

# VERBAL VS. NOMINAL CLASSIFIER CONSTRUCTIONS IN CANTONESE AND THAI

Stephen Matthews and Tommi Tsz-Cheung Leung  
University of Hong Kong

*In memoriam Joseph H. Greenberg (1915-2001)*

## 1. Background

The topic of this paper<sup>1</sup>, like so many topics in typology, was first broached by the late Joseph Greenberg:

The logical possibility exists, then, that a language might have a system of verbal classifiers each of which would be used with a particular class of verbs and an accompanying numeral. However, this possibility never seems to be realized in the systematic way in which it so often is for nouns.

(Greenberg 1972: 32)

Greenberg gave example (1) from Mandarin, in which the verb *kan* ‘see’ appears to select the word *yan* ‘eye’ as a classifier.

- (1) *kan-le liang yan*  
look-PFV two eye  
‘took a look’  
(Mandarin: Greenberg 1972: 30)

Such constructions have indeed been described as verbal classifiers (VCL) in Sinitic languages (e.g. by Killingley 1983 for Cantonese, Paris 1989 for Mandarin).

Beyond Chinese descriptive grammar, however, the VCL phenomenon seems to find no place in current typologies of classifier systems. Although both Aikhenvald (2000) and Grinevald (2000) mention ‘verbal classifiers’, what they are referring to is in fact nominal classification which is marked on the verb, or by the verb (as in the case of classificatory verbs).

In this paper we examine and compare the counterparts of (1) in Cantonese and Thai, asking to what extent they are distinct from nominal classifier (NCL) constructions, and what semantic functions they perform.

## 2. Nominal vs. verbal classifier phrases in Cantonese

We assume that in Cantonese, as in Mandarin (cf. Li and Thompson 1981), numeral and classifier combine to form a classifier phrase (CLP). Without committing ourselves to a formal structure for the Noun Phrase, we assume that the CLP is a constituent within NP.

In the case of nominal classifier phrases, the CLP precedes the noun with which it has a selectional relation. The classifier *zoeng1*, for example, is selected by nouns denoting a flat surface:<sup>2</sup>

- (2) [[<sub>CLP</sub> jat1 zoeng1] zi2 <sub>NP</sub>]  
           one CL paper 'a sheet of paper'

- (3) [[<sub>CLP</sub> loeng5 zoeng1] toi2 <sub>NP</sub>]  
           two CL table 'two tables'

With verbal classifier phrases, the CLP **follows** the verb with which it has a similar selectional relation. For example, the classifier *seng1* 'voice' is selected by verbs such as *giu3* 'call' and *kat1* 'cough':

- (4) [<sub>VP</sub> giu3 [<sub>CLP</sub> jat1 seng1 ]]  
           call one voice 'call out once'
- (5) [<sub>VP</sub> kat1 [<sub>CLP</sub> jat1 seng1 ]]  
           cough one voice 'give a cough once'

Note that it is not possible to insert a head noun in such cases:

- (6) \*[<sub>VP</sub> kat1 [<sub>CLP</sub> jat1 seng1 je5 ]]  
           cough one voice stuff

The VCL construction as in (4-5) cannot, therefore, be directly assimilated to the NCL construction as in (2-3). However, the same item can often be used as NCL or VCL, as in the case of *geoi3* 'phrase':

- (7) gong2 [<sub>NP</sub> [<sub>CLP</sub> gei2 geoi3] Ciu4zau1 waa2] (NCL)  
 speak a-few phrase Chiuchow-ese  
 'speak a few words of Chiu Chow'
- (8) [<sub>VP</sub> gong2 [<sub>CLP</sub> gei2 geoi3]] (VCL)  
 speak a-few phrase 'say a few words'

There are many such cases of overlap between NCL and VCL constructions. As shown in table 1, some CLs allow only the nominal usage, others only the verbal usage, and many both.

