SYNTACTIC STRUCTURE OF *KA*-CONSTRUCTION IN TAIWANESE SOUTHERN MIN*

Barry Chung-Yu Yang
National Tsing Hua University

This study proposes a syntactic account for the *ka*-construction in Taiwanese Southern Min. The thematic properties of *ka* are subsumed under one general light verb predicate encoding affectedness, instead of being traditionally viewed as four thematic markers, i.e., a Patient/Theme marker, a Goal marker, a Source marker, and a Benefactive/Adversative marker. Meanwhile, *ka* is more "lexical" than its seeming counterpart *ba* of Mandarin Chinese so that *ka* takes *ka*-NP as its own argument and assigns a theta role to it. This suggests that *ka*-NP be base-generated at where it is on the surface structure. A historical perspective favoring *ka's* conjunction heritage is provided to further confirm our proposal. The apparent strong evidence for the raising of *ka*-NP is then explained by the Null Operator (NOP) movement approach. We show that the NOP approach correctly predicts that the four thematic senses that *ka* is endowed are simply an effect of secondary predication via strong binding. Our analysis also accounts for three major differences between Taiwanese *ka* and Mandarin *ba* in terms of the bare-verb taking potential, the non-*ba*/*ka*-counterpart, and the referentiality of *ka*/*ba*-NP.

1. Introduction

Over the years, *ba*-construction in Mandarin Chinese has always been one of the most studied topics among the linguistic literature. Due to its complex properties and distributions, a satisfactory account is yet to characterize and thus to cover all the phenomena observed so far. Probably it is because much endeavor is denoted to such a hard task that few linguists pay attention to its near counterpart, *ka*-construction in Taiwanese Southern Min,[1] which manifests even more puzzling phenomena.[2]

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[1] Unless necessary, we will use the cover term "Taiwanese" or "Southern Min" interchangeably to stand for "Taiwanese Southern Min" for ease of exposition.

[2] As will be disclosed later in this paper, treating Taiwanese *ka* as a counterpart of Mandarin *ba* is only apparent. That is, *ka* and *ba* are not etymologically derived from the same source. Also, *ka* is not derived from *ba*. Though the younger generations of Taiwanese tend to use *ka* as a counterpart of

Previous works, though not many, have helped to generalize the distribution of *ka*-construction, which sheds some light on the properties of *ka*. Generally speaking, *ka* may serve as a Patient/Theme marker, a Goal marker, a Source marker, and a Benefactive/Adversative marker, according to the theta relation between the main predicate and the *ka*-NP[3] (Teng 1982, Hung 1995, Tsao 2003). Further, *ka* may be subsumed into one general category as the Undergoer marker (Tsao 2003) or as a light verb encoding AFFECT (Li 2001, Lin 2001).

Though the general patterns of *ka* are already familiar to us, they are still limited to the descriptive content. Less is known to us on the syntactic structure of *ka*, which I believe may provide a more explanatory account and contribute to the understanding of *ka*-construction. Meanwhile, several questions are still pending. Why is *ka* so polysemous in serving as four thematic markers? Which syntactic position is *ka*-NP originated from? That is, is *ka*-NP base-generated at where it is on the surface structure, or does it undergo raising from the canonical object (or indirect object) position? Why the *ka*-construction is "less strict" than the *ba*-construction in the sense that it may allow *ka*-NPs of various theta roles (at least four as mentioned above), different referentiality, and independent argument status. This study will propose a syntactic structure of *ka*-construction to further account for the three questions raised above.

The paper is organized as follows. Section 2 introduces the general distribution of *ka*-construction. Section 3 focuses on the properties of *ka*. Section 4 brings forth a syntactic account for the phenomena observed. Section 5 takes a historical perspective to explore the complementation module encoded in the *ka*-construction. Section 6 discusses three differences between Taiwanese *ka*- and Mandarin *ba*-construction. Section 7 concludes our analysis.

2. The distribution of *ka*-construction

Teng (1982) provides a systematic observation on *ka*-sentences, which leads to Hung's (1995), Cheng and Tsao's (1995), and Tsao's (2003) generalization. In general, *ka* may serve as the Patient/Theme marker in (1), the Goal marker in (2), the Source marker in (3), and the Benefactive/Adversative marker in (4):

(1) a. Gua   ka i_i phah-si e_i a.[4]   (Patient)
         I   KA   him   beat-dead   Perf.[5]
         我 ka 伊打死 *e* 矣
         'I beat him to death.'
     b. I   ka   hit-pun $cheh_i$ be-tiau e_i a .   (Theme)
         he   KA   that-CL book   sell-out   Perf.
         伊 ka 那本書賣掉 *e* 矣
         'He sold that book out.'

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(2) a. Abing   ka   Asan$_i$ ka e_i ingbuen.   (Goal)
       Abing   KA   Asan   teach   English
       阿明 ka 阿三教 *e* 英文
       'Abing teaches Asan   English.'

   b. Abing   ka   Asan$_i$ mng e_i cit-e   mng-the.   (Goal)
       Abing   KA   Asan   ask   one-CL   question
       阿明 ka 阿三問 *e* 一個問題
       'Abing asked Asan one question.'

(3) a. Kengchat   ka   hit-e   lang$_i$ huat e_i ak-pah   kho. (Source)
       policeman KA that-CL person fine   six-hundred dollar
       員警 ka 那個人罰 *e* 六百塊
       'The policeman fined that man for six hundred dollars.'

   b. Abing   ka   Asan$_i$ phen e_i lak-pah   kho. (Source)
       Abing   KA   Asan   cheat   six-hundred   dollar
       阿明 ka 阿三騙 *e* 六百塊
       'Abing cheated Asanof six hundred dollars.'

(4) a. Abu   ka   Asan   se   sann.   (Benefactive)
       mother   KA   Asan   wash clothes
       阿母 ka 阿三洗衫
       'Mother washes clothes for Asan.'

   b. Asan   ka   gua   cau-khi.   (Adversative)
       Asan   KA   me   run-away
       阿三 ka 我走去
       'Asan ran away (on me)' or 'I was affected by Asan's running away.'

In examples (1-3) the *ka*-NP has a strong connection with the gap '*e*' in each example. The theta role of the *ka*-NP seems to be assigned by the main predicate, e.g. in (1a) the predicate *phah-si* (打死) 'beat-dead' assigns a Patient role to the *ka*-NP *i* (伊) 'him'; in (2a) the predicate *ka* (教) 'teach' assigns the Goal role to the *ka*-NP *Asan* (阿三) 'Asan (proper noun)'. Due to such a relationship between the main predicate and the *ka*-NP, a raising approach is therefore naturally adopted (Hung 1995, Tsao 2003). That is, the *ka*-NP is generated at the canonical object position[6] (the empty category manifested by '*e*' above) to get the theta role assigned by the main predicate. It then undergoes raising to the preverbal position, a caseless position. The insertion of *ka* here has its own right to guarantee the *ka*-NP against being caseless. That is, *ka* is regarded as a preposition which can assign a case to the preverbal *ka*-NP.

　　　However, the raising approach is not without problems. Firstly, note that in the fourth type, the Benefactive/Adversative construction, e.g. (4), there is no gap following the main predicate. A raising approach would not have a say in accounting for such a construction. Secondly, an immediate question arises in how the theta role of the *ka*-NP is assigned. Since the main predicate has been saturated by all the arguments in the fourth type, it is not possible for the main predicate to take any extra argument and assign an extra theta role accordingly.

　　　Thirdly, it is not obvious why the *ka*-NP has to raise to the preverbal

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[6] For a ditransitive verb, it is usually the indirect object that undergoes raising.

position. As is well known, the NP-raising has to be triggered by certain morphological considerations. The raising construction is one case, and the passive construction is the other. Both are case-driven:

(5) a. It seems that John is a good student.
    b. John$_i$ seems t_i to be a good student.

(6) a. Bill hit John.
    b. John$_i$ was hit t_i by Bill.

In (5b) and (6b) the NP *John* raises to get a case because it is originated at a caseless position (due to the inertness of the infinitive and the case-absorption of the passive morphology respectively). Following the same vein, it would be quite a puzzle if the *ka*-NP has to undergo raising when no triggering factors exist. For one thing, the *ka*-construction belongs to neither the raising construction as in (5) nor the passive construction as in (6). For another, it is not obvious whether Chinese languages do have raising predicates like *seem* and *be likely* and it is still arguable whether Chinese clauses have the finite/nonfinite distinction. Moreover, it is argued convincingly that Chinese passive construction is different from the English *be*-passives in that the syntactic subject in the former is base-generated at where it is on the surface structure whereas in the latter it undergoes raising from the object position (Huang 1999). Summarizing, the raising approach does not seem to be well-grounded because on the one hand there is no launching site for the *ka*-NP in the fourth type and on the other hand there is no triggering factor around to facilitate the raising.

In the next section we will investigate further into the properties of *ka*, which may shed some light on the syntactic structure of *ka*-construction and will lead up to a "base-generated" approach to cover all the phenomena we have explored in this paper.

3. The properties of *ka*

Treating *ka* as a preposition might have the benefit in assigning a case to the preverbal *ka*-NP. Yet, it brings forth a problem in terms of case theory. In other words, it fails to account for why the original case of the *ka*-NP assigned by the main predicate is 'absorbed' so that it has to move upward to get a case assigned by *ka*. Also, since the insertion of *ka* has nothing to do with theta role assignment but case assignment, how come it would be categorized as the Patient/Theme marker, the Goal marker, the Source marker, and the Benefactive/Adversative marker, all of which are theta-related? It may be simply for the ease of classification to formulate four theta marking potentials. Yet, it may also provide us an alternative to treat *ka* as a theta role assigner, an approach which I will pursue later in this paper. For now, let's concentrate on the preposition/raising approach.

