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# LOCATIVE INVERSION IN CANTONESE

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Abstract: This paper proposes that locative inversion is a widespread syntactic process in Cantonese. The sentence-initial locative phrases in the Locative Inversion sentences are argued to be subjects which come from the postverbal complement position in the majority of cases; but it is also possible to move a preverbal adjunct locative phrase to the subject position in the existential "yau"(have) sentences. This movement hypothesis is crucially dependent on the relative distribution and co-occurrence restrictions between the sentence-initial locative phrases and their coreferent proform "hai dou"(there). One important observation drawn from the SuperRaising analysis of the sentence-initial locative phrases is that "pro" in Chinese, albeit an A-specifier, will not block A-movement, unlike what is predicted by the theory of Relativized Minimality.

## I. Introduction

This paper will investigate the phenomenon of Locative Inversion in Cantonese. By Locative Inversion, I mean that in a sentence, the locative phrase (henceforth, LP) appears at the sentence-initial position and its logical subject[1] occurs postverbally. The following are two typical examples.

| (1) | (hai) | chong | seung min | fan | jo | go | yan | (hai dou)[2] |
|---|---|---|---|---|---|---|---|---|
|  | at | bed | top/on | lie | ASP[3] | CL | person | there |

"There is a person lying on the bed."

| (2) | (hai) | cheung | seung min | gwaa | jo | fuk | waa | (hai dou) |
|---|---|---|---|---|---|---|---|---|
|  | at | wall | top/on | hang | ASP | CL | picture | there |

"There is a picture hanging on the wall."

The interesting things about these sentences are that (i)the locative phrases can be prepositional phrases headed by the preposition "hai"(at/in/on/from) and (ii) some kind of proform "hai dou"(there) can coexist with the LPs although it must occupy a postverbal position in this case.

The first part of the paper will try to establish the D-structure for sentences like (1) and (2), which are confirmed to be ergative (unaccusative) in nature. The prepositional LPs in the D-structure are claimed to be postverbal complements and they move to the subject position at S-structure. The proform behaves like some kind of resumptive pronoun and is coreferent to the sentence-initial LPs in the S-structure. However, Locative Inversion sentences like (2), which consist of verbs such as "lim"(paste), "gwaa"(hang) and "jong"(install), may also have an accusative reading. In this second interpretation, (2) will have a D-structure where the subject position is occupied by a "pro" instead. The prepositional LP in this context is also hypothesized to originate in the postverbal complement position but it may only undergo movements like preposing and topicalization; hence it will not be a subject in the S-structure.

The proposal of Locative Inversion will entail a different conception of θ-role- and Case- assignment in Cantonese from that of Mandarin as described by Li (1990). Because of this, section V of Part 1 will be devoted to briefly comparing the systems of θ-role- and Case- assignment in Cantonese and Mandarin. I posit that Cantonese should be regarded as SVO both at D-structure and S-structure, and prepositonal phrases in Cantonese can be Case-marked.

Part 2 will, in the first place, give further justification to the argumental status of the LPs in (1) and (2) when they appear in the D-structure. I will compare the extraction behaviour of the LPs with that of duration expressions which are adjunct-like. The comparison is based on Rizzi's(1990) theory of Relativized Minimality which pays particular attention to the asymmetry of arguments and adjuncts with respect to their extraction behaviour. Second, the subjecthood of the sentence-initial LPs in (1-10) is reinforced as they are shown to participate in SuperRaising. One important observation drawn from the analysis of SuperRaising is that "pro" in Chinese, albeit an A-specifier, will not block A-movement, unlike what is predicted by the theory of Relativized Minimality. Third, the movement analysis in Part 1 is extended to the type of existential "yau"(have) sentences that begin with a LP. These sentences are also claimed to have undergone locative inversion and the sentence-initial LPs may come from the postverbal complement position or the preverbal adjunct position. This claim is comparable to Freeze's(1991) crosslinguistic analysis of "have"-structures as locative sentences, but differs widely from Huang's(1987,1989) analysis of those existential "you"(have) sentences in Mandarin that begin with a LP. The last section concludes with a summary of the important generalizations that have been made in this investigation.

## II. Theoretical Framework

The general framework of Government and Binding will be employed for the analysis in this paper. Particular reference will be given to the X-bar theory, θ-theory,

Case theory, the Extended Projection Principle and the theory of Relativized Minimality.

## III. Prepositional Locative Phrase as Subject

In this section, I will first establish that the prepositional LPs of the following sentences are subjects in the S-structures.

(3)   (hai)   che   leui min   cho   mun   saai   di   hok saang   (hai dou)
     at   car   inside   sit   full   all   those   student   there

"*The car was sat full by the students."

(4)   (hai)   uk   leui min   jyu   jo   saam   go   feileutban yan   (hai dou)
     at   house   inside   live   ASP   three   CL   Philippine people   there

"There are three Philippinos living inside the house."

(5)   (hai)   kiu   haa min   kei   jo   hou do   yan   (hai dou)
     at   bridge   under   stand   ASP   many   people   there

"Many people are standing under the bridge."

(6)   (hai)   baan gung sat   leui min   lei mai[4]   jo   go   chat lou   (hai dou)
     at   office   inside   hide   ASP   CL   thief   there

"A thief is hiding inside the office."

(7)   (hai)   mun   hau min   lim   mun   saai   di   gung jai   (hai dou)
     at   door   back-side   paste   full   all   those   pictures   there

"All the backside of the door was pasted with those pictures."

(8)   (hai)   hak baan   seung min   se   jo   di   ying man   ji   (hai dou)
     at   blackboard   top/on   write   ASP   some   English   word   there

"Some English words have been written on the blackboard."

(9)   (hai)   fa yun   cheut min   jong   jo   yi sap   jan   dang   (hai dou)
     at   garden   outside   install   ASP   twenty   CL   lamp   there

"There are twenty lamps installed outside in the garden."

(10)   (hai)   toi   seung min   baai   mun   saai   faa   (hai dou)
     at   table   top/on   put   full   all   flower   there

"The whole table is occupied with flowers."

Before embarking on the analysis, I would like to make clear the categorial status of the beginning word "hai"(at/in/on/from) in sentences (1-10). The LPs of these sentences can appear between the subject and the VP in other contexts such as the one in

(11).

(11)  Ah Wong    hai    chong    seung min    tai    syu
                 at     bed      top/on       read   book

"Ah Wong is reading on the bed."

Since the LP in (11) is in a non-Case position, the noun phrase "chong seung min"(bed-on) is most likely assigned Case by "hai", which is obligatory for the NP. As the LP is not a VP, "hai" must be a preposition, since only verbs and prepositions can assign Case.

In the study of locative inversion in English, which is regarded as some kind of stylistic rule, the sentence-initial prepositional LP is often conceived as a topicalized element (cf. Bower(1976), Coopmans(1989), Rochemont & Culicover(1990)). Xu and Langendoen (1985:5) also regard the sentence-initial LP in sentence (12) in Mandarin to be a topic.

(12)  zhouzi    shang    yau     shu;    chuang    shang    bu     hui    yau     shu
      table     on       have    book    bed       on       not    can    have    book

"On the table there are some books; on the bed there cannot be any books."

(Xu & Langendoen's (21))

There are apparently some signs that the LPs in sentences (1-10) may be considered as topics. Those phrases, with or without the preposition, must be definite in nature. Furthermore, pauses, which some people consider to be diagnostics for topics (although imprecise), may be inserted after the LPs. But these pieces of evidence are by no means conclusive. In fact deeper investigation suggests otherwise.

At least three pieces of evidence can be adduced to show that the sentence- initial LPs in (1-10) display syntactic characteristics that are absent in genuine topics like the ones in (13) and (14).

(13)  go      tiu    yu      (a),    Ah Chan    kam yat      hai    Aberdeen    maai    ge
      that    CL     fish    PART               yesterday    at                 buy     PART

"That fish, Ah Chan bought it at Aberdeen yesterday."

(14)  go      gaa    che     (a),    Lou Li     gam jiu         jing    hou     jo
      that    CL     car     PART               this morning    fix     good    ASP

"That car, Lou Li fixed it this morning."

The first piece of evidence is related to the relative order between sentence adjuncts[5] and topics. In Cantonese, sentence adjuncts such as adverbials like "hou m hou

coi" (unfortunately), "hou ho neng"(possibly) and "hou ho sik"(sadly) cannot precede a topic.

(15)* { hou ho neng / possibly / hou ho sik \ sadly \ hou m hou choi \ unfortunately }

| | gaa | che, | Ah Chan | gam jiu |
|---|---|---|---|---|
| | CL | car | | this morning |
| | jung mei | jing | hou | |
| | not yet | jing | hou | |

"Possibly/sadly/unfortunately, Ah Chan has not fixed the car this morning."

However, when the adverbials are put before the initial LPs in sentences (1-10), they are still well-formed. Using (4) as an example, we can construct the following sentence.

(16) { hou ho neng / possibly / hou ho sik \ sadly \ hou m hou choi \ unfortunately }

| (hai) | uk | leui min | jyu | jo |
|---|---|---|---|---|
| at | house | inside | live | ASP |
| saam | rgo | feileutban | yan | (hai dou) |
| three | CL | Philippine | people | there |

"Possibly/sadly/unfortunately, there are three Philippinos living inside the house."

The second piece of evidence comes from the constraint in using correlative conjunctions. Sentences with topics always become ill-formed if they are structured with correlative conjunctions like "m jing ji...jung yau" (not only...but also).

(17)

| *m jing ji | gaa | che, | Ah Chan | jing | waai | jo, | |
|---|---|---|---|---|---|---|---|
| not only | CL | car | | fix | bad | ASP | |
| jung yau | go | cheung, | keui | sai lou | daa | laan | jo |
| but also | CL | window | he | brother | hit | broken | ASP |

"*Not only did that car, Ah Chan ruin, but also that window, his brother broke."

(18)

| *?go | sai lou jai | m jing ji | Ah Chan | jung yi, | |
|---|---|---|---|---|---|
| CL | child | not only | | like | |
| jung yau | keui | taai taai | dou | hei fun | (keui) |
| but also | he | wife | also | like | (he) |

"*The child, not only does Ah Chan like, but also his wife likes."

The normal ways of expressing similar ideas in (17) and (18) do not involve topicalization and their well-formed counterparts should appear as

(19) | m jing ji | Ah Chan | jing | waai | gaa | che, | | |
|-----------|---------|------|------|------|------|---|---|
| not only | | fix | bad | CL | car | | |
| jung yau | keui | sai lou | daa | laan | jo | go | cheung |
| but also | he | brother | hit | broken | ASP | Cl | window |

(20) | m jing ji | Ah Chan | jung yi | go | sai lou jai, | |
|-----------|---------|---------|------|--------------|---|
| not only | | like | CL | child | |
| jung yau | keui | taai taai | dou | hei fun | (keui) |
| but also | he | wife | also | like | (he) |

In contrast, there are no problems in applying correlative conjunctions to sentences containing sentence-intial LPs.

(21) | m jing ji | (hai) | cheung | seung min | gwaa | jo | fuk | waa | (hai dou) |
|-----------|-------|--------|-----------|------|-----|-----|---------|-----------|
| not only | at | wall | top/on | hang | ASP | CL | picture | there |
| jung yau | (hai) | tin faa baan | seung min | dou | lim | jo | hoi bou | (hai dou) |
| but also | at | ceiling | top/on | also | paste | ASP | poster | there |

"Not only is there a picture hanging on the wall, but some posters are also pasted on the ceiling."

(22) | (hai) | cheung | seung min | m jing ji | gwaa | jo | fuk | seung, |
|-------|--------|-----------|-----------|------|-----|-----|--------|
| at | wall | top/on | not only | hang | ASP | CL | picture |
| jung yau | lim | jo | di | hoi bou | (hai dou) | | |
| but also | paste | ASP | some | poster | there | | |

"On the wall, a picture is hung and some posters are pasted."

The third piece of evidence is related to the idea that an ordinary topic usually cannot appear immediately after a subordinate clause. This is examplified by (23) and (24).

(23) | *?kam maan | sik | jo | fan | ji hau, | |
|------------|------|---------|------|---------|-----|
| last night | eat | ASP | rice | after | |
| gaa | che, | Ah Chan | jing | hou | jo |
| CL | car, | | fix | good | ASP |

"*Last night after eating dinner, that car, Ah Chan fixed it."

