Introduction

Classifiers and noun classes are basic kinds of noun categorization devices. They fall into several subtypes depending on the morphosyntactic context of their realization; for instance, numeral classifiers appear in numerical expressions, possessive classifiers in
possessive constructions, noun classifiers within a noun phrase, verbal classifiers on a verb or a predicate, and locative classifiers within a locative expression. They are restricted to constructions that require the presence of a particular kind of classifier morpheme whose choice is dictated by the semantic characteristics of the referent. The continuum of noun categorization devices is broad: from large sets of lexical numeral classifiers in the languages of Southeast Asia to the highly grammaticalized systems of noun classes in Bantu languages and of genders in Indo-European (see Genders and Noun Classes). They have a similar semantic basis, and one can develop from the other. There has been a considerable amount of literature over the years on individual classifier types, especially numeral classifiers, with a focus on languages of Southeast Asia, and on noun classes, with less attention paid to other types.

**Monographs**

Aikhenvald 2003 is the only book-length comprehensive analysis of all types of classifiers worldwide, focusing on their semantics, use, discourse functions, history, acquisition, and dissolution. Corbett 1991 addresses genders and noun classes, focusing on European, Caucasian, and some African languages. Royen 1929 is a pioneering attempt at a cross-linguistic study of noun categorization devices.


A comprehensive analysis of noun categorization worldwide, covering noun classes, noun classifiers, numeral classifiers and verbal classifiers, and classifiers in possessive constructions. Based on investigation of five hundred languages from every part of the world, it also focuses on several classifier types and multiple-classifier languages (where the same morpheme occurs in several classifier contexts). Originally published in 2000.


A comprehensive investigation of gender and noun class systems, largely limited to languages of Europe, the Caucasus, and Bantu languages of Africa.


A curious, now outdated attempt at a cross-linguistic examination of noun classification, with a bias toward genders and noun classes and largely focusing on Indo-European languages.

**Edited Collections**
Noun categorization devices have been addressed in a number of edited volumes, starting with Craig 1986, which covers devices from numerous parts of the world. Senft 2000 further expands the discussion of classifiers to cover Amazonian (Tariana), Meso-American (Akatek), and Australian (Arrernte) languages. Aikhenvald 2004 addresses classifiers in languages previously undescribed in this respect. Unterbeck and Riisanen 1999 focuses on gender and some systems of noun classes and classifiers.


This special issue starts with a typological introduction by Aikhenvald, the issue editor. The papers in the issue cover multiple-classifier systems in Lao and Miraña (a Witotoan language from Peru); several types of verbal classifiers in Chimila (a Chibchan language from Colombia); numeral classifiers in Salish, Totonac, and also Nivkh, a Siberian isolate; and deictic classifiers in Siouan languages.


A seminal collection of papers focusing on classifiers in languages from various parts of the world, with a classic typological summary by Dixon (see Genders and Noun Classes).


This important collection contains a typological survey by Grinevald and discussions of multiple-classifier systems in Tariana (Arawak) and Akatek (Mayan), in addition to classifier constructions in Arrernte (Australian) and acquisition of Bantu noun class systems.


Vol. 1, Approaches to Gender; Vol. 2, Manifestations of Gender. This collection largely focuses on small gender systems in Indo-European languages, in addition to a discussion of classificatory verbs in Navajo (Athabaskan), classifiers in Vietnamese, and Bantu noun classes.

Genders and Noun Classes

Dixon 1968 outlines typological features of noun classes and their possible semantic motivation. Greenberg 1978 focuses on typological issues and historical development of noun classes, in particular small gender systems. Aikhenvald 2004 discusses gender and
noun classes realized through agreement in the context of other noun categorization devices.


This survey article discusses cross-linguistic features of genders and noun classes, placing them in the context of other noun categorization devices known as classifiers.


A seminal article dealing with criteria for recognizing a system of noun classes in a language and their grammatical properties. Includes the canonical study of the four-term noun class system in Dyirbal.


A pioneering account of origins for noun class and gender systems.