Being a preposition, *ka* together with its complement *ka*-NP would be expected to behave like a prepositional phrase. Such is not attested. The so-called PP "*ka*+NP" cannot undergo preposing to the sentence initial position in (9) while it is usually observed so for putative PPs as in (7) and (8):

(7) a. Asan [dui Abing] ciann khekhi.
         Asan to Abing very polite
         阿三[對阿明]真客氣
         'Asan is very polite to Abing.'
     b. [Dui Abing] Asan ciann khekhi.
         to Abing Asan very polite
         [對阿明]阿三真客氣
         'To Abing, Asan is very polite.'

(8) a. Abing [ti Taipei] be cit-king chu.
         Abing at Taipei buy one-CL house
         阿明[在臺北]買一間厝
         'Abing bought one house in Taipei.'
     b. [Ti Taipei] Abing be cit-king chu.
         at Taipei Abing buy one-CL house
         [在臺北]阿明買一間厝
         'In Taipei, Abing bought one house.'

(9) a. *[Ka Asan] Abing phah-si a.
         KA Asan Abing beat-dead Perf.
         [ka 阿三]阿明打死矣
         'Abing beat Asan to death.'
     b. *[Ka hit-bun cheh] Abing be-tiau
         KA that-CL book Abing sell-out Perf.
         [ka 那本書]阿明賣掉矣
         'Abing sold that book out.'
     c. *[Ka Asan] Abing ka ingbuen.
         KA Asan Abing teach English
         [ka 阿三]阿明教英文
         'Abing teaches Asan English.'
     d. *[Ka Asan] kengchat huat lak-pah kho.
         KA Asan policeman fine six-hundred dollar
         [ka 阿三]員警罰六百塊
         'The policeman fined Asan for six hundred dollars.'
     e. *[Ka gua] Asan cau-khi.
         KA me Asan run-away
         [ka 我] 阿三走去
         'Asan ran away (on me)' or 'I was affected by Asan's running away.'

Meanwhile, if "*ka*+NP" is a PP, it should not be able to pass the following coordination test. Yet, as it turns out, the examples below are all grammatical, contrary to prediction. This is also a drawback to the preposition/raising approach.

(10) a. Abing   ka   Asan   phah   sann   e,   Abi   menn nng ku,
         Abing   KA   Asan   beat   three   time   Abi   scold two sentence
         (to   cao-khi   a).
         then run-away Perf.
         阿明 ka 阿三打三下，阿美罵二句，(就走去了)
         'A-meng beat Asan three times, scolded Abi two sentences, then he
           went back.'
    b. Hit-e   painn   lang   ka   Asan   chiunn sann-pah   kho,
         that-CL bad   person KA Asan   rob   three-hundred dollar
         Abi   phen   go-pah   kho,   (to   cao-khi   a).
         Abi   cheat   five-hundred dollar   then run-away Perf.
         那個壞人 ka 阿三搶三百元，阿美騙五百元，(就走去了)
         'That bad guy robbed Asan of three hundred dollars, Abi of five
         hundred dollars, then he ran away.'
    c. Kengchat   ka   cit-e   lang   huat lak-pah   kho, hit-e
         policeman KA   this-CL   person fine six-hundred   dollar   that-CL
         lang   kuainn   sann   kang.
         person   shut-in   three   day
         員警 ka 這個人罰六百塊，那個人關三天
         'The policeman fined this person for six hundred dollars, jailed that
           person for three days.'

Since the preposition/raising approach is not plausible, we are left with what *ka* is. One way to solve it is to explore into *ka*'s properties with respect to theta role assignment. We may start form the Benefactive/Adversative usage in (4) (repeated below). The *ka*-NP in such a usage is in a "dangling" status since there is no gap in the main predicate for the *ka*-NP to be reconstructed back. All the main predicates have already been saturated by their own arguments:

(4) a. Abu   ka   Asan   se   sann.
         mother   KA   Asan   wash   clothes
         阿母 ka 阿三洗衫
         'Mother washes clothes for Asan.'
    b. Asan   ka   gua   cau-khi.
         Asan   KA   me   run-away
         阿三 ka 我走去
         'Asan ran away (on me)' or 'I was affected by Asan's running away.'

Therefore, it is not possible for the *ka*-NP to be reconstructed back to the object position of the main predicate as in the (a) examples of (11-12), or to the other position such as the topic position in the (b) examples of (11-12).   That is, there is no "non-*ka*-counterpart" for the Benefactive/Adversative construction.

(11) a. *Abu   se   sann   Asan.
         mother   wash   clothes   Asan
         阿母洗衫阿三
         'Mother washes clothes for Asan.'

  b. * Asan, abu   se sann.
    Asan mother wash clothes
    阿三, 阿母洗衫
    'Asan, mother washes clothes.'
(12) a. *Asan cau-khi gua.
    Asan run-away me
    阿三走去我
    'Asan ran away (on me)' or 'I was affected by Asan's running away.'
  b. *Gua, Asan cau-khi.
    I   Asan   run-away
    我, 阿三走去
    'I, Asan ran away.'

Now, if the *ka*-NP in the Benefactive/Adversative construction can only remain at where it is on the surface structure, how does it get the theta role?[7] After all, *ka* as a preposition cannot not assign a theta role to the *ka*-NP. How, then, will the *ka*-NP meet the Theta Criterion (Chomsky 1981, 1986). This is one of the major differences that Taiwanese *ka*-construction distinguishes itself from Mandarin *ba*-construction where the non-*ba*-counterpart exists as (13) shows (Sybesma 1999, Li 2001):

(Mandarin)
(13) a. Wo ba juzi   bo-le   pi.
     I BA tangerine peel-Perf. skin
     'I peeled the skin of the tangerine.'
  b. Juzi,   wo bo-le   pi.
     tangerine I   peel-Perf. skin
     'Tangerine, I peeled the skin of it.'

   Now that we have shown there is no gap for the *ka*-NP to be reconstructed back, in order to fulfill the Theta Criterion, the burden of theta role assignment naturally falls upon *ka*. In this sense, *ka* is more like a verb than a preposition. In the remaining part of this paper, we will suggest that the *ka*-NP be base-generated at where it is on the surface structure as *ka*'s own argument.
   Treating *ka* as a verbal element is not unprecedented. Both Lin (2001) and Li (2001) take *ka* as a light verb encoding AFFECT which exerts affectedness on its object, the *ka*-NP. By comparing with Mandarin *ba*, Li (2001) suggests that *ka* is more lexical in terms of theta role assignment. That is, while the Taiwanese *ka* can directly assign a thematic role to the *ka*-NP, the Mandarin *ba* has no such capability. Such a property accounts for why the *ka*-NP may stand as *ka*'s argument in the Benefactive/Adversative construction. In what follows, I will continue to treat *ka* as a light verb following Lin (2001) and Li (2001). As for the position of *ka*-NP, though Li suggests in a footnote that the *ka*-NP may either be base-generated or raised, I will depart from her by

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[7] Even though we assume that the complex predicate VP or *v*P can compositionally assign a theta role to its "outermost" object (Huang 1999) and the preposition *ka* can assign a case to it, still [*ka*+NP] does not form a constituent as the test in (9) and (10) show. Therefore, the preposition account for *ka* is not plausible.

maintaining a principled base-generation approach. We will discuss Li's (2001) and Lin's (2001) analyses in the next section. Before that, let's see another phenomenon that the light verb approach may explain.

A light verb approach explains why *ka* cannot stand alone as a full-fledged verb. Tsao (2003) originally uses the following examples to argue that *ka* should be treated as a preposition instead of a verb. In (14) *ka* is on a par with *the* (替) 'for' and *wi* (爲) 'for' by taking a benefactive object. In (15), however, both *the* (替) and *wi* (爲) can be full-fledged verbs and thus can stand alone, whereas *ka* cannot stand alone as *the* (替) and *wi* (爲) do.

(from Tsao 2003: 123)

(14)   I   ka /the/wi   gua   se   pue-a.
        he   KA/for/for   me   wash   glass
        伊 ka/替/爲我洗杯仔
        'He washes glasses for me.'

(15) a. Li   the   gua   ho   m?
        you   for   me   good   not
        你替我好不？
        'Will you do it for me or not?'
    b. Gua   bo   wi   li   si   be   wi   siang?
        I   not   for   you   be   will   for   whom
        我無爲你是欲爲誰？
        'If I am not (doing it) for you, whom am I (doing it) for?'
    c. *Li   ka   gua   ho   m?
        you   KA   me   good   not
        你 ka 我好不？
        'Will you do it for me or not?'

However, such examples do not exclude the possibility of treating *ka* as a light verb, since a light verb cannot itself stand alone either as exemplified in (16). Both the Mandarin passive marker *bei* and Taiwanese passive marker *ho* have been analyzed as a light verb in Huang (1999) and Cheng et al. (1996) respectively. The following examples show that they cannot stand alone as a full-fledged verb:

(Mandarin)

(16) a. Zhangsan   bei   Lisi   da-le   ma?
        Zhangsan   BEI   Lisi   beat-Perf.   Q
        'Was Zhangsan beaten by Lisi?'
    b. *Zhangsan   bei   Lisi   le.
        Zhangsan   BEI   Lisi   Perf.
        'Zhangsan was by Lisi.'
    c. *Bei   le.
        BEI   Perf.
        'BEI.' (passive maker)
    d. *[Zhangsan   bei   Lisi]   hao-bu-hao?
        Zhangsan   BEI   Lisi   good-not-good
        'Is it good or not that Zhangsan is by Lisi?'

