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# Classifiers in Southeast Asian Languages

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## Abstract

Classifiers are one of the types of nominal classifications systems that help speakers to identify discourse referents. They are commonly found in Southeast Asian languages, which motivates the geographical focus of this chapter. Given the semantic as well as the morphosyntactic overlap between the various systems, classifiers devices are first presented in the context of all systems of nominal classifications. Then, the analysis focuses on the different constructional subtypes of classifiers and discusses their origin along with how they are used by speakers in discourse.

## 1. Classifiers as a type of nominal classification systems

Nominal classification systems are linguistically interesting due to the interaction of their lexical and pragmatic behaviour with cognitive and cultural functions (Contini-Morava and Kilarski 2013; Craig 1986:8; Denny 1976:125; Kemmerer 2017a, 2017b; Kilarski 2014, among others). The two most common types of nominal classification systems in languages of the world are *classifiers* and *noun classes* (Aikhenvald 2000:2). On the one hand, classifiers are independent morphemes or affixes that categorize nouns according to the inherent features of their referents based on criteria such as shape, consistency and animacy (Allan 1977; Grinevald 2000:71). On the other hand, Noun classes, also named (grammatical) Gender,<sup>1</sup> refer to classes of nouns that are reflected through grammatical agreement (Corbett 1991). For instance, the masculine/ feminine distinction in French or the noun class systems in Bantu languages, and more generally in Niger-Congo languages.

### 1.1. Different nominal classification systems

The major difference between classifier and gender /noun class systems is their level of grammaticalization or grammatical behavior (Dixon 1986:105–6). Comparing, as an example, French with grammatical gender and Burmese with classifiers in (1). ‘Car’ belongs to the feminine gender in French. Thus, the article, adjective, and verb show gender agreement, i.e. glossed ‘feminine’. Burmese does not have grammatical gender. Therefore, there is no agreement on the elements of the clause. However, the use of a classifier that highlights an inherent semantic feature of the noun is found, as the noun *ka3* ‘car’ is followed by the classifier *si2* (CLF:MACHINE), which indicates that the referent denoted by *ka3* is considered to be a machine.

(1) The difference in terms of agreement between grammatical gender and classifiers<sup>2</sup>

a. *un-e grand-e voiture est venu-e ce matin*

<sup>1</sup>Grammatical gender and noun classes are used interchangeably in the literature. The tradition is to call ‘grammatical gender’ those systems which rely on the feature of biological sex, e.g., the masculine/feminine/neuter distinction in Indo-European languages; while ‘noun classes’ commonly refer to systems with a larger number of classes, e.g., Bantu has from a dozen to twenty morphological classes, which include categories such as humans, plants, abstract nouns, among others (Grinevald 2000:57).

<sup>2</sup> Examples where no reference is mentioned are the authors’ own. We would like to thank Nichuta Bunkham for providing us the Thai examples.

	one-F	big-F	car	come.PAST.ACC-F	DEM	morning			
	‘A big car came this morning’ (French)								
b.	<i>di2</i>	<i>məneʔ</i>	<i>ka3</i>	<i>ci3</i>	<i>Tə</i>	<i>=Si3</i>	<i>yaɔʔ</i>	<i>la2</i>	<i>=Tɛ2</i>
	DEM	morning	car	big	one	CLF:MACHIN	arrive	come	REAL
						E			
	‘A big car came this morning’ (Burmese)								

In terms of geographical distribution (Figure 1), classifier languages are mostly found in Asia, spreading eastward and westward toward the Americas and Europe (Gil 2013), whereas grammatical gender systems are generally found in languages of Africa, Europe, South Asia, Australia, Oceania, and sporadically attested in the Pacific and the Americas (Corbett 1991:2, 2013).

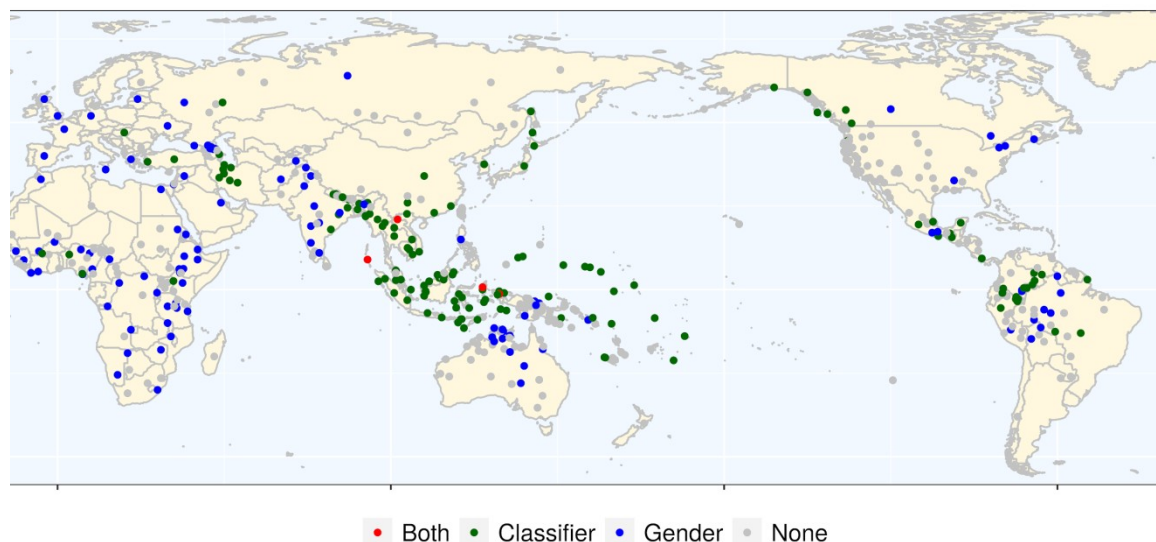


Fig. 1. A simplified overview of classifier and gender in the world (Corbett 2013; Gil 2013).

We may observe a complementary-like areal distribution, as classifier languages are mostly located in Asia (East Asia and Southeast Asia) while gender languages are concentrated in Europe and Africa. The concentration of classifiers in Southeast Asia further motivates an in-depth analysis for this region, stretching from the easternmost fringes of India in the west to China in the east, encompassing the peninsular Southeast Asian states of Burma, Thailand, Laos, Cambodia and Vietnam, as well as peninsular Malaysia (Vittrant & Watkins 2019). This area covers five different language families (Austroasiatic/Mon-Khmer, Tai-Kadai, Hmong-Mien, Sino-Tibetan and Austronesian).

## 1.2. Distinguishing the systems

The past literature used to distinguish classifiers and gender<sup>3</sup> (or noun class) systems as two distinct categories by applying different criteria such as size of the inventory, the presence of overtly marked agreement (Aikhenvald 2000:6; Dixon 1982:213–17), or assignment principles (Contini-Morava and Kilarski 2013:266–67). For instance, the French gender system only distinguishes between the two cat-

<sup>3</sup>Henceforth, we will use Gender and Classifier (with an initial capital letter) as umbrella terms. ‘Gender’ refers to the most grammaticalized systems, i.e. gender and noun-class. ‘Classifier’ gathers all types of classifier systems.



matalized than measure terms or class terms but less grammaticalized than gender : they ‘agree’ semantically with the referent of the noun (by highlighting a special shade of meaning) but are not marked on other elements in the phrase.<sup>6</sup>

To sum up, gender and classifiers both classify nouns of the lexicon, but the two kinds of systems have different morphosyntactic and semantic features/ behaviours. In our description of classifiers in Southeast Asia, we cover their origin, their semantic and morphosyntactic patterns, along with their semantic and discourse functions.

## 2. Defining classifiers

Even though the term ‘classifiers’ is well established in the relevant literature (Aikhenvald 2000:30; Bisang 1999:113; Dixon 1986:105; Grinevald 2000:61, 2015:811, among others), they still “go by an exasperating variety of names” (Blust 2009:292) within nominal classification typologies and language descriptions, e.g. “classifiers, quantifiers” (Adams 1989), “measure” or “quantitative” words (*liang4ci2*) (Li 1924), “company words” (Liu 1965), “specificatifs” (Nguyen Dinh Hoa 1957:124; Rygaloff 1973:67), specifiers (Huffman 1970), “projectives” (Hurd 1977), “numeratives, numerical determinatives” (Chao 1968), among others.<sup>7</sup> Nevertheless, this is not as alarming as it sounds, since a detailed reading of the sources show that similar definitions are frequently used but with a different naming.

Roughly speaking, two usages of the term ‘classifier’ are found in the literature: i) classifier within a wide-scope approach refers to a variety of systems (Aikhenvald 2000) ii) classifier within a narrower approach refers only to those systems whose main function is to make count nouns enumerable by individualisation (Bisang 1999; Grinevald 2000). This second approach, adopted here, allows us to distinguish classifiers from other types of nominal classification, while also recognizing subtypes among them. In the following subsections, we describe main categories and subtypes of classifiers.

