

# GIVEN THE SACK, YET PROMOTED: PASSIVIZABLE V-IO-DO CONSTRUCTIONS IN CANTONESE\*

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## 1. Introduction

Cantonese<sup>1</sup> has a ditransitive construction in which the indirect object (IO) appears between the verb (V) and the direct object (DO), as illustrated in (1).<sup>2</sup> It is possible to passivize (1) by fronting the indirect object (2a), but not the direct object (2b).

- (1) lou<sup>5</sup>si<sup>1</sup> kau<sup>3</sup> zo<sup>2</sup> ngo<sup>5</sup> ng<sup>5</sup> fan<sup>1</sup>.  
teacher deduct PFV 1SG five point  
EA V IO DO  
'The teacher deducted five points from me.'
- (2) a. ngo<sup>5</sup> bei<sup>2</sup> lou<sup>5</sup>si<sup>1</sup> kau<sup>3</sup> zo<sup>2</sup> ng<sup>5</sup> fan<sup>1</sup>.  
1SG PASS teacher deduct PFV five point  
IO EA V DO  
'I was deducted five points by the teacher.'
- b. \*ng<sup>5</sup> fan<sup>1</sup> bei<sup>2</sup> lou<sup>5</sup>si<sup>1</sup> kau<sup>3</sup> zo<sup>2</sup> ngo<sup>5</sup>.  
five point PASS teacher deduct PFV 1SG  
DO EA V IO  
Intended: 'Five points got deducted from me by the teacher.'

The passivisability also depends on whether the predicate expresses an adverse effect on the entity represented by the indirect object (Matthews and Yip 2011). Thus, it is infelicitous to passivize a predicate that does not express any adverse effect (at least out of the

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<sup>1</sup>This refers to Hong Kong Cantonese, the author's heritage language. All Cantonese data presented without references are from the author.

<sup>2</sup>Cantonese examples are given in Jyutping romanization. The abbreviations used in examples are as follows: 1 = first person, 2 = second person, 3 = third person, ACC = accusative, CLF = classifier, DAT = dative, DECL = declarative, EPP = Extended Projection Principle, GE = particle *ge*, NOM = nominative, PASS = passive, PFV = perfective, PL = plural, PST = past, SFP = sentence-final particle, SG = singular.

blue), as shown in (3).<sup>3</sup>

- (3) a. maa<sup>1</sup>mi<sup>4</sup> zip<sup>3</sup> zo<sup>2</sup> de<sup>1</sup>di<sup>4</sup> din<sup>6</sup>waa<sup>2</sup>.  
 mom receive PFV dad telephone  
 EA V IO DO  
 ‘Mom answered a phone call from Dad.’
- b. # de<sup>1</sup>di<sup>4</sup> bei<sup>2</sup> maa<sup>1</sup>mi<sup>4</sup> zip<sup>3</sup> zo<sup>2</sup> din<sup>6</sup>waa<sup>2</sup>.  
 dad PASS mom receive PFV telephone  
 IO V EA DO  
 Intended: ‘Dad was answered a phone call by Mom.’

The goal of the paper is to answer two questions: How are the nominal arguments licensed in V-IO-DO constructions? What gives rise to the asymmetry between the indirect object and the direct object in passivizing these V-IO-DO constructions? I argue that the indirect object is introduced by an applicative head Appl situated between *v* and *V*. I also argue that the passive subject is derived via movement from Spec,ApplP to Spec,TP to satisfy EPP, and that the structural configuration of the direct object with respect to the indirect object makes it inaccessible to fronting because of phase-by-phase dependent case assignment.

The rest of the paper is structured as follows. In section 2, I present empirical evidence from Cantonese, showing that two types of V-IO-DO constructions in Cantonese – ditransitive verbs of deprivation and intervened ‘verb-object compounds’ – have the same syntactic distribution. Section 3 provides arguments against two previous analyses. I then present my proposal in section 4. I conclude the paper with section 5.

## 2. Two types of V-IO-DO constructions in Cantonese

### 2.1 Ditransitive verbs of deprivation

One type of V-IO-DO construction consist of verbs of deprivation (VoDs), such as *tau*<sup>1</sup> ‘steal’ and *fat*<sup>6</sup> ‘punish, fine’ (Tang 1998, Matthews and Yip 2011). The indirect object is interpreted as the source (Tang 1998) and/or the possessor (Matthews and Yip 2011) of the direct object. Examples are shown in (4).

- (4) a. keoi<sup>5</sup> tau<sup>1</sup> zo<sup>2</sup> gung<sup>1</sup>si<sup>1</sup> hou<sup>2</sup> do<sup>1</sup> cin<sup>2</sup>.  
 3SG steal PFV company very much money  
 EA V IO DO  
 ‘S/he stole a lot of money from the company.’

(adapted from Matthews and Yip 2011: 156)

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<sup>3</sup>Given a context where the dad is adversely affected by the answering of a phone call from the mom, such as when the mom wants someone else to answer the phone urgently, this can be made felicitous.