(24) | *?yu go | Mary | m | lei, | gaa | che, |
|---------|------|------|-------|------|------|
| if | | not | come | CL | car |
| Ah Chan | wui | jing | waai | keui | |
| | will | fix | bad | it | |

"*If Mary does not come, that car, Ah Chan will ruin it."

Their well-formed counterparts should involve no topiclaization, as shown in (25) and (26).

(25)

| kam maan | sik | jo | faan | ji hau, | Ah Chan | jing | hou | jo | gaa | che |
|----------|-----|-----|------|---------|---------|------|------|-----|-----|-----|
| last night | eat | ASP | rice | after | | fix | good | ASP | CL | car |

"Last night after eating dinner, Ah Chan fixed the car."

(26)

| yu go | Mary | m | lei, | Ah Chan | wui | jing | waai | gaa | che |
|-------|------|-----|-------|---------|-----|------|------|-----|-----|
| if | | not | come | | will | fix | bad | CL | car |

"If Mary does not come, Ah Chan will ruin the car."

Contrary to ordinary topics, sentences with initial LPs can appear in similar contexts and are well-formed.

(27)

| kam maan | sik | jo | faan | ji hau, | (hai) | cheung | seung min |
|----------|-----|-----|------|---------|-------|--------|-----------|
| last night | eat | ASP | rice | after | at | wall | top/on |
| yi ging | gwaa | jo | sap | fuk | waa | (hai dou) | |
| already | hang | ASP | ten | CL | picture | there | |

"Last night after eating dinner, ten pictures had been hung on the wall."

(28)

| yu go | Mary | m | lei, | (hai) | tin faa baan | seung min | m |
|-------|------|-----|-------|-------|--------------|-----------|-----|
| if | | not | come | at | ceiling | top/on | not |
| wui | jong | yi sap | jan | dang | (hai dou) | | |
| will | install | twenty | CL | lamp | there | | |

"If Mary does not come, twenty lamps will not be installed on the ceiling there."

The above three tests confirm that the sentence-initial LPs cannot be genuine topics. I will now proceed to show that the sentence-initial LPs in (1-10) are subjects. For this purpose, I will argue that they are not adjoined to VP and they must precede INFL. The sentence-initial LPs can precede sentence adverbials and negation markers which are usually regarded as adjunctions to VP or preceding VP since they modify the scope of a VP. (29) and (30) are two examples.

(29)

| (hai) | chong | seung min | si si | fan | jo | go | yan | (hai dou) |
|-------|-------|-----------|-------|-----|-----|-----|-----|-----------|
| at | bed | top/on | always | lie | ASP | CL | man | there |

"There is a man always lying on the bed."

(30)

| (hai) | chong | seung min | mou | yan | fan | (hai dou) |
|-------|-------|-----------|-----|-----|-----|-----------|
| at | bed | top/on | no | man | lie | there |

"There is no man lying on the bed."

Some linguists like Zhou (1990:171) consider the adverbial "zongshi"(always) in Mandarin to be adjoined to I'. If I adopt this treatment, it will certainly help to ascertain that the LPs in (1-10) are linked to the [SPEC, IP].

Another supporting fact is that sentence-initial LPs can precede auxiliary verbs which are under the INFL node.

(31)

| (hai) | chong | seung min | (dou) | ho yi | fan | leung | go |
|-------|-------|-----------|-------|-------|-----|-------|-----|
| at | bed | top/on | also | can/may | lie | two | CL |
| sai lou jai | (hai dou) | | | | | | |
| child | there | | | | | | |

"The bed can also allow two children to lie on."

(32)

| (hai) | cheung | seung min | (dou) | wui | gwaa | leung | fuk |
|-------|--------|-----------|-------|-----|------|-------|-----|
| at | wall | top/on | also | will | hang | two | CL |
| waa | (hai dou) | | | | | | |
| picture | there | | | | | | |

"Two pictures will also be hung on the wall."

There are now only two possible structural positions left for the sentence-initial LPs to attach themselves to---the I' adjunction and the [SPEC, IP]. Since the LPs are obligatory elements, as witnessed in (33), their adjunction to I' is not possible because it is an optional position.[6]

(33)

| *gwaa | jo | fuk | waa | (hai dou) |
|-------|-----|-----|---------|-----------|
| hang | ASP | CL | picture | there |

(This is possible only if "hai dou" means "here".)

So the only position that the sentence-initial LPs can occupy in S-structure is the [SPEC, IP], the subject position.

The claim that the sentence-intial LPs are subjects is clearly supported by the fact that these LPs can undergo subject-to-subject raising (cf. Hou(1977), Li (1990)). The LPs can either precede or follow raising predicates like "hou chi"(likely/seem) and "hou ho neng"(possible),[7] suggesting that there is a raising operation involved.

(34)

| hou chi / likely/seem / hou ho neng / possible | (hai) | chong | seung min | fan | jo |
|---|---|---|---|---|---|
| | at | bed | top/on | lie | ASP |
| | go | yan | (hai dou) | | |
| | CL | people | there | | |

"It is likely/possible that a person is lying on the bed."

(35)  (hai)  chong  seung min  { hou chi / likely/seem / hou ho neng / possibly }  { fan / lie / (hai dou) / there }  jo  go  yan

ASP  Cl  people

After all these tests, we can safely assume that the sentence-initial LPs in (1-10) are subjects.

## IV. The D-Structure of Locative Inversion Sentences

In this section, I will first show that the verbs in the Locative Inversion sentences in (1-10) are unaccusative in nature. Then I will argue that the sentence- initial LPs originate in the postverbal complement position in D-structure and they move to the subject position at S-structure via a movement rule.

### A. Locative Inversion Sentences Are Ergative Constructions

Perlmutter's Unaccusative Hypothesis (1978) distinguishes the unaccusative (ergative) verbs from the unergative (intransitive) verbs. The unaccusative verbs take a single argument which is base-generated in the structural object position at D-Structure and which bears either a theme or a patient role. On the contrary, the unergative verb takes an argument which occupies the structural subject position both at D- and S-structure and which is agentive in nature. Based on this insight, Burzio (1986:29) defines ergative verbs in terms of their lack of external $\theta$-role.

(36) [Ergative verbs] refer to verbs which are subcategorized for a
       direct object and which do not assign a subject $\theta$-role.

The verbs in the Locative Inversion sentences in Cantonese and Mandarin are usually verbs denoting presence, appearance and disappearance, which are similar to the inventory of ergative verbs discussed in Burzio (1986). Besides this superficial comparison, Zhou (1990:40-43) suggests two ergative diagnostics for Mandarin, the contrastive word orders and the reference of null objects. I will only adopt the first one for the analysis of Cantonese since the second one is problematic.

Sentences containing typical unergative(intransitive) and accusative (transitive) verbs do not allow postposition of the subject(see Huang(1987), Zhou(1990)). In contrast, in Locative Inversion sentences like (1-10), the "logical"(potential)[8] subject can occur postverbally, showing that the verbs are unaccusative in nature. (37a) and (38a), which consist of the verbs "cry" and "read", do not permit "subject postposition", as illustrated in (37b) and (38b). (39a) consists of the verb "fan"(lie) and "subject postposition"

is allowed, as shown in (39b).

(37)a.
| hou do | sai lou jai | hai | chong | seung min | haam |
|--------|------------|-----|-------|-----------|------|
| many | child | at | bed | top/on | cry |

"There are many children crying on the bed."

b.
| *(hai) | chong | seung min | haam | jo | hou do | sai lou jai | (hai dou) |
|--------|-------|-----------|------|-----|--------|------------|-----------|
| at | bed | top/on | cry | ASP | many | child | there |

(38)a.
| hou do | sai lou jai | hai | chong | seung min | tai | syu |
|--------|------------|-----|-------|-----------|-----|-----|
| many | child | at | bed | on | read | book |

"Many children are reading on the bed."

b.
| *(hai) | chong | seung min | tai | syu | hou do | sai lou jai |
|--------|-------|-----------|-----|-----|--------|------------|
| at | bed | top/on | read | book | many | child |

(39)a.
| hou do | sai lou jai | fan | hai | chong | seung min |
|--------|------------|-----|-----|-------|-----------|
| many | child | lie | at | bed | top/on |

"There are many children lying on the bed."

b.
| (hai) | chong | seung min | fan | jo | hou do | sai lou jai | (hai dou) |
|-------|-------|-----------|-----|-----|--------|------------|-----------|
| at | bed | top/on | lie | ASP | many | child | there |

That the verbs in sentences (1-10) are unaccusative in nature will, according to Burzio's hypothesis, predict that the argument, which bears the theme role and which is a "logical"(potential) subject, will occupy the object position in the D-Structure. Since there is no NP that bears the agent role, the external argument (the structural subject) position in the D-structure will be left empty.

The above prediction will automatically dismiss the possibility that sentence- initial LPs, which I have argued to be surface subjects, are base-generated in that position, as unaccusative verbs are defined by Burzio not to assign a subject θ-role. There is, in reality, evidence to support that the LPs take up the structural subject position via movement from the postverbal position.

## B. The Proform "hai dou"(there)---Evidence for Movement

The hypothesis that the prepositional LPs originate in the postverbal position is fully justisfied when we examine the distribution of the proform "hai dou" (there), which optionally appears at the end of all the sentences in (1-10). First of all, the proform cannot exist on its own except when it means exactly the same as as the deictic adverb "here"

in English and the action related to it refers to the immediate presence.

(40)

$$
\left\{
\begin{array}{l}
\text{paa} \\
\text{lie prostrate} \\
\text{cho} \\
\quad \text{sit} \\
\quad \text{kei} \\
\text{stand} \\
\text{fan} \\
\text{lie} \\
\text{gwai} \\
\text{kneel}
\end{array}
\right\}
\quad
\begin{array}{l}
\text{hai dou} \\
\text{here}
\end{array}
$$

But it cannot coocur with a prepositional LP under any circumstances.

(41)

| (*hai | chong | seung min) | cho | (*hai | chong | seung min) |
|-------|-------|-------------|-----|-------|-------|-------------|
| at | bed | top/on | sit | at | bed | top/on |

| hai dou | (*hai | chong | seung min) |
|---------|-------|-------|-------------|
| here | at | bed | top/on |

However, when "hai dou" means something like "there" in English, a prepositional LP will also be present simultaneously. But the distributions of the proform and the LP are constrained. They cannot be placed immediately next to each other, as shown in

(42)

| hai | chong | seung min | keui | cho | jo |
|-----|-------|-----------|------|-----|-----|
| at | bed | top/on | he | sit | ASP |

| (*hai | chong | seung min) | hai dou | (*hai | chong | seung min) |
|-------|-------|-------------|---------|-------|-------|-------------|
| at | bed | top/on | there | at | bed | top/on |

Furthermore, the LP must precede the proform.

(43)

| (hai) | kiu | haa min | kei | jo | go | yan | hai dou |
|-------|-----|---------|-----|-----|-----|------|---------|
| at | bridge | under | stand | ASP | CL | people | there |

"There is a man standing under the bridge."

(44)

| (hai) | ho | leui min | yau | yan | hai dou | yau scui |
|-------|-----|----------|-----|-----|---------|----------|
| at | river | inside | have | people | there | swim |

"There is a man swimming in the river."

The LP can occupy the position where the proform can appear; but the reverse is not possible.

(45)    yau    yan    cho    jo    <u>hai    chong    seung min</u>
       have   people   sit    ASP   at    bed     top/on

"There is a man sitting on the bed." (cf. (42))

(46)    *<u>hai dou</u>    cho    jo    go    yan
       there      sit    ASP   CL    people

(47)    yau      yan     <u>hai    ho     leui min</u>   yau seui
       have    people   at    river   inside    swim

"There is a man swimming in the river." (cf. (44))

(48)    *yau    yan    <u>hai dou</u>   yau seui
       have   people   there     swim

((46) and (48) is possible if "hai dou" means "here".)

The relative distribution of the prepositional LP and the proform "hai dou" (there) discussed above inevitably leads to the conclusion that the proform is used to fill up the gap after the LP is moved, thus behaving like a resumptive pronoun.

