

Locative Inversion in Cantonese

Wilson Lui

University of Cambridge

Proceedings of the LFG'20 Conference

On-Line

Miriam Butt, Ida Toivonen (Editors)

2020

CSLI Publications

pages 250–267

<http://csli-publications.stanford.edu/LFG/2020>

Keywords: locative inversion, Cantonese, subject, locative phrase, grammatical functions, Lexical Mapping Theory, Lexical-Functional Grammar, aspect marker, Mandarin

Lui, Wilson. 2020. Locative Inversion in Cantonese. In Butt, Miriam, & Toivonen, Ida (Eds.), *Proceedings of the LFG'20 Conference, On-Line*, 250–267. Stanford, CA: CSLI Publications.



Abstract

Locative inversion constructions in Cantonese have received scant and isolated academic attention in the past decades. However, it relates closely to the question of assignment of grammatical functions in Cantonese, a topic-prominent language with relatively flexible word order and scant inflectional morphology, as well as a lack of case marking or noun class marking systems. This paper explores whether locative inversion constructions exist in Cantonese, and what are the features and characteristics of these constructions with reference to empirical data. It further explores the changes in grammatical functions, in particular, the locative phrase (or localiser) as the subject from a locative oblique. It considers and critically analyses the previous literature, and proposes an easy and accessible analysis based on Lexical Mapping Theory (LMT) and the Lexical-Functional Grammar (LFG) framework in general. This paper also draws on comparative perspectives by referring to relevant literature on Mandarin locative inversion where appropriate, in particular, on the use of aspect markers in these constructions.

1 Introduction

Locative inversion is a construction that has received attention in the literature for Mandarin (for example, Pan, 1996), English (for example, Bresnan, 1994) and Chicheŵa (Bresnan & Kanerva, 1989). In Chicheŵa, subject-verb agreement for the noun classes is also triggered by the locative phrase instead of the logical subject (that is, the theme), which provides evidence that the locative phrase has become the subject.

However, in some other languages, such constructions (if they do exist) were not analysed in the same way. Particularly, the existence of locative inversion is questionable in Cantonese, a language with relatively flexible word order and scant inflectional morphology, as well as a lack of case marking or noun class marking systems. This has received little attention in the literature, despite also involving the important issue of the assignment of grammatical functions in Cantonese. This paper seeks to review and advance the understanding of the topic by applying the Lexical-Functional Grammar (LFG) framework and the Lexical Mapping Theory (LMT).

This paper has three aims. The first aim is to determine what is locative inversion in Cantonese (if at all) (in Section 2). The second aim is to understand the features (in Section 3) and the assignments of grammatical functions (in Section 4) in Cantonese locative inversion constructions. In achieving this aim, this paper also reviews the long-standing debate of whether locative phrases in Cantonese can be treated as subjects, and critically analyses the previous attempts to prove that locative phrases in some constructions are subjects. The third aim is to explain the observed mandatory usage of the aspect marker *zo2* in these constructions (in Section 5), when compared and contrasted with the usage of aspect markers in Mandarin locative inversion constructions.

2 Expressing Location in Cantonese

Ng (2015) collected empirical data on methods used for expressing location in Cantonese for the first time, adopting two sets of standardised pictures to elicit responses from native Cantonese speakers. In that paper, a total of five strategies were identified. These include (with the proposed name on the left, and the observed structure on the right):

1. ‘single locative copula strategy’: [NP + *hai2* + localiser]
 (1) zek3 bui1 hai2 zoeng1 toi2 soeng6-min6
 CL cup COV CL table up-face
 ‘The cup is on the table.’

2. ‘postural verb strategy’: [NP + postural verb + *hai2* + localiser]
 (2) go3 naam4-zai2 lei1-zo2 hai2 dang3 hau6-bin6
 CL boy-DIM hide-PERF COV chair back-side
 ‘The boy hid behind the chair.’

3. ‘resultative complement strategy’: [NP + verb + *zo2* + *hai2* + localiser]
 (3) bun2 syu1 baai2-zo2 hai2 syu1-gaa2 soeng6-min6
 CL book place-PERF COV book-shelf up-face
 ‘The book is placed on the bookshelf.’

4. ‘existential strategy’: [localiser + *jau5* +NP]
 (4) toi2 soeng6-gou1 jau5 zi1 bat1
 table up-high have CL pen
 ‘There was a pen on the table.’

