

# ***Aspectuals in Cantonese: the case of saai\****

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## **Abstract**

This paper argues that ‘saai’ in Cantonese is an aspectual suggesting the completeness of an event. The property of being a totally completed event provides a cue for processing the ‘divisibility’ or ‘numerousness’ of the subject or object noun phrases. However, if the notion of completeness is the only relevant piece of information in the ongoing communication, there is no need to infer the status of the noun phrase. When ‘saai’ is used in a predicate with an affected object, the fulfillment of every stage of the event indirectly brings out telicity in this type of predicate.

## **1 Current analyses of ‘saai’**

In Cantonese, the two post-verbal particles: ‘saai’ and ‘maaih’ have been analysed as ‘quantifiers’ of the subject or the object noun phrases. Recent research has mainly concentrated on ‘saai’ and the following properties have been observed with respect to this post-verbal particle (cf. Lee 1994, Matthews & Yip 1994, Tang 1996). First, there is usually a plurality requirement on the subject or the object noun phrase when ‘saai’ occurs postverbally. For instance,<sup>1</sup> Tang (1996) suggests that (1) with ‘saai’ is unacceptable because ‘the object cannot be divided and is interpreted as semantically singular’.<sup>2</sup>

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<sup>1</sup>Examples 1-2 are taken from Tang (1996).

<sup>2</sup>The examples are romanised following the scheme proposed by the Linguistic Society of Hong Kong in 1993. The reader is reminded that all the ‘h’, which are not the initial consonant, represent a glottal stop. Notations: cl: classifier.

- (1) Ngoh maai (\*saai) go fuk waa.  
I buy all that Cl picture.  
I bought the (\*whole) picture.
- (2) Ngoh tai saai go bun syu.  
I read all that cl book.  
I have read every part of that book.

Matthews & Yip (1994) also suggest an example where ‘saai’ may quantify over either the object or the subject, or both at once:

- (3) Keoih deih heui-gwo saai auzau.  
They go-exp all Europe.  
‘They’ve been everywhere in Europe.’  
Or ‘They’ve all been to Europe.’  
Or ‘They’ve all been everywhere in Europe.’

Lee (1994) proposes that ‘saai’ functions as a ‘universal quantifier’ under which the quantified subject or object must receive an exhaustive reading.

- (4) a. Ngoh wuih sik go di pinggwo.  
I will eat that cl apple.  
I will eat those apples.
- b. Ngoh wuih sik saai go di pinggwo.  
I will eat saai that cl apples.  
I will eat up those apples.

Tang (1996) explains these examples by suggesting that the person will eat up all those apples in (4b) but (4a) ‘says nothing about whether or not the person will eat up those apples’. However, Tang (1996) has not explained why (4a) will still be true when the person eats up (or will eat up) all those apples.

Another major observation about ‘saai’ is that it can co-occur with accomplishment predicates, but has more restrictions when it co-occurs with achievement, activity and state predicates.<sup>3</sup>

- (5) Siu Ming se saai seon. (accomplishment)  
 Siu Ming write saai letter.  
 Siu Ming has finished writing letters/the letter(s).
- (6) a. ?Keoih jehng saai go bei coi. (achievement)  
 S/he win saai cl competition.  
 S/he has won the whole competition.
- b. Keoih jehng saai loehng go bei coi. (achievement)  
 S/he win saai two cl competitions.  
 S/he has won both competitions.
- (7) a. ?Ngoh siu saai. (activity)  
 I laugh saai.  
 I finish laughing.
- b. ?Ngoh deih siu saai. (activity)  
 They laugh saai.  
 They all laugh.
- (8) a. ?Ngoh zung ji saai go leoi zai. (stative)  
 I like saai cl girl.  
 I like the girl completely.
- b. Ngoh deih zung ji saai go leoi zai. (stative)  
 We like saai cl girl.  
 We all like the girl.

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<sup>3</sup>This follows Vendler’s (1967) classification of verbs.

- c. Ngoh zung ji saai go saam go leoi zai. (stative)  
 I like saai that three cl girl.  
 I like all those three girls.
- d. Ngoh deih zung ji saai go saam go leoi zai. (stative)  
 We like saai that three cl girl.  
 We like all those three girls.

Since accomplishment and achievement predicates usually express events which have a natural endpoint; whereas state and activity predicates do not, Tang(1996) suggests that ‘saai’ behaves like an event quantifier used with predicates expressing telic events. According to his analysis, ‘saai’ will quantify over all the subevents of the whole event. For instance, the predicate ‘read a book’ in example (2) will be ‘sliced’ into several subevents of reading. ‘Saai’ then ‘quantifies over all the subevents such that he reads one page of that book in every single subevent and finally the whole book is read’ (Tang 1996).

These proposals attempt to explain the linguistic phenomena associated with ‘saai’ in terms of compositional semantics, stipulating the notion of variable binding either in the subject or object noun phrases or in the whole predicate. However, several empirical and theoretical issues still remain largely unaddressed by these proposals. In this paper, I will argue that there is **no** evidence suggesting:

- ‘saai’ imposes a ‘plurality’ requirement on the subject or object noun phrases;
- ‘saai’ is a universal quantifier which binds the object or subject noun phrases;
- ‘divisibility’ or ‘numerousness’ of the noun phrase are necessary conditions for the use of ‘saai’.