### 2.1. Sortal and mensural classifiers

Classifiers systems may first be divided in two main categories based on different semantic (and sometimes syntactic) behaviours (Peyraube and Wiebusch 1993:52–53). First, *sortal classifiers* highlight or single out some inherent features of the referent denoted by the noun. They may also make explicit information about a given referent that the noun itself leaves unspecified, and they do fulfill several semantic and discourse functions (see Section 4 for further details). Second, *mensural classifiers* are used for measuring mass nouns and count nouns according to their physical properties (Craig 1992:279; Bisang 1999:121; Aikhenvald 2000:115). Unlike sortal classifiers which may appear semantically redundant, mensural classifiers contribute semantically to the noun phrase by indicating the information of quantity. For instance, in example (3a) from Vietnamese, the noun ‘fish’ is used with the sortal classifier *con* that highlights its (non-human) animacy. In (3b), the mensural classifier *cân* adds a new information of quantity. Removing the mensural classifier in (3b) would result in a different meaning of the noun phrase, while removing the sortal classifier in (3a) would not result in a loss of semantics.

<sup>6</sup>Grammaticalization processes do not imply that only one type of systems can be found in the same language (Fedden and Corbett 2017). See Allasonnière-Tang and Kilarski (2020) for an example with Nepali (Indo-Aryan), which has two gender systems and a classifier system.

<sup>7</sup>The terminological confusion and proliferation is also mentioned by (Grinevald 2000:54) or (Schembri 2003:4) for Sign Languages. See also Drocourt-Yang (2004:6) for a list of terms found in the Chinese literature since the 18th century.

(3) Sortal and mensural classifiers in Vietnamese (Löbel 2000:261)

- |    |                   |            |           |
|----|-------------------|------------|-----------|
| a. | <i>một</i>        | <i>con</i> | <i>cá</i> |
|    | one               | CLF:ANIMAL | fish      |
|    | 'a fish'          |            |           |
| b  | <i>một</i>        | <i>cân</i> | <i>cá</i> |
|    | one               | MENS:POUND | fish      |
|    | 'a pound of fish' |            |           |

Mensural classifiers are often compared to measure terms due to the information of quantity they both provide. They are often confused due to their similar semantic functions as they also add meaning to the lexicon. However, mensural classifiers and measure terms should be differentiated with regard to their morphosyntactic behaviour (Her 2012:1682). For instance, measure terms in English are nouns (i.e., pure lexical items) since they can take plural morphology and require the preposition 'of' when combining with another noun. In a classifier language like Vietnamese, the classifiers do not take plural marking (if present in the language), and they syntactically behave as sortal classifiers, occurring in a relatively tight relationship to the noun, not being mediated by an adposition. They should be considered as a distinct part of speech category from nouns in most of the languages.<sup>8</sup>

## 2.2 Common constructional subtypes of classifiers

Beside the distinction generally made between sortal and mensural classifiers, several subtypes of classifiers can be further distinguished on the basis of their morphosyntactic properties and discourse functions. We follow the most common typologies and identify six major constructions based on their classifier locus (Aikhenvald 2000; Grinevald 1999, 2000): numeral classifiers, noun classifiers, genitive classifiers, deictic classifiers, verbal classifiers and locative classifiers (Grinevald 2000:62–68; Seifart 2010:721). As indicated by their names, these constructional subtypes of classifiers are differentiated based on the linguistic construction in which they are found, i.e. their distribution in the clause. Across these subtypes, the classifiers can be either bound or independent morphemes, which usually depends on the linguistic structure of each individual language. The interaction between sortal/mensural classifiers and these subtypes is transversal, since the former are differentiated based on semantics while the latter are identified based on morphosyntactic properties. That is to say, sortal and mensural classifiers are found in each of the five classifier subtypes. The first four subtypes, i.e., numeral classifiers, noun classifiers, deictic classifiers, and genitive classifiers, are commonly found in Southeast Asian languages. Thus, the description will focus on those subtypes.

### *Numeral Classifier*

First, numeral classifiers occur in numeral constructions and quantification expressions (see (6)). They are consistently tightly linked with the numeral (or the quantifier) (Allan 1977:288; Tang and Her 2019). Within such construction, their main function is to differentiate the presence/absence of countability of the following noun. In other terms, they individualize items denoted by the noun before they can occur with a quantifying element.

<sup>8</sup>The difficulties for delimiting nouns and classifiers are discussed by Löbel (1999:263ff) for Vietnamese, who claims that in an isolating language, the analysis must be primarily based on distributional criteria.

(4) Classifiers in numeral construction in Hmong Leng (Hmong-Mien, Laos), from Mortensen (2019:625)

a.	<i>ob</i>	<i>tug</i>	<i>dlev</i>	b.	<i>*ob</i>	<i>dlev</i>
	ó	tɯ	tlě		ó	tlě
	two	CLF:ANIMAL	dog		two	dog
	'three dogs'				*	

(5) Classifiers in numeral construction in Chontal (Mayan, Mexico), from Suarez (1983:88)

a.	<i>un-</i>	<i>ts'it</i>	<i>tʃəb</i>	b.	<i>un-</i>	<i>ts'it</i>	<i>kəkəw</i>
	one	CLF:LONG	candle		one	CLF:GRAIN	cocoa bean
	'one candle'				'one cocoa bean'		
c.	<i>un-</i>	<i>kʔe</i>	<i>pop</i>	d.	<i>un-</i>	<i>tek</i>	<i>teʔ</i>
	one	CLF:FLAT	sleeping mat		one	CLF:PLANT	tree
	'one sleeping mat'				'one tree'		

(6) Classifiers in quantification expressions in Thai (Tai-Kadai, Thailand) (Jenny 2019:579)

a.	<i>mǎa</i>	<i>baaŋ</i>	<i>tuə</i>	b.	<i>mǎa</i>	<i>lǎay</i>	<i>tuə</i>
	dog	some	CLF		dog	many	CLF
	'some dogs'				'many dogs'		
c.	<i>mǎa</i>	<i>kii</i>	<i>tuə</i>				
	dog	how.many	CLF				
	'how many dogs'						

Numeral classifiers are mostly found in languages of East and Southeast Asia, parts of Oceania and in Mesoamerica (Gil 2013). Hmong Leng, Thai and Mayan Chontal are examples of languages with numeral classifiers. As shown in (4), the construction in Hmong Leng is grammatically correct if a classifier matching with an inherent property of the referent is used. In this case, the classifier for animals matches with the animal feature of the dog. However, the lack of numeral classifiers in numeral constructions generally<sup>9</sup> results in ungrammaticality (4b), even if the intended meaning is transparent.

### Noun classifier

Second, noun classifiers occur next to the noun or within the boundaries of the noun phrase, independently of the operation of quantification. Generally, they fulfill a determiner function, giving information on the specificity or definiteness of the referent. Noun classifiers are well-attested in Australian and Mesoamerican languages (Aikhenvald 2000:149-71), but are also common in Southeast languages. The two following examples illustrate the noun classifiers in Zhuang (7) and Jakalteq (8). In both examples, the classifier modifies the noun (without the occurrence of numerals) and marks (un)definiteness or specificity.

(7) Noun classifiers in Zhuang (Tai-Kadai, Thailand) – (Qin 2007: 173)

<i>tu2</i>	<i>mou1</i>	<i>kun1</i>	<i>bou3</i>	<i>im5</i>
CLF:ANIMAL	pig	eat	not	enough
'The pig is not full...'				

<sup>9</sup> In some few context-specific situations, the classifier may be dropped. See (Vittrant & Mouton to appear) for examples and details.

(8) Noun classifiers in Jakalteq (Mayan, Guatemala) - From (Craig 1986:264)

<i>xil</i>	<i>ix</i>	<i>ix</i>	<i>hune7</i>	<i>hin</i>	<i>no7</i>	<i>txitam</i>	<i>tu7</i>
see.PAS	CLF: FEMALE	woman	one	POSS.1SG	CLF:	pig	DEM.DISTAL
T					ANIMAL		

‘The woman saw that one pig of mine’

As illustrated by both examples, the operation of quantification is not a necessary condition for the use of noun classifiers. In (7), the classifier for animals is used with the noun ‘pig’ without the occurrence of a numeral. Likewise, in (8), the classifier for females is used with the noun ‘woman’ without the occurrence of a numeral.

*Genitive classifier*

Third, genitive classifiers -also known as possessive, attributive, or relational classifiers (Lichtenberk 1983)- occur in possessive constructions and categorize the relation between the referents of the possessor and the possessed. Genitive classifiers are a characteristic of many Oceanic languages and also sporadically attested in South American languages. They are also found in Southeast Asian languages. Examples of genitive classifiers in White Hmong (Thailand) are shown in (9). In (a), the classifier for instruments is used to highlight the instrument feature of the sword, while in (b), the classifier for living beings highlights the animacy of ‘uncle’.