(Taiwanese Southern Min)
(17) a.   Asan   ho   Abing   phah   a.
          Asan   HO   Abing   beat   Perf.
          阿三 ho 阿明打矣
          'Asan was beaten by Abing.'

     b. *Asan   ho   Abing   a.
          Asan   HO   Abing   Perf.
          阿三 ho 阿明矣
          'Asan was by Abing.'

     c. *Ho   a.
          HO   Perf.
          ho 矣
          'HO.'   (passive marker)

     d. *[Asan   ho   Abing]   ho-m?
          Asan   HO   Abing   good-not
          [阿三 ho 阿明]好不？
   'Is it good or not that Asan is by Abing.'

We have demonstrated that the traditional preposition/raising approach for *ka* is not plausible in terms of theta role assignment, constituency test, and raising triggering factor. We have also suggested that the light verb approach should be a good start to re-investigate the *ka*-construction since on the one hand it does not contradict with the traditional preposition approach while on the other hand it may cover more phenomena that the preposition/raising approach cannot. Meanwhile, we have also proposed that the *ka*-NP be base-generated on the surface structure, contrary to the preposition/raising approach. In the following section, we would like to show that the apparent raising of the *ka*-NP can still be account for, once the Null Operator (Chomsky 1981, Cheng et al. 1996, and Huang 1999) analysis is adopted.

4.   The structure of *ka*-construction

As is already noted in the previous section, Li (2001) and Lin (2001) treat *ka* "as a light verb encoding AFFECT" and I am going to adopt their proposal that *ka* may serve as a light verb. However, both authors do not explain why *ka* may be endowed with the potential to assign four apparently different theta roles, which nevertheless will be one of the main points in this section. Also, though both authors propose a syntactic structure for the *ka*-construction, they are different from mine as will be disclosed later. Let's start with their proposals first.

Li (2001:39(90)) proposes a complex "double *v*P-shell" structure (18) for the *ka*-construction. She suggests that *ka* in the upper *v*P-shell is more like a lexical V head which may independently assign a theta role to the *ka*-NP, NP2, which consequently is base-generated in the upper *v*P-shell instead of raising from within the lower *v*P-shell. In this way, she can explain why *ka* may take an additional argument in the Benefactive/ Adversative construction.

(18)
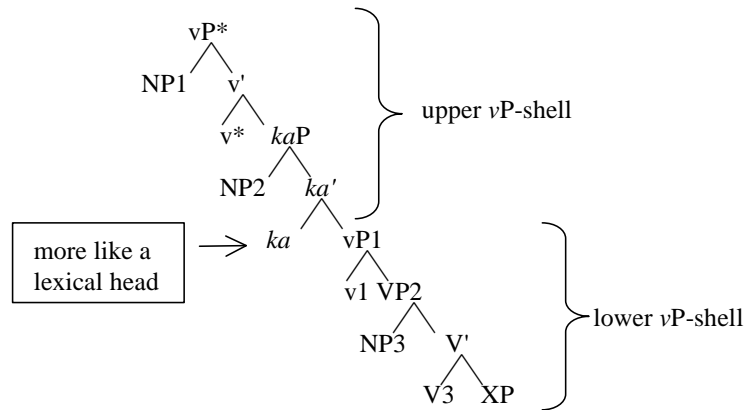
Yet, she did not explain how come the *ka*-NP may end up with four different theta roles, especially when the linking from the main predicate, V3, of the lower *v*P-shell is disconnected by her proposal that the *ka*-NP is base-generated instead of being raised. In other words, if the *ka*-NP is not raised from the lower *v*P-shell after being assigned a corresponding theta role from the main predicate, we have no idea why it would manifest four different theta roles related to the main predicate.

Meanwhile, Lin (2001) adopts the Lasonian VP-shell and treats *ka* as an overt realization of the light verb AFFECT (321:(65)) (see also Cheng's et al. (1996) for their source double object construction):

(19) a. Ong-e   ka   Taiwan Ginhang qiü   pe-paban.
       Ong-e   KA   Taiwan Bank   rob   eight-million
       'Ong-e robbed eight million dollars from Taiwan Bank.'
     b.
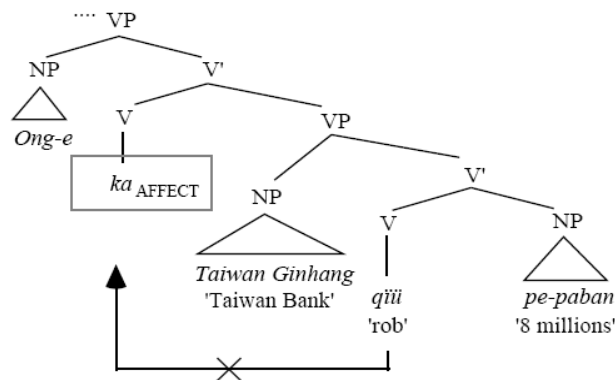
In (19) the main predicate *qiü* 'rob' does not raise to the light verb position since it is already occupied by a lexically spelled-out light verb *ka*. The light verb *ka* in turn takes the lower VP as its complement. The *ka*-NP, *Taiwan Ginhan*

'Taiwan Bank', is base-generated at the lower Spec-VP serving as an internal subject of the complex predicate *qiü pe-paban* 'rob 8 millions'. Lin suggests that the common semantic feature encompassing the *ka*-NP is *affectedness*. As for the four different theta roles manifested on the *ka*-NP, he proposes, somewhat vaguely, that they "arise from the semantics/pragmatics of the predicate as a whole" (p. 319), without further elaboration.

In this study, I follow Li (2001) and Lin (2001) in treating *ka* as a light verb encoding AFFECT and the *ka*-NP as an in-situ noun phrase being affected. Yet, I explore further into the thematic relationship between the *ka*-NP and the main predicate, which both Li (2001) and Lin (2001) do not account for. My proposal is that the four apparent different theta roles manifested on the *ka*-NP should be attributed to a natural result of secondary predication introduced by lambda abstraction in the same vein as Huang (1999). In this regard, the *ka*-NP serves as the external argument of the complex predicate introduced by lambda abstraction and is predicated by the complex predicate. I will elaborate more on this issue later. Before that, let's investigate into the apparent raising phenomenon of the *ka*-NP first.

In the previous section we suggest that the *ka*-NP should be base-generated right after *ka* since *ka* may independently assign a theta role to it. Yet, proposing so would raise an immediate problem for the status of the gap, i.e., the empty category '*e*', as in (1-3), if we treat the *ka*-NP as base-generated. The gap in question behaves more like a trace for the following reasons. Firstly, to postulate a null pronominal *pro* at the gap position is not plausible since it cannot be overtly realized as exemplified in (20) below. Next, to treat it as a bound-variable will also be ruled out for the same reason (Huang 1984):

(20) a. *Abing   ka   Asan$_i$ phah-si   i$_i$ a.
         Abing   KA   Asan   beat-dead him   Perf.
         阿明 ka 阿三 $_i$ 打死伊 $_i$ 啊
         'Abing beat Asan to death.'
      b. *Abing   ka   Asan$_i$ ka   i$_i$ ingbuen.
         Abing   KA   Asan   teach   him   English
         阿明 ka 阿三 $_i$ 教伊 $_i$ 英文
         'Abing teaches Asan English.'
      c. *Kengchat   ka   hit-e   lang$_i$ huat   i$_i$ lak-pah   kho.
         policeman KA   that-CL   person fine   him six-hundre d dollar
         員警 ka 那個人 $_i$ 罰伊 $_i$ 六百塊
         'The policeman fined that man for six hundred dollars.'

Finally, since both *pro* and variable are not plausible for the gap position, we are left with the trace account. That is, the empty category should be a trace, the consequence of movement/raising. The following island effect further testifies the trace account. As are clearly demonstrated below, the raising of the *ka*-NP from the complex NP island is blocked:

(21) a. *Abing   ka   Abi$_i$ phah [$_{DP}$ [$_{CP}$ *e*$_j$ khiphen *t*$_i$] e   ang$_j$].
         Abing   KA Abi   beat   cheat   Rel.   person
         阿明 ka 阿美 $_i$ 打[[*e*$_j$ 欺騙 *t*$_i$]的人 $_j$]
         'Abing beat the person who cheated Abi.'

b. *Abing ka   Asan$_i$ be   [$_{DP}$ [$_{CP}$ e_j phuephing t_i] e   cheh$_j$].
    Abing KA   Asan   buy   criticize   Rel. book
    阿明 ka 阿三 $_i$ 買[[e_j 批評 t_i]的冊 $_j$]
    'Abing bought the book that criticizes Asan.'

c. *Abing ka   Asan$_i$ mng [$_{DP}$ [$_{CP}$ Abi phah t_i] e   taici.
    Abing KA   Asan   ask   Abi   beat   Rel. event
    阿母 ka 阿三 $_i$ 問阿明 [[阿美打 t_i] 的代誌]
    'Mother asked Abing the event that Abi hit Asan.'

d. *Phainn-lang ka   hit-e   ginna$_i$ phen Asan.
    bad-person   KA   that-CL   child   cheat Asan
    [$_{DP}$[$_{CP}$ e_j etang kiu t_i] e   cinn$_j$.
                may   save   Rel. money
    壞人 ka 那個団仔 $_i$ 騙阿三[e_j 可以救 t_i]的錢 $_j$]
    'The bad guy cheated Asan of the money that may save that child.'

Note that the Benefactive/Adversative usage can not be included in the tests above because there is simply no gap for us to test.

