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LOCATIVE INVERSION IN CANTONESE

Sui-Sang Mok

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 'yu' (have) sentences. This movement hypothesis is crucially dependent on the relative distribution and cooccurrence restrictions between the sentence-initial locative phrases and their coreferent pronom "hai dou" (there). One important observation drawn from the SuperRaising analyses 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 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) chong seung min gwaa jo fak 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 prop-ositional phrases headed by the proposition "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.

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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 (anticausative) 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 perform 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 "tin"(paste), "gwa"(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 0-role and Case assignment in Cantonese from that of Mandarin as described by Li (1990). Because of this, section V of Part I will be devoted to briefly comparing the systems of 0-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 prepositional phrases in Cantonese can be Case-marked.

Part II 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 adjectival 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 Supraraising. One important observation drawn from the analysis of Supraraising 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 I is extended to the type of existential "yes"(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 Freccer (1991) crosslinguistic analysis of "have"-structures as locative sentences, but differs widely from Huang's (1987,1989) analysis of those existential "yes"(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, 0-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 lei min cho mun saai di hok saang (hai dou) at car inside sit full all those students there

"The car was sat full by the students."

(4) (hai) ak lei min jyu jo saam go fedeleh yan (hai dou) at house inside live ASP three CL Philippine people there

"There are three Philippines living inside the house."

(5) (hai) kiu lei min koi 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 su lei min lei mui* jo go chat lee (hai dou) at office inside hide ASP* CL thief there

"A thief is hiding inside the office."

(7) (hai) mun baan mui lin 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 these pictures."

(8) (hai) haak baan seang min se jo di ying mun ji (hai dou) at blackboard stand write ASP some English word there

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

(9) (hai) fa yan cheu min jeng jo yi sap jao dang (hai dou) at garden outside install ASP twenty CL lamp there

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

(10) (hai) tuk seang min hai mun saai haa (hai dou) at table buy run 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).  
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 role, the sentence-initial prepositional LP is often conceived as a topicalized ele- 
ment (cf. Brown (1976), Groenendijk (1989), Rochemont & Culler (1990)). Xu and 
Langendoen (1985:5) also regard the sentence-initial LP in sentence (12) in Mandarin to 
be a topic.

(12) choon hai shang you syu choon shang bu hai you 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 proposition, must be definite in nature. Furth- 
ermore, pauses, which some people consider to be diagnostics for topics (although impre- 
cise), may be inserted after the LPs. But these pieces of evidence are by no means con- 
ductive. 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 
one in (13) and (14).

(13) go tii yu (a), Ah Chan lam yan hai Aberdeen mai ge that CL fish buy PART yesterday at

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

(14) go gan che (a), Lou Li gan jiu jing hou jo that CL car buy good ASP

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

The first piece of evidence is related to the relative order between sentence 
adjuncts and topics. In Cantonese, sentence adjuncts such as adverbials like "hou in hou
coi* (unfortunately), "hou ho neng"(possibly) and "hou ho sik"(sadly) cannot precede a
topic.

(15)*

<table>
<thead>
<tr>
<th>hou ho neng</th>
<th>gaa che, Ah Chen gam jiu</th>
</tr>
</thead>
<tbody>
<tr>
<td>possibly</td>
<td>CL car</td>
</tr>
<tr>
<td>hou ho sik</td>
<td>jing mei jing boc</td>
</tr>
<tr>
<td>sadly</td>
<td>not yen jing leu</td>
</tr>
<tr>
<td>hou n he choin</td>
<td>unfortunately</td>
</tr>
</tbody>
</table>

"Possibly/sadly/unfortunately, Ah Chen 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)

<table>
<thead>
<tr>
<th>hou ho neng</th>
<th>( Después ak les min jua jo</th>
</tr>
</thead>
<tbody>
<tr>
<td>possibly</td>
<td>at house inside live ASP</td>
</tr>
<tr>
<td>hou ho sik</td>
<td>sain rigo felicithan yan (hai doo)</td>
</tr>
<tr>
<td>sadly</td>
<td>three CL Philippine people three</td>
</tr>
<tr>
<td>hou n he choin</td>
<td>unfortunately</td>
</tr>
</tbody>
</table>

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

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

(17) *in jing ji | gaa che, Ah Chen jing wai jo, |
| not only    | CL car             |
| jing yau    | go cheung, leui sai lou dau tan jo |
| but also    | CL window he brother hit broken ASP |

"Not only did that car, Ah Chen min, but also that window, his brother broke."