Turning back to the D-structure representation of the Locative Inversion sentences in (1-10), we can safely assume that the prepositonal LPs are base-generated as sister to the right of the verb and the NP which bears the theme or patient role. This assumption is based on the analysis of the distribution of the proform "hai dou"(there) in the section above, together with the fact that the prepositional LPs receive a locative θ-role from the verb. The argumental nature of the prepositional LP in D-structure is shown by the fact that it is obligatory in the following sentence.

(49)    yau    go    yan     fan    jo    *(hai    chong    seung min)
       have   CL    people   lie    ASP   at     bed      top/on

"There is a man lying on the bed." (cf. (1))

Furthermore, following Li(1990) and Zhou(1990), I assume that unaccusative verbs can assign Case to their NP complements.[9] The D-structure of sentence (1), (which is repeated here as (50a)), for example, will be (50b).

(50)a.     (hai)     chong    seung min   fan   jo   go    yan    (hai dou)

              at        bed     top/on     lie  ASP  CL   people   there

b.
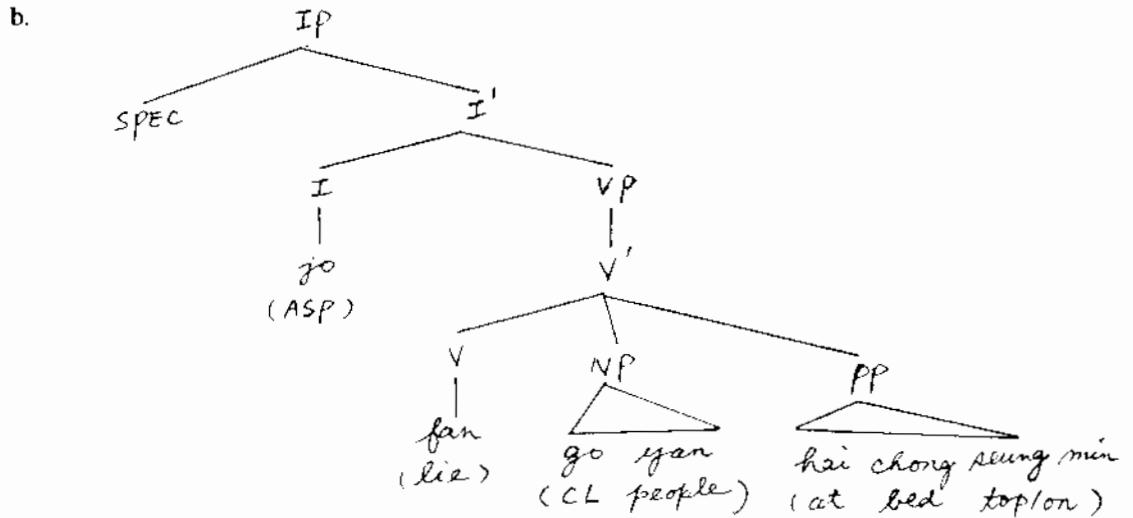


That the subject position is empty at this stage provides a motivation for some kind of element to move in to satisfy the Extended Projection Principle (that sentences must have overt subjects). Theoretically, with a D-structure like (50b), there are two possibilities of movement, either moving the LP or the object NP. As the structure we are analyzing now is Locative Inversion, the LP therefore moves. As regards the possbility of moving the object NP, I will leave it for further research. (Note that on the previous page, I have already assumed that ergative verbs can assign inherent Case; the movement of the object NP to the [SPEC, IP] will make it doubly Case-marked). Applying the rule of move-α, the S-Structure of (1) will be

(51)
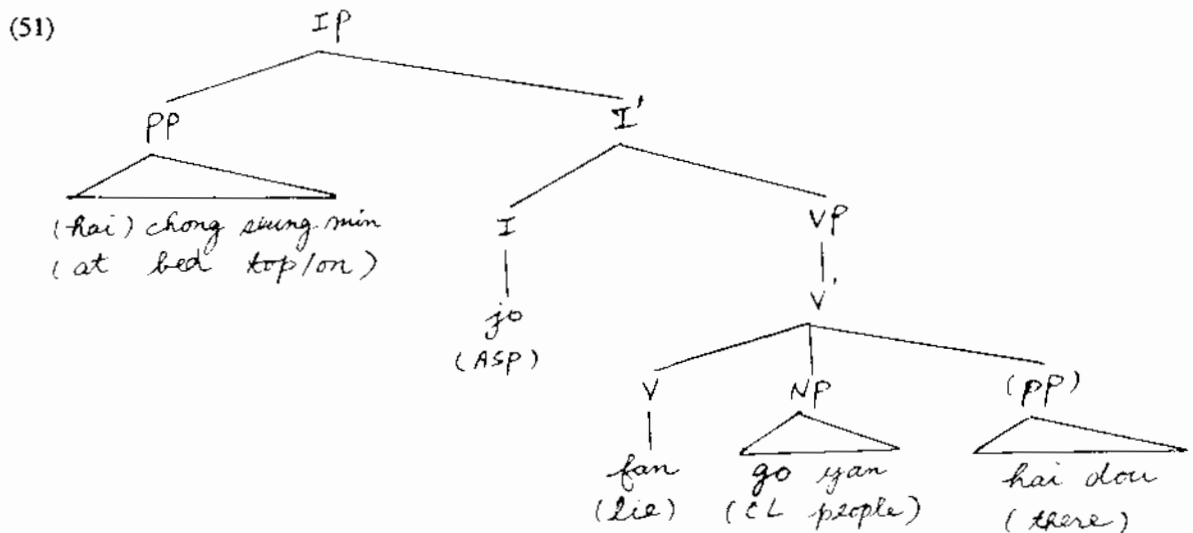
That the preposition "hai"(at/in/on/from) in the sentence-initial LPs of (1-10) may be null is due to the application of a late rule at PF.

The movement of the prepositional LP into the [SPEC, IP] is an A-movement. It basically abides by the properties of Substitution Movement as laid out in Chomsky(1986:4)--only a maximal projection can move to the specifier position. Besides, the proform "hai dou"(there) or the trace(when the proform is null) left behind after the movement is properly head-governed by the verb, thus satisfying the ECP(see discussion in Part 2).

But a question arises from the analysis above since the prepositional LP moves into a Case-marked position (i.e. [SPEC, IP]). Stowell's(1981:146) Case Resistance Principle (CRP) forbids PPs and clauses to receive Case becasue both of them bear Case-assigning features (Ps in PPs and [+tense] in clauses).

(52) The Case-Resistance Principle (CRP)
    Case may not be assigned to a category bearing a Case-assigning feature.
    (Stowell's (66))

But the CRP has suffered a lot of criticism. Firstly, Li(1990) argues that both finite and non-finite clauses in Mandarin Chinese can be assigned Case despite the fact that she still maintains the impossibility of assigning Case to PPs. Secondly, Fabb(1984) and Koopman(1984) both advocate that PPs can be assigned Case. Fabb suggests that the complement PP in English is assigned Prepositional Case "Cp" which will percolate down to the preposition. Koopman, in studying Vata(and Gbadi), comes up with the following generalisation.

(53) a. NPs and PPs must occur in Case positions
     b. Case is assigned to the left in Vata.     (Koopman's (26),p.115)

She also remarks that "PPs,.....would be some kind of disguised NPs which have to be Case-marked"(p.115). In fact, the prepositional LPs in Cantonese does behave like NPs in some contexts, which therefore enhances the plausibility of saying that they can be Case-marked. This piece of evidence is cited in section V.

## C. The D-structure of the Accusative Counterparts of Some Locative Inversion Sentences

As mentioned in Section I, some of the Locative Inversion sentences like (2, 7-10) have accusative counterparts. In this case, the surface form of (2), which is repeated here as (54a), will be ambiguous between the unaccusative and the accusative reading. The

latter will be interpreted to have a D-structure like (54b).

(54)a.  (hai)    cheung    seung min    gwaa    jo     fuk    waa      (hai dou)
         at       wall      top/on       hang    ASP    CL     picture   there

"There is a picture hanging on the wall."

b.
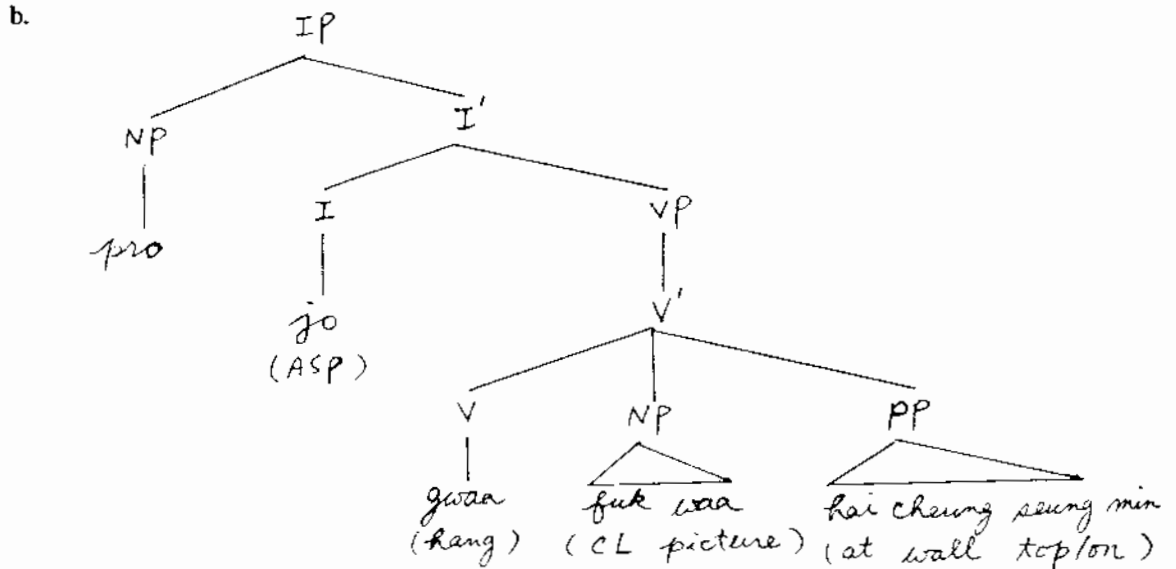


This is particularly obvious if sentence (2)(with slight modification) appears as part of a discourse and the agent is omitted to avoid repetition as it is mentioned previously. The following is an example.

(55)  A:   nei    sai lou    hai        cheung     seung min    gwaa    jo
           you    brother    at         wall       top/on       hang    ASP
           keui   ge         waa        hai dou
           he     POSS       picture    there

"Your brother has hung his picutre on the wall."

           nei    wui    hai    bin dou    gwaa    nei    fuk    waa?
           you    will   hai    where      hang    you    CL     picture

"Where will you hang your picture?"

      B:   dou    wui     hai    cheung    seung min    gwaa
           also   will    at     wall      top/on       hang

"I will also hang my picture on the wall."

(or seriously:

| ngo | dou | wui | hai | cheung | seung min | gwaa | ngo | fuk |
|-----|-----|-----|-----|--------|-----------|------|-----|-----|
| I | also | will | at | wall | top/on | hang | I | CL |
| waa | (hai dou) | | | | | | | |
| picture | there | | | | | | | |

"I will also hang my picture on the wall.")

Note that the adverb "dou"(also) and the auxiliary verbs "wui"(will), unlike the cases in (31-32) where they must follow the prepositional LPs, precede them in (55). This is evidence to show that the LPs in (55) are not the same as those in (1-10) and these LPs are in VP-adjoined(or topicalized) position(see further examples in (57)) rather than in the subject position. Since the proform "hai dou"(there) also exists, we can assume that, as the analysis above, the prepostional LPs originate in the postverbal complement position.

With the subject lexicalized (say Ah Chan), (54b) will result in a sentence like (56).

(56)

| Ah Chan | gwaa | jo | fuk | waa | hai | cheung | seung min |
|---------|------|-----|-----|---------|-----|--------|-----------|
| | hang | ASP | CL | picture | at | wall | top/on |

"Ah Chan hung a picture on the wall."

When the LP is preposed or topicalized, (56) becomes either (57a) or (57b).