- b. jan<sup>4</sup>-dei<sup>6</sup> wui<sup>5</sup> fat<sup>6</sup> nei<sup>5</sup> cin<sup>2</sup>.  
 person-PL will fine 2SG money  
 EA V IO DO  
 ‘They will fine you (money).’ (adapted from Matthews and Yip 2011: 156)
- c. ngo<sup>5</sup> zaak<sup>6</sup> zo<sup>2</sup> keoi<sup>5</sup> sap<sup>6</sup>jat<sup>1</sup> zi<sup>1</sup> mui<sup>4</sup>gwai<sup>3</sup>-faa<sup>1</sup>.  
 1SG pluck PFV 3SG eleven CLF rose-flower  
 EA V IO DO  
 ‘I plucked eleven roses from him/her.’ (adapted from Tang 1998: 39)
- d. can<sup>4</sup> saang<sup>1</sup> sik<sup>6</sup> zo<sup>2</sup> can<sup>4</sup> taai<sup>2</sup> loeng<sup>5</sup> go<sup>6</sup> bo<sup>1</sup>lo<sup>4</sup>-baau<sup>1</sup>.  
 Chan Mr. eat PFV Chan Mrs. two CLF pineapple-bun  
 EA V IO DO  
 ‘Mr. Chan ate two pineapple buns on Mrs. Chan.’

These can be passivized using *bei*<sup>2</sup>, which precedes the agent; the agent DP is obligatory (Matthews and Yip 2011). The indirect object appears in the beginning of the sentence, as shown in (5). These are sometimes called indirect passives (Matthews and Yip 2011). Important to note is that the direct object cannot appear in the beginning of the passivized sentence instead of the indirect object (6).

- (5) a. gung<sup>1</sup>si<sup>1</sup> bei<sup>2</sup> keoi<sup>5</sup> tau<sup>1</sup> zo<sup>2</sup> hou<sup>2</sup> do<sup>1</sup> cin<sup>2</sup>.  
 company PASS 3SG steal PFV very much money  
 IO EA V DO  
 ‘The company was stolen a lot of money by him/her.’
- b. nei<sup>5</sup> wui<sup>5</sup> bei<sup>2</sup> jan<sup>4</sup>-dei<sup>6</sup> fat<sup>6</sup> cin<sup>2</sup>.  
 2SG will PASS person-PL fine money  
 IO EA V DO  
 ‘You will be fined (money) by them.’
- c. keoi<sup>5</sup> bei<sup>2</sup> ngo<sup>5</sup> zaak<sup>6</sup> zo<sup>2</sup> sap<sup>6</sup>jat<sup>1</sup> zi<sup>1</sup> mui<sup>4</sup>gwai<sup>3</sup>-faa<sup>1</sup>.  
 3SG PASS 1SG pluck PFV eleven CLF rose-flower  
 IO EA V DO  
 ‘S/he was plucked eleven roses by me.’
- d. can<sup>4</sup> taai<sup>2</sup> bei<sup>2</sup> can<sup>4</sup> saang<sup>1</sup> sik<sup>6</sup> zo<sup>2</sup> loeng<sup>5</sup> go<sup>3</sup> bo<sup>1</sup>lo<sup>4</sup>-baau<sup>1</sup>.  
 Chan Mrs. PASS Chan Mr. eat PFV two CLF pineapple-bun  
 IO EA V DO  
 ‘Mrs. Chan had two pineapple buns eaten by Mr. Chan.’
- (6) a. \*hou<sup>2</sup> do<sup>1</sup> cin<sup>2</sup> bei<sup>2</sup> keoi<sup>5</sup> tau<sup>1</sup> zo<sup>2</sup> gung<sup>1</sup>si<sup>1</sup>.  
 very much money PASS 3SG steal PFV company  
 DO EA V IO  
 Intended: ‘A lot of money was stolen from the company by him/her.’

- b. \* cin<sup>2</sup> wui<sup>5</sup> bei<sup>2</sup> jan<sup>4</sup>-dei<sup>6</sup> fat<sup>6</sup> nei<sup>5</sup>.  
 money will PASS person-PL fine 2SG  
 DO EA V IO  
 Intended: ‘Money will be fined of you by them.’
- c. \* sap<sup>6</sup>jat<sup>1</sup> zi<sup>1</sup> mui<sup>4</sup>gwai<sup>3</sup>-faa<sup>1</sup> bei<sup>2</sup> ngo<sup>5</sup> zaak<sup>6</sup> zo<sup>2</sup> keoi<sup>5</sup>.  
 eleven CLF rose-flower PASS 1SG pluck PFV 3SG  
 DO EA V IO  
 Intended: ‘Eleven roses were plucked of him/her by me.’
- d. \* loeng<sup>5</sup> go<sup>3</sup> bo<sup>1</sup>lo<sup>4</sup>-baau<sup>1</sup> bei<sup>2</sup> can<sup>4</sup> saang<sup>1</sup> sik<sup>6</sup> zo<sup>2</sup> can<sup>4</sup> taai<sup>2</sup>.  
 two CLF pineapple-bun PASS Chan Mr. eat PFV Chan Mrs.  
 DO EA V IO  
 Intended: ‘Two pineapple buns were eaten on Mrs. Chan by Mr. Chan.’

However, when passivizing a simple transitive sentence in the same way, the direct object can appear in the beginning of the sentence, as shown in (7).

- (7) a. go<sup>3</sup> sai<sup>3</sup>lou<sup>6</sup> sik<sup>6</sup> zo<sup>2</sup> wun<sup>2</sup> faan<sup>6</sup>  
 CLF child eat PFV bowl rice  
 ‘The child ate the bowl of rice.’
- b. wun<sup>2</sup> faan<sup>6</sup> bei<sup>2</sup> go<sup>3</sup> sai<sup>3</sup>lou<sup>6</sup> sik<sup>6</sup> zo<sup>2</sup>  
 bowl rice PASS CLF child eat PFV  
 ‘The bowl of rice got eaten by the child.’