I will then proceed to show that ‘saai’ is a postverbal aspectual element, which imposes a semantic constraint on how the event described by the predicate will be viewed. ‘Saai’ suggests the completeness of an event. It can be the case that every stage in a process has been completely fulfilled; or several activities of the same nature have all been carried out. The property of being a totally completed event provides a cue for how we should process the ‘divisibility’ or ‘plurality’ of the subject or object noun phrases. However, it is costlier to process a sentence in which we need to clarify whether the noun phrases are ‘divisible’ or ‘numerous’ in that sentence. Accordingly, if the notion of completeness is the only relevant piece of information in the ongoing communication(cf. Sperber &

Wilson 1986), there is no need to infer the status of the noun phrase. On the other hand, if the exact nature of the noun phrase is relevant to the communication, extra processing effort will be taken up to resolve its status. This suggests that the above requirements on noun phrases arise from the nature of the predicate when ‘saai’ is used. In Section 2 & Section 3, I will elaborate on the claim I have made here.

## 2 ‘Saai’ and quantification

Let me assume, counterfactually, that ‘saai’ does impose a requirement of having a ‘plural’ noun phrase in a sentence. One must separate the issue whether ‘saai’ needs a linguistically, or more precisely, semantically-specified plural noun phrase or a noun phrase which can be *interpreted* as plural. In current analyses, the notion of ‘plurality’ subsumes two distinct characteristics of the noun phrases, namely ‘divisibility’ and ‘numerousness’. Neither of these has much to do with the notion of plurality which is grammaticalised in languages like English. In (2), Tang (1996) argues that ‘go bun syu’ (that book) is ‘divisible’ into different pages (or subparts), thus it can satisfy the ‘plurality’ requirement imposed by ‘saai’. In (4b), (6b) (8c) and (8d), the object noun phrases are either specified by a numeral which is more than ‘one’, or by the classifier ‘di’ which is associated with an unspecified quantity. While the subject noun phrases in (7b), (8b) and (8d) are pronouns with plural references. In this group of examples, the ‘plurality’ requirement is satisfied by the ‘numerousness’ of the object indicated by the noun phrases.

From the above examples, it is clear that no noun phrase is semantically-specified as plural. In fact, singularity/plurality is not grammaticalised in Cantonese and it is basically *inaccurate* to say ‘saai’ requires a plural noun phrase in a strict sense. When a noun is modified explicitly by a classifier<sup>4</sup>, I define it as semantically discrete or non-discrete depending on the type of classifiers used. A numeral can be put before a discrete classifier because an object described as discrete can be numerated; whereas the non-discrete one cannot be numerated. The noun phrase can be represented structurally as  $Num(Cl(N))$  and it can be bound by a quantifier like ‘muh’ (every) or a determiner like ‘nei’ (this). However, there are cases in Cantonese where the noun is not modified by any classifier

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<sup>4</sup>Classifiers like ‘go’ and ‘zek’ refer to an individual countable item. The classifier ‘di’ can be used with count nouns like ‘car’ to refer to ‘cars’ or with mass noun like ‘water’ to refer to unspecified amounts of water.

or numeral; or bound by any demonstrative or quantifier. The (*N*) can be considered as unbound in this case and I will call it a ‘bare noun phrase’<sup>5</sup>. Since plurality is not marked in Cantonese nouns, the bare noun will be underspecified between a singular or a plural *interpretation*. The argument here goes against the idea that ‘saai’ is a quantifier which is associated with a semantically-specified ‘plural’ noun phrase.

Recall that the ‘plurality’ requirement is used in a loose sense to subsume the notion of ‘divisibility’ and ‘numerousness’ of the noun phrase. Tang (1996) suggests that (1) is bad because ‘go fuk waa’(that picture) is not divisible, thus ‘semantically singular’. His argument seems to imply that the *grammar* itself will specify whether a certain object is divisible or not. If ‘saai’ cannot be associated with a divisible noun phrase, the sentence will crash at LF. This claim is not trivial because it suggests that if there is any semantic specification by ‘saai’ on the noun phrase, it must be fulfilled at LF. However, one can easily think of a context which will change the acceptability of a sentence like (1). If one imagines that an unscrupulous auctioneer has split up a Van Gogh picture into two parts and asks buyers to bid for each part separately, then example (1) will become a felicitous sentence if someone has successfully bid for both parts of the picture. In this reading, the ‘instantaneity’ of any act of buying can still be preserved if one imagines that there are two acts of buying going on. Although the notion of ‘divisibility’ will be partially determined by ontological constraints on the count/mass distinction and by our world knowledge, an appropriate context can also alter our acceptance of whether an object can be ‘divided’. Most important of all, the context alters the acceptability of the whole sentence. If our language faculty is modularised, a grammatically ill-formed sentence can never be saved by resorting to a change of contextual information. Therefore, the slightly uncommon reading associated with (1) is arrived at pragmatically on the basis of a grammatically well-formed sentence. This observation is crucial and it suggests that there is **no** semantic specification on the noun phrases.

Besides altering the status of the ‘divisibility’ of the noun phrase, an appropriate context can even allow a plural or *numerous* reference for a semantically-specified singular or non-numerous noun phrase. This provides strong evidence for the independence of ‘semantic’ plurality and ‘interpreted’ plurality, which is either determined by context or our world knowledge in our inferential system. Imagine that someone has gone to an art gallery shop and bought several reproductions of Leonardo da Vinci’s ‘Mona Lisa’. This

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<sup>5</sup>The idea of having a ‘bare noun phrase’ in Cantonese is similar to the English ‘bare plurals’. In English, as discussed by Carlson(1977) or Diesing(1991) among others, a plural noun phrase which is not bound by a determiner or a quantifier is defined as a bare plural.

person can tell his friend what he has bought by using example (1). In this case, one does not need to ‘dissect’ the picture, nor does one need to buy ten real ‘Mona Lisas’, which do not exist in this world. Again, if the so-called ‘plurality’ requirement must be fulfilled at the level of LF, how can we explain a case like this. The linguistic information encoded in (1), at the level of logical form, will only be a definite noun phrase. In the following section, I will try to clarify the situation by assuming that ‘saai’ is an element which imposes an aspectual specification on the event described by the predicate. The status of ‘divisibility’ or ‘numerousness’ on the noun phrase arises only when there is a need to process this piece of information which is relevant to the communication. In fact, the clarification of such a status will increase the processing load of the central processing system. Therefore, this piece of information is used *only* when it is relevant to the ongoing communication; or when the provision of this information will help us to interpret the sentence if no contextual information is available in the background for processing it. The latter possibility will be elaborated in the next Section. Now, let me provide an example to illustrate the former point.