(18) **yu sai lou jui | in jing ji Ah Chen jung yau |
| CL child     | not only like |
| jing yau     | leui tai tai dau bei fun (leui) |
| but also     | he wife also like (he) |

"The child, my only does Ah Chen like, but also his wife likes."

The normal ways of expressing similar ideas in (17) and (18) do not involve topicaliza-
tion and their well-formed counterparts should appear as
In contrast, there are no problems in applying correlative conjunctions to sentences containing sentence-initial LPs.

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

"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 exemplified by (23) and (24).

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

"If Mary does not come, that car, Ah Chan will ruin it."
Their well-formed counterparts should involve no topicalization, as shown in (25) and (26).

\[(25)\] kam maan slik jo faam ji han, 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."

\[(26)\] yi go Mary m lei, Ah Chan wui jing waal gaa che
if not come will fix bad CL car

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

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

\[(27)\] kam maan slik jo faam ji han, (hai) chong seung min
last night eat ASP rice after at wall picture there
yi gaa gwaan jo sap fuk waan (hai dou)
already hang ASP ten CL picture there

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

\[(28)\] yi go Mary m lei, (hai) ti faan baan seung min m
if not come at ceiling light there
wai jing yi sap jen 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 adjuncts 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 shy 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 1. 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 leng go at bed top floor also can stay lie two CL
child there
"The bed can also allow two children to lie on."

(32) (hai) chong seung min (dou) wai gwaan leng for at wall top floor 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 [SPEC, IP]. Since the LPs are obligatory elements, as witnessed in (33), their adjunction to 1 is not possible because it is an optional position.

(33) *gwaan 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-initial LPs are subjects is clearly supported by the fact that these LPs can undergo subject-to-subject raising (cf. House(1977), Li (1990)). The LPs can either precede or follow raising predicates like "hou cha" (likely/see) and "hou homing" (possible), suggesting that there is a raising operation involved.

(34) (1) (hai) chong seung min fan jo
likely/see at bed top floor lie ASP
hou ho neng go you (hai dou)
possible CL people there
"It is likely/possible that a person is lying on the bed."
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 intransitive (transitive) 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 intransitive 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, Burtze (1986:29) defines ergative verbs in terms of their lack of external theme.

(3b) [Ergative verbs] refer to verbs which are subcategorized for a direct object and which do not assign a subject 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 Burtze (1986). Besides this superficial comparison, Zhou (1990:40-45) 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/transitive and accusative (transitive) verbs do not allow postposition of the subject (see Huang (1987), Zhou (1995)). In contrast, in Locative Inversion sentences like (1-10), the "logical"/"potential" subject can occur postverbally, showing that the verbs are unaccusative in nature. (37a) and (37b), 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"/"tie" and "subject postposition"
is allowed, as shown in (30b).

\[(37a)\] hou do sai lou jai hai chong seung min hain many child at bed topcon cry
 "There are many children crying on the bed."
\[(38a)\] hou do sai lou jai hai chong seung min tui suy many child at bed on read book
 "Many children are reading on the bed."
\[(39a)\] hou do sai lou jai fan hai chong seung min many child lie at bed topcon
 "There are many children lying on the bed."
\[(37b)\] hou do sai lou jai hai chong seung min hai dou at bed topcon cry ASP many child there
 "There are many children crying on the bed."
\[(38b)\] hou do sai lou jai hai chong seung min tui suy hou do sai lou jai at bed topcon read book many child
 "Many children are reading on the bed."
\[(39b)\] hou do sai lou jai fan hai chong seung min fan jo hou do sai lou jai hai dou at bed topcon lie ASP many child there
 "There are many children lying on the bed."