(57)a.

| Ah Chan | hai | cheung | seung min | gwaa | jo |
|---------|-----|--------|-----------|------|-----|
| | at | wall | top/on | hang | ASP |
| fuk | waa | (hai dou) | | | |
| CL | picture | there | | | |

b.

| hai | cheung | seung min | Ah Chan | gwaa | jo |
|-----|--------|-----------|---------|------|-----|
| at | wall | top/on | | hang | ASP |
| fuk | waa | (hai dou) | | | |
| CL | picture | there | | | |

## V. Theoretical Interests of the Movement Analysis in Cantonese Locative Inversion: A Comparison of Cantonese and Mandarin

The claim that sentence-initial LPs in (1-10) originate in the postverbal complement position in D-structure suggests that the word order constraint in Cantonese may be very different from that of Mandarin as proposed by Li(1990). According to her, the Chinese [Mandarin] Word Order Constraint consists of the following principles.

(58) a. Chinese is head-final except under the requirement of Case assignment.

    b. Case is assigned from left to right in Chinese.

    c. A Case assigner assigns at most one Case.  (Li's (23), chapter 1, p.11))

This hypothesis predicts that only Case receivers occur immediately to the right of the head; otherwise, the head occurs finally. Since PPs are not subject to the Case Filter, they are not assigned Case and do not occur postverbally. If the analysis so far in this paper is correct, Cantonese will not be subject to the constraint that only Case receivers can occur postverbally because there are complement prepositional phrases following the verb.

As a matter of fact, Li's analysis of the apparent postverbal prepositional phrases in Mandarin cannot be applied to that in Cantonese. Li considers the postverbal locative PP in the following Mandarin sentence not a real PP.

| (59) | ta | shui/tiao | zai | dishang |
|---|---|---|---|---|
| | he | sleep/jump | at | floor-surface |

"He sleeps on/jumps to the floor."    (Li's (37a), ch.3, p.59)

She proposes that the VP structure in (59) is [ [$_v$ V P] NP], where P is reanalysed with V and forms a complex verb. Alternatively, the P may simply be a V, combining with the main verb to become a compound V: [ [$_v$ V V] NP]. Therefore, the sentence in (59) does not violate the word order constraint. There are simply no real PPs in postverbal position(p.59). The basic evidence she puts forward is that verbs like "shui"(sleep) and "tiao"(jump) form a unit with "zai"((be)at), as it is impossible to insert aspect markers between "shui/tiao" and "zai".

However, this is not what we find in the case of the postverbal PPs in Cantonese. Aspect markers can always be inserted between the verb and the PP, showing that no reanalysis has taken place. This can be seen from sentences (1,2,5,6,8,9).

In relation to the Chinese Word Order Constraint, Li also assumes that the θ-positions and Case positions in Mandarin Chinese do not coincide. θ-role assignment (at D-structure) is from right to left; Case-assignment (at S-structure) is from left to right. Based on these assumptions, Li (1990:11) claims that Mandarin Chinese is "head-final (SOV, postpostional, N-final) at D-structure and SVO, prepostional, N-final at S-structure". The proof that prepositonal LPs in Cantonese can occur postverbally at D-structure (and S-structure) implies that θ-role assignment in Cantonese is from left to right. Since the word order of Cantonese phrase structure is basically SIMPLE/COMPLEX MODIFIER-HEAD and HEAD-ARGUMENT, and if we consider the headness parameter a "lexical relationship between head and arguments"(cf.

Huang(1990),p.57), then Cantonese is similar to English in that Case-positions and θ-positions coincide.

The proof that the prepositional LPs move from the postverbal non-Case position at D-structure to the Case-marked subject position at S-structure indicates that PPs in Cantonese can receive Case(in some situations). In this respect, Cantonese pairs off with English but diverges from Mandarin (using Li's account in (1990)) since English but not Mandarin also allows PPs to appear in Case positions. In English, for example, we can say "The mouse ran out from [under the bed]". That PPs in Cantonese can receive Case also predicts that PPs in this language may behave like lexical NPs in some ways since lexical NPs must be assigned Case. Indeed, the prediction is borne out because like NPs, PPs can occur in the prenominal modifier environment as in

$$(60) \quad [ \underline{\quad\quad} \left\{ \begin{array}{c} NP \\ PP \end{array} \right\} \left\{ \begin{array}{c} \varnothing \\ ge \\ CL \\ DD \end{array} \right\} \quad N\,]$$

where "ge" is a modifier marker, "CL" is a classifier and "DD" is a demonstrative determiner. In Cantonese, the following sentences containing PPs as prenominal modifiers are definitely well-formed.

(61)  keui  hei fun  hai  cheung  seung min  (go)  fuk  waa
      he    like    at   wall    top/on     that  CL   picture

"He likes that picture which is hanging on the wall."

(62)  keui  yiu   sou    saai  hai  toi    haa min  ge    lap sap
      he    want  sweep  all   at   table  under    MOD   rubbish

"He wants to sweep away all the rubbish that is under the table."

But according to Li, PPs in Mandarin can never occur in the environment of (60).

## VI. Summary of Part 1

Part 1 of this paper has given a preliminary sketch for the locative inversion phenomenon in Cantonese. It has succeeded in establishing the D-structure for the Locative Inversion sentences as in (1-10), and has come to the conclusion that movement is involved--the postverbal complement PP moves to fill the empty subject position. It also raises the issue that Cantonese PPs can be assigned Case in some situations, thus echoing the findings by Fabb and Koopman. Because of these findings and generalizations, the paper also proposes that the Cantonese word order is SVO both at D- and S-structure.

With the establishment of all these fundamental claims, I will, in Part 2, look into more complicated syntactic processes like extraction of arguments and adjuncts across wh-islands and SuperRaising that are related to the Locative Inversion sentences. Besides, I will also examine "yau"(have) existential sentences that begin with a LP.

## Part 2

### I. Further Evidence for the Argumental Status of the Sentence-initial LPs

In the first part of this paper, I have argued that the sentence-initial LPs in (1-10) originate in the postverbal complement position at D-structure. The arguments I have advanced are that the LPs receive a locative θ-role from such verbs as "fan"(lie), "kei"(stand) and "gwaa"(hang) and these LPs are obligatory whether they are in the sentence-initial position as in (1-10) or in the postverbal position as in (49) or (56) of Part 1. This hypothesis is further justified, as we will see below, when we compare the LP's extraction behaviour with that of duration and frequency expressions which are adjunct-like(for the proof of the adjunct status of their Mandarin counterparts, see Tang(1990)). The comparison is based on Rizzi's(1990) theory of Relativized Minimality which helps to reveal the argumental status of the LPs.

The discussion in this section is in the following order. I will first outline the essential features of the principle of Relativized Minimality. Next I will show that besides the possibility of being an I'-adjunct, the negation marker "m" (not) in Cantonese can be the spec of VP, an A'-specifier. Then, I will contrast the extraction behaviour of the adjunct-like duration expressions with that of the postverbal LPs (in accusative sentences such as (56)) when a negation marker is present in the [SPEC,VP]. The extraction process that will be examined in this particular occasion is topicalization, an A'-movement. It is found that the topicalization of duration expressions will be blocked by the VP-specifier whereas that of the LP will not. Based on the Rizzi's theory, we can infer that postverbal "hai" LPs in Cantonese are arguments bearing a referential θ-role(in Rizzi's sense). Since in the D-structure, the LPs in the Locative Inversion sentences have been shown to be the same type of entity as those in (56)(see Part 1,Section IV for discussion), they are no doubt arguments too. For this reason, in Locative Inversion sentences like (1-10), the movement of the LP from the postverbal complement position to the subject position ([SPEC of IP]) is an A movement. The theory of Relativized Minimality predicts that such kind of movement will not be blocked by A'-specifiers like the negation marker "m"(not) in the [SPEC,VP]. And indeed this is shown to be the case.

### A. The Theory of Relativized Minimality

As Rizzi points out in the forward of his book *Relativized Minimality*, the study of the nature and properties of the locality condition is the central task of much current work in syntactic theory. There are essentially two different approaches in dealing with the issue of locality: the "barrier" approach and the "intervention" approach.

The "barrier" approach argues that certain structural boundaries count as barriers for syntactic processes. Suppose we have a configuration like (63).

(63)    .....[$_\alpha$ .....[$_\gamma$ .....β.....].....].....

                 α=maximal projection

                 γ=barrier

The extraction of "β" out of the configuration will make the related sentence ungrammatical becasue two barriers have been crossed and Subjacency is violated. (The Subjacency Condition may simply be defined as "movement must not cross more than one barrier"). (64) is an example of Subjacency violation.

(64) *What$_i$ did [$_{IP}$ [$_{CP}$ that she disliked t$_i$ ][$_{VP}$ surprise you]]

The "intervention" approach assumes that a syntactic process cannot apply across an intervening element of a designated kind, which could in principle be involved in the process. The Minimality Condition in Chomsky(1986) serves as a good illustration of this approach. With reference to a configuration like (65), the Condition can be defined as (66).

(65)    .....α .....[$_\gamma$ .....δ .....β .....].....    (Chomsky 1986,p.42)

(66) Minimality Condition (broader definition)
       γ is a barrier for β if γ is an immediate projection
       of δ, a zero-level category distinct from β.    (Sung(1990),p.21)

So in the configuration (65), assuming that "γ" is the immediate projection of "δ", "α" will fail to govern "β" even in principle it could do so. To illustrate the Condition, we give the following example.

(67) *Who$_i$ does John think [$_{CP}$ t'$_i$ [$_{C'}$ that [$_{IP}$ t$_i$ can read]]]

"t'$_i$" fails to govern "t$_i$" because of the intervening complementizer "that", which is the head of CP and whose immediate projection is C'--a barrier, thus an ECP violation results.

Rizzi's theory of Relativized Minimality intends to "maximize the role of intervention and correspondingly reduce the role of barriers in the definition of government". For this purpose, "barriers" are no longer the most crucial factor in determining government relations. The Minimality Condition of (66) is also excluded in Rizzi's theoretical account. The principle of Relativized Minimality is in essence employed to block "government of some kind across an element which could bear a government relation of the same kind"(Rizzi(1990), Forward).

In Rizzi's analysis, the θ-government requirement of "proper government" in *Barriers* is dispensed and the ECP is reduced to (68).

(68) ECP: A nonpronominal empty category must be properly head-governed. (Rizzi, p. 89)

Head government is in turn defined as

(69) Head Government: X head-governs Y iff
  (i) $X \in \{A,N,P,V,Agr,T\}$
  (ii) X m-commands Y
  (iii) no barrier intervenes
  (iv) Relativized Minimality is respected.    (Rizzi, p.6)

Furthermore, "properly-governed" means "governed by $X°$ within $X'$"    (Rizzi,p. 31).

In addition, to explain the difference between an object and an adjunct in the effects they generate when moving across a wh-island, Rizzi proposes two ways to connect an operator (a wh-phrase or a topicalized element) and its variable(trace): binding and a chain of government relations.

(70) "Binding requires identity of referential indices, a formal property
    now restricted by [the following principle: A referential index must be
    licensed by a referential θ-role(Rizzi,p.86)]. When co-indexation and
    binding are not available, the chain of government relations is the
    only connecting device. But the government relations are intrinsically
    local." (Rizzi, p.92)

Let us elaborate some of the basic concepts mentioned in (70). Referential θ-roles are argumental θ-roles and they include "agent, theme, patient, experiencer, goal, etc"(Rizzi,p.86). There are also quasi-argumental or non-referential θ-roles and they include "manner, measure, atmospheric-role and idiosyncratic role in idioms,

etc."(Rizzi,p.86). An object or an object wh-phrase is an element that is assigned a referential θ-role which licences a referential index. So it can form a binding relation with its trace when it moves, and the binding dependency needs only satisfy head government(see the definition in (69)). In sum, a binding relation is defined as

(71) X binds Y iff

    (i) X c-commands Y

    (ii) X and Y have the same referential index. (Rizzi,p.87)

An example of binding relation is given in (72).

(72) ??$Who_i$ do you wonder [ why [ John invited $t_i$ ]]

As regards the chain of government relations, the ideas of "chain" and "antecedent-government" are most crucial. Rizzi(1990) defines a chain as

(73) $(a_1,...,a_n)$ is a chain only if, for $1 \leqslant i < n$,
    $a_i$ antecedent-governs $a_{i+1}$       (p.92)

Antecedent-government is in turn defined as

(74) X antecedent-governs Y iff

    (i) X and Y are non-distinct

    (ii) X c-commands Y and

    (iii) no barrier intervenes

    (iv) Relativized Minimality is respected.     (p.92)

Since an adjunct or an adjunct wh-phrase will not be assigned a referential θ-role, and hence not a referential index, it cannot form a binding dependency. It must therefore form a chain with its trace when it moves, because (antecedent-)government is the only connecting device left. An example of (antecedent-) government relations is shown below.