When ‘saai’ co-occurs with predicates which are traditionally classified as ‘accomplishment’, with a bare noun phrase such as ‘pinggwo’ in (9), the ‘singular’ or ‘plural’ status of the noun phrase can remain unspecified.

- (9) Ngoh sik saai pinggwo.  
 I eat saai apple(s).  
 I finish eating an apple/apples/apple.

That is, one can imagine a person finishing eating either an apple or several apples. If the difference is not obvious in the context or it is not relevant for the communication process, the listener simply does not need to decide on either of the options. Furthermore, imagine a handicap competition in which all participants must compete in eating different quantities of apples. Some of them just need to finish half of an apple in order to win the game; whereas some of them have to eat ten apples. (9) can be used for all participants when they have to indicate to the judge that they have finished eating their portion. Besides supporting the earlier claim, this case provides evidence suggesting that ‘saai’ is definitely not behaving as a universal quantifier like ‘every’ or ‘all’. If ‘saai’ were a universal quantifier, it would be impossible for the participant who eats half an apple to use this sentence.

### 3 An aspectual analysis of ‘saai’

#### 3.1 ‘Saai’ and telicity

In the rest of this paper, I am going to elaborate on the claim that ‘saai’, as an aspectual element, suggests the completeness of the event described in the predicate. I have proposed in Section 1 that the predicate can refer to a process consisting of different stages; or it can refer to a combination of several events of the same nature. In both cases, ‘saai’ can be used to signal a completion of every part involved in the event. When ‘saai’ is used with the predicate which refers to a process consisting of different stages, it entails that the event will come to an end when every stage has been completed. However, if ‘saai’ is used to signal that some activities have all been carried out, it will not entail that each activity has come to an end. Therefore, I suggest that the ‘telicity requirement’ proposed by earlier research is not an accurate description of the phenomenon. I will propose that the status of telicity will only be determined when all the factors, such as the presence of other aspectual elements and the context, are taken into consideration. Further evidence will be provided to support the above claims in this sub-section.

The argument here presupposes that the kind of action represented in the predicate will not be determined by the verb and its internal argument (if it is present) alone, it will also be determined by the presence of aspectual elements, including ‘saai’; and the interpretation will also be constrained by the context as well. I will assume that the lexical entry of a verb need not contain any information on what kind of action the verb will represent. Instead, it only contains information on its thematic and syntactic requirement. However, such information is by no means sufficient to determine the kind of action and the meaning will be determined by further linguistic and contextual information.

The Vendlerian classification suggests that predicates can represent an activity, an accomplishment, an achievement or a stative event, which are then associated with different telic/atelic conditions. For instance, it is *possible* to understand (10) as an accomplishment.

- (10) Ngoh sik go pinggwo.  
 I eat cl apple.  
 I eat the apple.



According to Vendler(1967), (10) will be analysed as telic because the event will come to an end when the person finishes eating the apple. Tenny(1987) captures this intuition by suggesting that the event described by the sentence will ‘transpire’ over a fixed length of time. She explains that if an internal argument is *affected* by the verb, the event will be delimited, i.e. telic (see further section 3.3 below). For instance, she provides examples (11) and (12) to explain the difference between a delimited and a non-delimited event.

(11) Kim will climb the silo in an hour/\*for an hour.

(12) Kim will push the cart \*in an hour/for an hour.

The use of the adverbial with ‘in’ highlights the delimitedness of the event; whereas the ‘for’ adverbial suggests an ongoing activity. If (10) is analysed along Tenny’s lines, I can claim that the internal argument ‘go pinggwo’ is affected by the event because it undergoes an internal change during the event. The object will also provide a limit within which the event can take place.

These analyses capture the kind of action which can *potentially* be represented by that predicate. However, they have not excluded the possibility that a sentence like (10) will still be true when the event has not yet ‘transpired’, i.e. when it is used to refer to an activity of apple-eating which has never been accomplished.

(13) Gam jat, *ngoh sik go pinggwo*. Dim zi, tai dou pinggwo jauh cung. Ngoh sehng go m sik.  
 Today, I eat cl apple. How know, see asp apple have worm. I whole cl neg eat.  
 Earlier today, I ate an apple. To my surprise, I found a worm inside it and I dumped the whole apple.

For instance in (13), the person is describing an incident of ‘apple-eating’ which happened earlier on a particular day. It is clear that the person has *not* finished eating the whole apple. It may even be possible that most of the apple was left untouched because of the worm. Therefore, when used in this context, (10) does not represent an accomplishment. In English, this situation would typically be described by the use of ‘was eating’ rather than ‘ate’. In fact, (13) shows that a sentence like (10) is underspecified between a telic and an atelic reading.