That the verbs in sentences (1-10) are unaccusative in nature will, according to Buzzio’s hypothesis, predict that the argument, which bears the Obne role and which is a “logical” (proterous) 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. an unaccusative verb are defined by Buzzio not to assign a subject 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 justified 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 the deictic adverb “there”
in English and the action related to it refers to the immediate presence.

\[
\begin{align*}
(40) & \quad \{ \text{paa} \} \\
& \quad \{ \text{lie prostrate} \} \\
& \quad \{ \text{cho} \} \\
& \quad \{ \text{sit} \} \\
& \quad \{ \text{kei} \} \quad \text{hai dou} \\
& \quad \{ \text{stand} \} \quad \text{here} \\
& \quad \{ \text{fan} \} \\
& \quad \{ \text{lie} \} \\
& \quad \{ \text{g-wai} \} \quad \text{kneel}
\end{align*}
\]

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

\[
(41) \quad \{ \text{hai dou} \} \quad \{ \text{lei chong swang min} \} \quad \text{cho} \quad \{ \text{hai dou} \} \quad \{ \text{lei chong swang min} \} \\
\quad \{ \text{at} \} \quad \{ \text{bed} \} \quad \{ \text{top/on} \} \quad \text{sit} \quad \text{at} \quad \{ \text{bed} \} \quad \{ \text{top/on} \}
\]

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

\[
(42) \quad \{ \text{hai chong swang min} \} \quad \{ \text{lei} \} \quad \{ \text{cho} \} \quad \{ \text{jo} \} \\
\quad \{ \text{at} \} \quad \{ \text{bed} \} \quad \{ \text{top/on} \} \quad \text{be} \quad \text{sit} \quad \text{ASP}
\]

\[
\{ \text{hai chong swang min} \} \quad \{ \text{hai dou} \} \quad \{ \text{hai chong swang min} \} \\
\quad \{ \text{at} \} \quad \{ \text{bed} \} \quad \{ \text{top/on} \} \quad \text{there} \quad \text{at} \quad \{ \text{bed} \} \quad \{ \text{top/on} \}
\]

Furthermore, the LP must precede the proform.

\[
(43) \quad \{ \text{hai} \} \quad \{ \text{kei} \} \quad \{ \text{hai dou} \} \quad \{ \text{min} \} \quad \{ \text{lei} \} \quad \{ \text{jo} \} \quad \text{go} \quad \text{yan} \quad \text{hai dou} \\
\quad \{ \text{at} \} \quad \{ \text{bridge} \} \quad \text{under} \quad \text{stand} \quad \text{ASP} \quad \text{CL} \quad \text{people} \quad \text{there}
\]

"There is a man standing under the bridge."

\[
(44) \quad \{ \text{hai} \} \quad \{ \text{hai dou} \} \quad \{ \text{lei min} \} \quad \{ \text{yan} \} \quad \{ \text{hai dou} \} \quad \{ \text{you} \} \quad \{ \text{swim} \} \\
\quad \{ \text{at} \} \quad \{ \text{river} \} \quad \text{inside} \quad \text{have} \quad \text{people} \quad \text{there} \quad \text{swim}
\]

"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 is hai chong seung min have people sit ASP at bed topic
   "There is a man sitting on the bed." (cf. (42))

(46) *hai dou cho jo go yan there sit ASP CL people

(47) yau yan hai ho luo min yau seui have people at river inside swim
   "There is a man swimming in the river." (cf. (44))

(48) *yau yan hai dou yan seou 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 prepositional 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 6-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 topic
   "There is a man lying on the bed." (cf. (1))

Furthermore, following Li(1990) and Zhen(1990), I assume that unaccusative verbs can assign Case to their NP complements. The D-structure of sentence (1), (which is repeated here as (50a)), for example, will be (50b).
(50a) (hai) chong seung min fan jo go yan (hai dou) at bed top/on lie ASP CL people there

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 possibility 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 Intransitive Case; the movement of the object NP to the [SPEC, IP] will make it doubly Case-marked). Applying the rule of move-ı, the S-Structure of (1) will be

(51)
That the proposition "[a]d[is/it]from/for]m" in the sentence-initial LPs of (1-10) may be null is due to the application of a late rule at FF.

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(1986a) - only a maximal projection can move to the specifier position. Besides, the pronoun "a[is/it]from/for]m" or the trace (when the pronoun is null) left behind after the movement is properly head-governed by the verb, thus satisfying the ECPI (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(1984:146) Case Resistance Principle (CRP) forbids PPs and clauses to receive Case because both of them bear Case assigning features (Ps in PPs and [+ tense] in clauses).

(57) 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 proposition. Koopman, in studying Vata (and Chula), comes up with the following generalisation.

(58) 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)b. (hai) cheung seung min gwaa jo fuk was (hai dou) 
at wall up/on hang ASP CL picture there

"There is a picture hanging on the wall."