(75) $How_i$ do [you think [$t'_i$ [John will propose to Mary $t_i$ ]]]

In (75), "$t'_i$" antecedent-governs "$t_i$" and "$how_i$" in turn antecedent-governs "$t'_i$".

From definitions (69) and (74), we see that both head-government and antecedent-government are constrained by the clause of Relativized Minimality and it is defined as

(76) Relativized Minimality

    X $\alpha$-governs Y only if there is no Z such that

    (i) Z is a typical potential $\alpha$-governor for Y,

    (ii) Z c-commands Y and does not c-command X.    (Rizzi,p.7)

The variable notion of $\alpha$-government ranges over head-government and three different cases of antecedent-government(A-antecedent government, A'-antecedent government and $X^{\circ}$-antecedent government). So the intuitive idea behind Relativized Minimality is that a paricular kind of government is blocked by the intervention of an element which typically has the potential for government of that kind. The four subcases of typical potential governors are

    a. Z is a typical potential head governor for Y=Z is a head m-commanding Y.

    b. Z is a typical potential antecedent governor for Y, Y in an A-chain=
    Z is an A specifier c-commanding Y.

    c. Z is a typical potential antecedent governor for Y, Y in an A'-chain=
    Z is an A' specifier c-commanding Y.

    d. Z is a typical potential antecedent governor for Y, Y in an $X^{\circ}$-chain=
    Z is a head c-commanding Y.    (Rizzi, p.7)

These four cases generalize the idea that "typical potential governors of different kinds create impermeable domains for government"(p. 8).

According to Rizzi, the Relativized Minimality constraint accounts for not only wh-island violations with adjuncts but also violations with adjuncts in the case of inner and pseudo-opacity islands. These two islands are created by a negation and a floating quantifier respectively when they occupy the [SPEC,VP] position. In contrast to their effects on adjuncts, all the three kinds of islands mentioned here (which can be subsumed under the name of "wh-islands") do not produce a violation with arguments.

I will illustrate the working of Relativized Minimality by looking at how inner islands affect the extraction of arguments and adjuncts, since we will study similar problems in Cantonese later on. As can be seen, the movement of the two wh-phrases in (77) and (78) respectively generate two different results.

(77) Whom$_i$ didn't the manager reward t$_i$

(78) *How$_i$ didn't the manager reward the players t$_i$

The relation between "whom$_i$" and "t$_i$" in (77) is a binding one since the "wh-phrase" is assigned a referential $\theta$-role which licences a referential index. What this dependency

needs to fulfil is only head-government and the trace is indeed properly head-governed by the verb as witnessed in (79). (V c-commands $t_i$ , there is no barrier intervening and Relativized Minimality is respected.)

(79)
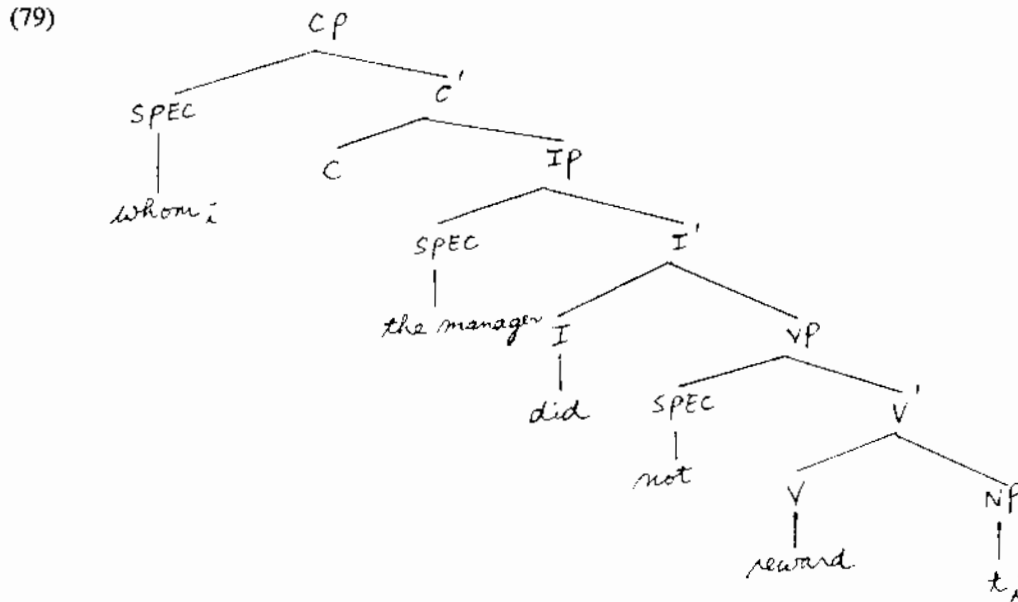


On the other hand, the relation between the adjunct and the trace in (78) cannot be "binding" since "$how_i$ " is not assigned a referential θ-role and hence not a referential index. In this case, "$how_i$ " and "$t_i$ " can only be connected by a chain which must fulfill the condition of antecedent- government as defined in (74). Rizzi proposes that the negation in English is a spec of VP(an A'-specifier). So the structural representation of (78) is (80).

(80) *
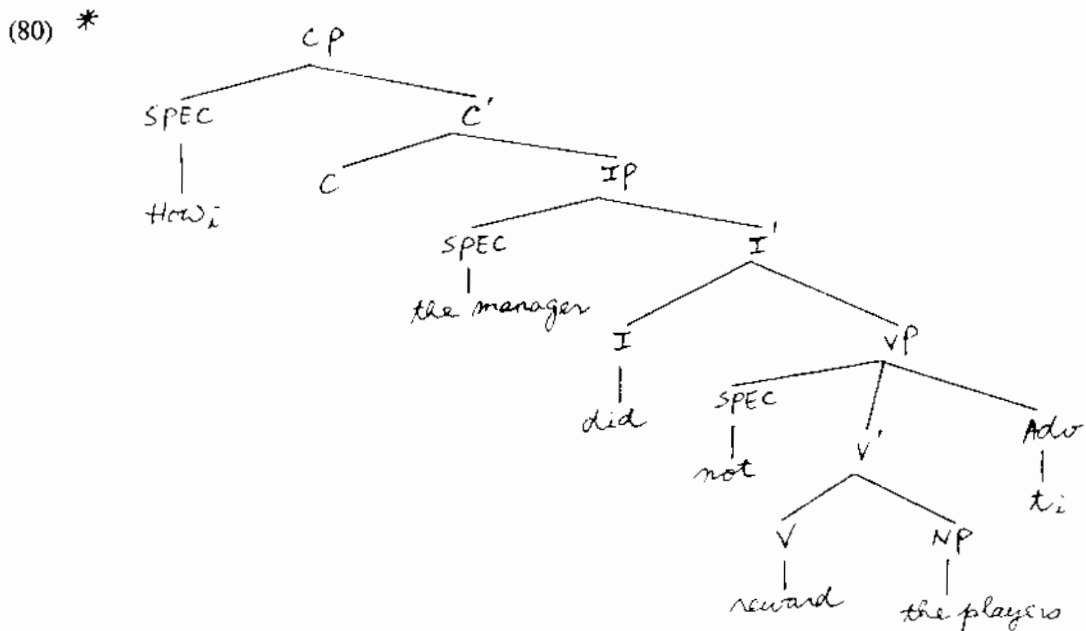
The movement of "how$_i$ " to the [SPEC, CP] is ruled out by Relativized Minimality because "how$_i$ " cannot antecedent-govern the trace due to the intervention of the A'-specifier "not" in the [SPEC, VP]. To generalize, Relativized Minimality predicts that the extraction of an argument across an wh-island is well-formed but that of an adjunct is ill-formed.

With an understanding of how Relativized Minimality works, I will go on to give further justification to the hypothesis that the sentence-initial LPs of the Locative Inversion Sentences(1-10) are postverbal complements (arguments) in the D-structure.

### B. The LPs as Arguments

The negation marker "m"(not) in Cantonese can either precede or follow an auxiliary verb like "ho yi"(can/may), "ying goi"(should) or "wui"(will), as illustrated in (81).

(81)a.  keui   m    ho yi   maai   ni di   saam     (aa)
        he     not  can     buy    these   clothes  PART

      "He is not allowed to buy these clothes."

    b.  keui   ho yi   m    maai   ni di   saam     (aa)
        he     can     not  buy    these   clothes  PART

      "It is not necessary for him to buy these clothes."

We can safely assume that "m"(not) in (81a) is an I'-adjunct since it precedes the auxiliary verb. The topicalization of the VP in (81a) is always grammatical as shown in (82); and the movement will not involve the negation marker since it is I'-adjoined.

(82)  maai   ni di   saam     (aa),   keui   m    ho yi
      buy    these   clothes  PART    he     not  can

The "m"(not) in (81b), however, must be a constituent of VP and this can be demonstrated by the contrast between (83a) and (83b).

(83)a.  *maai   ni di   saam     (aa),   keui   ho yi   m
         buy    these   clothes  PART    he     can     not

    b.  m    maai   ni di   saam     (aa),   keui   ho yi
        not  buy    these   clothes  PART    he     can

Sentence (83a) is the result of topicalizing the VP in (81b) without moving the negation marker with it and it is ungrammatical. But the topicalization of the VP together with the
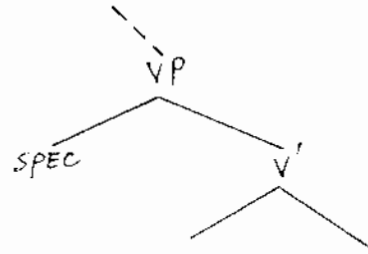
negation marker will produce a grammatical sentence like (83b).

As a constituent of VP and as an element preceding the verb, the negation marker in (81b) can occupy two different positions in principle, either VP adjunction or [SPEC, VP]. The two positions are shown in (84).

(84)a.
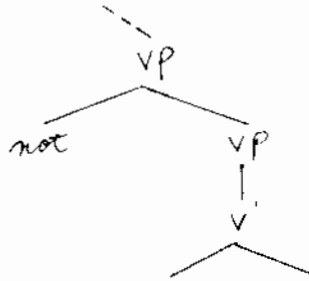
b.

Nevertheless, the second alternative should be opted for because of two pieces of evidence. First, Rizzi suggests that "pas/not" in French and English are specifiers owing to the fact that they can function as specifiers of other projections, namely, QP's and AP's.

(85) QP's:   pas beaucoup; pas tout
            =not much; not all
     AP's:   pas capable de faire
            =not capable of doing     (Rizzi, p. 17)

The same analysis can be applied to the negation marker "m"(not) in Cantonese. We can say

(86)

| m | do |
|---|---|
| not | much/many |
| | siu |
| | little/few |
| | leng |
| | beautiful |
| | gwai |
| | expansive |

Second, the negation marker may have the same distribution as some typical specifiers like "hou"(very), "goum"(so), "taai"(too) and "gei"(quite). They can modify cognition verbs as well as stative verbs. The following are two examples.

(87)a.

Mary | { m (not) / goum (so) / taai (too) / gei (quite) } | { scung (want) / paa (fear) / hci mong (hope) / yun yi (would like) } | heui (go) | Singapore

b.

Max | { m (not) / goum (so) / taai (too) / gei (quite) } | { gou (tall) / lek (capable) / ngo (hungry) / ngok (unfriendly) }

We therefore conclude that the negation marker in VP is located at the [SPEC, VP]. We can now move on to compare the extraction behaviour of the adjunct-like duration expressions with that of the postverbal "hai"(at/in/on/from) LPs when there is a VP specifier "m"(not) existing in the sentence.

Adjunct expressions like "leung go jung tau"(two hours) and "saam yat"(three days) can be topicalized if they appear in sentences like (88) where the negation marker is in the I'-adjunction position. The negation marker in this context will not trigger Relativized Minimality because it is not a specifier.