In Cantonese, it is very easy to find examples which can be used to describe either an activity (i.e. atelic event) or an accomplishment (i.e. telic event). For instance, ‘se seon’ (write a letter(s)), ‘wa waa’ (draw a picture(s)) are underspecified between an activity and

an accomplishment reading. As observed by Tenny(1987), it is possible for a predicate with the meaning of ‘creation’ or ‘consumption’ to be delimited by the direct object. As discussed, the object which is affected by the event will undergo certain changes during the process. The complete change of the object suggests that the event has also been finished. Therefore, the object provides a potential limit within which the event can take place. This explains why a predicate with an affected object potentially has a natural endpoint. However, further linguistic and contextual information are needed to determine whether the endpoint has actually been reached as shown by (10) and (13). Similarly, although the unaffected object of a predicate cannot provide an endpoint to the event, the telic/atelic status of the predicate will only be determined when specified by some linguistic or contextual means. For instance, a telic reading can be determined in a predicate like ‘zai dai ce’(ride bicycle) by using an aspectual such as ‘juhn’.<sup>6</sup>

If the predicate that ‘saai’ associates with is underspecified between a telic and an atelic reading, it is wrong to claim that ‘saai’ characterises *only* a telic event. The affectedness condition helps to provide a potential endpoint for the event but it is definitely **not** a sufficient condition to determine a telic reading. The argument here strongly suggests that if ‘saai’ is ‘related’ to the phenomenon of telicity, it is only because ‘saai’ indirectly favours a telic reading for the event. Therefore, there is no telicity requirement related to the use of ‘saai’. If ‘saai’ *only* signals the completeness of the event, it is also predicted that it will be incompatible with any event *specified* clearly as still incomplete. In subsection 3.2, I will illustrate, by using examples with ‘saai’ together with other aspectuals, that ‘saai’ is indeed incompatible with ‘incompleteness’.

### 3.2 ‘Saai’ and other aspectuals

In Cantonese, there is a rich repertoire of post-verbal particles which specifies the aspect of the event and how a speaker or hearer should view the event from their vantage point. I will discuss the most commonly-used post-verbal particles in this section. First, ‘gan’ suggests that a process is expected to continue for an unspecified duration; and ‘hah’ refers to an incomplete action. In both cases, the aspectual elements specify an event which has not yet been completed. If ‘saai’ is an aspectual emphasizing the fulfillment of every stage of a process, then it will follow that ‘saai’ cannot co-occur with any aspectual that suggests ‘incompleteness’, for instance,

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<sup>6</sup>The use of ‘juhn’ and other aspectuals in Cantonese will be discussed in sub section 3.2.

- (14) \*Ngoh sik **gan** *saai* go pinggwo.  
 I eat gan saai cl apple.  
 (I am eating the apple completely.)<sup>7</sup>
- (15) \*Ngoh sik **hah** *saai* go pinggwo.  
 I eat hah saai cl apple.  
 (I have completely eaten the apple for a while.)

It should also be noted that an incomplete action does *not* specify whether an event is telic or not. Therefore, ‘saai’ is incompatible with these aspectuals because of the ‘incompleteness’ but not because of the telic or atelic conditions.

‘Hoi’ and ‘gwaan’ are generally understood as referring to habit. ‘Hoi’ suggests that an action has been a habit until the moment at which the sentence is uttered; whereas ‘gwaan’ suggests a repetition of an event which forms a habit. ‘Gwaan’ does not entail that the habit is still relevant at the moment at which the sentence is uttered; but ‘hoi’ entails that the event must be relevant at the moment at which the sentence is uttered. Therefore, ‘gwaan’ suggests a completed habituality whereas ‘hoi’ suggests an incomplete habituality. Hence, the distribution with ‘saai’ indicated as:

- (16) a. Ngoh sik **gwaan** *saai* pinggwo.  
 I eat gwaan saai apple.  
 I have completely got used to eating apples/the apple(s).
- b. \*Ngoh sik **hoi** *saai* pinggwo.  
 I eat hoi saai apple.  
 (I usually eat completely all the apples/the apple(s).)
- (17) a. Keoih jehng **gwaan** saai bei coi.  
 S/he win gwaan saai competition.  
 S/he has completely got used to winning competitions/the competition(s).

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<sup>7</sup>Glosses with parentheses round them are there simply to help the reader. It is strictly speaking not possible to give a free translation of an ungrammatical sentence.

- b. \*Keoih jehng **hoi** saai bei coi.  
 S/he win hoi saai competition.  
 (S/he has started winning completely all competitions/all the competitions.)

Like ‘gan’ and ‘hah’, ‘hoi’ which suggests an incomplete habituality is not compatible with ‘saai’. On the other hand, there are a number of aspectuals which have been associated with ‘completion’. They are ‘hou’, ‘juhn’, ‘jo’ and ‘gwo’(cf. Matthews & Yip 1994). I suggest that ‘hou’, ‘juhn’ and ‘gwo’ clearly specify that an event has come to an end and hence should all be compatible with ‘saai’. However, they are used in slightly different ways. ‘Hou’ is used *only* with predicates with an affected reading. Since ‘hou’ denotes success, it will usually be associated with an event in which the affected object has been created, but not consumed during the process.

- (18) a. Ngoh wa **hou** saai waa.  
 I draw successfully saai picture.  
 I have successfully completed drawing pictures/the picture(s).
- b. ?Ngoh sik **hou** saai pinggwo.  
 I eat hou saai apple.  
 I have successfully completed eating apples/the apple(s).

‘Juhn’ clearly marks that an event has finished but it can be used in both the affected and unaffected readings.

- (19) a. Keoih jehng **juhn** saai bei coi.  
 S/he win juhn saai competition.  
 S/he has completely finished winning all competitions/all the competitions.
- b. Ngoh sik **juhn** saai pinggwo.  
 I eat hou saai apple.  
 I have completely finished eating apples/the apple(s).
- c. \*Keoih jihng dak **juhn** go loei zai.  
 S/he recognise juhn cl girl.  
 (S/he has completely recognised the girl.)