(9) Genitive classifier in White Hmong (Hmong-Mien, Thailand) – from Bisang (1988:108,115)

a. <i>nws</i>	<i>rab</i>	<i>riam ntaj</i>	b. <i>nws</i>	<i>tus</i>	<i>txiv ntxaw</i>
he	CLF:INST	sword	he	CLF:	uncle
				ANIMATE	
‘his sword’			‘his uncle’		

Examples from Iaaï (New Caledonia) are shown in (10). In those examples, the classifiers are affixed to the possessive pronouns and highlight an inherent feature of the possessed items in a similar way as numeral classifiers and noun classifiers highlight an inherent property of the referent. For instance, in (10)a, the classifier *-k* points out that the fish is considered as food rather than as an item to sell (10)b.

(10) Genitive classifiers in Iaaï (Austronesian, New Caledonia) – from Dotte (2017:345–46)

a. <i>ö-k</i>	<i>wââ</i>	b. <i>anyi-k</i>	<i>wââ</i>
CLF:FOOD-POSS.1SG	fish	CLF:GEN-POSS.1SG	fish
‘my fish (to eat)’		‘my fish (to sell)’	

As shown by both examples, genitive classifiers differ from numeral and noun classifiers based on their distribution in clauses. While numeral and noun classifiers occur in numeral construction or within the noun phrase, genitive classifiers specifically occur in possessive constructions.

*Deictic classifier*

Fourth, deictic classifiers appear with demonstratives or deictic elements, classifying the item to which the deictic element refers (Bisang 2002:294). This type of classifiers is primarily described in American and African languages but also found in Southeast Asian languages. As an example from Southeast Asian languages, Lao uses classifiers in demonstrative constructions. In (11a), for instance, the deictic





CL: A-VEHICLE-MOVE-TOWARD-A-TREE

Fig.3: HKSL constructions using entity classifier (from Bauer 2014:190)

As noticed by Bauer (2014), classifiers in sign languages have similar semantic characteristics than those recorded for spoken languages: “[...] These handshape constructions may represent various entities according to their perceptible characteristics such as its shape, size, structure, consistency, position and/or animacy. Sign language classifiers best lend themselves to a comparison with only two subtypes of verbal classifiers in spoken languages[...]: the classifying verbal affixes and the incorporated verbal classifiers (Sandler & Lillo-Martin, 2006; Zwitserlood, 2003). Similar to sign language classifiers, classifying verbal affixes [...] are bound classifying morphemes adjacent to verbs and cannot occur separately. (Bauer 2014: 189). Klamath is an example of a spoken language using verbal classifiers. As shown in (13), the use of different classifiers on the verb can highlight the shape (round or long wielded radially) of the object used for the action.

(13) Verbal classifiers from Klamath (Penutian, DeLancey 2000:18)

- a. *m-p’ak’a*  
CLF:ROUND.INS-break.to.pieces  
‘break to pieces with a round instrument’
- b. *w-p’ak’a*  
CLF:ROUND-break.to.pieces  
‘break to pieces with a long instrument wielded radially’

It is important to note that the term ‘verbal classifier’ may be used with a different meaning in the literature. The term is also currently used in Asian studies to refer to morphemes that quantifies the number of times an action occurs (Court 1986:165ff, Goral 1979:16, He 2001, Lam & Vinet 2005). This system of event classification seems to be limited to language which also have numeral classifiers (Bisang 2018). See for instance example (14) in Thai where the numeral - classifier expression modifies the event.<sup>11</sup>

(14) ‘Verbal’ Classifier in Thai (Tai-Kadai, Thailand)

- a. *mǎ:*            *kàt*            *tɛ̃hǎn*            *nùŋ*            *kʰráŋ/pʰlɛ̃:*  
dog            beat            1SG            one            CLF:OCCURRENCE/INJURY  
‘The dog beat me once.’

<sup>11</sup>Nguyen Đình Hoa (1957:128-29) and Goral (1979:9) also give examples of verbal classifiers used to specify the number of times the action is performed.

b	<i>tɛ<sup>h</sup>ǎn</i>	<i>rîə:k</i>	<i>t<sup>h</sup>ɣ:</i>	<i>sɔ̃:ŋ</i>	<i>k<sup>h</sup>rán̄</i>
	1SG	call	2SG	two	CLF:OCCURRENCE
	‘I called you twice.’				

In constructions such as in (14), the classifier adds information on the number of occurrences of the event described by the verbal phrase. In the current chapter, we will not deal with these morphemes as classifiers since they quantify actions rather than referents.

### *Locative classifier*

Sixth, locative classifiers occur in locative noun phrases. Their choice usually depends on the semantic features of the argument of a locative adposition (Allan 1977:287; Aikhenvald 2000:3; Grinevald 2015:812). This sub-type of classifiers is rather rare and is mostly found in South American and Carib languages. Dâw is an example of a locative classifier language. As seen in (15)a, the locative classifier for hollow objects is used to refer to a canoe, while the locative classifier for liquids is used for referring to a river in (b).

- (15) Locative classifiers from Dâw (Nadahup, Colombia/Brasil) - adapted from Aikhenvald (2000:174)
- |    |                     |    |                           |
|----|---------------------|----|---------------------------|
| a. | <i>xoo-kɛd</i>      | b. | <i>nâx-pis-mĩ</i>         |
|    | canoe-CLF:IN.HOLLOW |    | water-small-CLF:IN.LIQUID |
|    | ‘in a canoe’        |    | ‘in a small river’        |

As a summary, classifiers may occur in different constructions. This diversity contributes to the difficulty of counting how many classifier systems are found in a language (Bisang 2002:294) (Fedden and Corbett 2017). Moreover, the polyfunctionality of forms in Southeast Asian languages also enhances this difficulty (DeLancey 1986:438; Enfield 2004). A form may have several meanings that belong to different parts of speech and have different functions. Nouns may function either as classifiers or classifying noun compounds. As an example, in Table 1, classifying forms in Thai may be distributed along “a continuum from pure noun to pure classifier”. For instance, the noun ‘pineapple’ may only be used as a noun, while ‘answer’ can be used as a noun or a classifier, and ‘person’ can be a noun, a class term, or a classifier.

Form in Thai	Noun	Class term	Classifier
sâpparót ‘pineapple’	+	-	-
khamtɔ̃p ‘answer’	+	-	+
ŋuu ‘snake’	+	+	-
ráan ‘shop’	+	+	+
khon ‘person’	+	+	+
duan̄ ‘round object’	-	+	+
lam ‘long object’	-	+	+
lêm ‘CLF for blades, books, etc.’	-	-	+

Table 1: Continuum from noun to classifier in Thai (Tai-Kadai, Thailand)  
from DeLancey (1986:339)

Similarly, in Lahu (16), the form [ɛi11] is shared by the classifier for fruits and the jackfruit, being a part of the noun (i.e. class term). The use of the same form may lead to various interpretations depending on its position in the noun phrase.



### 3.1 The origin of classifiers

Although classification systems may follow various paths of evolution (internal development or contact-induced change), they generally have a clear lexical origin (Grinevald 2015:815). Cross-linguistically, classifiers mostly originate from nouns<sup>13</sup> (Jones 1970:4; Erbaugh 1986:399, Bisang 1999, Aikhenvald 2000: 103). Classifier systems generally emerge from two different contexts. On the one hand, they may start from “the context of counting individual items which are of particular cultural importance” (Bisang 1999:158). This type of development is predominant in languages such as Chinese and Japanese. On the other hand, classifiers systems may also evolve from a taxonomic or meronomic compounding process. Evolutions of this type are documented for Tai languages (Barz & Diller 1985:178; DeLancey 1986:445), Vietnamese and Hmong (Bisang 1992:4, 1999:166ff). Both types of developments converge in the sense that they are both noun reanalysis processes. The two development paths are illustrated respectively in Chinese and Thai.

The development of classifier structures in Sinitic languages can be traced from Archaic Chinese (500 BCE-200 BCE) to Modern Chinese (1900-present).<sup>14</sup> The following gives an overview of the development of classifier structures in Mandarin.<sup>15</sup> Classifiers were extremely rare in the earliest periods of Chinese. According to Peyraube (1998:39), they appear around the second century BC (Archaic Chinese) and spread during the Middle Chinese period (201-1000). They were used mainly to specify (and make more prominent in discourse) concrete and countable items. Thus, mensural classifiers were first used due to their quantifying nature, which is also a general assumption on classifier development.<sup>16</sup> Mensural classifiers were more commonly found during this period than sortal classifiers, the latter being mostly used as echo classifiers<sup>17</sup> (Jiang 2006:106). An example of echo classifier in Archaic Chinese is shown in (18), in which the nouns ‘ox’ and ‘goat’ are repeated after the numerals. This type of construction is considered to be a “prelude” to numeral classifier constructions (Aikhenvald 2000:103; Erbaugh 1986:401; Her 2017:41; Jiang 2006:106). The next step being the use of the same classifier-like noun for different preceding nouns.