(88)a.

| keui | (dou) | m | ho yi | dang | leung | go | jung tau |
|------|-------|-----|---------|------|-------|-----|----------|
| he | also | not | can/may | wait | two | CL | hour |

"He (also) can/may not wait for two hours."

b.

| leung | go | jung tau, | keui | (dou) | m | ho yi | dang |
|-------|-----|-----------|------|-------|-----|---------|------|
| two | CL | hour | he | also | not | can/may | wait |

(The presence of "dou"(also) will make the sentence more natural.)

But if the negation marker is in the [SPEC, VP] position, the topicalization of the duration expressions will result in an ungrammatical sentence whether "dou"(also) is present or not.

(89)a.

| keui | (dou) | ho yi | m | dang | leung | go | jung tau |
|------|-------|-------|---|------|-------|----|----|
| he | also | can/may | not | wait | two | CL | hour |

"It is not necessary for him to wait for two hours."

b.

| *leung | go | jung tau, | keui | (dou) | ho yi | m | dang |
|--------|-----|-----------|------|-------|-------|---|------|
| two | CL | hour | he | also | can/may | not | wait |

The ill-formedness of (89b) is predicted by the principle of Relativized Minimality since the topicalization of the duration expressions (which is an A'-movement) is blocked by a potential antecedent governor--the negation marker "m"(not) in the [SPEC, VP](for which I have given proofs above).

On the other hand, the topicalization of the postverbal "hai"(at/in/on/from) LPs in accusative sentences containing verbs like "gwaa"(hang), "lim"(paste) and "jong"(install) is legitimate whether the negation marker is in the I'-adjunction or [SPEC, VP] position.

(90)a.

| Ah Wong | (m) | ho yi | (m) | gwaa | waa | hai | cheung | seung min |
|---------|-----|-------|-----|------|-----|-----|--------|-----------|
| | not | can/may | not | hang | picture | at | wall | top/on |

"Ah Wong is not allowed ⎫
It is not necessary for Ah Wong ⎬ to hang pictures on the wall."
⎭

b.

| hai | cheung | seung min, | Ah Wong | (m) | ho yi | (m) |
|-----|--------|------------|---------|-----|-------|-----|
| at | wall | top/on | | not | can/may | not |
| gwaa | waa | *(hai dou) | | | | |
| hang | picture | there | | | | |

The acceptability of (90b) suggests that the LP must be an argument receiving a referential θ-role from the verb and thus assigned a referential index. The LP after topicalization is coindexed with the proform "hai dou"(there) and they can form a binding dependency rather than a government chain. Consequently, the principle of Relativized Minimality has no effect on the movement because it constraints head-government and antecedent-government only, but not a binding relation.

We have argued in Part 1 that sentence-initial LPs of the Locative Inversion sentences originate in the postverbal position in the D-structure. At this level, they occupy the same position and receive the same type of θ-role as the LP in (90a) (see discussion in Part 1, Section IV). Therefore, they must also be arguments (complements) too. The legitimacy of their movement to the subject [SPEC, IP] position(see the discussion in Part 1 for the hypothesis of movement) is likewise predicted by the theory of Relativized Minimality even though an A'-specifier negation marker intervenes as in the case of (91).

| (91) | (hai) | cheung | seung min | ho yi | <u>m</u> | gwaa | waa | (hai dou) |
|------|-------|--------|-----------|-------|----------|------|------|-----------|
|      | at    | wall   | top/on    | can/may | not    | hang | picture | there   |

"It is not necessary to hang pictures on the wall."

Since locative inversion is an A-movement (from an argument position to another argument position), an A'-specifier will never interfere with antecedent government in an A-chain because it is only a potential governor in an A'- chain.

## II. Further Justification for the Subjecthood of the Sentence-initial LPs in Locative Inversion Sentences

In this section, I will give further justification to the subjecthood of the LPs in Locative Inversion sentences by looking at the phenomenon of SuperRaising in Cantonese. I will first show what SuperRaising is like in Cantonese. After this preliminary set-up, I will go on to argue that sentence-initial LPs of the Locative Inversion sentences exhibit characteristics parallel to the subjects of the SuperRaising sentences discussed.

Let's observe the following paradigm.

| (92)a. | hou chi | [pro] | waa | di | waa | gwaa | jo | hai | cheung | seung min |
|--------|---------|-------|-----|-----|------|------|-----|-----|--------|-----------|
|        | seem    | EC    | say | those | picture | hang | ASP | at | wall | top/on |

"It seems that somebody says that those pictures are hung on the wall."

| b. | di | $waa_i$ | hou chi | [pro] | waa | $t_i$ | gwaa | jo | hai |
|----|-----|---------|---------|-------|-----|-------|------|-----|-----|
|    | those | picture | seem | EC | say | | hang | ASP | at |
|    | cheung | seung min | | | | | | | |
|    | wall | top/on | | | | | | | |

| c. | *hou chi | di | $waa_i$ | waa | $t_i$ | gwaa | jo | hai |
|----|----------|-----|---------|-----|-------|------|-----|-----|
|    | seem | those | picture | say | | hang | ASP | at |
|    | cheung | seung min | | | | | | |
|    | wall | top/on | | | | | | |

| (93)a. | hou chi | [pro] | waa | gaa | che | bei | yan | tau | jo |
|--------|---------|-------|-----|-----|-----|-----|------|------|-----|
|        | seem    | EC    | say | CL  | car | PM  | people | steal | ASP |

"It seems that somebody says that the car has been stolen."

| b. | gaa | $che_i$ | hou chi | [pro] | waa | $t_i$ | bei | yan | tau | jo |
|----|-----|---------|---------|-------|-----|-------|-----|------|------|-----|
|    | CL  | car     | seem    | EC    | say | | PM | people | steal | ASP |

| c. | *hou chi | gaa | $che_i$ | waa | $t_i$ | bei | yan | tau | jo |
|----|----------|-----|---------|-----|-------|-----|------|------|-----|
|    | seem     | CL  | car     | say | | PM | people | steal | ASP |

As "hou chi"(seem) is assumed to be a raising predicate,[10] we can hypothesize that the subjects of the embedded clause in (92a) and (93a) have been raised to the sentence-initial position forming (92b) and (93b). As regards (92c), its ungrammaticality is obvious. The word "waa"(say) requires an agentive external argument, whereas "di waa"(those pictures) is a theme. ("Di waa"(those pictures) occurs underlyingly in the object position since "gwaa"(hang) in this case is an unaccusative verb--see Part 1, section IV for discussion.) From (93b), we can also infer that the subject of a passive subordinate clause can also be SuperRaised. Again, (93c) is ill-formed since "gaa che"(the car) bears a patient role and cannot serve as the agentive external argument of the verb "waa"(say).

The sentence-intial NPs in the SuperRaising sentences (92b) and (93b) are definitely subjects rather than topics because sentence adjuncts like "tsan maa faan"(very troublesome) and "hou m hou choi"(unfortunately), which we have used to distinguish subjects from topics in Part 1, can be placed immediately before them. (But topics behave otherwise.) (94a) and (94b) illustrate this point.

(94)a.

| tsan maa faan | di | waa$_i$ | hou chi | [pro] | waa | t$_i$ | gwaa |
|---|---|---|---|---|---|---|---|
| very troublsome | those | picture | seem | EC | say | | hang |
| jo | hai | cheung | seung min | | | | |
| ASP | at | wall | top/on | | | | |

"It is troublesome that it seems that somebody says that those pictures are hung on the wall."

b.

| hou m hou choi | gaa | che$_i$ | hou chi | [pro] | waa | t$_i$ |
|---|---|---|---|---|---|---|
| unfortunately | CL | car | seem | EC | say | |
| bei | yan | tau | jo | | | |
| PM | people | steal | ASP | | | |

"Unfortunately, it seems that somebody says that the car has been stolen."

The sentence-initial LPs of Locative Inversion sentences behave exactly the same as those subjects in (92a) and (93a) with respect to SuperRaising. Sentences in (95), which contain sentence-initial LPs, have the same pattern as those in (92) and (93).

(95)a.

| hou chi | [pro] | waa | (hai) | cheung | seung min |
|---|---|---|---|---|---|
| seem | EC | say | at | wall | top/on |
| gwaa | jo | fuk | waa | (hai dou) | |
| hang | ASP | CL | picture | there | |

"It seems that somebody says that there is a picture hanging on the wall."

| b. | (hai) | cheung | seung min$_i$ | hou chi | [pro] | waa | t$_i$ |
|----|-------|--------|---------------|---------|-------|-----|-------|
| | at | wall | top/on | seem | EC | say | |
| | gwaa | jo | fuk | waa | (hai dou) | | |
| | hang | ASP | CL | picture | there | | |

| c. | *hou chi | (hai) | cheung | seung min$_i$ | waa | t$_i$ |
|----|----------|-------|--------|---------------|-----|-------|
| | seem | at | wall | top/on | say | |
| | gwaa | jo | fuk | waa | (hai dou) | |
| | hang | ASP | CL | picture | there | |

Furthermore, the sentence adjunct "tsan maa faan"(very troublesome) can likewise be placed immediately before the LP in (95b) and this evidence supports the conclusion that the LP is a subject, not a topic.

| (96) | tsan maa faan | (hai) | cheung | seung min$_i$ | hou chi | [pro] | waa | t$_i$ |
|------|---------------|-------|--------|---------------|---------|-------|-----|-------|
| | very troublesome | at | wall | top/on | seem | EC | say | |
| | gwaa | jo | fuk | waa | (hai dou) | | | |
| | hang | ASP | CL | picture | there | | | |

When the "pro" in each of the sentences (92b), (93b) and (95b) is replaced by a lexical subject as shown in (97), the grammatical function of the initial phrases in all these (b) sentences changes as well. The sentence-initial phrases in (97a) and (97c)("di waa"(those pictures) and "hai cheung seung min"(on the wall)) can only be interpreted as topics as witnessed from the fact that the sentence adjunct "tsan maa faan"(very troublesome) cannot be put immediately before them. Furthermore, (97b) can hardly be interpreted because it is simply ungrammatical.

| (97)a. | (*tsan maa faan) | ?di | waa$_i$ | hou chi | Ah Chan | waa | t$_i$ | gwaa |
|--------|------------------|-----|---------|---------|---------|-----|-------|------|
| | very troublesome | those | picture | seem | | say | | hang |
| | jo | | hai | cheung | seung min | | | |
| | ASP | | at | wall | top/on | | | |

| b. | *gaa | che$_j$ | hou chi | Ah Chan | waa | t$_i$ | bei | yan | tau | jo |
|----|------|---------|---------|---------|-----|-------|-----|-----|-----|-----|
| | CL | car | seem | | say | | PM | people | steal | ASP |

| c. | (*tsan maa faan) | ?(hai) | cheung | seung min$_i$ | hou chi | Ah Chan | waa |
|----|------------------|--------|--------|---------------|---------|---------|-----|
| | very troublesome | at | wall | top/on | seem | | say |
| | t$_i$ | gwaa | jo | fuk | waa | (hai dou) | |
| | | hang | ASP | CL | picture | there | |

To summarize, three points of interests stand out from the analysis in this section.

(i) The sentence-initial LPs of the Locative Inversion sentences(1-10) are undoubtedly subjects and they can participate in SuperRaising, as shown in (95b).

(ii) In Cantonese SuperRaising(an A-movement), extracting a subject across another lexical subject, which is an A-specifier and which is a potential antecedent governor, is prohibited. Such restriction is clearly shown in (97). The reason why (97a) and (97c) are felicitous is that the sentence-initial phrases ("di waa"(those pictures) and "hai cheung seung min"(on the wall)) are topics. The movement process cannot be interpreted as SuperRaising--an A movement, and it can only be topicalization--an A'-movement. The lexical subject "Ah Wong" or "Ah Chan", which is an A-specifier, will not intervene in an A'-movement. Hence, the principle of Relativized Minimality makes the right prediction in these cases.

(iii) However, the fact that SuperRaising is allowed in (92b), (93b) and (95b) suggests that "pro" in Chinese, although an A-specifier, will not intervene in an A-chain and block the movement , unlike what is predicted by the principle of Relativized Minimality.