It should also be noted that if ‘juhn’ is used alone, it will not entail that every stage of the event has been completed. ‘Juhn’ just shows that an event has come to an end. Therefore, if ‘saai’ is taken away from (19b), the sentence will be underdetermined in whether the whole apple has been eaten or simply a certain part of it.

‘Gwo’ is usually referred to as ‘experiential’ and ‘jo’ as ‘perfective’ in the Cantonese linguistic literature. Similar to the distinction between the habitual ‘hoi’ and ‘gwaan’, ‘jo’ implies that an action which started in the past is still relevant from the present vantage point. On the contrary, ‘gwo’ specifies that an event is completed and the effect of that event has no direct relevance to the present.

- (20) a. Ngoh sik **gwo** saai pinggwo.  
I eat gwo saai apple.  
I completely finished eating apples/the apple(s).
- b. \*Ngoh sik **jo** saai pinggwo.  
I at jo saai apple.  
(I have eaten apples/the apple(s) completely.)
- (21) a. Koih jehng **gwo** saai bei coi.  
S/he win gwo saai competition.  
S/he completely finished winning competitions/the competition(s).
- b. \*Keoih jehng **jo** saai bei coi.  
S/he win jo saai competition.  
(S/he has won competitions/the competition(s) completely.)

The examples (20b) and (21b) suggest that if an event is still relevant to the present vantage point and is expected to continue in future (cf. ‘hoi’ in 16b & 17b), then ‘saai’ cannot co-occur with it. On the other hand, ‘saai’ can characterise sentences with ‘hou’, ‘juhn’ and ‘gwo’ which clearly specify that the event has reached its endpoint and is considered as finished.

‘Maaih’ is another particle which has been analysed as a quantifier over the subject or the object noun phrase. Matthews & Yip(1994:224) suggest that ‘maaih’ can also ‘denote expansion of a domain to include the last of a series of items or to bring certain ongoing actions to completion.’ In fact, ‘maaih’ too is not a quantifier. It is an aspectual which brings an end to an event which has been started. Similar to ‘saai’, ‘maaih’ can indicate

the end of an event which refers to a process with internal stages; or an event which refers to a combination of sub-events. In the second reading, it results in a domain-expansion phenomenon as reported in Matthews & Yip. Since ‘maaih’ suggests a completion of an event, it follows that ‘saai’ can be used with ‘maaih’ as well.

- (22) a.   Ngoh sik **maaih** saai go pinggwo.  
           I       eat maaih saai cl apple.  
           I finish completely eating up the apple.
- b.   Keoih jehng **maaih** saai go bei coi.  
           S/he win maaih saai cl competition.  
           S/he completely finishes off winning the competition.

In this sub-section, I have attempted to give a preliminary account on other aspectuals in Cantonese and how they interact with ‘saai’. The account is descriptive and by no means complete. However, it still provides evidence showing that ‘saai’ is an aspectual element suggesting that every stage of a process described in the predicate has been fulfilled. It does not determine a telic reading but it helps to bring out the telic status of certain predicates. Furthermore, ‘saai’ cannot co-occur with predicates which are specified clearly by other aspectuals suggesting that the event still has relevance to the present vantage point or is expected to continue into the future. Some of the predictions I have made here on the co-occurrence relationship between ‘saai’ and other aspectuals will be used in the following section when I continue to discuss how ‘saai’ function as an aspectual in Cantonese.

### 3.3 The aspectual ‘saai’

In this section, I am going to show how ‘saai’ interacts with various predicates, with more examples from Cantonese. First, let me illustrate how ‘saai’ constrains the reading of a predicate which can have both an affected and an unaffected reading, depending on the sense of the verb. In Cantonese, ‘za’ can mean ‘squeeze’, ‘control’, ‘hold’ or ‘drive’. One of the readings which (23a) and (23b) have is that the object: ‘ce’ or ‘ga ce’ will not be affected by the event described in the predicates, i.e. the person is driving a car or cars.

- (23) a. Keoih za ce.  
S/he drive car.  
S/he drives.
- b. Keoih za ga ce.  
S/he drive cl car.  
S/he drives that car.

For most native speakers, (23a) and (23b) can also mean: someone is bringing a car under control: any car in (23a) or a particular car in (23b). Let me call the reading of driving a particular car or cars the ‘*unaffected*’ reading and bringing a car or cars under control the ‘*affected*’ reading. The intuition here is: in the ‘*affected*’ reading, the car will start from an uncontrolled state and move to a controlled state at the end. For instance, if one imagines a mechanical rocking game car which requires the player just to ‘control’ and ‘tame’ it until it is under the complete control of the player, either (23a) or (23b) can be used. According to my earlier discussion, both the affected and unaffected readings need further specification to determine how the event should be viewed. There will be a number of aspectual elements, including, ‘*saai*’, which can be used to in these sentences.

- (23) c. Keoih za saai ce.  
S/he drive saai car(s).  
S/he has brought cars/the car(s) under complete control.(affected reading)
- d. Keoih za saai ?(*leng*) ce.  
S/he drive saai (brand-name) car.  
S/he drives all (brand-name) cars.(unaffected reading)

In (23c), ‘*saai*’ suggests that the process of controlling a car or cars has been completely fulfilled. As discussed in Section 1, the number of cars suggested by the bare noun phrase ‘*ce*’ in (23c) can remain undetermined even though ‘*saai*’ is used. In (23d), ‘*saai*’ suggests that several instances of car-driving have been completed. However, unlike (23c), the bare noun phrase strongly inclines to having a plural interpretation. Therefore, one can either use a characterising generic noun phrase like ‘*leng ce*’ in (23d), which is capable of referring to more than one car; or one must provide strong contextual information which suggests that more than one car has been driven or the same car has been driven more than once. In some other examples, the object can be construed as ‘divisible’ into subparts

for the event to take place. But it is more difficult to think of driving a ‘divisible’ car; therefore, this option seems unavailable for (23d).