(18) Echo classifiers in Archaic Chinese (Sinitic, China)

<i>fu2</i>	<i>niu2</i>	<i>san1bai3</i>	<i>wu3shi2</i>	<i>wu3</i>	<i>niu2</i>	<i>yang2</i>	<i>er4shi2</i>	<i>ba1</i>	<i>yang2</i>
capture	ox	300	50	five	ox	goat	twenty	eight	goat

‘captured 355 oxen and 28 goats’ (Zhang 2001-5.2839)

In Middle Chinese (201-1000), the precluding structures became genuine numeral classifier structures with 70% of the quantified expressions containing a classifier (Peyraube and Wiebusch 1993:59) and an inventory of more than fifty sortal classifiers based on semantic features. The increase in the use of classifiers may have been reinforced by contact with Tai language (Erbaugh 1986; Jones 1970;

<sup>13</sup>Few cases of classifiers from verbal origin have also been documented. By way of illustration, locative classifiers in Goe-mai are grammaticalized from postural verbs such as ‘sit’ or ‘stand’. Peyraube (1998:55) also makes mention of rare verbal origin for classifiers in Mandarin Chinese, e.g., *zhang*, ‘to stretch (a bow)’. See also Suriya (1988:110) and Jenny & Hnin Tun (2016:73) for verb-derived classifiers in respectively Sgaw Karen and Burmese.

<sup>14</sup>For more details please refer to Peyraube (1998), Yang-Drocourt (2004), Wu et al (2006), Jiang (2006), and Her (2017).

<sup>15</sup>The Mandarin classifiers have cognates in other Sinitic dialects; the usage is extremely similar (slight variation in lexical choice) when it is not identical (Erbaugh, 1986:404).

<sup>16</sup>See also Erbaugh (1986:426) on parallels between historical development and acquisition of classifiers in Mandarin Chinese.

<sup>17</sup>Echo classifier, also known as ‘repeater’ (Hla Pe 1965:180-82, Goral 1979:16), means that the noun is repeated and used as a counting unit in numeral constructions as in Burmese example. Its function is to itemize the referent: *tə ʔeiN²* (house one CLF: REPEATER) ‘one house’.

Peyraube and Wiebusch 1993). At that time, the word order also changed to Num-CLF-N, and structures such as Num-N or N-Num (found in Archaic Chinese) are not frequent in texts, which leads to the assumption that classifiers became obligatory (Liu 1965). In Pre-Modern Chinese (1001-1900), a mature system close to the classifier system in Modern Chinese is in place (Yang-Drocourt 2004).

Beside the cross-linguistically well-attested origin for classifier described above for Chinese, i.e. measure construction, another source of classifier device has to be sought in compounding processes. We refer here to taxonomic (and meronymic) compounding where a class term indicates the higher level of abstraction (the taxon or the category), and the other part of the compound a specific type, (the sub-category or further determination).<sup>18</sup> Broadly speaking, this process starts with nouns with simultaneous (or consecutive) class-term uses; these forms then act as classifiers in some semi-lexicalized constructions, and gradually expand their classifying function, perhaps abandoning some of their nominal uses. This evolution is favored in languages which exhibit num-CLF-N order and allow noun classifier, the class term appearing potentially in the same slot as the classifier with respect to the noun, as in Vietnamese (Lobel 1999) or Nung (DeLancey 1986: 442). Vietnamese example (19) illustrates that one and the same morpheme may function as a classified noun (a) or a classifier (b). The sentence in (e) shows taxonomic compounds with the general term (or taxon) preceding the determination one. Thus, in (c-d) whether we face a Noun CLF-NOUN sequence or a lexicalized compound with a (generic) class term is controversial given their similar position in the sequence; it relies on the speech context.

(19) Taxonomic relations in Vietnamese (Austroasiatic, Vietnam) – adapted from Lobel (1999: 271-73) & Do-Hurinville (2013:251)

- |    |  |                    |                         |                   |             |                   |             |                   |            |
|----|--|--------------------|-------------------------|-------------------|-------------|-------------------|-------------|-------------------|------------|
| a. | <i>hai</i>                             | <i>cái</i>         | <b><i>cây</i></b>       |                   |             |                   |             |                   |            |
|    | 2                                      | CLF:INANIMATE      | plant                   |                   |             |                   |             |                   |            |
|    | ‘two trees/plants’                     |                    |                         |                   |             |                   |             |                   |            |
| b. | <i>hai</i>                             | <b><i>cây</i></b>  | <i>rau</i>              |                   |             |                   |             |                   |            |
|    | 2                                      | CLF:PLANT          | vegetable               |                   |             |                   |             |                   |            |
|    | ‘two vegetables’                       |                    |                         |                   |             |                   |             |                   |            |
| c. | —                                      | <i>cây</i>         | <i>rau</i>              |                   |             |                   |             |                   |            |
|    |  | CLF/CT             | vegetable               |                   |             |                   |             |                   |            |
|    | ‘a/the vegetable (sub-class of plant)’ |                    |                         |                   |             |                   |             |                   |            |
| d. | —                                      | <i>rau</i>         | <i>cần</i>              |                   |             |                   |             |                   |            |
|    |  | CLF/CT             | celery                  |                   |             |                   |             |                   |            |
|    | ‘a celery (sub-class of vegetable)’    |                    |                         |                   |             |                   |             |                   |            |
| e. | <i>chó</i>                             | <i>thì</i>         | <i>có</i>               | <b><i>chó</i></b> | <i>đực,</i> | <b><i>chó</i></b> | <i>cái,</i> | <b><i>chó</i></b> | <i>con</i> |
|    | chien                                  | TOP                | have                    | [dog              | male]       | [dog              | femelle]    | [dog              | child]     |
|    |  | N <sub>taxon</sub> | N <sub>determina-</sub> |                   |             |                   |             |                   |            |
|    |  |                    | tion                    |                   |             |                   |             |                   |            |
- ‘As for the ‘dog’ species, there are dogs, bitches and puppies’

As a summary, there are different stages along the diachronic process by which nouns become true classifiers that are reflected by the various situations and nominal classification devices found in Southeast Asian languages. The lexical origin of classifiers is commonly admitted nowadays: Classification markers generally emerge from nouns by reanalysis of particular nominal structures.

<sup>18</sup>The elements of the compound might also refer to a part-whole relation (meronymy). See Bisang (1999: 170-74) for illustration.

### 3.2. The semantics of classifiers

#### *Common semantic features*

Classifiers generally converge in terms of semantics features. That is to say, while the size of classifier inventories varies cross-linguistically (Tang 2004), a set of features are generally found in most inventories. The most common features relate to humans, animals, shape, and plants (Adam & Conklin 1973: 2-3, Allan 1977: 297). In terms of shape, the most commonly identified shapes are long and round (Croft 1994: 153). These shared features are motivated by cognitive principles and expected from a neuroscientific point of view, since they have been “one of the strongest determinants of the organization of object concepts in the brain” (Kemmerer 2017a:406). In other words, these features are cognitively salient. The distinction between humans, animals, and objects relate to the differentiation between humans and other entities of the environment, while the long and round shapes are salient from a cognitive point of view due to their matching with human masculine and feminine secondary sexual characteristics (Kemmerer 2017a:408). Examples from Thai are shown in (20) with classifiers for humans (20)a, animals (20b), long shape (20c), and round shape (20).

(20) Examples of main semantic features for classifiers in Thai (Tai-Kadai, Thailand)

- |                      |             |                   |                |            |             |
|----------------------|-------------|-------------------|----------------|------------|-------------|
| a. <i>phuân</i>      | <i>sìp</i>  | <i>khôn</i>       | b. <i>pla:</i> | <i>hâ:</i> | <i>tuə</i>  |
| friend               | ten         | CLF:HUM           | fish           | five       | CLF:ANIMAL  |
| ‘ten friends’        |             |                   | ‘five fish’    |            |             |
| c. <i>sǎw.thōŋ</i>   | <i>sǎ:m</i> | <i>tôn</i>        | d. <i>sôm</i>  | <i>sì:</i> | <i>lû:k</i> |
| pole                 | three       | CLF:LONG.VERTICAL | orange         | four       | CLF:ROUND   |
| ‘three (flag) poles’ |             |                   | ‘four oranges’ |            |             |

While the features of humans, animals, and long/round shape are motivated by cognitive principles and mostly shared cross-linguistically, it is also common that classifier languages develop classifiers specific to their own sociolinguistic context (Croft 1994: 153). For instance, in Burmese, sacred objects and concepts related to Buddhism are counted with a particular classifier as shown in (21). Other examples are found in technological evolution (34) and social contexts (22) in Thai. The implicational hierarchy of semantic distinctions proposed by Bisang (1999:125) highlights social status as an important feature at work in classifier systems. Status is indeed very important in Burmese, Thai, Khmer and Vietnamese highly structured Southeast Asian societies, and this feature is reflected in the languages (DeLancey 1986:449).