## III. Extension of the Locative Inversion Analysis to Existential "Yau"(have) Sentences

The proposal that the sentence-initial LPs of the Locative Inversion sentences in (1-10) results from a movement operation can be carried over to the existential "yau"(have) sentences beginning with a LP. The locative inversion of the "yau"(have) sentences, however, is not limited to extracting LPs from the postverbal complement position. Preverbal adjunct LPs can also be moved to the sentence-initial (subject) position. In both cases, the pro-form "hai dou"(there) may coexist with the LPs, thus bearing witness to the operation of the movement process. The subjecthood of the sentence-initial LPs can be ascertained by the fact that they pass all the tests for subjects which have been employed in the earlier analysis. The movement analysis in the existential "yau"(have) sentences is comparable to Freeze's(1991) crosslinguistic analysis of "have" structures as locative sentences. But it differs widely from Huang's(1989) analysis of the existential "you"(have) sentences in Mandarin as far as the sentence-initial LPs are concerned.

Huang(1989) proposes that in Mandarin, an existential "you"(have) sentence like (98a) can be analyzed with a structure shown in (98b).

(98)a.  you   yi    go    yan      zai   jiao shi    li
        have  one   CL    people   at    classroom   inside

      "There is a man inside the classroom."

b.
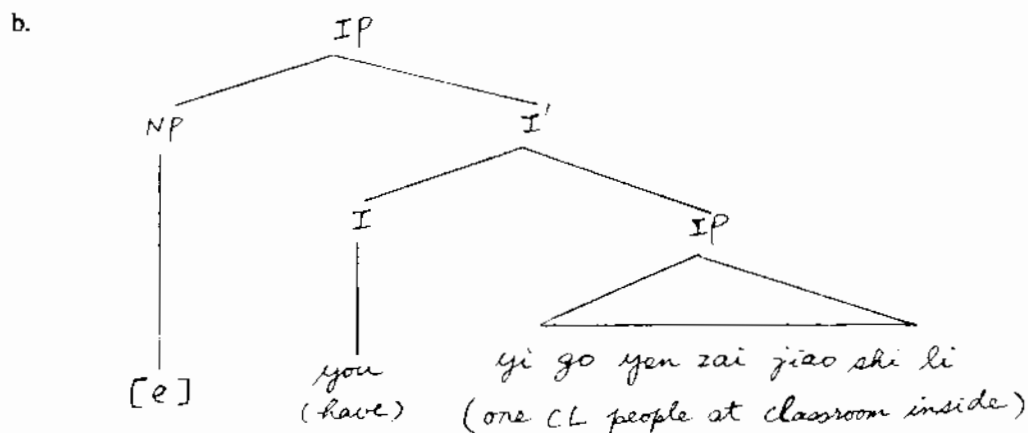


The crucial assumption in this case is that "you"(have) in (98) is an auxiliary verb in contrast to the full-verb "you"(have) in the possessive sentences. If the subject of the lower IP is indefinite, like "yi go yan"(a person), it will not be raised to the subject position of the matrix IP which is left empty in the surface form. However, if the subject of the lower IP is definite, it will be obligatorily raised to the empty subject position. But according to Huang(1989), it is not possible for a definite NP to follow immediately the existential "you"(have). So raising will not occur in the existential "you"(have) sentences such as (98). It can only happen in sentences having "you" as a perfective auxiliary verb like (99).

(99)  Zhangsan$_i$   mei    you     t$_i$   kan jian   Lisi
                     not    have           see

"Zhangsan did not/has not see/seen Lisi."


One of Huang's(1989) major arguments for treating existential "you"(have) in Mandarin as an auxiliary verb is that, similar to other canonical auxiliary verbs like "hui"(will) and "ying gai"(should), existential "you"(have) cannot take an aspect marker. This is also true for the existential "yau"(have) in Cantonese as seen from (100).

(100)  yau  ⎫ *jo   ⎫  fuk   waa      gwaa   jo    hai   cheung   seung min
       have ⎪ ASP  ⎬  CL    picture  hang   ASP   at    wall     top/on
            ⎪ *gwo ⎪
            ⎩ ASP  ⎭

"There is a picture hanging on the wall."

So I also assume that (100) has an underlying structure similar to (98b).

This kind of sentences in Cantonese also allows LPs to appear in the sentence-initial position. (101) is a counterpart of (100) and they both have the same truth-value in meaning.

| (101) | (hai) | cheung | seung min | yau | fuk | waa | gwaa | *(hai dou) |
|-------|-------|--------|-----------|-----|-----|-----|------|------------|
|       | at    | wall   | top/on    | have | CL | picture | hang | there |

The noticeable thing in (101) is that the proform "hai dou"(there) may also co-exist with the sentence-initial LP(see discussion in section IV (B),Part 1). Therefore, we can once more hypothesize that the LP in (101) comes from the postverbal complement position via movement. The structural representation in (102) illustrates the movement process.

(102)
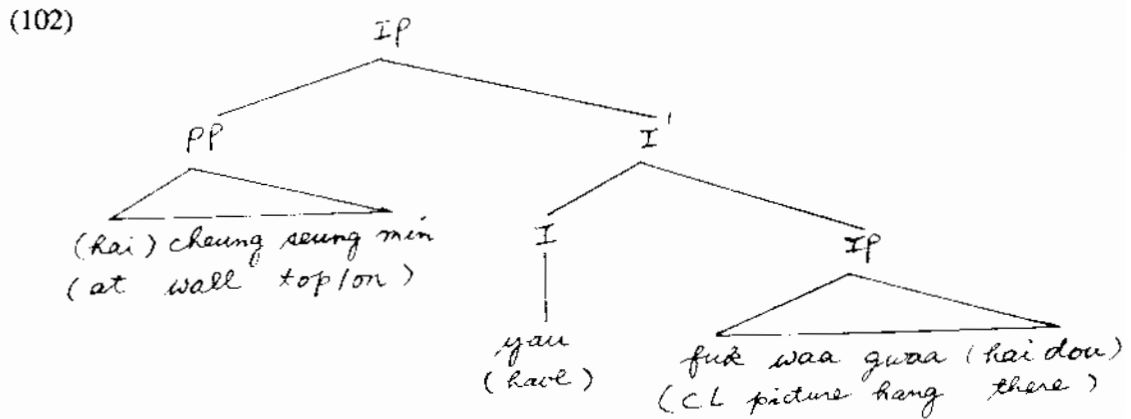


There are in fact several arguments in favour of this hypothesis. First, Huang(1989) argues that existential "you"(have) in Mandarin subcategorizes for an internal argument which appears as a complement in the D-structure. I assume that this proposal can be carried over to the Cantonese case. This semantic classification of "yau"(have) makes it equivalent to unaccusative verbs like "fan"(lie), "kei"(stand) and "cho"(sit) which allow locative inversion as shown in (1-10). (Unaccusative verbs also subcategorize for internal arguments only.) The movement hypothesis for existential sentences like (102) is congruent to what this paper has been proposing all along.

Second, the sentence-initial LP in (101) can pass all the subjecthood tests that have been invoked in Part 1. For ease of presentation, we only show the "sentence-adjunct-placement" and the "subject-raising" tests in the following.

| (103)a. | hou ho neng | (hai) | cheung | seung min | yau | fuk | waa |
|---------|-------------|-------|--------|-----------|-----|-----|-----|
|         | probably    | at    | wall   | top/on    | have | CL | picture |
|         | gua         | *(hai dou) |     |           |     |     |     |
|         | hang        | there |        |           |     |     |     |

"Probably, there is a picture hanging on the wall."

| b. | (hai) | cheung | seung min | hou chi | yau | fuk | waa |
|---|---|---|---|---|---|---|---|
| | at | wall | top/on | seem | have | CL | picture |
| | gwaa | *(hai dou) | | | | | |
| | hang | there | | | | | |

"It seems that there is a picture hanging on the wall."

(101) can also participate in SuperRaising.

| (104) | (hai) | cheung | seung min | hou chi | [pro] | waa | t |
|---|---|---|---|---|---|---|---|
| | at | wall | top/on | seem | EC | say | |
| | yau | fuk | waa | gwaa | *(hai dou) | | |
| | have | CL | picture | hang | there | | |

"It seems that somebody says that there is a picture hanging on the wall."

(Notice that "hai dou"(there) in (103) and (104) are obligatory.)

So the locative inversion analysis can capture the similarities between the locative existential sentences (as in (101)) and the typical Locative Inversion sentences (as in (1-10)).

There are two more extensions of the movement analysis that I should mention. One is the possibility of moving an adjunct LP to the subject [SPEC, IP] position in an existential sentence. (105a) has a counterpart (105b).

| (105)a. | yau | yan | (hai | uk | leui min) | tiu mou |
|---|---|---|---|---|---|---|
| | have | people | at | house | inside | dance |

"There are people dancing inside the house."

| b. | (hai) | uk | leui min | yau | yan | (hai dou) | tiu mou |
|---|---|---|---|---|---|---|---|
| | at | house | inside | have | people | there | dance |

The LP in (105a) is an adjunct basically because of its optional nature. But it can still be moved to the sentence-initial (subject) position as what appears in (105b). The initial LP in this case is a subject since it can pass all the subjecthood tests mentioned before. Thus I conclude that locative inversion in Cantonese can also be an A'-movement(moving an XP from an A' position to an A position).

The other extension that deserves attention is the possibility of moving a PP predicate in locative inversion. Sentence (106a) has an underlying structure like (106b).
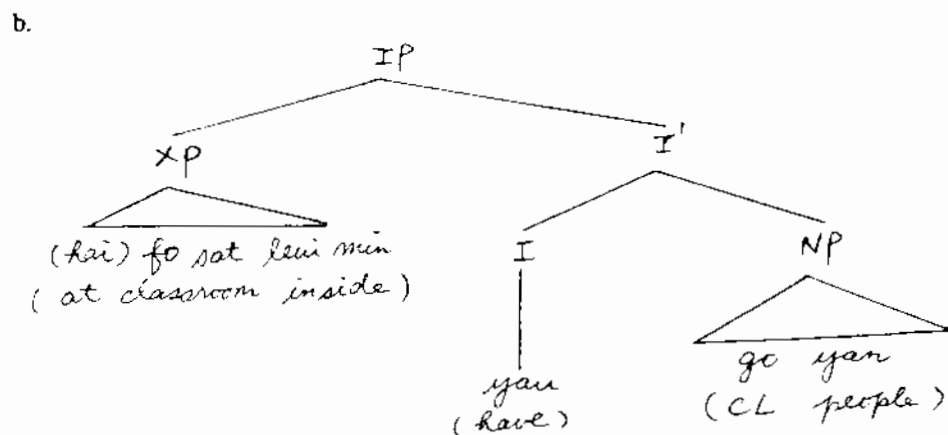
(106)a.  yau      go      yan      hai      fo sat      leui min
         have     CL      people   at       classroom   inside

"There is a man inside the classroom."

b.
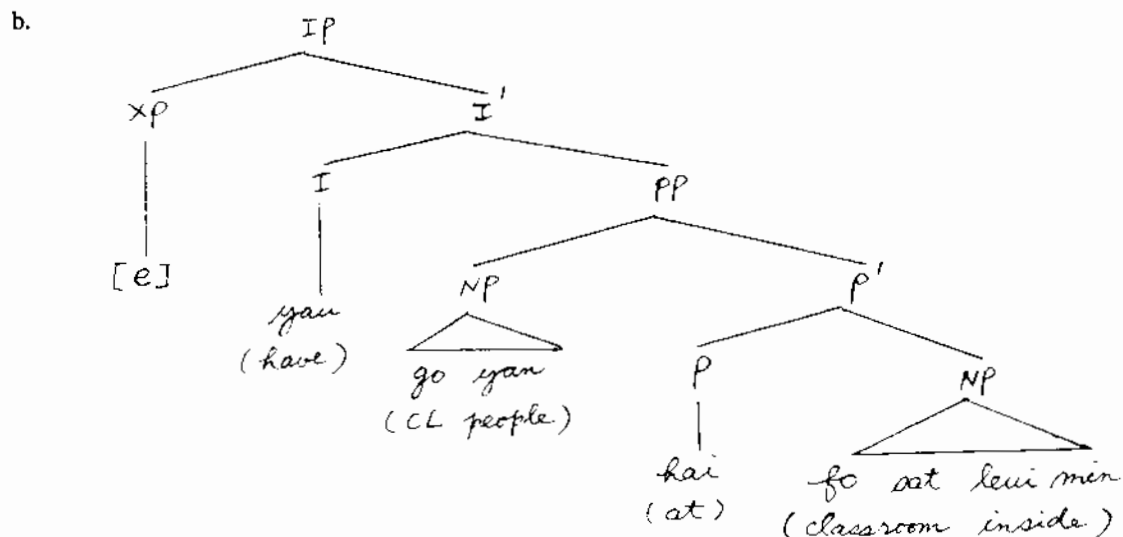


The whole PP can be raised to the subject position becoming (107).