Comparing (23c) and (23d), one can find that the affected object in (23c) can potentially provide an endpoint for the event to be considered as finished. Thus, when ‘saai’ is used to signal the complete fulfillment of a process, it follows that the event will stop at the endpoint provided by the affected object if no further linguistic specification is provided. As argued earlier (cf.(9)), the exact cardinality of the object will either be determined by contextual information; or if it is not relevant to the ongoing communication, it can remain unspecified. On the other hand, an unaffected object cannot provide an endpoint for the event described by the predicate. When ‘saai’ signals that the multiple stages of car-driving have been completely fulfilled, it follows that more than one car will be involved in the process (assuming that a ‘divisible’ car cannot be driven). The explanation provided here raises two further questions. First, why is it possible to think of a single process being completed in (23c) but not in (23d). Second, why do we need to clarify the status of the bare noun phrase even though it will increase the load of processing in our communication.

To answer the first question, one can look at the nature of the event and its impact on the internal argument again. The affected object of an event will undergo an internal change during the process of the event. For instance, the object will be created or consumed after the process. If ‘saai’ is an aspectual which signals that every stage of a process is fulfilled, then (if no other linguistic specification is made), it will denote a single process if the object is affected in the predicate. On the other hand, no change of the state is involved when the object is unaffected. For example, the state of car-driving should remain constantly stable throughout the event. However, as (23d) shows, it is possible to think of car-driving as having multiple stages if one imagines someone driving more than one car or someone driving the same car more than once. It is also possible to think of several people driving a car or cars as stages of car-driving. Hence, a ‘plural’ subject is also appropriate:

- (23) e.      Keoih deih za saai (leng) ce.  
                  They drive saai (brand-name) car.  
                  They all drive (brand-new) cars.(unaffected reading)

In (23e), since the notion of multiple car-driving is provided by the plural subject, it is not necessary to interpret the bare object noun phrase as ‘numerous’. It should also be noted that (23d) and (23e) do not exclude the possibility that the stages of the event take place



simultaneously. Therefore, ‘saai’ can signal the complete fulfillment of an event with a successive change of state or it can signal the complete fulfillment of multiple occurrences of several events of the same nature. The complete fulfillment of every stage of an event, which has an internal change of state and its limit provided by the affected object, entails that the event has reached its endpoint, i.e. has a telic reading. On the contrary, the fulfillment of multiple occurrences of several car-driving events will not necessarily entail that every individual car-driving activity has come to an end. Therefore, other aspectual elements or contextual information will be needed to determine the status of telicity. For instance, as I have argued in sub-section 3.2, ‘juhn’ is an aspectual which can be used to show that the whole event has come to an end in predicates with either an affected or an unaffected object.

- (23) f.      Keoih za juhn saai ce.  
               S/he drive/control juhn saai car.  
               S/he has finished driving a car/cars.(unaffected reading)  
               S/he has finished controlling a car/cars completely.(affected reading)

In the unaffected reading of (23f), ‘juhn’ shows that the event has come to an endpoint and it provides a boundary within which the process takes place. If ‘saai’ signals the completion of every stage of a process, the process delimited by ‘juhn’ will allow ‘saai’ to operate on it. In the affected reading of (23f), ‘juhn’ clearly indicates that the endpoint has already been reached in the event. However, if ‘saai’ is taken away from (23f) as in (23g), then we will not be sure whether every stage in the process has been fulfilled. In the affected reading, a person can say (23g) even if he fails to fulfill every stage in controlling the mechanical rocking car. He can simply finish the game without fulfilling the task. As for the unaffected reading, one cannot decide whether the person has driven a single car or several cars in (23g).

- (23) g.      Ngoh za juhn ce.  
               I control/drive juhn car.  
               I have finished controlling a car/cars.(affected reading)  
               I have finished driving. (unaffected reading)

As suggested in Section 1, any elaboration on the status of the bare noun phrase will increase the processing load. Therefore, if the information is irrelevant to the ongoing communication, it will be left undetermined. In the case of (23d), when no contextual

information is served as the background of interpretation, it will be more difficult to understand the existence of multiple ‘stages’ of car-driving in the predicate and how they can be considered as fulfilled, if I leave the status of the bare noun phrase unclarified. Since a clarified noun phrase helps us to process a sentence without any further contextual assumption, it will be specified even though the elaboration will increase the processing effort. Therefore, the relevance of the information and the concern to minimise the processing effort will be observed in all the cases of elaborating the noun phrases. Although all the examples I have discussed so far involve count nouns, these principles will also apply to mass nouns. For instance, in the following example,

- (24) Keoih jauh *saai* seoi.  
 S/he swim saai water.  
 S/he has finished swimming.

the mass noun ‘water’ can be used with ‘saai’ as an unaffected object. As I have argued, if the extent of water is not relevant to the communication, the status of ‘water’ will not be elaborated. If the information is relevant, one can also come up with different contexts under which the extent of water is clearly assumed. For example, one can imagine a swimmer who is training for the Olympic Games, s/he must swim a fixed distance set by the coach everyday. (24) is then felicitous when the swimmer has covered the distance set for the day. Therefore, despite the fact that ‘seoi’ does not delimit the event, a telic reading can still be obtained by using ‘saai’ in an appropriate context. Besides following the general constraints related to elaborating the noun phrase, this example shows that the use of context is necessary for deriving the telic reading pragmatically in some examples. ‘Saai’ signals that every stage of a process is completed but here, it clearly requires a contextual specification for bringing out the telic reading.