5. ‘locative inversion’: [localiser + verb + NP]
 (5) coeng4 soeng6-gou1 baai2-zo2 bou6 din6-waa2
 wall up-high place-PERF CL telephone
 ‘On the wall, there is (lit. placed) a telephone.’

Ng (2015) phrased the last strategy as ‘locative inversion’. By deliberately setting up a separate category of ‘locative inversion’, it is implied that the other constructions were non-‘locative inversion’ constructions. However, one must be cautious that the label was not conclusive: it was unclear from the text of the study whether the phrase was merely a coined one or was comparable with the definition in other scholarly works, such as that in Bresnan and Kanerva (1989) on Chicheŵa. Nonetheless, I argue that only this last category of ‘locative inversion’ identified by Ng (2015) will qualify as locative inversion in Cantonese, the features of which will be discussed in Section 3 below.

The data from Ng (2015) showed that ‘locative inversion’ was only employed in 1.58% of the elicited Cantonese responses, which was relatively insignificant. However, locative inversion was suggested to be employed to generate a form of ‘transitive subject’ relative clause in Cantonese (Lau & Matthews, 2018). This adds to the need to understand locative inversion in Cantonese and its features in a more thorough and comprehensive manner.

3 Features of Locative Inversion in Cantonese

Previous definitions of locative inversion in Cantonese include all situations in which ‘a locative phrase appears at the sentence-initial position and its logical subject occurs postverbally’ (Mok, 1992) or in which ‘the verb subcategorizes for an objectlike THEME role and a subjectlike LOCATIVE role’ (Lee, 2003). Neither of these views seems to precisely account for locative inversion, in terms of both its structure and the grammatical functions involved. It is this uncertainty that forms the main aim of this paper.

For example, Mok’s definition would also include what was known as ‘existential strategy’ constructions in Ng (2015) (see (4) above). Mok indeed adopted that stance and then sought to argue that the existential *jau5* in a locative construction is the same as other unaccusative verbs by passing all three ‘tests’ of locative inversion. However, this stance was not satisfactory as seen in Ng (2015, pp. 43–46) and Section 4.1 below. In particular, a cautious

attitude should be adopted by making a distinction between existential constructions and locative constructions, as exemplified very recently in Paul et al. (2020) for Mandarin.

Moreover, neither of these definitions pins down the grammatical functions of the locative phrase and the theme NP, or describes their differences before or after locative inversion. Mok (1992) simply described the locative phrase at the ‘sentence-initial position’ without describing it as the subject (despite later attempting to prove that the locative phrase was the subject) and termed the other argument the ‘logical subject’. Lee (2003) took a more cautious approach by using the words ‘subjectlike’ and ‘objectlike’ to describe the status of the two arguments. These labels also accurately reflected the study’s unfruitful attempt to prove the subjecthood of the locative phrase.

There is therefore a need to ‘re-define’ Cantonese locative inversion, as the position adopted in the literature so far, like Mok (1992) and Lee (2003), was more laxly and ‘broad’, as opposed to the ‘narrow’ approach taken, for instance, in Bresnan and Kanerva (1989). This relaxation was somehow understandable given the differences between Cantonese and Chicheŵa. In Chicheŵa, locative phrases can be shown as the subject with compelling evidence of morpho-syntactic changes. Bresnan and Kanerva (1989) had also proposed other reasons to support this argument. However, as introduced in Section 1 above, Cantonese has no evidence of similar compelling force. Therefore, in the Cantonese literature, it was tempting to define a phenomenon based on the particular characteristics of the language. For instance, Mok (1992) argued that Cantonese ‘locative inversion’ occurred in another simpler manner: a localiser in the sentence-initial position followed by a noun phrase is sufficient to complete the ‘inversion’.

I suggest that a ‘narrower’ approach should be adopted to exclude these ‘false’ cases. An excessively broad definition will bar many cross-linguistic comparisons on the same phenomenon, at least within the category of languages which exhibit similar features of locative inversion (the category of Chinese and some Bantu languages versus the category of English and Romance languages: see Paul et al., 2020, p. 256).

For a Cantonese construction to qualify as ‘locative inversion’, two requirements must be satisfied: there must be (1) an inversion of the order of the arguments to form the [localiser + verb + NP] structure, and (2) changes to the grammatical functions of the arguments, such that the localiser must take up the subject function, and the theme must take up the object function.