**Table 1. Nominal vs. verbal functions of selected classifiers**

Classifier	Verbal usage	Nominal usage
Faai3 'slice'	-	Jat1 faai3 beng2 one slice cake
Deoi3 'pair'	-	Jat1 deoi3 haai4 one pair shoes
Coeng4 'length'	Beng6 jat1 coeng4 Sick one period	Jat1 coeng4 beng6 one period illness
Caan1 'meal'	Geng1 jat1 caan1 Fear one mealful	Jat1 caan1 faan6 one meal rice
Zan6 'moment'	Dang2 jat1 zan6 Wait one moment	Jat1 zan6 jyu5 one moment rain
Goek3 'foot'	Tek3 jat1 goek3 Kick one foot	Jat1 goek3 laai4 one foot clay
Seng1 'voice'	Giu3 jat1 seng1 Call one voice	?
Haa5 'blow'	Daa2 gei2 haa5 hit few blows	?
Tiu3 'jump'	Haak3 jat1 tiu3 Scare one jump	?

Given the extensive overlap, a natural hypothesis would be that the VCL is derived from the more frequent and productive NCL construction. Matthews and Yip (1999) proposed a mechanism for such a derivation of VCL constructions from NCL:

(i) Verb taking an NP object containing CLP (NCL construction):

[<sub>VP</sub> gong2 [<sub>NP</sub> [<sub>CLP</sub> gei2 geoi3] waa6] ]  
                   say                   a-few CL   speech 'say a few words'

(ii) Deletion of head N (NCL construction with null N):

[<sub>VP</sub> gong2 [<sub>NP</sub> [<sub>CLP</sub> gei2 geoi3] [<sub>N</sub> Ø ] ]

(iii) Verb followed by CLP alone (VCL construction):

[<sub>VP</sub> gong2 [<sub>CLP</sub> gei2 geoi3] ]

A crucial question is whether such a derivation is merely a diachronic step posited in order to account for the existence of VCLs, or rather a synchronic route of derivation. On this issue, Matthews and Yip (1999) argued that the process is synchronically productive on the following grounds:

(a) The deletion of head N leaving CLP is usually possible, provided that deletion does not distort the original interpretation. The interpretation of referents of deleted nouns may be recovered either through context, or from the subcategorisation frame of the preceding head verb. For example, considering (8) without the context of (7), the deleted N cannot refer to any specific kind of entity (e.g. the Chiu Chow language) but only to an unspecified referent, i.e., words in this case.

(b) Alternations of usage exist like that in (7-8), with (8) having the advantage of communicative economy.

(c) Many structures are subject to two possible analyses: as NP with a null N as in stage (ii) above, or as CLP as in stage (iii).<sup>3</sup>

The proposal that VCL can be derived from NCL is challenged by the cases of the verbal usage of CL without any nominal usage, examples being *seng1*, *haa5*, *tiu3*, etc (see Table 1).<sup>4</sup> There could be two possible accounts for this phenomenon. The first is that the nominal usage of several CLs has become obsolete, leaving only its verbal usage, e.g., *seng1* could appear in the literary use of Chinese idioms *jat1 seng1 ming6 ling6* 'one (sound of) order' which is not productive in modern usage. The second possibility is that the VCL stands in its own right without any form of derivation being involved. This would seem to be more sound from a synchronic point of view, especially when the notion of empty categories is regarded as a lack of linguistic parsimony. Certainly it does not totally undermine the deletion hypothesis as there exist productive examples. The deletion of N, on the other hand, could be seen as a direction towards economy of expression as long as the sentential interpretation remains intact.

### 3. NCL and VCL constructions in Thai

The use of a classifier phrase following the verb in Thai raises similar questions to Cantonese. Examples from Noss (1964) show that the classifier phrase *săam caan* 'three dishes' may appear with both the noun *kεεŋ* 'curry' (9) and the verb *kin* 'eat' (10):

(9) *kεεŋ səam caan*  
 curry three dish  
 'three curries'

(10) *kin səam caan*  
 eat three dish  
 'to eat three dishes'

Table 2 shows such parallel usage of the same classifier in NCL and VCL constructions. Note that a subset of the NCL cases involve 'repeater' constructions where the noun serves as its own classifier.