**General Typological Issues**

Dixon 1986 introduces a continuum approach to the typology of classifiers of different morphosyntactic types, setting apart classifiers as independent lexemes and agreement classes. Dixon 1982 provides an in-depth analysis of noun classes and introduces a new type of classifiers: noun classifiers (as in Australian languages). Morphosyntactic typology of classifier types (numeral classifiers, noun classifiers, and verbal classifiers) is argued for by Craig 1992 and in a more concise form by Craig 2004. Grinevald 2007 expands the notion of classifier. A morphosyntactic typology is developed and new types—locative, deictic, and verbal classifiers—are argued for by Aikhenvald 2004. Allan 1977 presents a survey of a limited range of classifier types. Functions of classifiers (with a focus on numeral classifiers) are in Denny 1976. Bisang 2002 adds an evolutionary perspective.


A survey article in a special issue on nominal classification, focusing on multiple classifier systems and minor types of noun categorization devices, such as locative and deictic classifiers, and the possibility of one language having several types of verbal classifier.

An oft-quoted but simplified account of some classifier types, with factual inaccuracies in the information on Thai and on Dyirbal.


An attempt at providing a pragmatic motivation for the development and grammaticalization of the gamut of noun categorization devices, from numeral classifiers to gender systems.


A comprehensive exposé of a typology of noun categorization devices based on the morphosyntactic context in which a classifier morpheme is required. The basis for the modern typology of classifiers.


A brief synopsis of functional typology of classifiers as noun categorization devices, based on the morphosyntactic context of occurrence of classifier morphemes, with a special focus on the grammaticalization of the system.


A seminal paper addressing major functions and meanings of noun categorization devices across the languages of the world.


Includes a revision of Dixon’s 1968 paper on noun classes classes (see Dixon 1986) in addition to a full account of the set of noun classifiers in Yidiny, an Australian language, plus a general theoretical study of noun classifiers and noun classes.


This classic paper contrasts the grammatical and semantic properties of prototypical noun class systems and sets of lexical classifiers.


A comprehensive approach to the typology of noun categorization devices as a continuum. (The author’s earlier publications appeared under the name Colette G. Craig.)

Specific Issues

Most issues to do with classifier types, their semantics, and realization are discussed in the language-specific literature. Semantics of classifiers is often treated separately. There are a number of general articles dealing with Numeral Classifiers, Verbal Classifiers, and classifiers in Possessive Constructions.

Semantics


A brief summary of semantic parameters in classifiers (such as shape and form), with a focus on numeral classifiers in languages of Southeast Asia.


A summary of classifier types, with a focus on semantic parameters typical for each of the types (e.g., shape in numeral classifiers, function in noun classifiers, and position in verbal classifiers).

An incisive analysis of the parameter of “extendedness” and the semantics of shape in classifiers, with a focus on North American Indian languages. An interesting attempt at providing an environmental and cultural motivation for the meaning of classifiers.


An insightful analysis of the correlation between shape and animacy in classifier systems, with special focus on numeral classifiers.


A partial account of some systems of noun classes and classifiers with a focus on Indo-European, Bantu, and some Caucasian languages. Contains factual errors and misinterpretations.


This seminal paper introduces several major subcategories covered by the notion of a “general classifier”: the default classifier, the residue classifier, and a classifier covering an unspecified referent.

**Numeral Classifiers**

Numeral classifiers are a feature of languages of Southeast and South Asia and are also found in Austronesian, some North American, and some South American languages and in languages of the Far East (Korean and Japanese). The major body of literature on numeral classifiers is discussed under each individual language area. Hypotheses concerning lack of number in numeral classifier languages are discussed by Greenberg 1972 and Sanches and Slobin 1973 (also see Aikhenvald 2003 in Monographs). Numeral classifiers as a focal point in the continuum of classification devices are covered in Serzisko 1982.

A seminal paper based on a sample of one hundred languages with numeral classifiers. The major conclusion is that languages with numeral classifiers do not have nominal numbers. This has since proved wrong as more data have become available.


The authors try to demonstrate that numeral classifiers and nominal number marking are mutually exclusive. Recent data have shown that this statement represents a tendency and not a linguistic universal.


A comparison of noun classes, genders, and numeral classifiers as part of a continuum of noun classification devices; based on a limited typological sample.

**Verbal Classifiers**

Verbal classifiers and classificatory verbs are found in North American and South American languages, while languages of New Guinea and some Tibeto-Burman languages tend to have classificatory existential verbs. Silverstein 1986 discusses verbal classifiers and generic verbs in the context of other categories. Seiler 1989 demonstrates the verbal origin of classifiers in the context of Papua New Guinea languages. Also see Aikhenvald 2003 (cited in Monographs), pp. 149–183, for a detailed overview.


