes easily misunderstood as a passive reading due to some pragmatic reasons. For instance, there are always two sides (the winner and the loser) involved in an event of 'defeating'; therefore, the causative reading of ' they had us defeat them' always implies the equivalent passive

reading 'we were defeated by them'. Therefore, we claim that (44d) is not the passive, because if *rang* is replaced by *bei*, which only has a passive-usage, the sentence would become odd:

i) * tamen　bei　women　da-ying　le.
　　　they　BEI　we　　hit-win　Perf.
　　'They were defeated by us.'

[14] As discussed in 1.2, 'da-bai' (hit-defeated) is the causative, because the result '-defeated' is Patient-predicating, while 'da-ying' (hit-win) is not the causative, since the result 'win' is Agent-predicating.

[15] According to Huang (1997, p.38), a null OP moved from the possessor position is also unavailable, because this would violate the Left Branch Condition, proposed by Ross (1967).

[16] The main verb 'fine' is assumed to have moved into a position occupied by a light verb DO within the framework of lexical decomposition.

[17] Recall that the inclusive is ambiguous in a causative/ passive reading. Therefore, we have to assume that null OP movement is optional for the outer object, but obligatory for the inner object, given that the *rang* construction with a postverbal gap has only a passive reading. The question arises as to why such an asymmetry happens. One possibility might be due to the asymmetry between the specifier and the complement. That is, the specifier is the position where a null pronoun (pro) can satisfy the requirement of Binding and Control Theory, while the complement is not (see note 23). Therefore, if an outer object is a non-quantificational null pronoun (pro), no OP movement can occur; consequently, the whole embedded IP is a proposition argument denoting an Event and *rang* is a two-place predicate denoting the action of 'cause'; the causative reading is obtained. On the other hand, if the outer object is an empty anaphoric/quantificational PRO, then the Null OP movement occurs and a passive reading is obtained. In other words, an inclusive *rang* construction is ambiguous because the empty outer object has two distinct possibilities of status.

REFERENCES

Chao, Y.-R. 1968. *A Grammar of Spoken Chinese*. University of California Press, Berkeley and Los Angeles.

Cheng, Lisa L.-S., C.-T. James Huang, Y.-H. Audrey Li, and C.-C. Jane Tang. 1997 a. 'Causative Compounds across Chinese Dialects: A Study of Cantonese, Mandarin and Taiwanese'. *Symposium Series of the Institute of History and Philology, Academic Sinica*, No. 2. Taipei.

_____ 1997 b. 'Hoo, Hoo, Hoo: Syntax of the Causative, Dative, and Passive Constructions in Taiwanese'. ms., University of California, Irvine.

Feng, S. 1995. 'The Passive Construction in Chinese'. *Chinese Linguistics* 1. Beijing.

Hashimoto, M.1987. 'Hanyu Beidongshi de Lishi ,Quyu Fazhan' (The Historical and Geographical Development of Chinese Passive Construction). *Zhongguo Yuwen* 196, 36-49.

_____ 1988. 'The structure and typology of the Chinese passive construction'. Shibatani M.(ed.), *Passive and Voice*, 329-354.John Benjamins Publishing Company, Amsterdam/Philadelphia.

Hayatsu,E. 1992. ' Shieki to Ukemi no Sekkin ni kansuru Oboegaki' (Close Encounters: A Note on the Coming Together of Causatives and Passives), *Liguisitc Research* 11, 173-256. Kyoto University.

Huang, C.-T. J. 1997. 'Chinese Passives in Comparative Perspective'. ms., University of California, Irvine.

Mochizuki, K.1991. 'The Passive in Mandarin Chinese' *Gengo Kenkyuu* 1, Institute of Linguistics, Tokyo University of Foreign Studies.

Rose, J.R. 1967. *Constraints on Variables in Syntax*, PhD dissertation, MIT.

Sasaki, Y. 'Chyugokugo ni okeru Shieki to Zyudoo no Aimaisei'(The Ambiguity of Cauative and Passive in Chinese). In *Voisu ni kansuru Hikaku Gengogakuteki Kenkyuu* (Comparative Linguistic Studies on Voice), the Linguistic Society of Tsukuba University, 135-160. Sanshyusha publishers, Tokyo.

Shen, L.1996. ' Tan Hanyu de Shiyiju he Beidongju de Jiegou' (On the structures of Causative Sentences and Passive Sentences in Mandarin Chinese), *Bulletin of the Chinese Language Society of Japan*, No243, 75-84.

Toshima, Y. 1988. ' Bei-ziju no Seiritu zyooken ni tuite' (On the Conditions for Foriming "bei"-Sentences). *Bulletin of the Chinese Language Society of Japan*, No. 235, 99-108.

Washio, R. 1993. 'When Causatives Mean Passive: a Cross-Linguistic Perspective'. *Journal of East Asian Linguistics* 2,45-90.

_____ 1997. 'Tadoosei to Voisu no Taikei' (Transitivity and The System of Voice). *Voisu to Asupekuto* (Voice and Aspect), Nakau M.(ed.), 1-106.Kenkyuusha Publishers, Tokyo.

Yang, K.-R. 1989. *Nihongo-to Chyuugokugo no Shieki hyoogen ni kansuru*

Taishoo kenkyuu (Comparative Studies on the Causative between Japanese and Chinese). Kuroshio Publishers, Tokyo.