Meanwhile, we may follow Huang (1999) to test if the movement/raising is an A- or A'-movement. It is well known that A-movement is restricted to stricter locality requirement, while A'-movement allows some unbounded dependency between the landing site and the launching site of a moved element. The following dependency between the *ka*-NP and the trace suggests that it be the A'-movement that is at issue here since the *ka*-NP is located at least two IP's away from its launching site:

(22) a. I   ka   Asan$_i$ kio lomuann phah-si t_i a.
         he KA   Asan   ask bully   beat-dead   Perf.
         伊 ka 阿三 $_i$ 叫流氓打死 t_i 矣
         'He asked a bully to beat Asan to death.'

     b. I   ka   hit-puen   cheh$_i$ kio Abing   be -tiau t_i a.
         he KA   that-CL   book   ask Abing   sell-out t_i Perf.
         伊 ka 那本書 $_i$ 叫阿明賣掉 t_i 矣
         'He asked Abing to sell that book.'

     c. I   ka   ie   kiann$_i$ chiann lausu ka t_i ingbuen.
         he KA   his son   hire   teacher teach   English
         伊 ka 伊的団仔 $_i$ 請老師教 t_i 英文
         'He hired a teacher to teach his son English.'

     d. I ka hit-e   lang$_i$ kio kengchat huat t_i lak-pah kho.
         he KA that-CL   person ask policeman fine six-hundred dollar
         伊 ka 那個人 $_i$ 叫員警罰 t_i 六百塊
         'He asked the policeman to fine that man six hundred dollars.'

Now we face a dilemma. On the one hand, the *ka*-NP is base-generated at where it is on the surface structure as the previous section shows. On the other hand, it appears to have undergone movement that is evidenced in the tests above. Nevertheless, such a déjà vu dilemma reminds us of the Null Operator (NOP) analysis in (23) (Chomsky 1981), (24) (Cheng et al. 1996) and (25) (Huang 1999):

(23)   I bought a car$_i$ [OP$_i$ [to drive t_i]

(Taiwanese Southern Min)
(24)   a. Gua chiunn   cit-siu   kua $_i$ [OP$_i$ [Pro   ho [i tiann t_i]]].
            I   sing   one-CL   song   HO he listen
            [我唱一首歌 $_i$ [OP$_i$ [Pro   ho [汝聽 t_i]]]
            'I sing one song for you to listen to.'
        b. I$_i$ ho   [OP$_i$ [gua   phah-si t_i a]].
            he HO   I   beat-dead   Perf.
            [伊 $_i$ ho [OP$_i$ [我打死 t_i 矣]]
            'He was beaten to death by me.'

(Mandarin)
(25)   Zhangsan$_i$ bei   [OP$_i$ [Lisi da-le t_i].
           Zhangsan   BEI   Lisi beat
           張三 $_i$ 被[OP$_i$ [李四打了 t_i]]
           'Zhangsan was beaten by Lisi.'

The above examples have all been analyzed as involving A'-movement of a null operator (OP) in the embedded clause and a base-generated noun phrase in the matrix clause. A co-indexation between the noun phrase and the null operator is established via strong binding. In this regard, the noun phrase in question may remain in-situ while the trace in the embedded clause is attributed to the null operator movement.

The NOP approach serves just right to account for the raising puzzle of Taiwanese *ka*-construction here. I will thus apply such an approach to my analysis:

(26) a. Gua ka   i$_i$ [OP$_i$ [Pro   phah-si t_i a]].
          I   KA   him   beat-dead   Perf.
          我 ka 伊 $_i$ [OP$_i$ [Pro 打死 t 矣]]
          'I beat him to death.'
      b. Abing ka   Asan$_i$ [OP$_i$ [Pro   ka t_i ingbuen]].
          Abing   KA   Asan   teach   English
          阿明 ka 阿三 $_i$ [OP$_i$ [Pro 教 t_i 英文]]
          'Abing teaches Asan   English.'
      c. Kengchat   ka   hit-e   lang$_i$ [OP$_i$ [Pro   huat t_i lak-pah
          policeman   KA that-CLperson   fine   six-hundred
          kho]].
          dollar
          員警 ka 那個人罰 e 六百塊
          'The policeman fined that man for six hundred dollars.'

Note that the NOP approach still holds for the Benefactive/Adversative sentences if we assume with Cheng et al. (1996) that such construction involves an 'outermost object' bearing the theta role Indirect Affectee. The outermost object then undergoes NOP movement to the IP-adjoined position to form a lambda predicate which in turn is predicated of the *ka*-NP:

(27) Abu   ka   Asan$_i$ [OP$_i$ [t$_i$ [Pro se   sann]].
      mother   KA   Asan   wash clothes
      阿母 ka 阿三 $_i$ [OP$_i$ [t$_i$ [Pro 洗衫]]
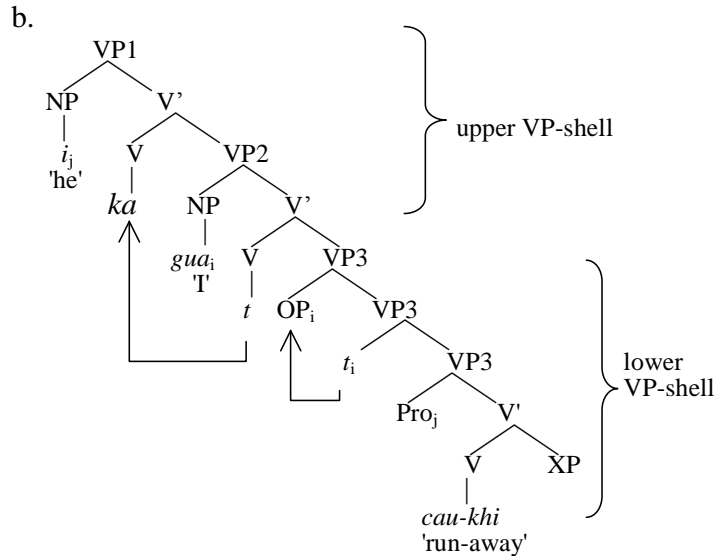   'Mother washes clothes for Asan.'

The syntactic structures I propose for the *ka*-construction are as follow. For the construction where a gap exists, I propose the following structure (28) where the upper VP-shell is akin to Li's (2001) while the lower VP-shell is a secondary predicate induced by the Null Operator Movement:

(28) a. Gua ka   Abing$_i$ [OP$_i$ [Pro phah   *t*$_i$]].
         I   KA   Abing   beat
         我 ka 阿明   [OP$_i$ [Pro 打 *t*$_i$]]
         'I beat Abing.'

b.
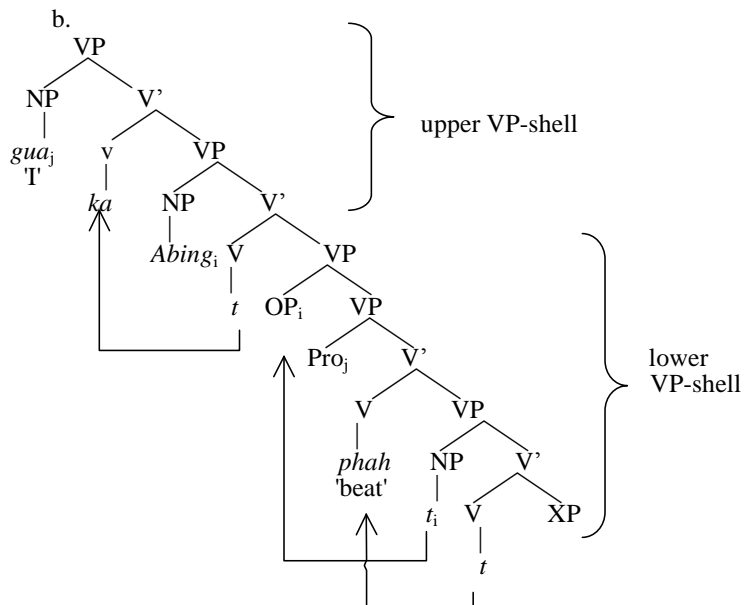
For the non-gapped construction, i.e., the Benefactive/Adversative construction, I propose the following structure where, following Huang (1999), a null "outermost object" is adjoined to the lower VP-shell, VP3, as its object. It then undergoes Null Operator movement to the VP3 adjoined position, turning the whole VP3 as a complex predicate:

(29) a. I ka   gua cau-khi.
         he KA I   run-away
         'He ran away (on me).' Or 'I was affected by his running away.'

b.

VP1
NP   V'
|
i_j V   VP2
'he' |
ka NP   V'
        gua_i V   VP3
        'I' |
                   t OP_i VP3
                         t_i VP3
                                Pro_j V'
                                        V   XP
                                        |
                                    cau-khi
                                    'run-away'

upper VP-shell

lower VP-shell

The NOP approach also sheds light on the seemingly polysemous property of *ka*. Recall that *ka* may serve as four thematic markers, i.e., the Patient/Theme marker, the Goal marker, the Source marker, and the Benefactive/Adversative marker, as are already manifested in (1-4). It is not plausible if we simply recognize those four properties as built within the lexicon of *ka* because doing so will increase the labor in storing the lexicon. Moreover, the speaker will have to decide which property of the four best fits the context during language processing when dealing with the four-way uses of *ka*. Independent constraints or restrictions have to be assumed in order to regulate the four uses/properties of *ka*. It is laborious again. The lexicon approach thus will not have a say in terms of language acquisition.