This working definition is largely based on the observations of Bresnan and Kanerva (1989) on Chicheŵa locative inversion. Although there are potential differences in the semantic properties between Chicheŵa and Chinese locative inversion (Du, 1999, p. 339), I argue that they still possess comparable syntactic properties. Paul et al. (2020, p. 256) took the same view by separating Chinese and some Bantu languages from English and Romance languages. Many Chinese papers also took Bresnan and Kanerva (1989) as the starting point of their discussion.

For the first requirement, the localiser must take the sentence-initial position, followed by the verb, and lastly, the ‘inverted’ NP, which now comes after the verb. This word order originates from the data collected by Ng (2015), where the observed ‘locative inversion’ constructions in Cantonese firstly involves a localiser (*coeng4 soeng6-gou1* in (5)), then a verb (*baai2*) (followed by an aspect marker *zo2*: see Section 5 below), and lastly, a NP, which is the thing to be described (*bou6 din6-waa2*). This general ‘inversion’ requirement was also accepted by Diercks (2017).

The definition above involves the word ‘localiser’. Localisers are, very generally, morphemes that express location, but what the category (if there is a distinct category of localisers in Cantonese) entails is very much unsettled (see, for example, Cheung, 2007, pp. 322–326, 349; Matthews & Yip, 2011, pp. 71–72). Without going off a tangent to resolve the debate, I took an inclusive approach so that a localiser can be monosyllabic (like *soeng6* ‘up’, *haa6* ‘down’, *zo2* ‘left’, *jau6* ‘right’), disyllabic (like *soeng6-min6* ‘up’ (lit. ‘up-face’), *haa6-min6* ‘down’ (lit. ‘down-face’), *zo2-bin1* ‘left’ (lit. ‘left-side’), *jau6-bin1* ‘right’ (lit. ‘right-side’)), or of the [NP + monosyllabic/disyllabic localisers] structure (like *ce1 soeng6-min6* ‘above the car’, *dang3 hau6-bin6* ‘behind the chair’). It can also be a NP in some circumstances (Cheung, 2007, p. 326). This approach does not make a distinction between a localiser and a locative phrase, but such distinction is immaterial for the current discussion. The terms are therefore used interchangeably in this paper. The only caveat is

that some localisers (monosyllabic localisers in particular) are not possible in locative inversion constructions—this restriction is however not the focus of this paper.

For the second requirement—the changes in the grammatical functions—I argue that the localiser must be the subject, and the theme NP must be the object. I now turn to this second requirement.

4 Assignment of Grammatical Functions in Locative Inversion in Cantonese

There were previous attempts to assign the locative phrase in some constructions to be the subject in Cantonese, but these had largely failed (see Section 4.1 below; see also Lui, 2019). The question was not resolved with previous frameworks or analyses.

As discussed above, neither Mok (1992) nor Lee (2003) took a clear view on the grammatical functions of the locative phrase and the theme NP. Ng (2015, p. 104) seemed to accept that if a construction is considered as ‘locative inversion’ (in her view), the ground object, instead of the figure, must occupy the ‘subject position’. However, it was unclear throughout that study whether this ‘subject position’ also meant that the locative phrase is the subject.

In this section, I start by examining and analysing the previous studies in the area. I then adopt LMT to provide new insights into the issue.

4.1 Previous Studies

Whether the locative phrase in constructions ‘becomes’ the subject after occupying the sentence-initial position was heavily debated in the mid-20th century. Ding et al. (1961, p. 72) treated the locative phrase as subject. They argued that some subjects may neither be the agent nor the patient/theme. It was a ‘feature’ of locative phrases to appear as a subject when expressing the existence, appearance or disappearance of things. Cheung (2007, pp. 63–65) believed that subject was defined broadly so that it can perform as an agent, a patient, a described entity, a locative, or a temporal expression.

There were contrary opinions. Shen (1956) expressly warned of the dangers of determining subjects and objects by excessively relying on word order. He argued that the need for emphasis may cause the inversion of some sentences, without changing the respective grammatical functions of the locative phrase and the theme. Wang (1956) took a more extreme view and attempted to argue that, unless there are exceptional circumstances, locative phrases should only be treated as ‘relational words’.