(21) Classifier and sociolinguistic context in Burmese (Tibeto-Burman, Myanmar) – from Hla Pe 1965

- |   |                       |                         |
|---|-----------------------|-------------------------|
| a. <i>guN<sup>3</sup>.To<sup>2</sup></i>  | <i>Ko<sup>3</sup></i> | = <i>Pa<sup>3</sup></i> |
| attribute   | nine                  | =CLF:SACRED OBJ         |
| The nine attributes [of the three gems : the Buddha, the Law, the <i>Sangha</i> ] |                       |                         |
| b. <i>θi<sup>2</sup>la<sup>1</sup></i>  | <i>ŋa<sup>3</sup></i> | = <i>Pa<sup>3</sup></i> |
| precept   | five                  | =CLF:SACRED OBJ         |
| The five Precepts   |                       |                         |
| c. <i>P<sup>h</sup>oN<sup>3</sup>.Ci<sup>3</sup></i>                              | <i>tə</i>             | = <i>Pa<sup>3</sup></i> |
| monk  | one                   | =CLF:SACRED OBJ         |
| One monk  |                       |                         |

- (22) Classifier and social context in Thai (Tai-Kadai, Thailand)
- |                     |            |             |              |
|---------------------|------------|-------------|--------------|
| <i>kʰruwəŋ.duːm</i> | <i>nūŋ</i> | <i>dríŋ</i> | (ang. drink) |
| drink               | one        | CLF: SHOT   |              |
- A drink shot (of alcoholic beverage)

*Unique classifier and repeater*

In other cases, classifiers may be used for one single specific item. This ‘unique’ classifier is also labelled as an ‘echo-classifier’ or ‘repeater’ although the two terms should be distinguished.<sup>19</sup> By way of illustration, Kathmandu Newar has a classifier that is only used for hole in (23) and one for letter in (23). In both cases, the same form appears once as noun head and once as classifier. In Burmese example (24), the classifier appearing as a part of the compound noun counted is referred as a ‘semi-repeater’.

- (23) Examples of unique classifiers in Kathmandu Newar (Tibeto-Burman, Nepal) – from Kiryu (2009)

a.	<i>gā:</i>	<i>cha-</i>	<i>gā:</i>	b.	<i>pau</i>	<i>cha-</i>	<i>pau</i>
	hole	one	CLF:ECHO		letter	one	CLF:ECHO
	‘one large hole’				‘one letter’		

- (24) Examples of repeater classifiers in Burmese (Tibeto-Burman, Myanmar)

a.	<i>taiʔ.ʔeiN<sup>2</sup></i>	<i>θoN<sup>3</sup></i>	<i>=ʔeiN<sup>2</sup></i>
	brick_building.house	three	CLF:HOUSE
	‘Three masonry houses’		
b.	<i>tɔ<sup>3</sup>.ywa<sup>2</sup></i>	<i>θoN<sup>3</sup></i>	<i>=ywa<sup>2</sup></i>
	forest.village	three	CLF:VILLAGE
	‘Three rural (forest) villages’		

*General classifier*

Classifier languages also commonly develop a so-called ‘general classifier’. Such a classifier is typically desemantized and used in a generic way with most lexical items in a language. As an example, in Southern Min, the classifier *e5* has a default function in addition to its use with nouns for humans.

- (25) Example general classifiers in Southern Min (Sinitic, China) – From Chappell (2019:201-02)

a.	<i>chit4</i>	<i>-e5</i>	<i>lang5</i>	b.	<i>chit8</i>	<i>-e5</i>	<i>toa7</i>	<i>chhiu-kha1</i>
	DEM	-CLF:HUM	person		one	- CLF:GENERAL	big	tree.foot
	‘This person’				‘ a tree with a large base...’			

In Sui, the general classifier *lam<sup>1</sup>* is originally the classifying element for fruit; it has undergone a metaphorical extension from spherical meaning to a larger number of entities. Hlai, another Tai-Kadai language, has a general classifier *hom<sup>53</sup>* used with a large range of inanimate items from small items like fruits or grained to bulky size object like ‘mountain’, encompassing also newly introduced items such as computer, guitar or university course (Somsong 2007: 136-37). Table 3 shows that a noun like ‘tofu’ can be referred to with a specific classifier for lump-shape items or the general classifier. Notice

<sup>19</sup>Grinevald (2015:817) distinguishes ‘unique classifier’ from ‘repeater’: the ‘unique classifier’ refers to a classificatory function (of class contains only one item), whereas the repeater refers to the form of the classifier. In Southeast Asian languages, unique classifiers are often repeaters.

that the classifiers used interchangeably with the general classifier are mostly shape-based classifiers. The choice of different classifiers can fulfill various functions in discourse, which are further explained in §4.

	da:u <sup>55</sup> hu <sup>55</sup> 'tofu'	bo <sup>55</sup> tua <sup>11</sup> 'newspaper'	tsi:u <sup>5</sup> phi:n <sup>11</sup> 'photograph'	tshai <sup>53</sup> koŋ <sup>55</sup> 'coffin'	ka <sup>11</sup> tsu <sup>55</sup> hja <sup>53</sup> 'pod'
hom <sup>53</sup> clf: general	x	x	x	x	x
thun <sup>53</sup> clf: lump-shape	x				
van <sup>11</sup> clf: sheet-like		x	x		
ka <sup>11</sup> clf: stick-like				x	x

Table 3: Example of general and specific classifier in Hlai (Tai-Kadai, Hainan) from Somsonge (2007: 201-203)

As a summary, the inventory of classifiers in a language is generally guided by two main principles. On the one hand, concepts such as humanness, animacy, utility and specific shapes are more salient cognitively. Thus, classifiers related to these concepts are more likely to be shared cross-linguistically. On the other hand, languages also typically develop 'customized' classifiers based on their respective cultural contexts.

### 3.3. The morphosyntax of classifiers

#### *Free or bound forms*

Classifiers can occur as independent morphemes or affixes. As shown in (26), classifiers in Thai occur as independent morphemes, while classifiers in Dolakha Newar (27) are affixed to the numeral. Whether classifiers are independent or bound morphemes depends on the morphosyntactic parameters of each language. Thus, this criterion is generally not used to distinguish between further types of classifiers.

(26) Free classifiers in Thai (Tai-Kadai, Thailand)

*klûəj:*      *lû:k*      *ní:*      *sùk*      *lé:w*  
 banana    **CLF:3D**    DEM    ripe    ACC  
 'This banana is (already) ripe.'

(27) Affixed classifiers in Dolakha Newar (Tibeto-Burman, Nepal) – from Genetti (2007: 265)

*thi-gur*              *des=ki*              *thi-ma*              *misāmi*              *da-u*  
 one-CLF:GEN    country=LOC    one-CLF: ANIMATE    woman              exist-3PA  
 'In a country, there lived a woman'.

#### *Word order*

Classifier subtypes have been distinguished in terms of their morphosyntactic loci, i.e. the element (or construction) with which they are syntactically linked (numerals, nouns, demonstratives, possessives, locatives, and verbs). However, in all these morphosyntactic contexts, the slot filled with the classifier depends mainly on the syntactic parameters in the language, more specifically (usually) the head-modified order (Simpson, 2005:806). For instance, Lahu is a (S)OV language. In Lahu (28), the classifier



- b. √ [N (Num CLF)] Many languages, e.g., Thai (Tai-Kadai), Burmese (Tibeto-Burman), Korean (Isolate)
- c. √ [(CLF Num) N] Few languages, e.g., Ibibio (Niger-Congo)
- d. √ [N (CLF Num)] Few languages, e.g., Jingpho (Tibeto-Burman)<sup>21</sup>
- e. \* [CLF N Num] *No languages attested*
- f. \* [Num N CLF] *No languages attested*

The first two orders are by far the most relevant for Southeast Asian languages. Jones (1970:3), Bartz & Diller (1985:177) or Bisang (1999:118) point out that word order follows an areal pattern: generally, in northern languages, the classifier precedes the noun, whereas in Southern languages, the classifier follows the counted noun.

With regard to the relation between classifiers and other kind of elements they appear with (noun, genitive morpheme, deictic morpheme, verb), they are generally tightly adjacent within the loci while conforming to the language typological profile. Thus, the order may thus vary across languages. As an example, in Nelemwa, genitive classifiers are bound to the possessive marker and are in initial position (31)(a). On the other hand, in Weining Ahmao (b), the genitive classifier is found between the possessor and the possessee.

(31) Word order for genitive classifiers

- a. *ââ-ny ciic*  
CLF:PLANT-POSS.1SG tree  
'my tree' Nelemwa (Oceanic, New-Caledonia) –from Brill (2002:365)
- b. *ku55 lai55 ŋgha55 ni55*  
1SG CLF house DEM.PROX  
(32) 'my house' Weining Ahmao (Hmong-Mien, China) – from Gerner and Bisang (2008:728)

### *Optionality and obligatoriness*

Lastly, the compulsory nature of the classifier varies according to languages. For instance, classifiers are obligatory with the numerals in Burmese<sup>22</sup> while they are optional in Malay as shown in (33)(Godard 2005:96ff, Nomoto & Soh 2019) They are also obligatory in Vietnamese noun phrases only if humans are counted (Bisang 1996:116). This variance of obligatoriness is language-specific and extremely context-specific and is not extensively discussed in the current chapter.<sup>23</sup>

(33) Malay, (Austronesian, Malaysia) - from Nomoto & Soh (2019:490)

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>a. <i>tiga (buah) majalah</i></li> <li>3 CLF: BULKY ITEM magazine</li> <li>'Three magazines'</li> </ul> | <ul style="list-style-type: none"> <li>b. <i>tiga (orang) guru</i></li> <li>3 CLF: HUMAN teacher</li> <li>'Threes teachers'</li> </ul> |
|--|--|

<sup>21</sup>This 'N-CLF-num' order is also attested in Thai with the numeral 'one' to express indefinites, whereas the regular word order 'N-one-CL' occurs in the context of counting.