There are other predicates which have been discussed with relation to ‘saai’ in recent research. Tang(1996) suggests that ‘saai’ cannot co-occur with stative or activity predicates. I have provided examples to show how predicates(which are commonly understood as representing an accomplishment and an activity) are underspecified between a telic and an atelic reading (cf. 10, 13). In the last part of this sub-section, I am going to show that the criteria for using ‘saai’ which I have developed in this Section will apply to all predicates (i.e. including predicates which are usually classified as representing an achievement or a state). For instance, ‘jehng go bei coi’ (win cl competition: win the competition), ‘dou go saan ting’ (arrive cl hill top: reached the hill

top), ‘jihng dak<sup>8</sup> go leoi zai’ (know result that cl girl: recognise that girl) are usually understood as ‘achievement’ predicates, when the process has a very short duration or no duration at all (cf. Vendler 1967, Tenny 1987). The objects of these predicates are unaffected, i.e. the object does not undergo any internal change in the event. As argued in 3.2, the use of aspectual ‘hou’ can help to illustrate that the object of the predicate is possibly an unaffected one.

- (25) Tai Hung jehng (\*hou) go bei coi.  
 Tai Hung win hou cl competition.  
 Tai Hung successfully won the competition.
- (26) Nghoh deih dou (\*hou) go saan ting.  
 We arrive hou cl hill top.  
 We successfully reached the hill top
- (27) Keoih jihng dak (\*hou) go leoi zai.  
 S/he know result hou cl girl.  
 S/he successfully recognised the girl.

Since the object is an unaffected one, it is predicted that no potential endpoint will be provided by the object to the event. Therefore, if the elaboration of the noun phrase is necessary, this will then be interpreted in terms of ‘numerousness’ or ‘divisibility’. For instance, in (28), a ‘singular’ noun phrase can still be used if an appropriate context is stipulated. One of the contexts we can stipulate here is that when a person repeatedly recognise the same girl on various occasions, (28) becomes felicitous. One can imagine the girl in (28) as a spy who disguises herself in different ways on different occasions.

- (28) Keoih jihng dak *saai* go leoi zai/saam go leoi zai.  
 S/he know result saai cl girl/three cl girls.  
 S/he has recognised the girl/all three girls completely.

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<sup>8</sup>‘dak’ is translated as ‘result’ because it also behaves like a post-verbal particle. For instance, if we say ‘Keoih jihng jahn.’ (He identify man: He identifies the suspect.) which usually refers to the process of identifying the suspect by the witness. ‘Jihng’ without ‘dak’ does not convey the idea of ‘recognition’ as in the example.

Predicates, like those in (29) and (30), which are usually analysed as ‘stative’ are also incompatible with ‘hou’ but allow ‘juhn’ to occur post-verbally.

(29) Ngoh zung ji \*hou/juhn go leoi zai.  
 I like hou/juhn cl girl.  
 I successfully liked/ finished liking the girl.

(30) Keoih zahng \*hou/juhn go leoi zai.  
 I hate hou/juhn cl girl.  
 I successfully hated/ finished hating the girl.

Again, the objects in these predicates are unaffected. If ‘saai’ is used with the predicate without any further aspectual modification, as in (31), the noun phrase can be conceived as ‘divisible’ or ‘numerous’ if elaboration is required. For instance, (31) will become felicitous if one imagines a person who likes all the qualities of the girl (assuming that a girl cannot be ‘physically’ divisible).

(31) Ngoh zung ji *saai* go leoi zai.  
 I like saai cl girl.  
 I like the girl completely.

In this section, I have tried to spell out the intuitive relationship between the direct object and the predicate with reference to the notion of *un/affectedness* from Tenny(1987). I have shown that the affected object has the potential of providing a limit within which the event is considered as finished. However, the status of a/telicity will remain underspecified in the absence of further linguistic or contextual specification. I propose that ‘saai’ suggests the complete fulfillment of every stage of a process. If ‘saai’ is used in a predicate with an affected object, the complete fulfillment of every stage of the process which is delimited by the internal argument will entail that the event has been accomplished as well, i.e. telic. However, when ‘saai’ is used in predicates with unaffected objects which cannot provide any potential endpoint, a multiple occurrence of the event; or a specific limit provided by another aspectual element must be specified for ‘saai’ to operate on. Consequently, there is **no** predicate constraint on ‘saai’ as shown by the examples in this section.

#### 4 ‘Saai’ with internal and external arguments

So far, I have been assuming that affectedness is related to the object of transitive constructions. This is not an innocuous assumption because I have implied that the subject will not be ‘affected’; and I have not yet dealt with intransitive constructions which involve a single argument. In this Section, intransitive constructions in Cantonese will be discussed with reference to the unaccusative/unergative distinction and inchoatives.

Unaccusatives and unergatives are constructions which take only a single argument. Unaccusatives take an internal argument while unergatives take an external argument. Levin & Rappaport (1994) have compared English verbs such as ‘break’ and ‘open’ which have transitive causative uses as well as intransitive noncausative uses with verbs like ‘laugh’ and ‘play’ which show intransitive use but not transitive causative uses. They try to distinguish them by suggesting that the former denote an ‘internally caused eventuality’ and the latter an ‘externally caused eventuality’. For an intransitive construction which is internally caused, ‘some property inherent in the argument of the verb is responsible for bringing about the eventuality’. However, the subject of an intransitive construction which is ‘externally caused’ brings about the event by its own will or volition. Levin & Rappaport (1994) elaborate by saying that internally caused predicates seem to be inherently monadic, while externally caused ones are inherently dyadic. In the literature, the former class is also referred to as the ‘unaccusative’ construction because syntacticians, like Burzio (1986) among others, have argued that the surface subject is the underlyingly deep structure object, while the subject of the latter class, namely, the ‘unergative’ construction will have a subject generated outside VP. I am not going to discuss the validity of other current proposals regarding the position of arguments with respect to VP, for instance, the split-VP hypothesis (cf. Bobaljik 1995), I will simply adopt Levin & Rappaport’s assumptions for the purpose of the present discussion.