As mentioned at the start of this section, Mok (1992) and Lee (2003) each provided their own analyses, but these are rejected in this paper for two reasons. First, some of the provided examples were not even examples of locative inversion to start with. The analyses on ‘false’ cases have led to much confusion. For example, Lee (2003, p. 62) thought the following was an instance of locative inversion, in which another verb *ceot1-lei4* ‘come out’ followed the theme NP:

- (6) ?gaan1 uk1 tiu3-zo2 zek3 gau2 ceot1-lei4
 CL house jump-PERF CL dog come.out
 (lit. ‘Out of the house, the dog jumped.’)

These examples could lead to completely different analyses based on, for example, topicalisation. This again reinforces the need to depart from the conception in the previous literature and insist on a ‘narrower’ approach.

Second, the various attempts to test for the subjecthood of locative phrases in locative inversion were not properly reasoned and were inconclusive. The details of these arguments were set out in Lui (2019, pp. 10–11). A short summary is provided below.

Mok (1992) saw the task as proving both (1) locative phrases are not topics and (2) locative phrases are subjects. For the first claim, the ‘correlative conjunction’, ‘sentence adjunct’, and ‘subordinate clause’ tests were attempted. The ‘correlative conjunction’ test showed that locative phrases (unlike other topics) could fit into the *m4 zing6 zi2 ... zung6 jau5 ...* ‘not only ... also ...’ sentence structure. However, this structure did not test for topics, but rather for contrastive focus. The other two tests were merely derived from some general ‘observations’ of the word order of topics; they were not rigorous ‘tests’ at all and were not supported by any other literature.

For the second claim, the attempt was to show that locative phrases took up the subject position through movement by occupying the [SPEC, IP] position. The approach taken was nevertheless not a ‘positive’ one by showing how the movement occurred; rather, it was a ‘negative’ approach by ‘eliminating’ other possibilities through various assumptions. There was a distinct lack of positive evidence.

Lee (2003) attempted reflexivisation and possessor relativisation to show that the locative phrase is the subject. However, as the reflexive *zi6-gei2* ‘self’ is only applicable to animate entities, the test could only be used to show an unsuccessful reflexivisation on the ‘logical subject’, in order to argue against its subjecthood. Even though this would be true (ignoring the ‘false’ cases that were used in that study), it still failed to show that the locative phrase ‘automatically’ became the subject. Again, positive evidence is lacking. The other test of possessor relativisation used yet another ‘false’ case with a [verb + adjective] *tip3-mun2* ‘stuck fully’ (and without the aspect marker *zo2*).

Ng (2015) simply did not address that question directly, although that study was more focused on a qualitative account of locative constructions.

Recently, Paul et al. (2020, pp. 247–249) in discussing Mandarin locative inversion attempted an ‘obligatoriness’ test to show the obligatory presence of the locative phrase in the sentence-initial position. Together with a *wh*-question test (Paul et al., 2020, pp. 249–250), the locative phrase was said to be a subject rather than a topic.

4.2 Lexical Mapping Theory (LMT)

An easy and accessible solution to understand the changes in the grammatical functions of these constructions in Cantonese is provided with reference to LMT. Through LMT, the LOCATIVE can be properly mapped to the SUBJ function, and therefore be accounted for as the subject, despite the lack of clear positive morpho-syntactic evidence. An LMT approach was also utilised in Her (2003, pp. 10–11) to account for the changes in the grammatical functions in Mandarin locative inversion ‘quite [straightforwardly]’, although a different operation was adopted (discussed below).

LMT originated from Bresnan and Kanerva (1989) who proposed the $\pm R$ (restricted) and $\pm O$ (bjective) feature specifications in order to cross-classify the grammatical functions SUBJ, OBJ, OBJ_θ and OBL_θ:

(7)

	-R	+R
-O	SUBJ	OBL _θ
+O	OBJ	OBJ _θ

Through a set of intrinsic and default classification principles, the thematic roles are then mapped with these grammatical functions.

Of relevance here are locative arguments, which are intrinsically encoded with [-O] and thus must be linked to a non-objective function (SUBJ or OBL_{LOC}). Then, the special default linking rule of [-R] informational focus/locative argument was proposed to account for locative phrases as subjects, which was supported by noun class agreement as seen in Chicheŵa locative inversion constructions.