<sup>22</sup> Higher and round numbers such as ten, hundred may function as classifier themselves in Burmese and other languages. They are similar in function to measure words such as 'dizaine' (ten items) 'dozen' (twelve items) in English. See Jenny & Hnin Tun (2016:76) And Vittrant & Mouton (to appear)

<sup>23</sup>For a discussion on optional classifier use in obligatory classifier language, see Nomoto (2013: 15ff).

All the examples in this section show that both the morphosyntactic environment (loci) and the typological profile of the language are involved in the morphosyntax of the classifiers. In the next section, we discuss the functions of classifiers.

#### 4. Functions of classifiers

Among the major frameworks for identifying functions of classifiers that are found in the literature, Contini-Morava and Kilarski (2013) present an important review of works that address functions of nominal classification (see also Bisang 1993; Craig 1986, 1992 Löbel 2000, among others). They identify the main functions of nominal classification systems, including grammatical gender/noun classes, and various types of classifiers. In the following paragraphs, we restrict our presentation to functions relevant for classifier systems in Southeast Asian languages, which is motivated by a customization for Southeast Asian languages based on the typology of Bisang (1993, 1999). In the latter, several hierarchical stages are defined amongst the functions of classifiers, ranging from classification to identification and individuation. Each stage of this hierarchy is relevant for a specific context, which motivates the occurrence of different constructional subtypes of classifiers. For instance, the function of individuation is relevant in a counting context, which motivates the use of numeral classifiers. As another example, the function of identification is relevant in any referentialization process that implies the use of a classifier (noun classifier, genitive classifier, deictic classifier).

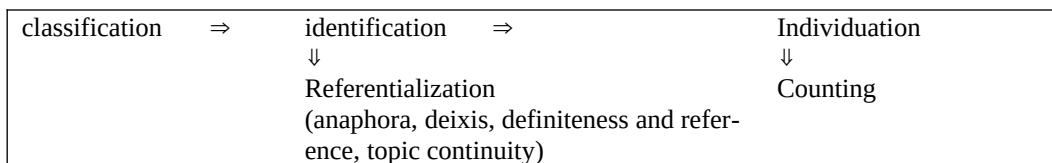


Fig. 4: Functions of Classifiers uses - Adapted from Bisang (2002: 304)

While the terms of the two frameworks partially diverge, their essence and underlying principles are, however, synchronized. In the current chapter, we summarize the two frameworks and broadly distinguish two main categories of functions for classifiers apart from classification: semantic functions and discourse functions. Semantic functions refer to:

- i) differentiation of referents by coercing the meaning of an under-specified lexicon or pointing to one rather than another interpretation
- ii) individualization allowing nouns to be conceived as countable objects.<sup>24</sup>

On the other hand, we conceive discourse functions as:

- i) reference identification (anaphora, deixis, disambiguation)
- ii) reference management (expression of prominence or specificity)
- iii) re-presentation of referents (expression of a specific attitude of the speaker toward the referent).

<sup>24</sup>The lexical function of expansion of the lexicon is not discussed extensively since it is less common for classifiers and it is theoretically difficult to infer “whether we are dealing with the same nominal stem or a different stem that is similar in form and meaning” (Contini-Morava & Kilarski 2013:270-272), as demonstrated by languages such as Lahu in (10).

## 4.1 Semantic functions

### *Differentiation of referents*

Classifiers can first be used for differentiating referents. That is to say, classifiers can be used to provide a more subtle differentiation of existing lexical items with respect to features such as sex, animacy and/or physical properties (Aikhenvald 2000:392; Huang and Ahrens 2003). A semantically neutral stem may point to various referents depending on the classifier that is used with the stem (Contini-Morava and Kilarski 2013:272). As an example, in Thai (34), the use of the classifier for machines indicates that the phone is being referred to as a device (a), while the classifier for long shape objects infers that the phone is being referred to as a phone call (b). In both examples, the form of the noun is exactly the same and the use of different classifiers is the key for identifying different referents. Example (35) is a parallel example in Cantonese, where the computer is classified as a machine in (a), a specific type of computer in (b) and simply as an object in (c).

(34) Differentiation of referents by numeral classifiers in Thai (Tai-Kadai, Thailand) - from Vittrant & Mouton (to appear)

a.	<i>tho:ráʔsàp</i>	<i>nùŋ</i>	<i>khruâ:ŋ</i>	b.	<i>tho:ráʔsàp</i>	<i>nùŋ</i>	<i>sǎ:j</i>
	phone	one	CLF:MACHINE		phone	one	CLF:LONG
	'a phone'				'a phone call'		

(35) Differentiation of referents by numeral classifiers in Cantonese (Sinitic, China) – from Matthews and Yip (1994:106)

a.	<i>nī</i>	<i>ga</i>	<i>dihnlóuh</i>	b.	<i>nī</i>	<i>bouh</i>	<i>dihnlóuh</i>
	DEM	CLF:MACHINE	computer		DEM	CLF:MODEL	computer
	'This computer'				'This computer'		
c.	<i>nī</i>	<i>go</i>	<i>dihnlóuh</i>				
	DEM	CLF:OBJET	computer				
	'This computer'						

An even more extreme example is shown with Burmese (36). The noun /c<sup>h</sup>ɛri/ 'cherry' does not undergo changes of form. However, the referent varies according to the classifier that follow the noun. In (a), the classifier for tridimensional items indicates that the referent is a fruit. While in (b), by using the classifier for growing items, the speaker points to cherry as a plant. As mentioned at the beginning of the paragraph, examples of this type are found but generally marginal in languages and restricted to domains that relies on taxonomy such as wildlife and flora.<sup>25</sup>

(36) Differentiation of referents by numeral classifiers in Burmese (Tibeto-Burman, Myanmar) – adapted from Jenny & Hnin Tun, 2016:75)

a.	<i>c<sup>h</sup>ɛ<sup>2</sup>ri<sup>2</sup></i>	<i>tə</i>	<i>-loN<sup>3</sup></i>	b.	<i>c<sup>h</sup>ɛ<sup>2</sup>ri<sup>2</sup></i>	<i>Tə</i>	<i>-PiN<sup>2</sup></i>
	cherry	one	CLF:3D		cherry	one	CLF:GROWING.ITEM
	'one cherry' (fruit)				'one cherry tree'		

<sup>25</sup>Notice however that the taxonomy in these domains are often first rendered by class terms, classifiers then just emphasize a distinction (between taxon and specie) already present in the nominal compound.

### *Individualization and counting*

The second most important semantic function of classifiers relates to the count/mass distinction (Contini-Morava and Kilarski 2013:276). Count nouns are perceived as semantically bounded entities that can be individuated and counted, while mass nouns incarnate things whose parts are not considered as discrete units (Bisang 1999:120, Delahunty and Garvey 2010:156). This distinction is mirrored through language (Chierchia 1998, 2010; Doetjes 2012; Gillon 1999; Quine 1960), as our brain “differentiates between count and mass nouns not only at the syntactic level but also at the semantic level” (Chiarelli et al. 2011:1). See Tang and Her (2019) for a theoretical and quantitative analysis on the subject matter.

This function is generally referred to as ‘individualization’ (Bisang 1999:120ff) or ‘unitizing’ (Enfield 2004:132). In classifier languages, count nouns use sortal classifiers in contexts of enumeration/ quantification and mensural classifiers in contexts of measure, whereas mass nouns must rely on mensural classifiers. As demonstrated in (37), semantically unbounded mass nouns such as ‘water’ cannot apply sortal classifiers (a) but can only be quantified with mensural classifiers (b).

(37) Individuation by noun classifiers in Vietnamese (Austroasiatic, Vietnam)

a.	<i>*ba</i>	<i>cái</i>	<i>nước</i>	b.	<i>ba</i>	<i>chai</i>	<i>nước</i>
	three	CLF:GEN	water		three	MENS:BOTTLE	water
	* three water				‘three bottles of water’		

By further analyzing how languages fulfill the function of individuation, previous typological studies found that classifiers and grammatical plural markers follow a complementary-like distribution cross-linguistically. Thus, different hypotheses have been developed to explain this observation (Ghomeshi and Massam 2012:2). First, a typological approach suggests that classifier languages, unlike plural-marking languages, either do not make the mass-count distinction or only make this distinction semantically, but not syntactically, and therefore do not allow nouns to be quantified by numerals directly without classifiers (Allan 1977; Bale and Coon 2014; Chierchia 1998; Hansen 1983; Krifka 1995; Link 1998; Zhang 2012). Therefore, nouns in classifier languages are all mass nouns or transnumeral nouns, i.e. nouns are not specified for number in the lexicon. This functional approach based on the transnumerality of nouns in classifier languages is advocated by Bisang 1999, 2002.