## 2.2 Indirect object intervention in ‘verb-object compounds’

There are also some so-called ‘verb-object compounds’ (VOCs), e.g., *caau<sup>2</sup>-jau<sup>4</sup>jyu<sup>2</sup>* = stirfry-squid ‘lay off, give the sack’, *sai<sup>2</sup>-nou<sup>5</sup>* = wash-brain ‘brainwash’, *caat<sup>3</sup>-haai<sup>4</sup>* = polish-shoe ‘suck up, lick someone’s boots’, that can be intervened by an indirect object (Matthews and Yip 2011), which is interpreted as a beneficiary/maleficiary.

- (8) a. lou<sup>5</sup>baan<sup>2</sup> caau<sup>2</sup> zo<sup>2</sup> aa<sup>3</sup>-ming<sup>4</sup> jau<sup>4</sup>jyu<sup>2</sup>.  
 boss stirfry PFV ah-Ming squid  
 EA V IO DO  
 ‘The boss gave Ming the sack.’
- b. lou<sup>5</sup>si<sup>1</sup> m<sup>4</sup> jing<sup>1</sup>goi<sup>1</sup> sai<sup>2</sup> hok<sup>6</sup>saang<sup>1</sup> nou<sup>5</sup>.  
 teacher not should wash student brain  
 EA V IO DO  
 ‘Teachers should not brainwash students.’

- c. aa<sup>3</sup>-wing<sup>4</sup> seng<sup>4</sup>jat<sup>6</sup> dou<sup>1</sup> caat<sup>3</sup> gaau<sup>3</sup>sau<sup>6</sup> haai<sup>4</sup>.  
 ah-Wing always all polish professor shoe  
 EA V IO DO  
 ‘Wing always licks the professor’s boots.’

These can also be passivized with *bei*<sup>2</sup> in the same way as the examples in (5), as long as the VOC describes an action that has an adverse effect on the indirect object (Matthews and Yip 2011). Again the object in the VOC cannot appear in the beginning of the passivized sentence instead of the IO argument (10).

- (9) a. aa<sup>3</sup>-ming<sup>4</sup> bei<sup>2</sup> lou<sup>5</sup>baan<sup>2</sup> caau<sup>2</sup> zo<sup>2</sup> jau<sup>4</sup>jyu<sup>2</sup>.  
 ah-Ming PASS boss stirfry PFV squid  
 IO EA V DO  
 ‘Ming was given the sack by the boss.’
- b. hok<sup>6</sup>saang<sup>1</sup> m<sup>4</sup> jing<sup>1</sup>goi<sup>1</sup> bei<sup>2</sup> lou<sup>5</sup>si<sup>1</sup> sai<sup>2</sup> nou<sup>5</sup>.  
 student not should PASS teacher wash brain  
 IO EA V DO  
 ‘Students should not be brainwashed by teachers.’
- c. gaau<sup>3</sup>sau<sup>6</sup> seng<sup>4</sup>jat<sup>6</sup> dou<sup>1</sup> bei<sup>2</sup> aa<sup>3</sup>-wing<sup>4</sup> caat<sup>3</sup> haai<sup>4</sup>.  
 professor always all PASS ah-Wing polish shoe  
 IO EA V DO  
 ‘The professor always has his/her boots licked by Wing.’
- (10) a. \*jau<sup>4</sup>jyu<sup>2</sup> bei<sup>2</sup> lou<sup>5</sup>baan<sup>2</sup> caau<sup>2</sup> zo<sup>2</sup> aa<sup>3</sup>-ming<sup>4</sup>.  
 squid PASS boss stirfry PFV ah-Ming  
 DO EA V IO  
 Intended: ‘The sack was given to Ming by the boss.’
- b. \*nou<sup>5</sup> m<sup>4</sup> jing<sup>1</sup>goi<sup>1</sup> bei<sup>2</sup> lou<sup>5</sup>si<sup>1</sup> sai<sup>2</sup> hok<sup>6</sup>saang<sup>1</sup>.  
 brain not should PASS teacher wash student  
 DO EA V IO  
 Intended: ‘Brains should not be washed of the students by teachers.’
- c. \*haai<sup>4</sup> seng<sup>4</sup>jat<sup>6</sup> dou<sup>1</sup> bei<sup>2</sup> aa<sup>3</sup>-wing<sup>4</sup> caat<sup>3</sup> gaau<sup>3</sup>sau<sup>6</sup>.  
 shoe always all PASS ah-Wing polish professor  
 DO EA V IO  
 Intended: ‘Shoes are always licked for the professor by Wing.’

### 2.3 Summary of data: unified account for passivizable V-IO-DO constructions

In both ditransitive VoDs and VOCs with an intervening indirect object, there is a fixed V-IO-DO order in the active form, and only the indirect object can be fronted under passivization, not the direct object. Given the similarity in syntactic patterning between the

two kinds of V-IO-DO constructions, they should receive a unified analysis. The semantic role of the IOs in these constructions can be unified as *affectee* (Kim 2012, Tsai 2018, among others).

### 3. Against previous analyses

In this section, I provide evidence against two analyses that have been proposed for Cantonese passivizable V-IO-DO constructions or similar constructions in other languages.