(107)a.  (hai)    fo sat      leui min   yau      go      yan      (hai dou)
         at       classroom   inside     have     CL      man      there

b.



Again, the sentence-initial LP in (107) can pass all the subjecthood tests mentioned in Part 1.

This analysis is similar to what Freeze(1991) proposes for treating crosslinguistic "have"-structures like (108) as locative sentences.

(108) a. English

I have a needle (on me).　　(Freeze, p.53)

b. Russian

u　menja　est　sestra
at　I-GEN　COP　sister-NOM
　　　　　　[+Loc]
"I have a sister."　　(Freeze's (55b), p.46)

c. Finnish

poyda-lla　on　kyna
table-on　COP　pencil
　　　　[+Loc]
"There is a pencil on the table."　　(Freeze's (56a),p.46)

The "have" subjects in (108) are all regarded by Freeze as locations and the sentences all have a similar underlying representation like (109) which is comparable to (106b).

(109)



(Freeze, p.49)
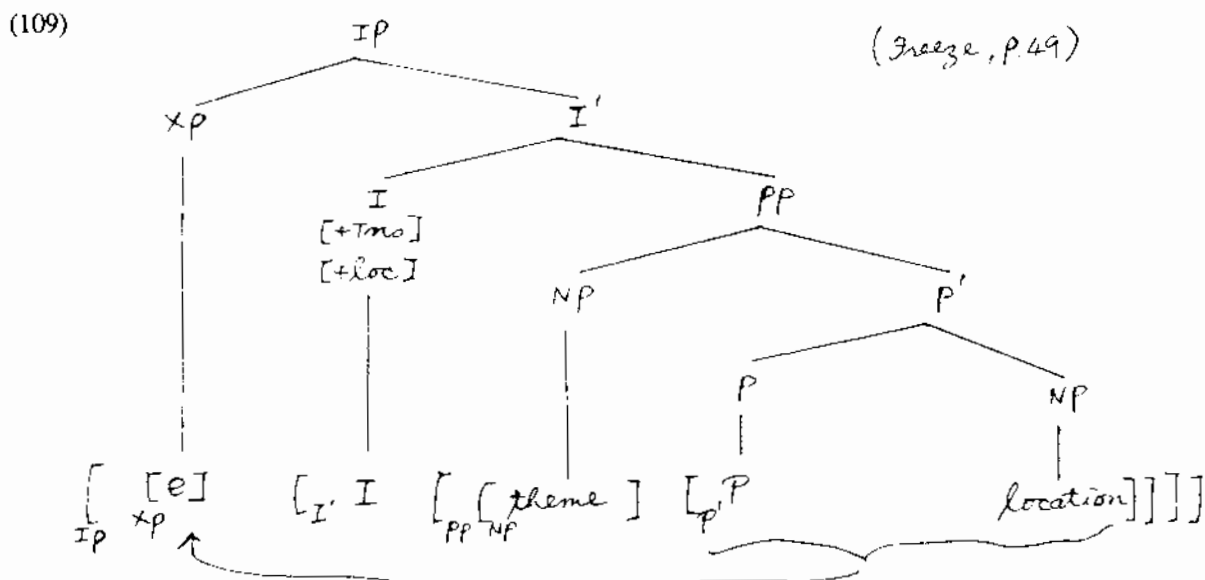
In this case, the locative argument "P'" is moved to the subject position in S-structure, leaving its specifier , i.e. NP, in situ.

Although the proposal here fits in with Freeze's crosslinguistic analysis, it differs widely from what Huang(1989) proposes for similar sentences in Mandarin.

Huang(1989) suggests that Mandarin sentences like (110) should belong to the possessive type instead of the existential type.

(110)  jiao shi      li        you      (zhou) ⎱ yi ⎰ ban     shu     ma?
        classroom    inside    have     ASP    ⎰ one ⎱ CL      book    PART
                                                ⎰ zhe ⎱
                                                ⎩ this ⎭

        "Is    there ⎰ a ⎰ book    inside    the    classroom?"
                     ⎰ *this ⎰

Even though this suggestion seems odd because of the possessive relation(that in (110), "the classroom owns a book"), he nevertheless supports his argument by saying that the "you"(have) in this case is a full-verb(rather than an auxiliary verb as in the existential sentences) because it can take an apsect marker. By asserting that (110) belongs to the possessive type, he can also explain why a definite NP("zhe yi ban shu"(this book)) can appear after "you"(have), which is prohibited in existential sentences. Huang(1987,1989) also insists that sentence-initial LPs like the one in (110) are base-generated NP. However, the analysis in this section suggests a very different treatment of the subject LPs of the "yau"(have) sentences in Cantonese. I hypothesize that they are not base-generated but they come from either the postverbal complement position or the adjunct position. This movement analysis is only a subset of the general process Locative Inversion that operates extensively in Cantonese.

## IV. Summary and Conclusion

The first part of the paper has showed that Locative Inversion sentences like (1-10) are derived by a movement process. The LPs of these sentences are claimed to originate in the postverbal complement position in the D-structure, but move to the subject position in S-structure. I begin the discussion by adducing several pieces of evidence to support the subjecthood of the LPs in the surface form. First, they exhibit at least three major characteristics that differentiate them from ordinary topics. Second, they assume a position in the surface structure that precedes the auxiliary verbs and sentence adverbials. Third, they can undergo subject-to-subject raising. The next task I do is to justify the proposal that the LPs in (1-10) move from the postverbal complement position to the subject position. I first show that the verbs in the Locative Inversion sentences in (1-10) are unaccusative in nature. Second, I demonstrate the relative distribution and cooc-currence restrictions between the sentence-initial LPs and their coreferent proform "hai dou"(there). Their distribution properties justify the claim that the sentence-initial LPs are a result of the movement operation and the proform "hai dou"(there), which is optional, is some kind of residue coreferent to the LPs. The argument that the LPs appear as postverbal complements in the D-structure is reinforced by the fact that when they

appear in the postverbal position in the surface form, they are obligatory and receive a locative θ-role from the verb. The third task I attempt is to show that some Locative Inversion sentences like (2,7,& 8), which contain verbs like "gwaa"(hang), "lim" (paste) and "se"(write), can acquire an accusative reading in other contexts. This is particularly obvious if these sentences appear as part of a discourse and the agents are omitted to avoid repetition since they are mentioned previously . In this case, these accusative sentences in D-structure will contain a "pro" under the [SPEC, IP]. The fourth task I tackle is to contrast the θ-role assignment and Case-assignment of Cantonese with those of Mandarin. I also justify that PPs in Cantonese, such as sentence-initial LPs, can receive Case.

The second part of the paper is designed to tackle three tasks. At the outset, I strengthen the proposal that the sentence-initial LPs in (1) and (2) are also arguments(complements) when they are in D-structure. The strategy I use is to first compare the extraction behaviour between the postverbal LPs in accusative sentences(like(56)) and the adjunct-like duration expressions. From their difference in extraction behaviour and based on Rizzi's theory of Relativized Minimality, I can reaffirm that postverbal LPs must be arguments(complements). Since I have already argued that these LPs of the accusative sentences are the same kind of entity as those LPs of the Locative Inversion sentences in D-structure, the latter must also be arguments too. The next task I deal with is to reinforce the subjecthood of the sentence-initial LPs by claiming that they also participate in SuperRaising. One significant observation is that the raising of the LPs across another lexical subject is blocked, but the raising of the LPs across a "pro" is allowed. The third task I undertake is to extend the movement analysis in Part 1 to the type of existential "yau"(have) sentences in Cantonese that begin with a LP. These sentences are also claimed to have undergone locative inversion and the sentence-initial LPs may come from the postverbal complement position or the preverbal adjunct position.

As a whole, the investigation in this paper has come up with the following generalizations:

(i) The Locative Inversion phenomenon in Cantonese is widespread and movement is involved to front the LPs to the subject(sentence-initial) position. In the majority of cases, the LPs are extracted from the postverbal complement position. But it is also possible to front a preverbal adjunct LP in an existential "yau"(have) sentence.

(ii) Since the LPs are PPs and they are moved into the [SPEC, IP] position in locative inversion, this suggests that Cantonese PPs can be assigned Case in this particular context.

(iii) Because of the proposal of movement analysis in Locative Inversion, I have argued that Cantonese word order is SVO at both D- and S-structure.

(iv) In examining the SuperRaising characteristics of the sentence-initial LPs in Locative Inversion sentences, I come to the conclusion that "pro"(an A-specifier) in Cantonese will not intervene in an A-chain and block the related movement, unlike what is predicted by the theory of Relativized Minimality.

For further research, it will be interesting to look into the relation between locative inversion and syntactic processes like passivization and relativization. The study in this paper also shows that it may be a fruitful task to further investigate the issue of treating the negation marker "m"(not) in Cantonese as a spec of VP. In analyzing the SuperRaising phenomenon of the Locative Inversion sentences, I find that in Cantonese, it is possible to extract an element across "pro"(an A-specifier at the [SPEC, IP]) in an A-movement. This looks like a counterexample to the theory of Relativized Minimality. Further research into other kinds of A-movement, like passivization, may help to reconfirm this preliminary generalization.

## NOTES

1. By "logical subject", I refer to the thematic argument of a verb that can be a surface subject in the unmarked case. The following sentence

yau  go  yan  fan  hai  chong  seung  min
have  CL  people lie  at  bed  top/on
"There is a man lying on the bed."

is considered as an unmarked case, where the "logical subject" is "go yan"(a man). Example (1) on page 1 is the marked counterpart of the sentence above and the "logical subject" stays in the postverbal position after locative inversion.

2. The transliteration of the Cantonese words(characters) in this paper is based on the Yale system, but tones are not shown. The following is a list of the transliteration symbols and their IPA equivalents(in brackets).

b(p)  d(t)  g(k)  p(p')  t(t')  k(k')  l(l)  m(m)  n(n)  ng(n)  f(f)
h(h)  s(s)  j(ts)  ch(ts')  gw(kw)  kw(k'w)  w(w)  y(j)
a(a)  ai(ai)  au(au)  aa(a:)  aai(a:i)  aau(a:u)  e(ɛ)  ei(ei)  eu(œ)
i(i)  iu(iu)  o(ɔ:)  ou(ou)  oi(ɔi)  u(u)  ui(ui)  eui(œy)  yu(y)

3. Abbreviations
ASP=aspect marker  CL=classifier  EC=empty category  DEM=demonstrative determiner
MOD=modifier  PART=particle  PM=passive marker  POSS=possessive marker

4. I assume that the verb "lei mai"(hide) has two readings, both unaccusative and unergative. In sentence (6), it is an unaccusative verb and it takes an argument that bears the theme/patient role and which occupies the object position in the D-structure. On the other hand, if it occurs as unergative, then it will take an argument that bears an agent role and occupies the subject position in the D- and S-structure.

5. Thanks go to Phil Lesourd for suggesting to me the use of the term "sentence adjuncts".

6. I am indebted to Prof. S.Y. Kuroda for this idea.

7. Throughout this paper, I will assume that "hou chi"(likely/seem) and "hou ho neng"(possibly) are raising predicates in Cantonese. This assumption is based on the fact that these expressions behave similarly to their Mandarin counterparts which are affirmed to be raising predicates by Hou(1977), Li(1990) and Zhou(1990).

8. In the analysis that follows, I will show that the NP "hou do sai lou jai"(many children) occurs in the object position in the D-structure. (39a) is a result of moving the NP to the subject position in the S-structure. In (39b), the LP is moved to the surface subject position instead. That is why I call the NP in this case a potential subject. For the idea of "logical subject", please see note (1) above.

9. The assumption that ergative verbs in Mandarin Chinese can assign Case

to their NP complements deviates materially from Burzio's idea of ergative verbs which are claimed to be unable to assign Case. For evidence supporting the Chinese assumption, the reader is referred to Li(1990) and Zhou(1990).

10. See note (7) above.

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