Now, if we simply treat *ka* as a general predicate (a light verb) encoding AFFECT in its lexicon, which only exerts the affectedness on its object, the *ka*-NP, the ease of labor in processing the lexicon will render such an approach a much more promising one. Also, we do not have to assume any independent constraint or restriction to regulate the four uses of *ka*. As for how the four thematic marking functions can be achieved, I suggest that they are natural consequences of the secondary predication achieved by the NOP movement. To put it more specifically, the null operator movement manifested in (30b) has turned the proposition [Pro phah-si e_i a]] in (30a) into a lambda predicate (30c), which in turn is predicated of the *ka*-NP *i* 'him' to reinforce the properties denoted by the lambda predicate unto the *ka*-NP via strong binding (Chomsky 1986, Cheng et al. 1996, Huang 1999). The sentence (30) is then interpreted roughly as "I affected him by rendering him the properties of being an x such that I beat up x".

(30) a. Gua   ka i_i [Pro   phah-si e_i a]].
         I   KA   him   beat-dead   Perf.
         我 ka 伊 $_i$ [Pro 打死 e 矣]]

'I beat him to death.

    b.   Gua ka i_i [OP_i [Pro phah-si t_i a]].

    c.   Gua ka i_x [λ x [Pro phah-si   *x* a]].

Since the *ka*-NP acquires the properties denoted by the lambda predicate, the thematic relationship between them is established as a natural consequence. No independent rule or constraint is needed to explain the thematic properties of the *ka*-NP. This is a satisfactory result since it leads to a greater ease of labor during the process of language acquisition.

    If I am on the right track, the Taiwanese *ho*-construction and the Mandarin *bei*-construction analyzed under the NOP movement approach by Cheng et al. (1996) and Huang (1999) should also manifest the polysemous behavior. Such is well attested in the following examples. All the NPs in question (the NP that is predicated of) yield the thematic relation with the lambda predicate formed by NOP movement:

(Mandarin *bei*-passive)

(31) a. <u>Zhangsan</u>   bei Lisi da-si   le.   (Patient)
          Zhangsan   BEI Lisi beat-dead Perf.
          'Zhangsan was beaten to death by Lisi.'

      b. <u>Na-ben</u>   shu bei Zhangsan mai-diao le.   (Theme)
          that-CL   book BEI Zhangsan sell-out   Perf.
          'That book was sold by Zhangsan.'

      c. <u>Na-ge</u>   ren   bei Zhangsan ma-le   yi-dun. (Goal)
          that-Cl   person BEI Zhangsan   scold-Pref. one-CL
          'That person was scolded by Zhangsan severely.'

      d. <u>Zhangsan</u>   bei jingcha   fa-le   liu-bai   kuai. (Source)
          Zhangsan   BEI policeman fine-Perf. six-hundreddollar
          'Zhangsan was fined for six-hundred dollars by a policeman.'

(Taiwanese *ho*-passive)

(32) a. <u>Asan</u>   ho Abing phah-si   a .   (Patient)
          Asan   HO Abing   beat-dead Pref.
          阿三 *ho* 阿明打死矣
          'Asan was beaten to death by Abing.'

      b. <u>Hit-puen</u> cheh ho Asan be-tiau   a .   (Theme)
          that-CL   book HO Asan   sell-out   Pref.
          那本書 *ho* 阿三賣掉矣
          'That book was sold by Asan.'

      c. <u>Abing</u>   ho   Asan   ka   engbuen.   (Goal)
          Abing   HO Asan   teach   English
          阿明 *ho* 阿三教英文
          'Abing was taught English by Asan.'

      d. <u>Abing</u>   ho kengchat   huatlak-pah   kho.   (Source)
          Abing   HO policemanfine six-hundred   dollar
          阿明 *ho* 員警罰六百塊
          'Abing was fined six-hundred by a policeman.'

(Taiwanese *ho*-SVC construction)

(33) a. Gua   ca   <u>cit-lia kiu</u>   ho   Asan   thak.   (Patient)
         I   bring one-CL ball   HO   Asan   kick
         我帶一個球 ho 阿三踢
         'I bring one ball for Asan to kick.'

      b. Gua   chiunn   <u>cit-shu kua</u>   ho   li   thiann.   (Theme)
         I   sing   one-Cl song   HO   you listen
         我唱一首歌 ho 你聽
         'I sing one song for you to listen to.'

      c. Abing   chua   <u>Asan</u>   ho lausu   ka   engbuen.   (Goal)
         Abing   bring Asan   HO teacher teach English
         阿明帶阿三 ho 老師教英文
         'Abing brings Asan for the teacher to teach English.'

      d. Gua hai   <u>Abing</u>   ho kengchat   huat lak-pah   kho.   (Source)
         I   harm Abing   HO policeman   fine   six-hundred dollar
         我害阿明 ho 員警罰六百塊
         'I cause Abing to suffer from being fined six-hundred dollars by the
         policeman.'

The thematic roles shown in the parentheses above are not the canonical
thematic roles assigned by the predicates in the matrix clause. They are only
meant to show the thematic relations between the secondary predicates and the
NPs that are predicated of. This does not mean that the NPs in question are
assigned theta roles by the secondary predicates. These NPs have their own theta
role. Take (31a). It has been convincingly argued in Huang (1999) that the
syntactic subject *Zhangsan* is base-generated at the subject position and it takes
the Agent (or Experiencer) role since a subject-oriented adverb *guyi*
'intentionally' denoting agentivity may be added to modify the subject:

(34)   Zhangsan   guyi   bei Lisi   da-shang   le.
       Zhangsan   intentionally BEI Lisi   beat-hurt Pref.
       'Zhangsan intentionally got beaten by Lisi such that he was hurt.'

Now, by secondary predication, the NP that is predicated by the lambda
predicate seems to acquire the secondary thematic role from it. That is the
reason why when the subject-oriented adverb *guyi* 'intentionally' is deleted, the
syntactic subject seems to be over-ridden with the patient role deriving from the
object position of the verb *da-shang* 'beat-hurt' via secondary predication, which
leads some linguists to treat Chinese passive construction as a raising
construction on a par with English one. That is also the reason why Taiwanese
ka may be mistakenly regarded as four different thematic markers.
      Meanwhile, we know that the tough construction in English is
traditionally dealt with the NOP analysis (Chomsky 1981). Following the
reasoning above, the NPs that are predicated of are expected to have the
thematic senses exerted from the secondary predicates. Obviously it is the case
in the following examples. As the thematic roles in the parentheses show, the
subjects underlined seem to have a second theta role besides their canonical one,
Theme.

(35) a. <u>John</u>$_i$ is too tough to beat up e_i .   (Patient)

b. The problem$_i$ is easy (for you) to solve e_i. (Theme)
c. John$_i$ is too stubborn (for us) to teach e_i the recycling. (Goal)
d. The sly John$_i$ is hard (for the government) to fine e_i any money.
(Source)

Also, in English some verbs, e.g. *get*, *make*, are too broad in meaning that it is not easy to find a word-to-word translation to Chinese. With the NOP movement analysis, it is now clear to us why the argument taken by *get* may have a second "flavor" in thematic role hooked up to the secondary predicate:

(36) a. Bill is trying every way to get John$_i$ to hit e_i in the face.(Patient)
b. I will get *a* car$_i$ to drive e_i. (Theme)
c. The teacher has got some students$_i$ to teach e_i morality. (Goal)
d. The government is trying hard to get John$_i$ to fine e_i a great fortune.

To conclude, treating *ka* as a a light verb encoding AFFECT in its lexicon, which only exerts affectedness on the *ka*-NP, is favorable due to the ease of labor in terms of language acquisition. No further constraint or restriction is required to regulate the four uses of *ka*. The four thematic marking functions are simply natural consequences of the secondary predication achieved by the NOP movement.

One might ask whether there is any difference if we want to pair *ka* with Mandarin *bei* and Taiwanese *ho*. Or is it possible for *bei* or *ho* to have a Benefactive/Adversative NP? My reply comes as following. In fact *ho* in Taiwanese Southern Min does have an Adversative NP in the so-called Adversative Passive (Huang 1999). Consider the following:

(29) a. I   ka   gua   cau -khi.
     he   KA   I   run-away
     伊 ka 我走去
     'He ran away (on me).' Or 'I was affected by his running away.'

(from Huang (1999: 482(106c)), see also (462(71)), and the diagram in (492(130))

(37)   Gua bosiosim ho   i   cau-chut-khi   a.
          I   carelessly HO   him   run-out-away   Perf.
          我不小心 ho 伊走出去矣
          'Due to my carelessness, I had him running away (on me).'

The difference between *ka* and *ho* is that while *ka*-NP *gua* 'I' in (29a) is the Adversative NP being predicated by the secondary predicate in *ka*-construction, in *ho*-construction (37) it is the matrix subject *gua* 'I' that is predicated by the secondary predicate. Moreover, the fact that both *ka* and *ho* may allow an extra argument, the Adversative NP, seems to me that they are not yet fully grammaticalized into a functional head, at least less grammaticalized than *bei* in Mandarin Chinese.

As for the reason why its Mandarin counterpart does not have the Adversative construction, I have no clear answer for that. Obviously, the

Adversative construction is prominent in Taiwanese, but not so in Mandarin Chinese. We may assume that the light verb *ka* and *ho* in Taiwanese are not so grammaticalized as *ba* and *bei* in Mandarin Chinese. That is, *ka* and *ho* in Taiwanese are more lexical like a verb whereas *ba* and *bei* are more functional like an auxiliary. Meanwhile, according to Huang (1999), the adversely affected object is the "outermost object" of the VP. In this regard, the more lexical *ka* and *ho* may independently license the existence of the outermost object. Such a stipulation is confirmed by the following examples where the adversative noun phrases in Mandarin Chinese are licensed by a lexical verb, *gei* 'give' in (38) and *rang* 'let' in (39), though not by *ba* or *bei*:

(38) a. Ni   daodi   **gei/*ba**   wo   pao   dao   nar   qu le?
          you on-earth give/BA   I   run   to   where   go Pref.
          'Where on earth did you go (on me)?'
      b. Na-ge   xiao-tou jingran   **gei/*ba**   wo pao-le.
          that-CL   thief   unexpectedly   give/BA me run-Pref.
          'That thief unexpectedly run away (on me).'
(39)   Wo **rang/*bei**   ta (gei)   pao-le.
          I   let/BEI   him   give   run-Pref.
          'I was affected by (or suffering from) his running away.'