#### 3.1 IO as a possessor

The V-IO-DO constructions described in section 2 are sometimes analyzed as having a possessor-possessee relationship between the indirect and direct objects (Matthews and Yip 2011, Li 1997). Under a literal interpretation of this relationship, the indirect object would be analyzed as the possessor inside the direct object DP of the verb. In passivization, the possessor raises up to subject position, i.e., an instance of possessor-raising (Li 1997), as illustrated in (11). However, this view is problematic (at least for constructions illustrated in (4) and (8)) for four reasons.

- (11) nei<sup>5</sup><sub>i</sub> wui<sup>5</sup> bei<sup>2</sup> jan<sup>4</sup>-dei<sup>6</sup> fat<sup>6</sup> [<sub>i</sub> cin<sup>2</sup> ]  
 2SG will by person-PL fine money  
 ‘You will be fined (money) by them.’

**Reason #1: Incompatibility with usual possessive constructions.** The active form is not always compatible with the usual possessive constructions, which introduce the possessor using a particle *ge*<sup>3</sup> or a classifier, as shown in (12).<sup>4</sup>

- (12) a. jan<sup>4</sup>-dei<sup>6</sup> wui<sup>5</sup> fat<sup>6</sup> nei<sup>5</sup> ( \*ge<sup>3</sup> / \*di<sup>1</sup> ) cin<sup>2</sup>.  
 person-PL will fine 2SG GE CLF<sub>some</sub> money  
 ‘They will fine you (money).’
- b. lou<sup>5</sup>baan<sup>2</sup> caau<sup>2</sup> zo<sup>2</sup> aa<sup>3</sup>ming<sup>4</sup> ( \*ge<sup>3</sup> / \*go<sup>3</sup> / \*tiu<sup>4</sup> / \*dip<sup>6</sup> )  
 boss fry PFV Ming GE CLF<sub>generic</sub> CLF<sub>long, thin</sub> CLF<sub>plate</sub>  
 jau<sup>4</sup>jyu<sup>2</sup>.  
 squid  
 ‘The boss gave Ming the sack.’

**Reason #2: Non-constituency of [IO DO].** The indirect and direct objects do not form a constituent together. In (13), [IO DO] is shown to not be a grammatical fragment answer to a *wh*-question targeting the position of [IO DO]. [IO DO] also fails to be topicalized,

<sup>4</sup>With the particle *ge*<sup>3</sup>, the interpretation of the nominal is not specified for definiteness (Matthews and Yip 2011), but with a classifier, it is interpreted as definite (Sio 2011).

as shown in (14). The coordination test in (15) shows that [IO DO] cannot be coordinated with another [IO DO].

- (13) A: jan<sup>4</sup>-dei<sup>6</sup> wui<sup>5</sup> fat<sup>6</sup> mat<sup>1</sup>-je<sup>5</sup>? B: \*[ nei<sup>5</sup> cin<sup>2</sup> ].  
 person-PL will fine what-thing 2SG money  
 Intended: ‘A: What will they fine? B: Your money.’
- (14) \* [ nei<sup>5</sup> cin<sup>2</sup> ] ne<sup>1</sup>, jan<sup>4</sup>-dei<sup>6</sup> wui<sup>5</sup> fat<sup>6</sup> gaa<sup>3</sup>.  
 2SG money SFP person-PL will fine SFP  
 Intended: ‘Your money, they will fine.’
- (15) \* jan<sup>4</sup>-dei<sup>6</sup> wui<sup>5</sup> fat<sup>6</sup> [ nei<sup>5</sup> ng<sup>5</sup> man<sup>1</sup> ] tung<sup>4</sup> [ ngo<sup>5</sup> sap<sup>5</sup> man<sup>1</sup> ].  
 person-PL will fine 2SG five dollar and 1SG ten dollar  
 Intended: ‘They will fine you five dollars and me ten dollars.’

**Reason #3: Other possessors.** The direct object can be modified by its own possessor distinct from the indirect object (cf. Tsai 2018 for Mandarin; Kim 2012 for Japanese and Korean), as demonstrated in (16).

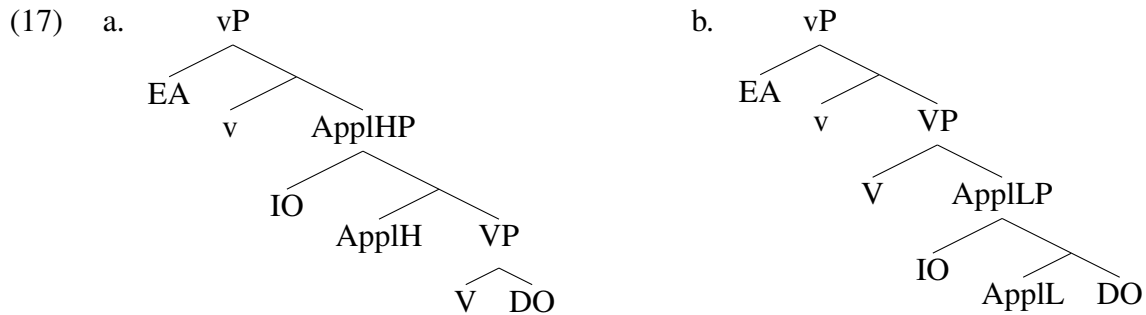
- (16) can<sup>4</sup> saang<sup>1</sup> sik<sup>6</sup> zo<sup>2</sup> can<sup>4</sup> taai<sup>2</sup> [ loeng<sup>5</sup> go<sup>3</sup> aa<sup>3</sup>-koeng<sup>4</sup> ge<sup>3</sup> bo<sup>1</sup>lo<sup>4</sup>-baau<sup>1</sup> ].  
 Chan Mr. eat PFV Chan Mrs. two CLF ah-Keung GE pineapple-bun  
 ‘Mr. Chan ate two of Keung’s pineapple buns on Mrs. Chan.’