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 wui lou hai cheung seung min gwaa jo 
your brother at wall up/on hang ASP
knui ge was hai dou 
his POSS picture there

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

nei wai hai loen dou gwaa nei fuk was? 
you will hai where hang you CL picture

"Where will you hang your picture?"

B: dou wai hai cheung seung min gwaa 
also will at wall up/on hang

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

for seriously:
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-adjointed(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 prepositional 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 gwaajo fak waa hai cheung seung min hang ASP CL picture at wall top/on

"Ah Chan hang a picture on the wall."

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

(57a)  Ah Chan hai cheung seung min gwan jo
        fak waa (hai dou) CL picture there
        at wall top/on hang ASP

(57b)  hai cheung seung min b Ah Chan gwan jo
        at wall top/on hang ASP
        fak 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 PP’s are not subject to the Case Filter, they are xi- 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 zai dishang
he sleep 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 [I V P] NP, where P is reassigned with V and forms a complex verb. Alternatively, the P may simply be a V, combining with the main verb to become a composited V: [I V V NP]. Therefore, the sentence in (59) does not violate the word order constrain. There are simply no real PPs in postverbal position (p.59). The basic evidence she puts forward is that verbs like "shui"(sleep) and "zai"(jump) form a unit with "zai"((boat), as it is impossible to insert aspect markers between "shui" 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 0-positions and Case positions in Mandarin Chinese do not coincide. 0-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, postpositional, N-final) at D-structure and SVO, prepositional, N-final at S-structure”. The proof that prepositional LPP in Cantonese can occur postverbally at D-structure (and S-structure) implies that 0-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 0-positions coincide.

The proof that the prepositional LPs move from the preverbal non-Case position at D-structure to the Case-marked subject position at S-structure indicates that LPs 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 LPs to appear in Case positions. In English, for example, we can say “The mouse ran out from [under the bed].” That LPs in Cantonese can receive Case also predicts that LPs 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, LPs can occur in the prepositional modifier environment as in

\[
\begin{align*}
(60) \quad & \text{NP} \quad \text{CL} \\
& \text{PP} \quad \text{DD} \\
& \text{N} \quad \text{ge}
\end{align*}
\]

where “ge” is a modifier marker, “CL” is a classifier and “DD” is a demonstrative determiner. In Cantonese, the following sentences containing LPs as prepositional modifiers are definitely well-formed:

\[
\begin{align*}
(65) \quad & \text{keui} \quad \text{hai} \quad \text{fak} \quad \text{hai} \quad \text{chung} \quad \text{seung} \quad \text{min} \quad \text{go} \quad \text{fuk} \quad \text{waa} \\
& \text{he} \quad \text{like} \quad \text{at} \quad \text{wall} \quad \text{toptoon} \quad \text{CL} \quad \text{picture} \\
& \text{“He likes that picture which is hanging on the wall.”}
\end{align*}
\]

\[
\begin{align*}
(66) \quad & \text{keui} \quad \text{yuu} \quad \text{sou} \quad \text{sai} \quad \text{hai} \quad \text{to} \quad \text{hai} \quad \text{min} \quad \text{go} \quad \text{lap} \quad \text{sap} \\
& \text{he} \quad \text{want} \quad \text{sweep} \quad \text{all} \quad \text{at} \quad \text{table} \quad \text{under} \quad \text{MOD} \quad \text{rubbish} \\
& \text{“He wants to sweep away all the rubbish that is under the table.”}
\end{align*}
\]

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

VI Summary of Part I

Part I 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 LP moves to fill the empty subject position. It also raises the issue that Cantonese LPs 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 more deeply into those complicated syntactic processes like extraction of arguments and adjuncts across wh-islands and Super-raising that are related to the Locative Inversion sentences. Besides, I will also examine “yar” (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 of D-structure. The arguments I have advanced are that the LPs receive a locative 6-role from such verbs as “fan” (hit), “khet” (stand) and “gwas” (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 I. This hypothesis is further justified, as we will see below, when we compare the LP’s extraction behavior with that of duration and frequency expressions which are adjunct-like (for the proof of the adjunct status of their Mandarin counterparts, see Tsung (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 V-adjunct, the negation marker “m” (not) in Cantonese can be the spec of VP, as A'-specifier. Then, I will contrast the extraction behavior of the adjunct-like duration expressions with that of the postverbal LPs (in accusative sentences such as (50)) when a negation marker is present in the [SPEC,VP]. The extraction process that will be examined in this particular occasion is topological, 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 6-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 I, Section IV for discussion), they are no doubts 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 *Eleanorized 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).