In the above examples, an adversative NP *wo* 'I' is added and independently licensed by the lexical verb *gei* 'give' and *rang* 'let' respectively. The adversative NP here has almost the same meaning as those in *ka*-construction and *ho*-construction, all of which denote some individuals affected by or suffering from certain events.

5.   **From coordination to complementation: a historical perspective**

From a historical perspective, Lien (2002) points out that *ka* in most cases can be a Benefactive marker, a Goal marker, and a Source marker, whereas only in few cases case can it be a Patient marker in *Li Jing Ji (荔鏡記)*, an earliest extant text of Southern Min (1566 AD). What is surprising is that the canonical behavior of disposal construction, such as the *ba*-construction in Mandarin Chinese, is to mark its object as Patient. Lien's suggestion immediately excludes the possibility that *ka* and *ba* are etymologically derived from the same source (see also Cheng & Tsao 1995), or that *ka* is derived from *ba*, or that *ka* is the counterpart of *ba*, though the younger generations of Taiwanese tend to use *ka* as a counterpart of *ba* (Lien 2002: fn. 23). Moreover, tracking back to the usage of *ka* in literature, Wu (1996) and Lien (2002) point out that *ka* is derived from the conjunction *kang* (共) dating back to "the late Tang and Five Dynasties period (the mid-eighth to tenth century) and possibly an earlier time" (Lien 2002:207, and references therein) and maintains its conjunction function until Min dynasty. Meanwhile, Cheng and Tsao (1995) also suggest the conjunction origin of *ka*. They suggest that *ka* may be derived from the conjunction *kap* (合) of the commitative usage. Both Lien's and Cheng & Tsao's studies are further steps away from the Mandarin disposal *ba* since *ba* is never derived from a conjunction, but a lexical verb instead.

Studies from the previous literature (Cheng & Tsao 1995, Wu 1996, and Lien 2002) bring support to our analysis in this paper. Firstly, the proposal that *ka*-NP is base-generated instead of being raised from the complement position of the main verb is now plausible since *ka* originates from the conjunction usage which obligatorily takes an in-situ object to be conjoined with. Secondly, *ka*'s conjunction heritage also confirms the proposal (also Li's (2001)) that *ka* is more lexical with respect to its potential to take its own argument *ka*-NP and to independently assign a theta role to it. For one thing, the conjunction naturally takes an object argument. For another, according to Lien (2002:207) *ka* "had in Middle Chinese times developed to a stage at which it expresses the execution of action with respect to the object that takes on various semantic roles except patient (Wu 1996: 242)". Meaning, the *ka*-NP is able to get a theta role from *ka* with the advent of *ka*'s capability in exerting actions (affectedness in our term). Finally, the fact that *ka* may take a patient object in Modern Taiwanese Southern Min, especially among younger generations, is not its inherent property or a heritage from its traditional usages. Instead, it is simply a "borrowed usage" from the widely-used Mandarin disposal *ba* (Lien 2002). The canonical disposal usage in Taiwanese Southern Min is to resort to *ciong* (將). The difference is that *ciong* is used in a more literary way while *ka* stands for the colloquial expression among the younger generations.

If the above arguments are reasonable, *ka* in Taiwanese Southern Min has undergone a major drift from the conjunction usage to the complementation usage. Such complementation usage is what our analysis strongly endorses in previous sections since we propose that the *ka*-NP be a base-generated argument of *ka* and that a complementation module (secondary predicate) be encoded in the *ka*-construction. Meanwhile, Mei (2003) proposes that there should have been a grammatical change in the history of Chinese that brought the phrase structure of Chinese from dominantly coordinating in Ancient Chinese to dominantly subordinating in Middle Chinese and afterwards. Though due to the limit of the dialectal literature we can only trace *ka* back to the Middle Chinese period as manifested in Wu's (1996) work, *ka* at that time have already had the various thematic marking capability (except for the Patient marking) (Lien 2002: 207) as well as its original conjunction usage. Such a phenomenon roughly conforms to Mei's observation, only that the phrase structure of *ka*-construction has developed from coordination to complementation instead of subordination.

6. An account on the differences between *ka* and *ba*

In spite of their similarities, it is generally agreed that Taiwanese Southern Min *ka* is different from Mandarin *ba* in three major aspects:
i) Bare-verb taking potential: *ka* can take a bare verb whereas *ba* can not. In (40a) the main verb *da* 'beat' can not stand alone in Mandarin *ba*-construction while in (40b) the main verb *phah* 'beat' can do so in Taiwanese *ka*-construction.

(Mandarin)
(40) a. *Wo ba   Zhangsan da.
        I   BA   Zhangsan   beat
        'I beat Zhangsan.'

(Taiwanese Southern Min)
      b. Gua   ka   Abing   phah.
          I   KA   Abing   beat
          我 ka 阿明打
          'I beat Abing.'

ii) Non-*ka*-counterpart: *ka* does not always have a non-*ka* counterpart, while *ba* always does. In (41b) the *ba*-NP *Zhangsan* is reconstructed back to the object position and in (42b) the *ba*-NP *juzi* 'tangerine' to the topic position. Note that the position where the *ba*-NP is reconstructed back does not have to be the canonical object position. The issue here is that the *ba*-NPs in question can have non-*ba*-counterparts.

(Mandarin)
(41) a. Wo   ba   Zhangsan   ma-le   yi-dun.
          I   BA   Zhangsan   scold-Perf. one-CL
          'I scolded Zhangsan severely.'
      b. Wo   ma-le   Zhangsan   yi-dun.
          I   scold-Pref.   Zhangsan   one-CL
          'I scolded Zhangsan severely.'
(42) a. Wo   ba   juzi   bo-le   pi.
          I   BA   tangerine   peel-Perf.   skin
          'I peeled the tangerine.'
      b. Juzi,   wo   bo-le   pi.
          tangerine   I   peel-Perf. skin
          'Tangerine, I peeled off the skin.'

However, in Taiwanese *ka*-construction the (Benefactive/Adversative) *ka*-NPs as in (43a) and (44a) can not be reconstructed back to any position. The main predicates have already been saturated and the additional arguments, *gua* 'I' in (43) and *Abing* in (44), cannot be licensed without *ka*. Even the topic position, a position typically immune from grammatical constraints, say, case requirement, does not guarantee the *ka*-NP as (43b) and (44b) show. That is to say, the *ka*-NP does not always have the non-*ka*-counterpart.

(Taiwanese Southern Min)
(43) a. I   *(ka)   gua   cau-khi.
          he   KA   I   run-away
          伊 *ka* 我走去
          'He ran away (on me).'
      b. *Gua, i   cau-khi.
          I   he   run-away
          我, 伊走去
          'I, he ran away.'
(44) a. Abu   *(ka)   Abing   se   sann.
          mother   KA   Abing   wash   clothes
          阿母 *ka* 阿明洗衫

'Mother washes clothes for Abing.'
  b. * Abing,   abu   se   sann.
       Abing,   mother wash   clothes
       阿明，阿母洗衫
       Abing, mother washes clothes.'

iii) Referentiality of the *ba/ka*-NP: the *ba*-NP tends to be definite or specific, or even generic ("strong" NPs in Barwise and Cooper's 1981 term) but never non-specific, whereas the *ka*-NP can be non-specific. In (45) the NP *ren* 'person' in Mandarin is referred to either a specific or definite person. In (46) the NP *lang* 'person' in Taiwanese may be referred to a nonspecific person:

(Mandarin)
(45)   Zhangsan ba   ren   da-le   yi-dun.
          Zhangsan BA   person   beat-Perf.   one-CL
          'Zhangsan beat a certain/the person severely.'

(Taiwanese Southern Min)
(46) a.   Abu   ka   lang   se   sann.
          mother   KA   person   wash   clothes
          阿母 ka 人洗衫
          'Mother washes clothes for someone.'
     b.   Hit-e   siau-e tiann-tiann ka lang   o-pe   menn.
          that-CL lunatic   often-often KA person black-write   scold
          彼個肖仔常常 ka 人黑白罵
          'That lunatic often scolds people for nothing.'
     c.   Asan si-ke   khi ka lang   tau-sann-kang.
          Asan everywhere go KA person   help
          阿三四界去 ka 人鬥相共
          'Asan goes everywhere to help people.'