**Reason #4: Non-possessor interpretations.** The indirect object does not always have to be the semantic possessor of the direct object, especially in VOCs with an intervening indirect object, such as in example (8a) above, where it is unclear how the ‘squid’ could be interpreted as belonging to Ming.

### 3.1.1 Another possible possessor analysis?

The reasons above have ruled out an analysis where the possessor DP is in the possessee DP (perhaps as its specifier). However, there is another possible analysis that may still allow for a possessor reading without being a true possessor inside the direct object DP. Looking to other languages, indirect objects are often analyzed as applied arguments. Pykkänen (2000, 2002) argues for two types of applicatives: high applicatives (17a), which relate an *individual* to an *event*, and low applicatives (17b), which relate two individuals in a possession relation.<sup>5</sup>

<sup>5</sup>Pykkänen (2000, 2002) uses the label Voice instead of v. In this paper, the assumption is that v is the head introducing the external argument in its specifier. See Sybesma (2021) for one view of the relationship between Voice and v in Cantonese.



(adapted from McGinnis 2001: 111, McGinnis 2008: 1228)

The reasons against a possessor-possessee relationship between the internal arguments in the Cantonese V-IO-DO constructions could also apply against a low applicative analysis. The non-constituency of [IO DO] would go against the low applicative analysis because it would put the IO and the DO together as [<sub>AppLP</sub> IO ∅<sub>AppLP</sub> DO]. In addition, the indirect object does not always have a possessor interpretation, but consistently has an affectee interpretation, which is more characteristic of high applicatives than low applicatives.

### 3.2 Base-generated passive subjects

In Japanese and Korean, there are passives that have affectees as subjects, as shown in (18) and (19), respectively. Kim (2012) argues that the affectee argument in these passives are merged in subject position as a peripheral applicative, which merges with VoiceP in Japanese or High ApplP in Korean.

#### (18) *Japanese*

- a. Taroo-ga Hanako-ni kami-o kir-are-ta [possessive passive]  
 Taroo-NOM Hanako-DAT hair-ACC cut-PASS-PST  
 ‘Taro<sub>1</sub> was affected by Hanako’s cutting his<sub>1</sub> hair.’ (Kim 2012: 77)

- b. Taroo-ga Hanako-ni eiga-o mi-rare-ta [indirect passive]  
 Taroo-NOM Hanako-DAT movie-ACC see-PASS-PST  
 ‘Taro was adversely affected by Hanako’s seeing a movie.’  
 (Uda 1994: 68, cited in Kim 2012: 78)

#### (19) *Korean*

- Swuni-ka Inho-eykey meli-lul kkakk-i-ess-ta [adversity passive]  
 Suni-NOM Inho-DAT hair-ACC cut-PASS-PST-DECL  
 ‘Suni<sub>1</sub> was adversely affected by Inho’s cutting her<sub>1</sub> hair.’ (Kim 2012: 78)

Cantonese indirect passives share some its properties with these passives in Japanese and Korean. The subject of Cantonese indirect passives have a malefactive affectee reading,



just like Korean adversity passives and Japanese indirect passives. When a theme is obligatory, there is usually a possessive reading implied, as in Japanese possessive passives and Korean adversity passives.

However, there are some key differences between the Cantonese passives and the Japanese and Korean passives. In Korean, not all adversity passives have an active counterpart, suggesting that that Korean adversity passives are not derived by movement (Kim 2012), but this is not the case with Cantonese.<sup>6</sup> In Japanese indirect and possessive passives and Korean adversity passives, there is no quantifier scope ambiguity, which has been argued to suggest no movement to derive the subject (Kim 2012). However, Cantonese indirect passives show quantifier scope ambiguity (20).<sup>7</sup> These differences may allow for pursuing analyses that treat subjects in Cantonese passives as derived by movement from a lower position rather than merging high.

- (20) mui<sup>5</sup> go<sup>3</sup> hok<sup>6</sup>saang<sup>1</sup> dou<sup>1</sup> bei<sup>2</sup> jat<sup>1</sup> go<sup>3</sup> lou<sup>5</sup>si<sup>1</sup> sai<sup>2</sup> nou<sup>5</sup>  
 every CLF student all PASS one CLF teacher wash brain  
 ‘Everyone student was brainwashed by a teacher.’ (every > a, a > every)

<sup>6</sup>Matthews and Yip (2011) claim that there are some indirect passives in Cantonese that do not have active counterparts, such as (i). I argue that the apparent ungrammaticality or infelicity of (ii) without *jau*<sup>5</sup> ‘there exists’ is more likely due to an asymmetry of interpretation of definiteness of nominals in Cantonese, where bare nouns in subject position seem to have a definite (collective) reading while bare nouns in other positions can have an indefinite reading, and only by adding *jau*<sup>5</sup> can there be an indefinite reading.