\[ \ldots [[\gamma \ldots \delta \ldots]]_{\gamma}\text{-barrier} \]

The extraction of "\(\beta\)" out of the configuration will make the related sentence ungrammatical because 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.

\[ *\text{What did the devil that the disliked创造出 surprise you} ] \]

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).

\[ \ldots \alpha \ldots [[\gamma \ldots \delta \ldots]]_{\text{Subjacency}} \quad \text{(Chomsky 1986,p.47)} \]

(66) Minimality Condition (broader definition)
\[ \gamma \text{ is a barrier for } \beta \text{ if } \gamma \text{ is an immediate projection of } \delta, \text{ a zero-level category distinct from } \beta. \quad \text{(Sangi 1990,p.21)} \]

So in the configuration (65), assuming that "\(\gamma\)" is the immediate projection of "\(\delta\)" "or" will fail to govern "\(\beta\)" even in principle it could do so. To illustrate the Condition, we give the following example.

\[ *\text{Who does Joan think that she can read} ] \]

"\(\gamma\)" fails to govern "\(\delta\)" because of the intervening complementizer "that", which is the head of "\(\gamma\)" and whose immediate projection is "\(\delta\)" - 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 0-government requirement of “proper government” in Barriers is dispensed and the ECP is reduced to (68).

(68) ECP: A nonpronounominal 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 ∈ \{A,N,P,V,Agr,T\}
   (ii) X in commands Y
   (iii) no barrier intervenes
   (iv) Relativized Minimality is respected. (Rizzi, p. 56)

Furthermore, “property-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 0-role(Rizzi, p. 86)). When co-indication and binding are not available, the chain of government relations is the only connecting device. But the government relations are intrinsically local.” (Rizzi, p. 52)

Let us elaborate some of the basic concepts mentioned in (70). Referential 0-roles are argumental 0-roles and they include “agent, theme, patient, experiencer, goal, etc” (Rizzi, p. 86). There are also quasi-argumental or non-referential 0-roles and they include “manner, measure, atmospheric-role and idiosyncratic role in idioms.
etc." (Rizzi, 1986). An object or an object-wh-phrase is an element that is assigned a referential 0-role which licenses a referential index. So it can form a binding relation with its trace when it moves, and the binding dependency need 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, 1987)

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

(72) ??Who, do you wonder [why] John invited \( t_1 \) ?

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

(73) \( (a_1 \rightarrow a_n) \) is a chain only if, for every \( a_i \),
   \( a_i \) antecedent governs \( a_{i+1} \)

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-who-phrase will not be assigned a referential 0-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, do you think \([t_1] \) (John will propose to Mary \( t_1 \))

In (75), \( t_1 \) "antecedent-governs \( t_1 \) " and "how, \( t_1 \) " in turn antecedent-governs "\( t_1 \) ".

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

\[ X \alpha \text{-governs } Y \text{ only if there is no } Z \text{ such that }\]

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

(ii) \( Z \) \( \gamma \)-commands \( Y \) and does not \( \gamma \)-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'-antecedent government). So the intuitive idea behind Relativized Minimality is that a particular 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 \( \gamma \)-commanding \( Y \).

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

c. \( Z \) is a typical potential antecedent governor for \( Y \), \( Y \) in an A’-chain = \( Z \) is an A’ specifier \( \gamma \)-commanding \( Y \).

d. \( Z \) is a typical potential antecedent governor for \( Y \), \( Y \) in an X’-chain = \( Z \) is a head \( \gamma \)-commanding \( Y \). (Rizzi, p. 7)

These four cases generalize the idea that "typical potential governors of different kinds create impeneetrable 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 adjuncts.

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

(77) Who did the manager reward \( t_1 \)?

(78) *How did the manager reward the player \( t_1 \)?