The bare NP *lang* 'person' in (46) has a nonspecific reading[8] similar to the existential reading as "sm-one" in contrast to the quantificational reading akin to the strong reading as "SOME-one" (Milsark 1974, Diesing 1992). For the nonspecific reading, the person in question can be anyone. There is no presupposed individual to be referred to. So in (46a) mother can wash clothes for anyone; in (46b) that lunatic can scold anyone; and in (46c) Asan can help anyone.
        We now try to account for the three differences between Mandarin *ba* and Taiwanese *ka*. The first difference, i.e., the potential to take a bare verb, and the third one, i.e., the referentiality of *ba/ka*-NP, can be accounted for together. Here Liu's (1997) aspectual analysis provides a very good start. She suggests that '*ba* sentence requires its predicate to denote a bounded event or situation' and the 'bounded situations' are achieved through the addition of various forms

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[8] The bare-NP *lang* 'person' in (46) has another logophoric reading similar to 'myself' in Taiwanese. We will focus on the nonspecific reading here instead of the logophoric one.

to the bare verb as are usually observed in the *ba*-construction:[9]

(47) a. V + complement
      b. V + *de*
      c. V + retained object
      d. V + perfective marker *le*
      e. V + PP (durative or locative)
      f. V + quantified phrase
      g. V + *yi* + V
      h. V + durative marker *zhe*
      i. Adv + V

That's why *ba* cannot take a bare verb form. As for the question why *ba*-NP has to be at least specific, she suggests a semantic mapping (Krifka 1989, 1992, Dowty 1991, and Filip 2001) or dependency in her term between the telicity denoted by the bounded situations on the predicate and specificity on the *ba*-NP. That is, the 'bounded' predicate would require its NP argument to be specific. The syllogism is quite simple. The *ba* sentence requires its predicate to be 'bounded' predicate. The 'bounded' predicate requires its NP argument to be specific. That's why the *ba*-NP is (at least) specific. Sybesma (1999) has similar observation and he concludes that 'the definiteness of the [*ba*-]NP is related to the nature of the predicate involved' (Sybesma 1999:174).

However, assuming Liu's analysis we would still have to explain why Mandarin *ba* would require its predicate to be 'bounded' whereas Taiwanese *ka* would not? We may attribute such a phenomenon to the idiosyncratic properties of *ka* and *ba* respectively. Yet, such postulation does not seem to be a satisfactory one. After all, leaving everything unaccounted for to the lexicon does not explain anything. I agree with Liu's insight that the specificity of the *ba*-NP is related to the boundedness of predicate type via semantic mapping. However, it is not enough to cover the Taiwanese *ka*-construction. In what follows I would like to provide a syntactic account for the differences between *ba* and *ka* and suggest that both the syntactic structure and the semantic mapping play a role in the specificity of the *ba/ka*- NP.

Huang (1982, 1984, 1994) proposes that the referential (or at least specific) NP is situated at the position as the sister of V' (or SpecVP, adopting the VP-shell notion) instead of the sister of V (V-complement). That is, the object NP is licensed to be referential (or specific) once it situates at the SpecVP position, as required by the independent Postverbal Structure Constraint (PSC) (Huang 1982), a general constraint on Chinese phrase structure. Now, when it comes to the *ba*-NP, regardless of the raising or control issue, the *ba*-NP would

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[9] I believe that Liu's analysis is basically right, except that she suggests that the telicity in Chinese verbal phrase may be derived from the addition of a direct object just as its counterpart in English. Yet, I think that the telicity in Chinese should be further ensured by either the resultative construction or the perfective verbal *le*. That is, the telicity of a verbal phrase or a sentence in Chinese is quite strict that the sole addition of a direct object to the verbal predicate is not sufficient to yield a bounded event (This conforms to Li's (2003) observation, only that she does not point out the telicity may be contributed by either the resultative construction or the verbal *le*). We will not discuss the specific details here.

end up at the SpecVP position as both the raising or control approaches would agree. Such position is the referential position as proposed by Huang.

(48) a. Zhangsan   ba   gou   ti-le   yi-jiao.
        Zhangsan   BA   dog   kick-Perf.   one-leg
        'Zhangsan kicked the dog once.'
   b. Lisi ba   shoupa   ku-shi-le.
        Lisi BA   handkerchief   cry-wet-Perf.
   'Lisi cried such that the handkerchief was wet.'

(49)
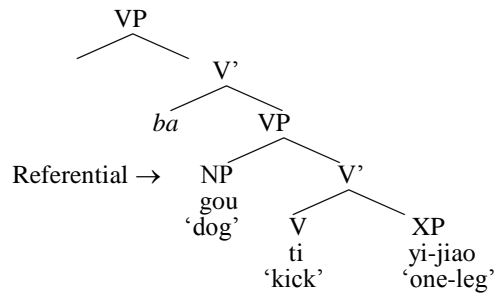
In other words, the referential/specific reading of the *ba* NP is not licensed by *ba* itself but by the argument position SpecVP which in turn, we propose, is licensed by the boundedness/telicity of the main predicate as one of the types in (47).

     Let's now turn to the *ka*-construction in Taiwanese Southern Min. Following the phrase structure proposed in (28b) (or the simplfied version (50)), it is clear that the *ka*-construction is more 'analytic' in that it has a double VP-shell structure, in contrast to *ba*'s single VP-shell:

(50)   (simplified version)
a. Taiwanese *ka*-construction   b. Mandarin *ba*-construction
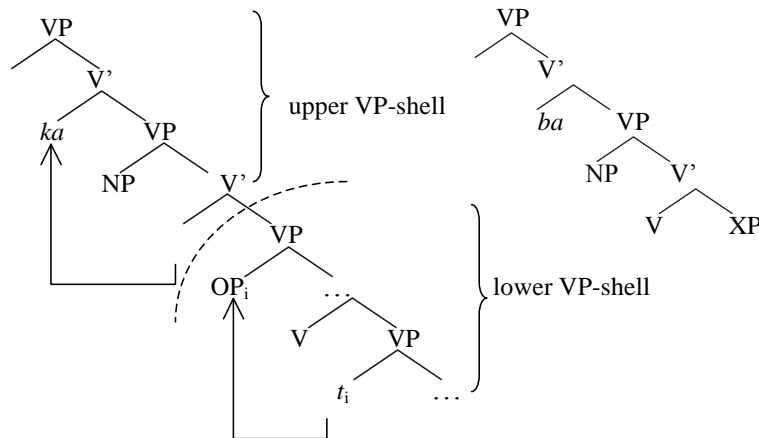
The structural difference between *ka* and *ba* has one significant point. That is, the *ka*-NP is farther away from the main predicate than the *ba*-NP is. The *ka*-NP and the main verb are of different VP-shells whereas the *ba*-NP and the main verb are within the same VP-shell. In the *ka*-construction the lower VP-shell is "closed off" by the null operator and is turned into a lambda predicate being predicated of the *ka*-NP which in turn is higher up in the upper VP-shell.

Let's see how this structure difference would explain the first difference and the third difference between *ba* and *ka*, i.e., the bare-verb taking potential and the referentiality of the *ba/ka*-NP. Recall that Huang (1982, 1984, 1994) suggests that the referential (or at least specific) NP be situated at the position SpecVP which is licensed by the boundedness/telicity of the main predicate. For the *ka*-construction, though the *ka*-NP is situated at the SpecVP in the upper VP-shell, this VP-shell is not the canonical VP-shell consisting of the main predicate. The SpecVP position in the upper VP-shell, then, does not have to be licensed by the main predicate situated in the lower VP-shell. It is licensed, instead, by the more "lexical" *ka*. Now, since *ka* is always in its bare form, it naturally renders its *ka*-NP as nonreferential/nonspecific, adopting the semantic mapping analysis (Krifka 1989, 1992, Dowty 1991, Filip 2001, and Liu 1997). Meanwhile, since the main predicate in the lower VP-shell is not responsible in licensing the *ka*-NP in the upper VP-shell, the main verb naturally can appear in its bare verb form.

As for the Mandarin *ba*-NP, as is suggested in the above tree diagram, it is within the same VP-shell as the main predicate. Recall that Liu (1997) suggests that *ba* sentence would require its predicate to denote a bounded event or situation and we further suggest that it is the position of SpecVP, a referential position, that needs to be licensed by a bounded/telic predicate. The bounded/telic predicate in Mandarin *ba*-construction can never be expressed with a single bare verb form.[10] This accounts for their first difference.[11]

Now, since the main verb in the *ba*-construction can never be of bare-verb form, i.e., it has to be bounded/telic, the main verb will then turn the *ba*-NP into specific by semantic mapping since they are close enough. On the other hand, because the *ka*-NP is too far away from the main verb (recall that the lower VP-shell has been "closed off" by the null operator), the *ka*-NP naturally does not need to be licensed by the main predicate. It is then the "more lexical" *ka* that is in charge here. Since *ka* is always in its bare form, the *ka*-NP then can be licensed to be nonspecific. This accounts for the third difference. In a word, it is due to the difference in the phrase structure, or more specifically the distance, between the *ba/ka*-NP and the main predicate that causes the first and third difference mentioned in this section.

Let's now turn to the second difference (the non-*ba*/*ka*-counterpart)

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[10] Even the standard achievement verb like *ying* 'win' or *jian* 'meet' whose boundedness is built-in within the lexicon cannot be used in the *ba*-construction since the *ba*-construction is typically used in the disposal usage which would exert some actions or affectedness on the *ba*-NP in question. That is, the bare achievement verb in (Modern) Mandarin Chinese cannot appear in the *ba*-construction.

[11] The fact that *ba* has a deeper connection (semantic mapping) to the telicity of the main verb (Krifka 1989, 1992, Dowty 1991) whereas *ka* is less so may be due to their different origins. That is, *ba* originates from verb while *ka* from conjunction.

which is easier to solve. As is already mentioned before, *ka* is more lexical than *ba* in that *ka* can independently take its own argument and assign the corresponding theta role, Affectee, to it. The phrase structures (28b) and (50a) clearly show that the *ka*-NP is an independent argument licensed by *ka* and the *ka*-NP has little to do with the argument structure of the main predicate situated within the lower VP-shell. That is why the *ka*-NP can not always be "reconstructed" back. There is simply no launching site for the *ka*-NP. This analysis amounts to saying that the *ka*-construction is not derived from the non-*ka*-construction. They are of two different structures, none of which is derived from the other.