On the other hand, a universalist approach claims that sortal classifiers and plural markers are unified under one grammatical category (Borer 2005; Borer and Ouwayda 2010; Cowper and Hall 2012; Doetjes 2012; Greenberg 1990; Her 2012; Mathieu 2012; Nomoto 2013; Sanches and Slobin 1973; T’sou 1976). Under this hypothesis, the mass-count distinction is recognized in both types of languages, where the use of a sortal classifier is analogous to that of a plural marker (Aikhenvald 2000; Borer and Ouwayda 2010; Cheng and Sybesma 1998; Jenks 2017; Yi 2011).<sup>26</sup> To sum up, whatever the motivation, number is usually not expressed in numeral classifier constructions (Aikhenvald 2000:249). However — and against the claim that languages with numeral classifier lack compulsory number (Greenberg 1990:188)—, some languages have been founded with obligatory number marking beside numeral classifiers (Gerner & Bisang 2008, Bisang 2012).

As a summary, classifiers generally fulfill two semantic functions. First, classifiers can be used to differentiate referents on the same noun form. By using different classifiers, a noun form may be linked to specific referents. Second, classifiers fulfill the function of individuating referents. Different usage of sortal and mensural classifiers pinpoint the countability of the referent. In the following subsection, we explain how classifiers can have an impact within discourse.

<sup>26</sup>For a discussion on the compatibility, the development and the motivation of numeral classifiers system and obligatory plural marking in one and the same language, see Bisang 2012.

## 4.2 Discourse functions

Classifiers also help to reach an equilibrium between economy of production from the speaker side and ease of comprehension on the listener side (Contini-Morava and Kilarski 2013; Grinevald 2000:294). Discourse functions of classifiers are summarized into three major types in the current chapter: reference identification, reference management, and re-presentation.

### *Reference identification*

With regard to reference identification, classifiers can provide clues to trace back a referent previously mentioned in discourse without repeating the noun several times. This typically happens when context and the classifier provide sufficient information to interpret the referent. For instance, in (38) the speaker may refer to ‘books’ with the classifier for volumes in (b) instead of reiterating the noun itself, which shows the classifier fulfilling an anaphoric function. Similar function is fulfilled by the classifiers in Vietnamese examples (39).

(38) Anaphora in Burmese (Tibeto-Burman, Myanmar)

- a. *Sa<sup>2</sup>.ʔoʔ bɛ<sup>2</sup>ŋə -ʔoʔ wɛ<sup>2</sup> =mə =lɛ<sup>3</sup>*  
 book how.many CLF:VOLUME buy QST.IRR QST  
 ‘How many books will you buy?’
- b. *θoN<sup>3</sup> ʔoʔ laʔ*  
 three CLF:VOLUME about  
 ‘About three (volume-shaped objects)’

(39) Anaphora in Vietnamese (Austroasiatic, Vietnam) - from Nguyen Dinh (1957 : 139)

- a. *Tôi có ba con mèo, hai con trắng, một con đen*  
 1SG have 3 CLF:ANIMATE cat 2 CLF white 1 CLF black  
 ‘I have three cats, two white (and) one black.’
- b. *Tôi có ba quyển sách, một quyển mỏng, một quyển dày*  
 1SG have 2 CLF book 1 CLF thin 1 CLF thick  
 ‘I have two books, one thin (and) one thick.’

Classifiers can also help to distinguish between multiple referents that have been introduced in the preceding discourse. If the speaker does not want to reiterate the same noun several times, she/he can use specific classifiers to narrow down the possibilities of interpretation. This disambiguation function is shown by example (40) where the apples are being referred to via the classifier for round-shaped objects in (b). The listener may thus comprehend that the speaker has given two apples to the neighbors and not sugarcanes.

(40) Referent identification and disambiguation in Thai (Tai-Kadai, Thailand)

- a. *tɛ<sup>h</sup>ǎn sú: ʔə:ŋ (ma:) sǎ:m lam kàp ʔɛppɰn sǎ:m lú:k*  
 1SG buy sugarcane come three CLF:STICK and apple three CLF:ROUND  
 ‘I buy/bought three sugarcanes and three apples’
- b. *tɛ<sup>h</sup>ǎn hâj p<sup>h</sup>uâ:nbâ:n (paj) sɔ:ŋ lú:k*  
 1SG give neighbour go two CLF:ROUND  
 ‘I give/gave two (apple) to the neighbours’

### Reference management and classifiers

The second discourse function of classifiers is reference management. Classifiers can be used to increase the prominence of nouns and highlight them in discourse, e.g., to introduce a new referent or to specify one (Bisang 1999:150; Contini-Morava and Kilarski 2013:284).

Used to identify a referent or to indicate its specificity, the noun-classifier device (or bare classifier construction) is a first mean for reference management. The CLF-N sequence may convey an indefinite reading or a definite one according to the language, and the position of the classifier phrase. For instance, when comparing Sinitic dialects, Li & Bisang (2012: 336) show that the [CLF – N] sequence in a post-verbal position, conveys an indefinite reading in Mandarin Chinese (a), but a definite one in the Wu dialect (b). In a preverbal position, however, the classifier construction conveys a definite reading in the Sinitic dialects that allow this syntactic position (i.e. Cantonese, Wu but not Mandarin). This may be related to information structure; the sentence-initial position is associated with topics in these topic-prominent languages (d), and topic NP are preferably interpreted as definite.

(41) Noun-Classifier and reference management in Sinitic dialects – from Li & Bisang (2012:336-37)

- a.  $\emptyset$     *laoban*    *mai*    *le*    *liang*    *che*  
 (\*CLF) boss    buy    PFV    CLF    car  
 ‘(The) boss bought a car.’ (Mandarin)
- b. *ky*    *lapan*    *ma*    *lə*    *bu*    *ts<sup>h</sup>ots<sup>h</sup>*  
 CLF    boss    buy    PFV    CLF    car  
 ‘The boss bought a car.’ (Wu)
- c. *go*    *louban*    *maai*    *zo*    *ga*    *ce*  
 CLF    boss    buy    PFV    CLF    car  
 ‘The boss bought a/the car.’ (Cantonese)
- d. *cheung*    *fo*    *a,*    *houchoi*    *di*    *siufongyun*    *lai*    *dak*    *hapsi*  
 CLF    fire    TOP    fortunately    CLF    fire.brigade    come    ADV    fast  
 ‘As for the fire, fortunately, the fire brigade came fast.’ (Cantonese)

With regard to introducing new referents, two typical cases are found. First, a new referent can be projected to the foreground of discourse by using a numeral + classifier construction (e.g., with the number ‘one’) as a presentative sentence (Hopper 1986:312–13; Li 2000:1121–22 ; Erbaugh 2002:52). As shown in (42), the new referent ‘ship’ is introduced by a numeral + classifier construction. Likewise, in (43), the new referent ‘tiger’ is also introduced by the construction of the numeral ‘one’ plus the classifier ‘tug’.

(42) Classifier in presentative sentence in Written Malay (Austronesian, Malaysia) – adapted from Hopper (1986:310)

*Maka pada suatu pagi kelihatan-lah sa-buah kapal rendah*  
 Then on ONE.CLF morning was.seen one- CLF:INANIM ship low  
 ‘Then one morning, a low ship was sighted.’

(43) Classifier in presentative sentence in White Hmong (Hmong-Mien, Laos/Australia) – from Jarkey (2015:44)

*thaum ub muaj ib tug tsov*  
 time yonder exist one CLF tiger  
 ‘Once upon a time, there was a tiger.’

Second, new referents are typically introduced with specific classifiers, which then turn to general classifiers when the referent is not as prominent in discourse as noticed by Erbaugh (1993) for Mandarin Chinese.

*“Special classifiers typically marked first mention of a new item. They appeared with indefinites rather than definites, and with near reference than far. Once reference is established, subsequent mentions take the general classifier or constructions where no classifier is required”. (Erbaugh, 1993: 408)*

Sortal classifiers are likely to appear with a new topic, especially with unfamiliar or distant object not physically present. On the other hand, an object located within the same room as the hearer would often be designated with the general classifier. For instance, in Mandarin, at discourse level, sortal classifiers are often (72%) associated with first mention (2002: 43-44). As shown in (44), the referent located within the same room as the hearer is referred to with the general classifier in (44b). On the other hand, the distant referent (bike) is referred to with the specific classifier for vehicles in (44a).