The relation between "whom \( q_1 \)" and "\( t_1 \)" in (77) is a binding one since the "wh-phrase" is assigned a referential \( \theta \)-role which licenses a referential index. What this dependency
needs to fulfill is only head government and the trace is indeed properly head-governed by the verb as witnessed in (79). (In c-commands $t_1$, 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" is not assigned a referential 0-role and hence not a referential index. In this case, "how" and $t_1$ 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 "now, " to the [SPEC, CP] is ruled out by Relativized Minimality because "now, " cannot precede-govern the tense due to the intervention of the A'-Specifizer "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 go"(should) or "wai"(will), as illustrated in (81).

81a. keui m bo yi nan ni di saam (aa)
    he not can buy these clothes PART
    "He is not allowed to buy these clothes."

81b. keui bo yi m maa 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 l'-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 l'-adjointed.

82. maa m di saam (aa), keui m bo 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).

83a. m maa m di saam (aa), keui bo yi m
    buy these clothes PART he can not

83b. m maa m di saam (aa), keui bo 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. 

\[
\begin{array}{c}
\text{spec} \\
\hline
\text{VP} \\
\hline
\text{V} \\
\end{array}
\]

b. 

\[
\begin{array}{c}
\text{spec} \\
\hline
\text{VP} \\
\hline
\text{V} \\
\end{array}
\]

Nevertheless, the second alternative should be opted for because of two pieces of evidence. First, Rizzi suggests that "pas/hot" 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) 

\[
\begin{array}{c}
\text{do much/many} \\
\text{siu} \\
\text{not little/few} \\
\text{leng} \\
\text{not beautiful} \\
\text{gwai} \\
\text{expansive} \\
\end{array}
\]

Second, the negation marker may have the same distribution as some typical specifiers like "hot" (very), "goum" (too), "taal" (too) and "gei" (quite). They can modify cognition verbs as well as stative verbs. The following are two examples.
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/for) LPs when there is a VP specifier "m"(not) existing in the sentence.

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

(88a)  keui (dou) m bo yi dang leung go jung tau
  be 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 bo yi dang
    two CL hour be 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.
(89a) keui (do) ho yi g dang leung go jung ray
he also can/may not wait two CL hour

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

b. leung go jung ray, keui (do) 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 postverbual "hai"(at/in/for/from) LPs in accusative sentences containing verbs like "gwaar"(hang), "bun"(pass) and "jong"(install) is legitimate whether the negation marker is in the I'-adjunction or [SPEC, VP] position.

(90a) Ah Wong (m) ho yi (m) gwaar 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
not gwaar waa hai (do)

hang picture there

The acceptability of (90b) suggests that the LP must be an argument receiving a referential 0-role from the verb and thus assigned a referential index. The LP after topicalization is reindexed with the proform "hai (do) (those)" 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 constrains head-government and antecedent-government only, but not a binding relation.

We have argued in Part 1 the sentence-initial LP 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 0-role as the LP in (90a) (see discussion in Part 1, Section IV). Therefore, they may 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).
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.} bou chi [pro] waa di waa gwaan jo hai cheung seung min seen 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 bou chi [pro] waa t i gwaan jo hai those picture seem EC say hang ASP at cheung seung min wall top/on

c. *bou chi di waa t i gwaan jo hai those picture say hang ASP at cheung seung min wall top/on

{(93)a.} bou chi [pro] waa gaz 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. gaz che bei bou chi [pro] waa t i bei yan tau jo CL car seem EC say PM people steal ASP

c. *bou chi gaz che bei waa t i bei yan tau jo seem CL car say PM people steal ASP
As "hou chi"(subject) is assumed to be a raising predicate, 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 agitative external argument, whereas "di waa"(those pictures) is atheme. ("Di waa"(those pictures) occurs underlyingly in the object position since "gwaan"(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 agitative external argument of the verb "waa"(say).

The sentence-final NPs in the Super-Raising sentences (92b) and (93b) are definitely subjects rather than topics because sentence adjuncts like "tza maa faan"(very troublesome) and "hou juu 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.

(94a)

t za maa faan
di waan
hou chi [pro]
waa
jiang
joe
hai
cheung
say
sang

ASP
at
wall
top

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

b. hou m hou choi
gaa
che
hou chi [pro]
waa
bei
unfortunately
CL
cat
say

PM
people
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 Super-Raising. Sentence (95) (which contains sentence-initial LPs) have the same pattern as those in (92) and (93).