If the *ka*-NP is an independent argument of *ka* instead of the main predicate, we may expect that a predicate with all its arguments saturated may still take an extra argument once *ka* is added. Such is well attested as exemplified in the following examples:

(one-place predicate)
(51) a. Abi   cau-khi   a.
      Abi   run-away   Perf.
      'Abi ran away.'
   b. Abi   ka   gua   cau-ki   a.
      Abi   KA   me   run-away Perf.
      阿美 ka 我走去矣
      'Abi ran away (on me).' Or 'I was affected by Abi's running away.'

(two-place predicate)
(52) a. Abing   phah   Asan.
      Abing   beat   Asan
      阿明打阿三
      'Abing beat Asan.'
   b. Abing   ka   Abi phah Asan.
      Abing   KA   Abi beat Asan
      阿明 ka 阿美打阿三
      'Abing beat Asan for Abi.'

(three-place predicate)
(53) a. Abing   sang Abi cit-ki   pit.
      Abing   give Abi one-CL   pen
      阿明送阿美一支筆
      'Abing gave Abi one pen.'
   b. Abing ka   gua sang Abi cit-ki   pit.
      Abing KA   me   give Abi one-CL pen
      阿明 ka 我送阿美一支筆
      'Abing gave Abi one pen for me.'

In the (b) examples above, though all the predicates are saturated, we can still add one extra argument when *ka* occurs. On the other hand, the *ka*-NP in the (b) examples cannot be "reconstructed" back to any position since all the argument positions of the main predicate have been filled as are already demonstrated in

(43) and (44) before. This suggests that *the ka*-NP cannot always have a non-*ka*-counterpart, especially in the Adversative/Benefactive construction. Now, assuming our structure in (28b), (29b) or (50a), such a phenomenon is well accounted for. That is, the *ka*-NP is a base-generated argument of *ka* in the upper VP-shell and thus it cannot be "reconstructed" back to any position in the lower VP-shell. Its seemingly close kinship with the main predicate is but a disguise of secondary predication guaranteed via strong binding. The missing of non-*ka*-counterpart is then a natural consequence.

The missing of non-*ka*-counterpart is best observed in the Benefactive/Adversative construction in Taiwanese. In this paper, I follow Huang (1999) by assuming the outermost object account. In Huang (1999:492ff), though he elegantly characterizes the inclusive/ exclusive readings of Taiwanese passive construction in terms of the outer/outermost object, one thing is yet to be clarified. How is this extra argument projected? Huang's explanation is that such an argument, the Indirect Affectee, is an object of the VP, instead of V' whose object is the Direct Affectee. The Indirect Affectee is then licensed by VP as the object of the VP. Yet, this does not seem to be a plausible account since in that case we would expect that all VPs may have an outermost object serving as the Indirect Affectee:

(Mandarin)
(54) a.　Zhangsan　pao-zou-le.
　　　　Zhangsan　run-away-Perf.
　　　　'Zhangsan ran away.'
　　b.　*Zhangsan　wo　　pao-zou-le.
　　　　Zhangsan　me　　run-away-Perf.
　　　　'Zhangsan ran away (on me).'
　　c.　*Zhangsan　ba　　wo pao-zou-le.
　　　　Zhangsan　BA　　me　run-away-Perf.
　　　　'Zhangsan ran away (on me).'

As one can easily observe that such a claim is not always true because the outermost object needs some 'real' licensors, for example, *ka* and *ho* in Taiwanese Southern Min, so that the outermost object may be projected and thus get licensed accordingly:

(Taiwanese Southern Min)
(55) a.　Abi　*(ka)　gua　cau-chut-ki.
　　　　Abi　KA　　me　　run-out-away
　　　　阿美 ka 我走出去
　　　　'Abi ran away (on me).' Or 'I was affected by Abi's running away.'
　　b.　Gua　bosiosim　*(ho)　i　cau-chut-khi　a.
　　　　I　　carelessly　HO　him run-out-away　Pref.
　　　　我不小心 ho 伊走出去矣
　　　　'Due to my carelessness, I had him running away (on me).'

The verb *cau-chut-ki* 'run-out-away' is an one-place predicate allowing only one argument to be projected. When additional argument is added, the sentence turns

out to be ungrammatical. As is manifested above, the insertion of the disposal *ba* in Mandarin does not help to secure the extra argument. Only *ka* and *ho* in Taiwanese may serve as the real licensor to secure the extra argument, the outermost object. If we treat *ho* and *ka* as "more lexical" in terms of argument-taking potential; that is, they both may assign case and theta role to its arguments, the above mentioned problem may be well accounted for.

   Cheng et al. (1996) mention that the Taiwanese *ho*-passive construction may be dealt with the NOP analysis. They provide examples in terms of resumptive pronoun to show that the *ho*-passive is involved with A'-dependency within which the resumptive pronoun is commonly observed. Consider the parallel between (56) and (57). Both (56b) and (57b) do not allow the resumptive pronoun *i* 'him' to occur, whereas both (56c) and (57c) do allow so. The relativization in (57) is a typical instance of A'-dependency. By Analogy, (56) should also involve the A'-dependency since it patterns with (57). Such a parallel confirms their NOP analysis since the NOP analysis also involves A'-dependency.

(56) a. I   ho   gua   phah-siong   a.
        he HO   me   beat-hurt   Perf.
        伊 ho 我打傷矣
        'He was beaten and hurt by me.'
     b. *I   ho   gua   phah-siong   i   a.
        he HO   me   beat-hurt   him Perf.
        伊 ho 我打傷伊矣
        'He was beaten and hurt by me.'
     c. I   ho   gua   ka   i   phah-siong a.
        he HO   me   KA   him   beat-hurt   Perf.
        伊 ho 我 ka 伊打傷矣
        'He was beaten and hurt by me.'
(57) a. Gua phah-siong   e   hit-e   lang   tng -khi   a.
        I   beat-hurt   Rel.   that-CL   person turn-away Perf.
        我打傷的那個人轉去矣
        'That person whom I beat such that he was hurt went back.'
     b. *Gua phah-siong   i   e   hit-e   lang   tng -khi   a.
        I   beat-hurt   him Rel. that-CL person turn-away Perf.
        我打傷伊的那個人轉去矣
        'That person whom I beat such that he was hurt went back.'
     c. Gua ka   i   phah-siong e   hit-e   lang   tng -khi   a.
        I   KA   him beat-hurt   Rel. that-CL person turn-away Perf.
        我 ka 伊打傷的那個人轉去矣
        'That person whom I beat such that he was hurt went back.'

Under our analysis in this paper, the resumptive pronoun in the above examples is just a special case of the *ka*-NP which can be independently licensed by *ka* and serves as an independent argument of *ka*. That is, *ka* may itself take an argument. What seems to be a resumptive pronoun in the above examples is nothing but an argument introduced by *ka*. In this sense, our analysis helps to maintain the gap analysis in Cheng's et. al (1996) NOP movement approach when dealing with Taiwanese *ho*-constructions.

In sum, in this section we propose that the structure of the Taiwanese *ka*-construction is more articulate than that of the Mandarin *ba*-construction in that the former involves a "double" VP-shell structure while the latter involves "single" VP-shell. Moreover, the *ka*-NP is base-generated in the upper VP-shell and it is licensed by *ka* instead of the main predicate in the lower NP-shell. The main predicate then can be of bare-verb form since it is not responsible for the referentiality of the *ka*-NP situated far above. Next, we adopt the semantic mapping approach (Krifka 1989, 1992, Dowty 1991, Filip 2001, Liu 1997) in accounting for the referentiality of the *ka*-/*ba*-NP. Assuming the more articulate structure, i.e., the "double" VP-shell, it is clear that the *ka*-NP is not regulated by the main predicate. Instead, it is licensed by *ka* in the upper VP-shell. Meanwhile, since *ka* is always in its bare form, the *ka*-NP then can be naturally nonreferential/nonspecific (adopting the semantic mapping analysis. Finally, because *ka*-NP is an independent argument of *ka* and is base-generated in the upper VP-shell, it is quite natural that it does not have to be "reconstructed" back to any other position. That is, the *ka*-NP does not always have the non-*ka*-counterpart.

7. Concluding remarks

This paper is composed of three parts. The first part deals with the polysemy of *ka*. We dispense with the traditional view that *ka* may serve as four different thematic markers. Instead, we suggest the NOP analysis developed in Chomsky (1981), Cheng et al. (1996), and Huang (1999) together with Li's (2001) and Lin's (2001) light verb approach should be adopted to account for *ka*'s various thematic marking potential. An articulate structure of "double" VP-shell is proposed accordingly. The second part mentions *ka*'s conjunction heritage from a historical perspective. This part further confirms our idea that the *ka*-NP is an independent argument of *ka* and it is base-generated at where it is on the surface structure. The facts that *ka* is derived from a conjunction and a complementation module is adopted within the *ka*-construction suggest that *ka*'s derivation be roughly in accordance with Mei's (2003) observation that there has been a grammatical change in the history of Chinese that brought the phrase structure of Chinese from dominantly coordinating to dominantly subordinating in a broad sense. The third part deals with three differences between Mandarin *ba* and Taiwanese *ka*. The structure we proposed in the previous sections successfully accounts for those differences, i.e., the bare-verb taking potential, the non-*ba*/*ka*-counterpart, and the referentiality of *ka*/*ba*-NP. We conclude that the differences are attributed to the proposed structural differences that Taiwanese *ka*-construction enjoys a more articulate phrase structure than the Mandarin *ba*-construction.

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Contact Information:

Snail mail: Graduate Institute of Linguistics,
*   National Tsing Hua University*
*   101, Sec. 2, Guang-fu Rd., Hsinchu 300*
*   TAIWAN*
Email: d918702@OZ.nthu.edu.tw