The same [-R] rule can be used to account for Cantonese locative inversion, but this would only be possible upon a proper reorientation of the definition and features of Cantonese locative inversion (see Sections 2 and 3 above). For example, to account for example (5), the following mapping is possible:

(8)

<i>baai</i>	<	THEME	LOCATIVE	>
intrinsic:		[-R]	[-O]	
defaults:			[-R]	
		SUBJ/OBJ	SUBJ	
w.f.		OBJ	SUBJ	

Alternatively, the valency template in Kibort (2007) can be adopted:

(9)

<	arg ₁	arg ₂	arg ₃	arg ₄	...	arg _n	>
	[-O/-R]	[-R]	[+O]	[-O]		[-O]	

Under this proposal, the classification [+O] can be added to arg₁ as THEME, so that arg₄ as LOCATIVE maps to SUBJ (see also Dalrymple et al., 2019, pp. 345–346). Again, to account for example (5):

(10)

		THEME		LOCATIVE	
	<i>baai</i>	<	arg ₁	arg ₄	>
			[–R]	[–O]	
loc. inv.			[+O]		
			OBJ	SUBJ	

Huang and Her (1998) argued that the mapping principles in Bresnan and Kanerva (1989) were not applicable to Mandarin and proposed three language-specific morphological operations to justify the appropriate mapping, namely, ‘locative inversion’, ‘locative transitivity’ and ‘locative detransitivisation’:

(11)

(a) Locative Inversion:	(b) Locative Transitivity:	(c) Locative Detransitivisation:
< th loc >	< th loc >	< ag th loc >
[+O] [–R]	[+O]	∅

These operations are similarly attractive to explain the phenomenon. They were indeed adopted by Lee (2003) to analyse Cantonese locative inversion without much hesitation. I discuss two major motivations of Huang and Her (1998) in proposing a language-specific operation for locative inversion. The first motivation was to account for the locative phrase as the unmarked object in Mandarin, as in the following example (Huang & Her, 1998, p. 291):

(12)

Hen3duo1	ren2	zhu4	tai2bei3
many	people	live	Taipei
‘Many people live in Taipei.’			

As LMT would only account for the locative phrase as either a subject or a locative oblique (SUBJ or OBL_{LOC}), Huang and Her (1998) claimed that the rules in LMT may be inapplicable to fully account for locative inversion in Mandarin, such as those sentences like (12).

The second motivation was the need to account for the universality of default classifications across languages. Huang and Her (1998) emphasised the need for language-specific morphological operations in order to explain the non-occurrence of locative inversion in some other languages while maintaining the universality of intrinsic and default role classifications.

However, there does not seem to be a similar Cantonese example in which the locative phrase is an unmarked object. It therefore seems that the Bresnan and Kanerva (1989) framework is also sufficient to account for Cantonese locative inversion through the special default linking rule [-R], as shown above in (8). Thus, even though the strength of the arguments made in the newer papers, including the later works of Her (2003) and Her (2013), is fully appreciated, the Bresnan and Kanerva (1989) proposal should also be recognised as well applicable for the Cantonese data.

To conclude, there is very little difficulty in applying mapping principles in LMT to account for the change in grammatical functions in Cantonese locative inversion, although which of the proposed mapping principles is the best to apply remains debatable. The mapping principles also circumvent the difficulty in the lack of morpho-syntactic evidence or in applying other grammatical ‘tests’, some of which are of questionable persuasiveness. LMT provides an easy and accessible solution to the issue. In the future, there will also be much potential for LMT and LFG more generally to be applied to similar puzzles in Cantonese and other Sinitic languages.

5 The Aspect Marker *zo2*

There is one particular feature in Cantonese locative inversion constructions that this section will focus on. It is the consistently observed aspect marker *zo2* that follows the verb.

5.1 The Mandatory Aspect Marker

Cantonese locative inversion constructions seem to mandate the use of the perfective aspect marker *zo2*, as inferred from the data in Ng (2015). For example (taking the examples from Ng, 2015, p. 105):

- (13)
- (a) ngo5 zong1-(zo2) go3 haap2 hai2 (go3) doi2 jap6-min6
 I place-(PERF) CL box LOC (CL) bag in-face
 ‘I placed the box in the bag.’
- (b) go3 doi2 jap6-min6 zong1-*(zo2) go3 haap2
 CL bag in-face hold-*(PERF) CL box
 ‘Inside the bag is a box.’