**Table 2. Thai verbal classifiers with nominal counterparts**

Verb	Verbal usage	Nominal usage
Kin 'eat'	kin sǎwng kham eat two mouthful	aahǎan sǎwng kham food two mouthful
Lêe 'slice'	lêe sǎwng chin slice two piece	khanǎmpaŋ sǎwng chin bread two piece
Pùat 'hurt oneself'	pùat sǎwng ralǎok hurt two wave	khlǎun sǎwng ralǎok wave two wave
Yiŋ 'shoot (ball)'	yiŋ sǎwng lûuk shoot two ball	sôm sǎwng lûuk orange two CL
Dàa 'scold'	dàa sǎwng yók scold two round	muay thay sǎwng yók boxing Thai two round
Phanan 'gamble'	phanan sǎwng keem/taa gamble two game/eye	kem sǎwng keem game two games taa sǎwng taa eye two eye
Phûut 'speak'	phûut sǎwng prayǎok speak two sentence	prayǎok sǎwng prayǎok sentence two sentence
Dǎwn 'walk'	dǎwn sǎwng kǎaw walk two step	kǎaw sǎwng kǎaw step two step
Lên 'play (chess)'	lên sǎwng kradaan play two board	kradaan sǎwng kradaan board two board

The derivation which we have suggested for Cantonese is equally possible for Thai:

[<sub>VP</sub> kin [<sub>NP</sub> khâw sǎwng kham] ] ⇒ [ <sub>VP</sub> kin [<sub>CLP</sub> sǎwng kham] ]  
 eat    rice two mouthful            eat        two mouthfuls  
 'eat two mouthful of rice'

In the derivation of the VCL construction, an intermediate step involving the deletion of head N is also possible, much as in Cantonese:

[<sub>VP</sub> kin [<sub>NP</sub> khâw sǎŋ kham]] ⇒ [<sub>VP</sub> kin [<sub>NP</sub> [<sub>N</sub>∅] sǎŋ kham]]  
 eat rice two mouthful ‘eat two mouthfuls’

However not all cases of VCL can be traced back to a NCL counterpart, for instance ~~th~~ ‘a sip’:

[<sub>VP</sub> dǘm [<sub>CLP</sub> sǎŋ àk]] <--> ?\* [<sub>NP</sub> náam [<sub>CLP</sub> sǎŋ àk]]  
 drink two sip water two sip  
 ‘take a couple of sips’

Such VCLs belong to a class of words which we shall term sound-symbolic VCLs.<sup>5</sup> Typical examples include:

(11) ay sǎŋ khéek  
 cough two cough ‘cough twice’

(12) thɛɛŋ sǎŋ chùk  
 stab two jab ‘stab twice’

Table 3 shows a range of VCLs which lack nominal usages, most being clearly sound-symbolic:

**Table 3. Thai sound-symbolic VCLs without nominal counterparts**

**a. Intransitive verbs (Vi)**

ay ‘cough’	ay sǎŋ khéek/khróok ‘cough twice’
hǎaycay ‘inhale’	hǎaycay khâw sǎŋ àk ‘inhale twice’
rəə ‘burp’	rəə sǎŋ âk ‘burp twice’
tòt, pǔŋ ‘fart’	tot sǎŋ pút, pǔŋ sǎŋ pǔŋ ‘fart twice’
hǎaw ‘yawn’	hǎaw sǎŋ wǒt ‘yawn twice’
hǎaró ‘laugh’	hǎaró sǎŋ kâak ‘laugh twice’