- (i) keoi<sup>5</sup> bei<sup>2</sup> jan<sup>4</sup> tau<sup>1</sup> zo<sup>2</sup> cin<sup>2</sup>  
 3SG PASS person steal PFV money  
 ‘S/he had some money stolen (from him/her) by someone.’

(adapted from Matthews and Yip 2011: 170)

- (ii) jau<sup>5</sup>/\*/?/∅ jan<sup>4</sup> tau<sup>1</sup> zo<sup>2</sup> keoi<sup>5</sup> cin<sup>2</sup>  
 exist person steal PFV 3SG money  
 ‘Someone stole money from him/her.’

<sup>7</sup>It is necessary to note that the scopal ambiguity is not seen with an existentially quantified subject and a universally quantified object of *bei*<sup>2</sup>, as shown in (i).

- (i) jau<sup>5</sup> jat<sup>1</sup> go<sup>3</sup> hok<sup>6</sup>saang<sup>1</sup> bei<sup>2</sup> mui<sup>5</sup> go<sup>3</sup> lou<sup>5</sup>si<sup>1</sup> sai<sup>2</sup> nou<sup>5</sup>  
 there.exists one CLF student PASS every CLF teacher wash brain  
 ‘A student was brainwashed by every teacher.’ (a > every, \*every > a)

In fact, Scontras et al. (2014) argue that in cases like (20) in Mandarin, the scopal ambiguity is an artefact of the inverse interpretation (a > every) entailing the surface interpretation (every > a), and that only the unavailability of an inverse interpretation in doubly-quantified examples like (i) is a reliable diagnostic of scopal ambiguity. However, judgements on may be obscured by elements like *jau*<sup>5</sup> ‘there exists’ and the numeral *jat*<sup>1</sup>, although Scontras et al. (2014) argue using experimental judgements from English that these cannot reliably explain the seemingly absolute ban on an inverse interpretation in cases like (i). Further investigation is necessary to see if the account by Scontras et al. (2014) indeed applies to Cantonese as well.

## 4. Proposal

### 4.1 Theoretical assumptions

Before presenting my proposal, it should be helpful to the reader to look at two main theoretical assumptions of the proposal: phase determination and the role of case in licensing nominals.

#### 4.1.1 Phase determination

McGinnis (2001) proposes that different XPs in the extended verbal projection may be phases depending on its relation to VP, as articulated in (21).

- (21) The sister of VP heads a phase if an argument is generated in its specifier.  
(McGinnis 2001: 111)

Based on this proposal, when there is a high applicative, which is sister to VP, the high applicative head heads a phase. In this system, vP is not always a phase: it is only a phase when there is an argument in its specifier (McGinnis 2001).

#### 4.1.2 Dependent case

First proposed by Marantz (1991), dependent case is assigned to a nominal if there is a distinct nominal (not in the same chain) in the clause (defined as governed by V+I); accusative is assigned downwards in an accusative system, and ergative is assigned upwards in an ergative system. Baker and Vinokurova (2010) modify this definition of dependent case assignment by making phases the case domains. In later adaptations based on this idea, a case domain has been formalized to include the phase head, its specifier and the edge of its complement (cf. Branan 2022, Fong 2021). In addition, dependent case assignment occurs phase by phase (Baker 2014).

Accusative case assignment under dependent case theory may be described as in (22).

- (22) If there are two distinct argumental NPs in the same phase such that NP1 c-commands NP2, then value the case feature of NP2 as accusative unless NP1 has already been marked for case.  
(Baker and Vinokurova 2010: 639)

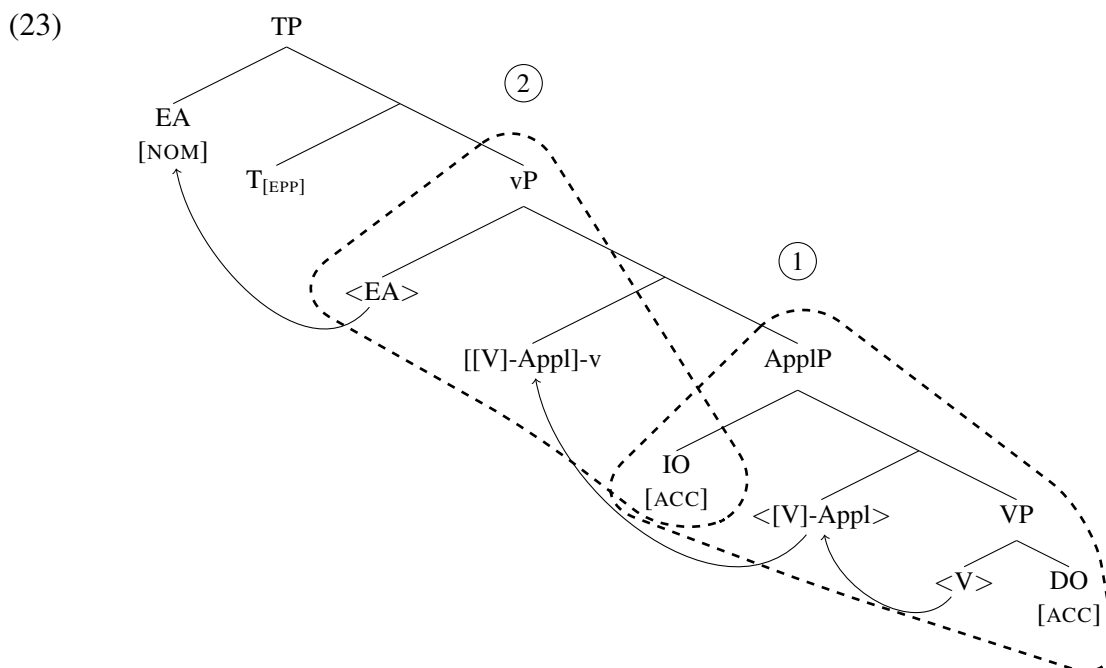
In accusative systems, the highest DP is assigned nominative case by default case assignment (Marantz 1991, Branan 2022).