In the uninverted example (13a), the perfective marker *zo2* can be omitted. However, in the inverted example (13b), *zo2* is mandatory and its omission will render the sentence ungrammatical.

The mandatory usage of aspect markers is similarly echoed in Mandarin (Du, 1999), with either the perfective marker *le* (the equivalent of *zo2* in Cantonese) or the imperfective/durative marker *zhe* (the equivalent of *zyu6* in Cantonese):

- (14) (zai4) chuang2-shang4 fang4 *(le/zhe) yi4 ben3 shu1
 (at) bed-on place *(PERF/DUR) one CL book

5.2 The Cantonese ‘Puzzle’ and Mandarin Perspectives

However, *zyu6* in Cantonese occurred far less frequently in locative inversion constructions than *zhe* in Mandarin. In other words, Cantonese employed one (and seemingly only one) aspect marker, that is, the perfective *zo2*, while Mandarin employed two aspect markers, *le* and *zhe*. Hypothetical constructions show that locative inversion constructions with *zyu6* are either ungrammatical or very problematic (see (5’) and (15), the latter of which is a Cantonese translation of (14)), unless *zo2* is further added after *zyu6* (see (15’)):

- (5’) *coeng4 soeng6-gou1 baai2-zyu6 bou6 din6-waa2
 wall up-high place-DUR CL telephone
- (15) ??cong4 soeng6-min6 fong3-zyu6 jat1 bun2 syu1 (≈ (14))
 bed up-face place-DUR one CL book
- (15’) cong4 soeng6-min6 fong3-zyu6-zo2 jat1 bun2 syu1
 bed up-face place-DUR-PERF one CL book

Pan (1996) suggested that *zhe* ‘deleted’ the agent role from the a-structure <agent, theme, location>, on the conditions that the verb in question is an ‘accomplishment verb’, and that the sentence is not ‘stative’. This view had been subject to various challenges (see, for example, Zhang, 2008, pp. 895–900; Paul et al., 2020, pp. 259–262). The relationship of *zhe* with the agent is however possible to explain the rejection of *zyu6* in Cantonese constructions (see Section 5.3 below).

Du (1999) viewed *le* and *zhe* as occurring mutually exclusively in most circumstances, hypothesising *le* as an ‘agent/theme-oriented marker’ and *zhe* as a ‘theme-only-oriented marker’.

5.3 The Cantonese ‘Reasons’

I propose two reasons to explain the seemingly perplexing differences between the two languages.

The first reason is partially related to Pan’s proposal of *-zhe* ‘agent deletion’. Cantonese is stricter than Mandarin in requiring an agent. This was shown in passivisation in Cantonese, as observed by Matthews and Yip (2011, p. 7):

- (16)
- | | | | | | | |
|-----|-----------------------------|------|-----------|------------|---------|-----------------|
| (a) | wo3 | bei4 | (ren2) | tou1-le | che1-zi | (Mandarin) |
| | I | by | (person) | steal-PERF | car | |
| | ‘I have had my car stolen.’ | | | | | |
| (b) | ngo5 | bei2 | *(jan4) | tau1-zo2 | ga3 | ce1 (Cantonese) |
| | I | by | *(person) | steal-PERF | CL | car |
| | ‘I have had my car stolen.’ | | | | | |

Here, the deletion of the agent *jan4* is not acceptable in the Cantonese example (16b), while the deletion of the agent *ren2* is acceptable in the Mandarin example (16a). Therefore, locative inversion could still occur when the agent is ‘deleted’ or suppressed by *zhe* in Mandarin but would be impossible when this was done by *zyu6* in Cantonese.

In contrast, locative inversion constructions with *zo2* in Cantonese (*le* in Mandarin) involves an ‘implicit presence’ of the agent (Paul et al., 2020, pp. 258–259), and therefore does not ‘violate’ the requirement of an agent in Cantonese. This can possibly account for why *zo2* is employed far more frequently than *zyu6* in Cantonese locative inversion constructions.

This may also be evidence that there is a link between perfectivity (*zo2*) and agentivity. The literal meaning of a *zo2* sentence is that an ‘implicitly present’ agent (a person or the course of events) had caused the location of the entity ‘to have so happened’. There is no apparent agent. Rather, there is ‘implicit presence’ of the agent through using the perfective marker *zo2*.