(44) Example of prominence with classifiers in Mandarin (Sinitic, China)

- a. *na4 liang4 zi4xing2che1*  
 DEM CLF:VEHICLE bike  
 ‘That bike (viewed out the window)’
- b. *na4 ge0 zi4xing2che1*  
 DEM CLF:GEN bike  
 ‘That bike (parked in the living room)’

Classifiers can also be used to identify the definiteness and specificity of a referent (Li and Bisang 2012). This function is more specific to Southeast Asian languages. As shown in (45), the change of word order within the classifier construction provides information on definiteness and specificity. In (a), the order Noun-CLASSIFIER-NUM provides an indefinite but specific reading in the sense that the speaker mentions a specific dog instead of a random dog. On the other hand, in (b), the order Noun-NUM-CLASSIFIER indicates that the speaker refers to an indefinite and unspecific dog, i.e., a random dog. Finally, in (c), adding a demonstrative to the sequence Noun-CLASSIFIER shows that the dog is referred to in a definite manner.

(45) Classifiers conveying definiteness and specificity in Thai (Tai-Kadai, Thailand)

- a. *c<sup>h</sup>ǎn hěn mǎ: tuə nuŋ*  
 1SG see dog CLF:ANIMAL one  
 ‘I saw/see a dog’ (indefinite, specific)
- b. *c<sup>h</sup>ǎn hěn mǎ: nuŋ tua*  
 1SG see dog one CLF:ANIMAL  
 ‘I saw/see one dog’ (indefinite, unspecific)
- c. *c<sup>h</sup>ǎn hěn mǎ: tuə ní/nán*  
 1SG see dog CLF:ANIMAL DEM: PROX/DIST  
 ‘I saw this/that dog.’ (definite)

It is important to point out that using classifiers to convey definiteness and specificity is not rare in Southeast Asian languages, but it is not a feature shared by all Southeast Asian languages. For instance, classifiers in Burmese occur mostly in numeral constructions that are indefinite. They are not used with

demonstratives (deictic-classifier), or to indicate singulative, specificity or definiteness of the noun (noun-classifier) as in Hmong (Gerner & Bisang 2010) or Vietnamese. On the other hand, languages such as Burmese (Vittrant 2005:136), Lahu (Matisoff 1973:93), Mi Aizhai Miao (Mien) or Cantonese make indefinite expressions such as ‘someone’, ‘something’ or ‘none’, ‘no one’, ‘nothing’ by reduplicating a classifier, sometimes associated with the numeral ‘one’ or another morpheme (Enfield 2019 :155ff).

As shown by (46), the classifier for books is duplicated to infer the meaning of ‘any book’ in (a). In (b), the classifier for humans is duplicated to convey the meaning of ‘anybody’ whereas in (c), the general classifier is associated with the particle 𑜇 /mə<sup>1</sup>/ ‘only’ to express the negative indefinite expression ‘nothing’. In Cantonese too, the classifier is reduplicated to convey the meaning ‘everyone’ as shown by (47).

(46) Classifiers used in indefinite expressions in Burmese – Adapted from Vittrant (2005:136)

- |    |  |                         |  |            |                        |
|----|--|-------------------------|--|------------|------------------------|
| a. | <i>tə-ʔoʔ-ʔoʔ</i>                          | <i>yu<sup>2</sup></i>   | <i>=Pa<sup>2</sup></i>                   |            |                        |
|    | one-CLF:BOOK x2                            | take                    | POL                                      |            |                        |
|    | ‘take any (book)’                          |                         |  |            |                        |
| b. | <i>tə-yaʔʔ-yaʔʔ</i>                        | <i>phye<sup>2</sup></i> | <i>naiN<sup>2</sup></i>                  | <i>=mə</i> | <i>=la<sup>3</sup></i> |
|    | one-CLF:HUMAN x2                           | answer                  | can                                      | IRR        | QST                    |
|    | ‘Could someone answer (this question)?’    |                         |  |            |                        |
| c. | <i>taʔN<sup>3</sup></i>                    | <i>=Ta<sup>2</sup></i>  | <i>tə-khu<sup>1</sup>-mə<sup>1</sup></i> | <i>mə=</i> | <i>pe<sup>3</sup></i>  |
|    | ask  | NMLZ.REAL               | one-CLF:GEN-only                         | NEG        | give                   |
|    | ‘He gives nothing of what has been asked.’ |                         |  |            |                        |

(47) Classifiers used in indefinite expressions in Cantonese – adapted from Matthews and Yip (1994:96)

- |                                 |               |            |              |              |            |
|---------------------------------|---------------|------------|--------------|--------------|------------|
| <i>Go-go</i>                    | <i>(yāhn)</i> | <i>dōu</i> | <i>séung</i> | <i>máaih</i> | <i>láu</i> |
| CLF-CLF                         | (people)      | all        | want         | buy          | flat       |
| ‘Everyone wants to buy a flat.’ |               |            |              |              |            |

### *Pragmatic motivation in classifier choice*

The third discourse function of classifiers is to express the speaker’s subjective attitude (Contini-Morava and Kilarski 2013:277). When a noun accepts different classifiers, the choice is meaningful, focusing on a specific property of the referent or determined by register. Therefore, the choice of a classifier is often pragmatically motivated (Burling 1965). In other words, different classifiers are used to reflect different attitudes of the speaker toward the same referent. They can be used in discourse to convey a change of attitude/perspective toward the referent by ascribing or highlighting different properties. As shown in (48), the speaker can use the classifier for humans to show respect toward the referents (a) or use the classifiers for animals to refer to the human referents (b) and convey a lack of respect toward them.

(48) Classifiers expressing the subjective attitude of the speaker in Burmese

- |    |                                      |              |                       |                        |
|----|--------------------------------------|--------------|-----------------------|------------------------|
| a. | <i>bε<sup>2</sup>nə</i>              | <i>-yaʔʔ</i> | <i>la<sup>2</sup></i> | <i>=lε<sup>3</sup></i> |
|    | how.many                             | CLF:HUMAN    | come                  | QST                    |
|    | ‘How many people (respectful) came?’ |              |                       |                        |

- b. *bɛ²nə*      *-kaɔN²*      *la²*      *=lɛ³*  
 how.many    CLF:ANIMAL    come      QST  
 ‘How many people (disrespectful) came?’

From a “European language” point of view, this function is generally fulfilled at the lexical level, since the expression of affective meanings or stylistic nuances is often realized by different lexical items in European languages. For instance, the examples in (48) would be conveyed by using different lexical items in French, cf. (49)a vs. (49)b.

(49) Lexical items expressing the subjective attitude of the speaker in French

- a. *Combien de personnes sont venues?*  
 how.many of people be.PL come.PL,F  
 ‘How many people (respectful) came?’
- b. *Combien de types sont venus?*  
 how.many of people.disrespectful be.PL come.PL,F  
 ‘How many people (disrespectful) came?’

As in Burmese, the choice of the numeral classifier in Thai or Mien language may be a matter of expressing politeness. In (50), the classifier *tau35* used for people and animals may be replaced by *la:n53* when referring to a respected person (Liu 2012 cited by Enfield 2019: 155).

(50) Classifiers expressing the subjective attitude of the speaker (politeness) in Mien (Thailand, Hmong-Mien) – from Liu (2012: 98)

- a. *jet³¹ tau³⁵ sja²⁵⁵ tɔn³³*  
 one CLF: ANIM woman  
 ‘a woman’
- b. *jet³¹ la:n⁵³ khɛ²⁵⁵ mjɛn⁵³*  
 one CLF: ANIM guest person  
 ‘a guest’

As a summary, classifiers can fulfill various discourse functions, ranging from reference identification and reference management to re-representation. It is important to point out that these functions may be fulfilled by classifiers but are not necessarily fulfilled by classifiers only. In other words, classifiers do not obligatorily have to fulfill these functions. Other elements in a ‘classifier’ language may also fulfill these functions depending on the context. See Allasonnière-Tang and Kilarski (2020) for a more detailed discussion on complex interaction of functions across different nominal classification systems in the same language.

## 5 Conclusion

Classifiers as nominal classification systems share a common core in terms of semantics and morphosyntax. However, they also display large variation depending on the sociolinguistic context of individual languages. While this diversity makes classifiers extremely relevant for typological studies, it also results in divergence within the literature describing classifiers. Different definitions and/or terms may be used interchangeably, which highlights the importance of carefully examining language examples provided in the literature. This diversity is especially found in Southeast Asia, which is a hotbed

for classifier languages. As demonstrated in the current chapter, even though Southeast Asian languages are commonly described as typical numeral classifier languages, they are often multiple classifiers languages, with differences in terms of constructions, meanings, and functions. This convergence and divergence of classifier systems cross-linguistically thus represent an extremely interesting research ground for cross-disciplinary studies involving all fields of linguistics, cognitive studies, and neuroscience.

## Abbreviations

1 = first person, 2 = second person, 3 = third person, ACC = accusative, ADVZ = adverbialization, CLF = (sortal) classifier, CT=class term, DEM = demonstrative, DIR = directional, F = feminine, FOC = focus, GEN = genitive, INS = instrumental, IRR = irrealis, M = masculine, MENS = mensural classifier, NEG = negation, NMLZ = nominalization, PFV = perfective, PL = plural, POSS = possessive, PRS = present, QST = question, REAL = realis, SG = singular, Vh = verb head, Vv = verb versatile

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