While Marantz (1991) originally proposed dependent case assignment as a postsyntactic operation that replaces the Case Filter, others have proposed that it is relevant to narrow syntax (Baker and Vinokurova 2010, Baker 2014, Branan 2022). Specifically, case valuation by dependent case assignment is of the same nature as case assigned by Agree (Baker and Vinokurova 2010). It then follows that this case can interact with the Activity Condition (Chomsky 2001) (cf. Branan 2022).

## 4.2 IO as an applicative argument

Similar to Tsai (2018) and Hsu and Chen (2021) for Mandarin, McGinnis (2001) for Chicheŵa, and Deal (2019) for Nez Perce, I propose that the indirect object in the Cantonese V-IO-DO constructions is introduced as the specifier of an applicative head (Appl) between *v* and *V*. The applicative head assigns an affectee  $\theta$ -role to the argument in its specifier, relating this argument to the event represented by the VP. Having an applicative head above VP also allows for the VOCs, which have idiomatic interpretation of the combination of *V* and its complement, to be interpreted together as a constituent. This proposal also captures the facts that point to the non-constituency of [IO DO] since the two objects do not form a constituent to the exclusion of *V* and Appl.

To derive the correct surface order, where *V* precedes the two objects, I assume cyclic head movement from *V* to *v* (Tsai 2018, Sybesma 2017, 2021). The schematic derivation is shown in (23).



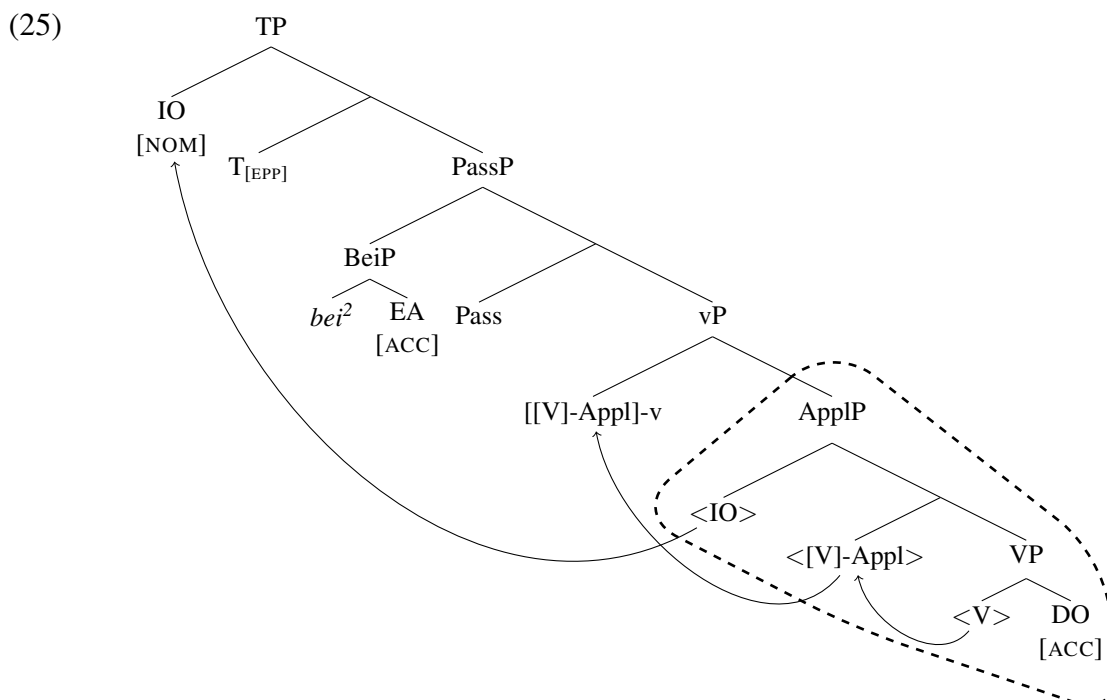
Case assignment in the V-IO-DO construction is as follows:

- (24)
- a. Since Appl is sister to VP, it heads a phase. The case domain (labelled 1 in (23)) includes the phase head Appl, its specifier and its complement. Within this phase, the indirect object in Spec,ApplP c-commands the direct object in Comp,VP. This would allow the direct object to be assigned accusative case.
  - b. Since vP projects a specifier, it heads a phase. The case domain (labelled 2 in (23)) includes the phase head *v*, its specifier and the edge of its complement, Spec,ApplP. In this phase, the external argument in Spec,vP c-commands the indirect object in Spec,ApplP, allowing the indirect object to be assigned accusative case.

- c. The external argument moves from Spec,vP to Spec,TP to satisfy EPP. Since it is the highest DP, it is assigned nominative case by default case assignment.

### 4.3 Indirect passives

I propose that in *bei*<sup>2</sup> passives, there is a head Pass[ive] that selects an adverse vP as its complement. *Bei*<sup>2</sup> merges with the external argument to form a phrase that is merged as specifier of PassP. The schematic derivation of indirect passives is shown in (25).