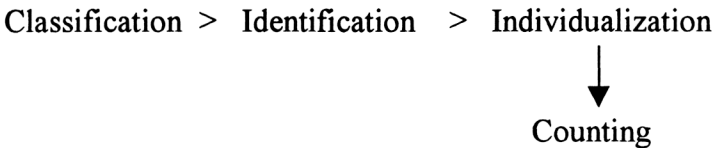
**b. Transitive verbs (Vt)**

Verb	Verbal usage
cùub ‘kiss (lip)’	cùub sǎwŋ cúb ‘kiss twice’
hǎom ‘kiss (cheek)’	hǎom sǎwŋ fǐot ‘kiss on cheek twice’
tii ‘hit’	tii sǎwŋ phǎa ‘hit twice’
pào ‘blow’	pào sǎwŋ phrûat ‘blow twice’
tè ‘kick’	tè sǎwŋ pâap/phlâk/prǎŋ/khroom ‘kick twice’
yin ‘shoot (gun)’	yin sǎwŋ pôŋ ‘shoot twice’
mawŋ ‘peep’	mawŋ sǎwŋ wêeb ‘peep twice’
thòm-náamlaay ‘spit’	thòm-náamlaay sǎwŋ prít ‘spit twice’
kao ‘scratch’	kao sǎwŋ kréek ‘scratch twice’
chǐik ‘tear off’	chǐik sǎwŋ khwêek ‘tear off twice’
lia ‘lick’	lia sǎwŋ phlêep ‘lick twice’
tòb ‘slap’	tòb sǎwŋ chàat ‘slap twice’
chók ‘strike’	chók sǎwŋ prǎŋ ‘strike twice’

**4. Semantic functions of VCL**

We have established that VCL constructions are syntactically distinct from NCL constructions, though derivable from them in many cases. In fact, the semantics of VCL constructions also shows parallels to that of nominal classification. In general, both types of constructions have a modifying function: whereas NCL constructions serve to modify *nominals* (expressed by NPs), VCL constructions are usually used to modify *events* (expressed by VPs).

Semantically, following Greenberg (1972) and others, NCLs are seen as performing individuation of the nominal referent. Such individuation is prerequisite for counting/quantification.<sup>6</sup> Bisang (1999: 116) sketches this relationship as follows:





(Cantonese)

(13) dang3  
seat  
'seat(s)' (generic)

(14) saam1 zoeng1 dang3  
three CL seat  
'three seats' (specific)

(Thai)

(15) phûan  
friend  
'friend(s)' (generic)

(16) phûan sǎam khon  
friend three person  
'three friends' (specific)

Besides the modifying functions shared by both NCL and VCL constructions, the parallel between the two could be further illustrated by the way both assign a *boundary* to the resulting entity/event. Following Bisang's hypothesis for the semantic function of NCL constructions, we suggest the following as a semantic function of VCL in parallel:<sup>7</sup>

Classification > Delimitation



Counting

That is, given an unbounded predicate such as *haang4* in Cantonese or *dǎən* in Thai 'to walk', the event can be bounded by addition of a verbal classifier phrase which delimits the whole event.<sup>8</sup>

(Cantonese)

(17) haang4  
walk  
'walk' (unbounded)

(18) haang4 loeng5 bou6  
walk two step  
'walk two steps' (bounded)

(Thai)

(19) dǎən  
walk  
'walk' (unbounded)

(20) dǎən sǎwŋ kâaw  
walk two step  
'walk two steps' (bounded)

This delimiting function of VCL constructions in both languages is foreshadowed in Tenny (1992), who suggested that the construal of aspectuality of events is rooted in the internal argument of the lexical verb.<sup>9</sup> The internal argument can 'measure out' the event, hence its telicity. Likewise there is a semantic distinction between *walk* vs. *walk three miles*, in which the NP *three miles* measures out the event of walking. In this paper, we suggest that VCL constructions as a type of *bounded iterativity* (cf. twice, three times in English) could also delimit and measure out the whole event.<sup>10</sup> For instance, in Thai the VP *dəən sǎŋ kâaw* 'walk two steps', the verbal event is transformed from an atelic to a telic one thanks to its delimitation by the VCLP *sǎŋ kâaw*. The three-way comparison between Cantonese, Thai and English further illustrates Tenny's hypothesis, i.e., internal arguments can serve to construe the aspectuality of events, whether the syntactic category of internal arguments is a NP (e.g. *two steps* in English), or a verbal classifier phrase (e.g. *loeng5 bou6* in Cantonese, *sǎŋ kâaw* in Thai). Certainly, the lexical verb is still crucial in determining the semantics of the whole event, except for its aspectuality which is largely construed by syntactic arguments.<sup>11</sup> For instance, though numeral classifiers contribute to the resulting semantics by determining the total number of occasions of the verbal events, qualitatively there is still a huge difference between *walk two steps* and *run two steps*, as the running event usually results in a longer distance than that of walking.