Contrast this with the ‘existential strategy’ constructions, in which the verb *jau5* ‘have’ replaced both the verb and *zo2*. The literal meaning of a *jau5* sentence is simply that the entity ‘existed’. The agent (that existed) is the entity itself. There is therefore no need to use *zo2* in these existential *jau5* sentences.

The second reason is a more speculative one: the other strategies as identified in Section 2 above might be more preferred in Cantonese for ‘theme-oriented’ expressions of location as framed by Du (1999). Svorou (1994, pp. 10–12) noted that there was a ‘typical’ tendency in constructing expressions of spatial arrangements by reference to the size, the cultural significance, or the overall frequency of encounter of a particular object. It might be that locative inversion is not a preferred strategy to generate these expressions due to these factors. To determine the motivations of employing (or not employing) a particular strategy in Section 2 above will require further study, as is the question of the limitations on the verbs in Cantonese locative inversion constructions (see, for example, the research directions in Levin & Rappaport Hovav, 1995).

6 Conclusion

To conclude, Cantonese locative inversion constructions have not been properly defined in previous studies, with the issue of subjecthood being unresolved for decades. There is a need to carefully define locative inversion in order to include only ‘true’ cases for analysis. I argue Cantonese ‘locative inversion’ must involve (1) an inversion of the order of the arguments to form the [localiser + verb + NP] structure, and (2) changes to the grammatical functions of the arguments, in which the localiser must take up the subject function, and the theme must take up the object function. The LMT approach in Bresnan and Kanerva (1989) is adequate to account for these changes in the grammatical functions in Cantonese locative inversion constructions, with potential modifications as proposed in papers such as Huang and Her (1998), Kibort (2007), and Her (2013).

This paper also explores the use of the perfective marker *zo2* (but not the imperfective/durative marker *zyu6*), which seems to be mandatory in Cantonese locative inversion constructions. This differs from Mandarin with both *le* and *zhe* used commonly. Two potential reasons are proposed: (1) the requirement of agent in Cantonese makes *zyu6* unacceptable, and (2) other strategies are employed for constructions in which *zyu6* would have been used.

Acknowledgements

I thank Dr Olivia Lam who supervised an early draft of this paper, in which ideas were further developed during the lockdown when I was pursuing a Master of Law at the University of Cambridge. I thank Ida Toivonen, Miriam Butt, and the two anonymous reviewers for constructive feedback to improve this paper. I also thank Dr King-Wai Siu, Ragnar Cheung, Stephen Tam, Brian Fung, and Shania Siu for helping out at various junctures of this work. All errors are my own.

References

- Bresnan, Joan. (1994). Locative inversion and universal grammar. *Language*, 70, 72–131. <https://doi.org/10.2307/416741>.
- Bresnan, Joan, & Kanerva, Jonni M. (1989). Locative inversion in Chicheŵa: A case study of factorization in grammar. *Linguistic Inquiry*, 20, 1–50. https://doi.org/10.1163/9789004373181_006.
- Cheung, Hung-Nin. (2007). *Xianggang yueyu yufa de yanjiu* [A grammar of Cantonese as spoken in Hong Kong] (Rev. ed.). The Chinese University of Hong Kong Press.
- Dalrymple, Mary, Lowe, John J., & Mycock, Louise. (2019). *The Oxford reference guide to Lexical Functional Grammar*. Oxford University Press.
- Diercks, Michael. (2017). Locative inversion. In Martin Everaert & Henk van Riemsdijk (Eds.), *The Wiley Blackwell companion to syntax* (2nd ed.). John Wiley. <https://doi.org/10.1002/9781118358733.wbsyncom082>.
- Ding, Sheng-Shu, Lü, Shu-Xiang, Li, Rong, Sun, De-Xuan, Guan, Xie-Chu, Fu, Jing, Huang, Sheng-Zhang, & Chen, Zhi-Wen. (1961). *Xiandai hanyu yufa jianghua* [Talks in modern Chinese grammar]. Commercial Press.
- Du, Juliet Wai-Hong. (1999). Locative inversion and temporal aspect in Chinese. In Sabrina J. Billings, John P. Boyle, & Aaron M. Griffith (Eds.), *CLS35: Part 1: Papers from the Main Session* (pp. 339–354). <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.35.254&rep=rep1&type=pdf>.
- Her, One-Soon. (2003). Chinese inversion constructions within a simplified LMT. In Adams B. Bodomo & Kang Kwong Luke (Eds.), *Lexical-Functional Grammar analysis of Chinese* (pp. 1–31). JCL Monograph Series No. 19. The Chinese University of Hong Kong Press.
- Her, One-Soon. (2013). Lexical Mapping Theory revisited. In Tracy Holloway King & Valeria de Paiva (Eds.), *From quirky case to representing space: Papers in honour of Annie Zaenen* (pp. 47–60). CSLI Publications.
- Huang, Hui-Ting, & Her, One-Soon. (1998). Mandarin locative inversion and relation-changing rules. In Shuan-Fan Huang (Ed.), *Selected papers from the Second International Symposium on Languages in Taiwan* (pp. 287–304). Crane Publishing.
- Kibort, Anna. (2007). Extending the applicability of Lexical Mapping Theory. In Miriam Butt & Tracy Holloway King (Eds.), *Proceedings of the LFG'07 Conference, Stanford University* (pp. 250–270). CSLI Publications. <http://web.stanford.edu/group/cslipublications/cslipublications/LFG/12/papers/lfg07kibort.pdf>.