(95a)

hou chi [pro]
waa
sang
cheung
sang
min

seem
EC
say
at
wall
hole

gowan
jo
faa
waa
(hai does)

ASP
CL
picture
there

"It seems that somebody says that there is a picture hanging on the wall."
Furthermore, the sentence adjunct "tsan max 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.

When the "pro" in each of the sentences (92b), (93b) and (95b) is replaced by a lexical subject as shown in (77), the grammatical function of the initial phrase in all these (b) sentences changes as well. The sentence-initial phrases in (97a) and (97c) ("di was" 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 max faan" (very troublesome) cannot be put immediately before them. Furthermore, (97b) can hardly be interpreted because it is simply ungrammatical.

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 wa) (those pictures)" and "hai cheung seang 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 "You" (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 "you" (have) sentences beginning with a LP. The locative inversion of the "you" (have) sentences, however, is not limited to extracting LPs from the preverbal complements position. Preverbal adjunct LPs can also be moved to the sentence-initial (subject) position. In both cases, the pre-form "hai di" (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 "you" (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).

(98a) you yi gi yan zuo jiao shi ni
   have one CL people at classroom inside

 "There is a man inside the classroom."
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 (1999), 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 perceptive auxiliary verb like (99).

(99) Zhangsan mei you ji kan jian Lisi
        not have see

"Zhangsan did not/has not seen Lisi."

One of Huang’s (1999) major arguments for treating existential "you"(have) in Mandarin as an auxiliary verb is that, similar to other canonical auxiliary verbs like "shu"(will) and "ying gai"(should), existential "you"(have) cannot take an aspect marker. This is also true for the existential "you"(have) in Camoerean as seen from (100).

(100) you have "jo" fuk was gwan jo hai cheung seung min
    ASP CL picture hang ASP at wall top

"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-final position. (101) is a counterpart of (100) and they both have the same truth-value in meaning.

(101) (hai) chung sang min you fuk war gwun * (hai dou) at wall toploh have CL picture hang there

The noticeable thing in (101) is that the preform “hai dou”(there) may also co-exist with the sentence-initial LP(ee 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.

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 “you”(have) makes it equivalent to unaccusative verbs like “fat”(lie), “ker”(stand) and “che”(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.

(103a) hou ho meng (hai) chung sang min you fuk war probably at wall toploh have CL picture gua * (hai dou) hang there

"Probably, there is a picture hanging on the wall."
b. (hai) cheung seung min hou chi you fuk waa at wall topo\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 \n at wall topo\on seem EC say
you 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 (104)).

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).

(105a) you yan (hai  \uk \leu\ min) tia mou have people at house inside dance

"There are people dancing inside the house."

b. (hai) \uk \leu\ min you yan (hai dou) tia 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. yan go yan hai fo sat lei 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 lei min yan go yan (hai dou)
at classroom inside have Cl. man there

b.  

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

This analysis is similar to what Freeze(1997) proposes for treating crosslinguistic "have"-structures like (108) as locative sentence.
(108) a. English

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

b. Russian

н моя есть сестра
at-GEN COP sister-NOM
+[Loc]

"I have a sister."  (Freeze's (55b), p.46)

c. Finnish

poytalla on kynä
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 locatives and the sentences all have a similar underlying representation like (109) which is comparable to (106b).

(109)

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 (1986) 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 ASV one CL book PART

"Is there a book inside the classroom?"

This sentence seems odd because of the possessive relation (that in (110), "the classroom owns a book"), but 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 aspect marker. By asserting that (110) belongs to the possessive type, he can also explain why a definite NP "the yi ban shu (that 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 "you"(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 adding 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-in-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 concur-renc in the sentences-initial LPs and their coreferent pronom "hai dou"(there). These distribution properties justify the claim that the sentence-initial LPs are a result of the movement operation and the pronoun "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 post-verbal position in the surface form, they are obligatory and receive a locative 0-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 "jwaa"(hang), "lim"(paste) and "zai"(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 0-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. As 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 behavior between the postverbal LPs in accusative sentences (Hut656) and the adjunct-like duration expressions. From their difference in extraction behavior 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 Supra-Raising. 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 I to the type of existential "ya"(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 "ya"(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"(no) 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 reinforce this preliminary generalization.

NOTES

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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

you go yan fan hai chong seung min
have CI people lie at bed top

"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 masked 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).

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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.

REFERENCES