The use of VCL constructions in assigning telicity to events is productive in Thai and Cantonese that it could even assign boundedness to atelic verbs. One of the most notable examples is the verb *nɔɔn-làb* in Thai and *fan3* in Cantonese, meaning 'to sleep'. It differs from other types of atelic verbs such as 'walk' or 'swim' in that the event of sleeping does not involve activities which are physically detected as that of walking or swimming. There are ways to assign telicity to the event of sleeping by adding time words such as 'two hours', 'the whole day', etc, but they are never regarded as classifiers in Thai and Cantonese. However, both languages have an

amazingly common strategy of measuring out the event of sleeping, i.e., by assigning the temporal endpoint 'to wake' at the end of the phrase:

Thai: (21) *noon-làb sǎw tɔ̀n*  
           sleep      two wake  
           'sleep two turns (lit. sleep-wake-sleep-wake)'

Cantonese: (22) *fan3 loeng5 gaau3*  
                   sleep two      CL 'sleep two turns'

Thus, sleeping as an atelic event will be assigned a temporal endpoint simply because the verb 'to wake' inherently signals the termination of sleeping, i.e., the endpoint of the sleeping event signals the event of waking up. And it is the event of waking up which measures out the whole event of sleeping. It should also be noted that in such construction, the word *tɔ̀n* in Thai and *gaau3* in Cantonese is a VCL rather than a V even though both are derived from verbs (probably derived synchronically in Thai and diachronically in Cantonese).<sup>12</sup>

#### 4.1 Semantics of sound-symbolic VCL constructions

As mentioned above, one of the unique types of VCL constructions in Thai is the sound-symbolic VCL. The semantic functions of this particular type of VCL can be *de facto* analysed by means of the construal of aspectuality. Its construal of event is assumed to be more fine-grained (or idiosyncractic) as the selection of sound-symbolic VCL is lexically-specified. As the name suggests, the VCL itself serves as an imitative of the preceding verbs (Noss 1964). It could be used to identify a sound-emitting verb, e.g., *ay sǎw khéek* 'cough twice', *hǎarǎ sǎw káak* 'laugh twice', etc. It could also imitate a verb which is not originally sound-emitting on its own right, but becomes sound-emitting when it interacts with the object. These examples include *chàik sǎw khwéek* 'tear twice' in which the sound-symbolic VCL *khwéek* does

not originate from the lexical verb *chàik* 'tear', but the object (e.g. paper) which experiences the verbal event of tearing.

Using the analogy, if it is correct to suggest that sound-symbolic VCLs always modify sound-emitting events (whether the sound comes from the verb itself or from the internal argument), the resulting sound-emitting events should be telic, with a specified endpoint, parallel to the prototypical function of VCL constructions as discussed in the above paragraphs. What is more notable is that the telicity of this type of predicate is even more salient than other types of conceptual telicity such as activities or achievements, simply because sound-emitting events are more physically (audibly) detectable. The boundary of the event can be easily measured in terms of the sound wave emitted by the action. In this regard, the significance of sound-symbolic VCL constructions is to signal the minimal unit of sound measurement. That is the reason sound-symbolic VCLs are lexically-specific, as different predicates have individual sound-emitting patterns. Various VCLs can also be used for a single predicate, indicating different verbal semantics, such as *ay* 'cough'. Both VCLs *khéek* and *khroók* are the minimal unit of the sound measurement of the verb *ay*, whereas the choice among them expresses a more accurate depiction of sound quality.