- Lau, Elaine, & Matthews, Stephen. (2018). A new type of relative clause in Cantonese. *Zhongguo yuwen tongxun* [Current research in Chinese linguistics], 97(1), 233–243. http://www.cuhk.edu.hk/ics/clrc/crc1_97_1/lau_elaine.pdf.
- Lee, On-Man. (2003). The subject function in Cantonese [MPhil thesis, University of Hong Kong]. The HKU Scholars Hub. https://doi.org/10.5353/th_b2962473.
- Levin, Beth, & Rappaport Hovav, Malka. (1995). *Unaccusativity: At the syntax-lexical semantics interface*. Linguistic Inquiry Monograph No. 26. MIT Press.
- Lui, Chi-Yin. (2019). Yueyu de zhuyu ji huati: Yi yueyu de fangweici dao zhi xianxiang weili [Subject and topic in Cantonese: With examples from locative inversion in Cantonese]. *Daxuehai* [Eruditus], 7, 1–12.
- Matthews, Stephen, & Yip, Virginia. (2011). *Cantonese: A comprehensive grammar* (2nd ed.). Routledge.
- Mok, Sui-Sang. (1992). Locative inversion in Cantonese. *Kansas Working Papers in Linguistics*, 17(1), 115–157. <https://doi.org/10.17161/KWPL.1808.639>.
- Ng, Kathleen Teresa. (2015). The myth of a universal Sinitic grammar: The case of basic locative constructions [MPhil thesis, University of Hong Kong]. The HKU Scholars Hub. https://doi.org/10.5353/th_b5719444.
- Pan, Haihua. (1996). Imperfective aspect *zhe*, agent deletion and locative inversion in Mandarin Chinese. *Natural Language and Linguistic Theory*, 14, 409–432. <https://doi.org/10.1007/BF00133688>.
- Paul, Waltraud, Lu, Yaqiao, & Lee, Thomas Hun-Tak. (2020). Existential and locative constructions in Mandarin Chinese. *The Linguistic Review*, 37(2), 231–267. <https://doi.org/10.1515/tr-2019-2043>.
- Shen, Qi-Xiang. (1956). Taolun zhuyu binyu wenti de jige yuanze [Some principles in discussing the questions of subject and object]. In Ji-Ping Lü et al. (Eds.), *Hanyu de zhuyu binyu wenti* [The questions of subject and object in Chinese]. Zhunghua Book Company.
- Svorou, Soteria. (1994). *The grammar of space*. John Benjamins.
- Wang, Li. (1956). Zhuyu de dingyi ji qi zai hanyu zhong de yingyong [The definition of subject and its application in Chinese]. In Li Wang (Ed.), *Wangli xuanji* [Selected essays of Wang Li]. Zhunghua Book Company.
- Zhang, Lan. (2008). Locative inversion and aspect markers *le* and *zhe* in Mandarin Chinese. In Marjorie K. M. Chan & Hana Kang (Eds.), *Proceedings of the 20th North American Conference on Chinese Linguistics* (pp. 893–902). The Ohio State University. https://naccl.osu.edu/sites/naccl.osu.edu/files/58_zhang-l.pdf.