In Cantonese, when ‘hoi’(blossom) and ‘ze’(wither) are specified by aspectual element like ‘saai’, they refer to events which can be considered as internally caused. The process described in the predicate arises from the nature of plants or flowers for they follow the course of nature to blossom and wither. When used with ‘saai’, no plural subjects are required.

- (32) Doe/di faa hoi/ze saai.  
 Cl/di flower blossom/wither saai.  
 The flower(s) has/have blossomed/withered completely.

Similarly, verbs like ‘cam’(sink) or ‘zing faat’(evaporate) do not require a plural subject when ‘saai’ is used.

(33) Zek/di seong cam saai.

CI/di ship sink saai.

The ship(s) has/have sunk completely.

(34) Dik/di seoi zing faat saai.

CI/di water evaporate saai.

The drop of water/the water has evaporated completely.

Interestingly, words like ‘daa’(big), ‘sai’(small), ‘hung’ (red), ‘dung’ (cold), which are usually underspecified as to what kind of action they represent, are specified by aspectual elements like ‘saai’ as referring to the processes of getting big, small, reddening or becoming cold. These usages are often referred to as inchoatives, which are considered to be unaccusative. Again, there is no particular requirement on the subject noun phrase of these predicates:

(35) Go/di sailou daa saai.

CI/cl child big saai.

The child/children has/have grown up.

(36) Bui/di seoi dung saai.

CI/cl water cold saai.

The glass of water/ the water has become completely cold.

With reference to the criterion of un/affectedness developed in Section 3, the limit of the process described in the predicates in the unaccusative and inchoative examples will be provided by its single argument. Therefore, it is predicted that there is no need to have a ‘divisible’ or ‘numerous’ reading for the argument. These examples verify the predictions made by my hypothesis.

In unergative constructions, the external argument cannot provide a limit for the process to take place. According to the discussion in Section 3, one can either think of the multiple occurrence of an event; or one can use aspectuals like ‘juhn’ or ‘gwaan’ to delimit the process. When there are multiple occurrences of an event, one usually assumes there will be more than one agent to bring them about as in:

- (37) a. \*Keoih fan saai.  
S/he sleep saai.  
(S/he has all gone to bed.)
- b. Keoih deih fan saai.  
They sleep saai.  
They have all gone to bed.
- (38) a. \*Gwo sibing sei saai.  
Cl soldier die saai.  
(The soldier has all died.)
- b. Di sibing sei saai.  
Cl soldiers die saai.  
The soldiers have all died.

When an aspectual element like ‘juhn’ is used, it can delimit an event such as ‘siu’ (laugh) or ‘haam’ (cry).

- (39) a. ?Keoih/?Keoih deih haam saai.  
S/he/they cry saai.  
S/he/they has/have cried completely.
- b. Keoih/Keoih deih haam juhn saai.  
S/he/they cry juhn saai.  
S/he/they has/have completely finished crying.

Some other aspectual element like ‘gwaan’ can also be used with ‘saai’ because ‘gwaan’ suggests a repetition of the event to form a habit. Therefore, there will be the multiple occurrence of an event which will satisfy ‘saai’.

- (40) Gwo sibing sei gwaan saai.  
Cl soldier die gwaan saai.  
The soldier is completely used to dying.

Given a bit of imagination, this sentence is acceptable if a person can repeat the process of dying because of reincarnation. ‘Saai’ suggests that the soldier has completely got used to dying which forms a habit already.

The unaccusative and unergative constructions in this Section provide further support for the argument developed earlier. These examples strongly support the claim that ‘saai’ is an aspectual element which interacts with the predicate. Other aspectuals can also be used to modify the event either to provide a limit (like ‘juhn’) or to suggest a repetition of the event (like ‘gwaan’) so that ‘saai’ can signal that every stage of an event or all the events have been fulfilled.

## **5 Concluding remarks**

I will conclude by suggesting that there is no evidence which supports the argument that ‘saai’ is a quantifier which binds the subject or object noun phrases, or the whole predicate. There is also no ‘plurality’ requirement on the subject or object noun phrases. The fact that some noun phrase is specified as having a plural reference is simply an epiphenomenon which is derived from the compatibility of the event with ‘saai’. I have shown in Section 3.3 how the cognitive principle of ‘relevance’ together with the consideration of the processing load will determine whether the noun phrase need to be specified either linguistically or contextually as having plural reference. In the predicate with an affected object, the fulfillment of every stage of an event as suggested by ‘saai’ entails that the event has reached an endpoint. Therefore, ‘saai’ indirectly helps to bring out telicity in this type of predicate; but ‘saai’ alone cannot determine the telic reading. Contextual and linguistic specification, for instance, aspectual elements, will finally determine whether an event is telic or not. Having said that, the ‘telicity requirement’ which is suggested in earlier research is simply a misrepresentation of the role of ‘saai’ in the predicate. Therefore, there is no ‘telicity requirement’ related to the use of ‘saai’. The evidence provided in this paper also suggests that ‘saai’ can co-occur with predicates representing different kinds of actions. I will leave the systematic analysis of the syntactic, semantic and processing properties of other aspectuals in Cantonese for future research.



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