## 5. Conclusions

Descriptively, we have argued that in Thai as in Cantonese, a verbal classifier construction should be recognised as distinct from verb-object constructions or nominal classifier phrases. A subset of these can be derived from corresponding NCL constructions. However there exist clear cases of verbal classifiers having no nominal usage (at least synchronically).

Like NCLs, VCLs have a selectional relation with a lexical head. The selection of VCL largely depends upon the head verb, especially for those having no nominal counterparts. Prototypical examples include the sound-symbolic VCLs in Thai, and idiomatic expressions in Cantonese. For VCLs which could be traced back to their nominal usage

lexeme which is an imitative.' (1964: 108). This, however, appears too restrictive a definition for our sound-symbolic VCLs.

<sup>6</sup> Individualisation as a prerequisite for counting is not necessarily shown by constituents themselves, i.e., the CL in (16) still serves the function of individualization regardless of its position related to the head noun.

<sup>7</sup> See Krifka (1992) for a comparison between mass/count and telic/atelic distinction.

<sup>8</sup> Nguyen (2001) classifies Vietnamese verbs into +COUNT vs. -COUNT which express the countability of verbs and the grammaticality of being attached by VCL phrases.

<sup>9</sup> See Krifka (1992) for similar views on aspectuality, and Wyngaerd (2001) for opposition.

<sup>10</sup> See Krifka (1992) for similar views towards aspectuality, and Wyngaerd (2001) for oppositions.

<sup>11</sup> In this respect, we generally assume that it is not the transitivity/valency of lexical verbs which construes aspectuality, but rather the internal argument itself. Thus an aspectual difference occurs between *walk* vs. *walk two miles*, in which the verb *walk* is still assumed to be intransitive.

<sup>12</sup> The construction [NUM-V] is illegitimate in both Thai and Cantonese, demonstrating on distributional grounds that the 'verb' must be analysed as a VCL.

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productively, their selection could be determined by the head noun which is deleted for the sake of economy of expression.

The semantic function of VCLs in delimiting (or measuring out) events is parallel to that of individuation performed by NCLs. In each case individuation is a prerequisite for counting. Delimitation by VCLs could apply to atelic verbs, with the result that event is construed as telic (bounded). This works in essentially the same way as the change from generic to specific noun phrases by the attachment of nominal classifiers.

The genesis of VCL constructions is a phenomenon found not only in Cantonese and Thai, but widespread throughout the regions in contact with them (such as Vietnamese; Goral 1978, Nguyen 1997, Nguyen 2001). This further exemplifies Matisoff's (1991) 'Sinosphere' hypothesis, i.e., areal features are historically spread and commonly shared throughout the whole area in contact with Sinitic languages, though the exact pathway of diffusion is still far from clear.

### Notes

- <sup>1</sup> We are grateful to SEALS participants for their comments, notably Bob Bauer, George Bedell and Nick Enfield. We also thank Kingkarn Thepkanjana, Kanokwal Ratana-Ubon and the postgraduate students of Chulalongkorn University who contributed judgements on Thai data.
- <sup>2</sup> Whether the CL or N constitutes the selecting category is beyond the scope of our study.
- <sup>3</sup> It should be noted that though the two analyses might seem to imply dual subcategorisation frames for a single verb (*gong2* 'speak'), its syntactic category in terms of transitivity does not necessarily alter, i.e., both subcategorisations involve the selection of a single internal argument, whether it is NP or CLP.
- <sup>4</sup> In the case of *tiu3* it seems clear that the VCL is derived from the verb *tiu3* 'jump'. This is another, albeit less productive source of VCLs.
- <sup>5</sup> Noss (1964) gave similar examples which he termed 'imitative classifiers'. Noss defines these as 'any classifier for which there is a morphologically related reduplicated

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