Case assignment in indirect passives is as follows:

- (26)
- The direct object is assigned accusative in the same way as with the V-IO-DO construction. This assignment makes it inaccessible for movement.
  - vP does not project a specifier, so it is not a phase head. This allows the indirect object to move directly from Spec,ApplP to Spec,TP without stopping at intermediate specifiers.
  - Bei*<sup>2</sup> assigns accusative case to the external argument, making it inactive for movement.
  - The indirect object is the highest nominal visible to the T probe, which has the [EPP] feature allowing for movement into Spec,TP. This movement creates an opportunity for quantifier scope ambiguity. Since the indirect object has moved up to Spec,TP, it is the highest nominal and is thus assigned nominative case by default.

## 5. Conclusion

In this paper, I have argued that Cantonese V-IO-DO constructions are applied constructions, with the indirect object introduced by an applicative head in between *v* and *V*. The indirect passive has a subject derived from movement from Spec,AppIP. This allows for a unified account of argument structure for V-IO-DO constructions and indirect passives. This proposal also supports the idea that case assignment is relevant to narrow syntactic operations (e.g. Baker and Vinokurova 2010) and furthers our understanding of the licensing of nominal arguments.

## References

- Baker, Mark C. 2014. On dependent ergative case (in Shipibo) and its derivation by phase. *Linguistic Inquiry* 45(3): 341–379.
- Baker, Mark C., and Nadya Vinokurova. 2010. Two modalities of case assignment: Case in Sakha. *Natural Language & Linguistic Theory* 28(3): 593–642.
- Branan, Kenyon. 2022. Licensing with Case: Evidence from Kikuyu. *Natural Language & Linguistic Theory* 40(1): 1–41.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.
- Deal, Amy Rose. 2019. Raising to ergative: Remarks on applicatives of unaccusatives. *Linguistic Inquiry* 50(2): 388–415.
- Fong, Suzana. 2021. Nominal licensing: The syntactic distribution and number interpretation of bare nominals in Wolof. Doctoral dissertation, Massachusetts Institute of Technology.
- Hsu, Yu-Yin, and Jun Chen. 2021. Deriving various affected subjects in *bei*-passives. In *Chinese lexical semantics: 21st workshop, CLSW 2020, Hong Kong, China, May 28–30, 2020, revised selected papers*, ed. Meichun Liu, Chunyu Kit, and Qi Su, no 12278 in Lecture Notes in Artificial Intelligence, 276–287. Cham: Springer.
- Kim, Kyumin. 2012. Affectees in subject position and applicative theory. *Canadian Journal of Linguistics* 57(1): 77–107.
- Li, J. Cora R. 1997. *Bei* and the passive in Cantonese. Master's thesis, University of British Columbia.
- Marantz, Alec. 1991. Case and licensing. In *ESCOL '91: Proceedings of the Eighth Eastern States Conference on Linguistics*, ed. Germán F. Westphal, Benjamin Ao, and Hee-Rahk Chae, 234–253. Columbus, OH: Ohio State University.
- Matthews, Stephen, and Virginia Yip. 2011. *Cantonese: A comprehensive grammar*. Abingdon: Routledge, 2nd ed.
- McGinnis, Martha. 2001. Variation in the phase structure of applicatives. *Linguistic Variation Yearbook* 1: 105–146.
- McGinnis, Martha. 2008. Applicatives. *Language and Linguistics Compass* 2(6): 1225–1245.
- Pylkkänen, Liina. 2000. What applicative heads apply to. *University of Pennsylvania Working Papers in Linguistics* 7(1): 18.
- Pylkkänen, Liina. 2002. Introducing arguments. Doctoral dissertation, Massachusetts Institute of Technology.

- Scontras, Gregory, Cheng-Yu Edwin Tsai, Kenneth Mai, and Maria Polinsky. 2014. Chinese Scope: An experimental investigation. In *Proceedings of Sinn und Bedeutung 18*, ed. Urtzi Etxeberria, Anamaria Fălăuș, Aritz Irurtzun, and Bryan Leferman, 396–414.
- Sio, Joanna Ut-Seong. 2011. The Cantonese *ge3*. In *Nominalization in Asian Languages: Diachronic and typological perspectives*, ed. Foong Ha Yap, Karen Grunow-Hårsta, and Janick Wrona, 125–146. Amsterdam: John Benjamins Publishing Company.
- Sybesma, Rint. 2017. Aspect, inner. In *Encyclopedia of Chinese language and linguistics*, ed. Rint Sybesma, Wolfgang Behr, Yueguo Gu, Zev Handel, C.-T. James Huang, and James Myers, vol. 1, 186–193. Leiden: Brill.
- Sybesma, Rint. 2021. Voice and little *v* and VO–OV word-order variation in Chinese languages. *Syntax* 24(1): 44–77.
- Tang, Sze-Wing. 1998. On the ‘inverted’ double object construction. In *Studies in Cantonese linguistics*, ed. Stephen Matthews, 35–52. Hong Kong: Linguistic Society of Hong Kong.
- Tsai, Wei-Tien Dylan. 2018. High applicatives are not high enough: A cartographic solution. *Lingua Sinica* 4(1): 2.
- Uda, Chiharu. 1994. *Complex predicates in Japanese*. New York: Garland Publishing.