A pioneering account of how verbal classifiers developed from serial verb constructions (using the example of Imonda, from the Border family in New Guinea), with a brief survey of verbal classifiers and classificatory verbs in New Guinea.


An insightful appraisal of verbal and other classifiers (focused on Australian languages) and their interrelations with other categories of the grammar.

**Possessive Classifiers**
A special set of classifiers categorizing the manner in which the possessee can be manipulated (e.g., “drunk,” “eaten”) and also the possessee’s inherent properties is a feature of Oceanic languages (see Austronesian Languages) and of a few languages of South America (see South American Indian Languages). The first systematic appraisal of classifiers in possessive constructions is in Lichtenberk 1983, discovered by Codrington 1974 (originally published 1885) (also see Aikhenvald 2003 in Monographs). Chappell and McGregor 1989 formulates the putative link between alienability and classifier choice.


A general discussion of possessive patterns, with a mention of classifiers in possessive constructions, and their interaction with alienable possession.


Originally published in 1885 (Oxford: Clarendon Press). The first ever general study of Oceanic languages; discusses classifiers in possessive constructions on the basis of the limited selection of languages available at that stage.


A seminal paper laying the foundations for the scientific analysis of classifiers in possessive constructions as a noun categorization device distinct from classifiers of other types. Focuses on classifiers that categorize the nature of a relationship between the possessor and the possessee, based on material from a substantial selection of Oceanic languages.

Child Language Acquisition

The study of the processes at work in children’s acquisition of noun classification devices is in its infancy. There has been a goodly amount of work on acquisition of genders (see also Genders and Noun Classes) and noun classes in a few Bantu languages, among them Tsonope 1988 and also Herbert 1991 (cited in Language Dissolution) and Aikhenvald 2003 (cited in Monographs). Acquisition of numeral classifiers in Mandarin Chinese is studied by Hu 1993 and is correlated with historical development by Erbaugh 1986. Ng 1989 addresses acquisition of numeral classifiers in Hokkien. Matsumoto 1985 discusses acquisition of Japanese numeral classifiers; semantic and cognitive aspects are focused on by Yamamoto 2000. Gandour, et al. 1984 is a first attempt at discussing the acquisition of Thai classifiers. Carpenter 1987 addresses late acquisition of classifiers in Thai. Carpenter 1991 offers a sociolinguistic and cultural explanation.

A seminal piece of work on children’s early acquisition of classifiers in Thai depending on their frequency.


In this pioneering paper, the author discusses relatively late acquisition of the full system of classifiers in Thai, arguing that cultural embeddedness of classifiers determines their development in children.


A classic investigation of acquisition of classifiers in Mandarin Chinese (with a focus on the overuse of the general classifier), and of how the processes of acquisition are mirrored by the documented historical development of classifiers.


A classic study of child language acquisition of numeral classifiers in Thai, focusing on the overgeneralization of the general classifier and on semantic extensions.


A comprehensive analysis of acquisition of Mandarin Chinese classifiers with numerical expressions.


A pioneering study of the acquisition of numeral classifiers in Japanese, with a focus on overuse of the general classifier.


The first investigation of acquisition of numeral classifiers in a Sinitic language other than Mandarin Chinese.

A fundamental investigation of children’s acquisition of noun class markers and agreement in Setswana, a Bantu language.


A study of acquisition of Japanese numeral classifiers by preschool children, with special focus on comprehension of classifiers.

**Language Dissolution**

When speakers suffer from aphasia (and thus from language dissolution), noun categorization devices in their language undergo loss and simplification. These issues have been discussed for noun classes and classifiers in only a limited selection of languages, partly because of difficulty in obtaining reliable and consistent data. Herbert 1991 contrasts acquisition and dissolution of noun classification devices with historical processes. Gandour, et al. 1985 focuses on dissolution of Thai classifiers in aphasia. Tzeng, et al. 1991 addresses loss of classifiers in Chinese-speaking aphasics. Kathleen Ahrens criticizes her predecessors in Ahrens 1994, pointing out flawed attempts to correlate types of aphasia and types of classifier dissolution.


A seminal paper comparing the use of classifiers by normal speakers of Mandarin Chinese with those affected by aphasia, with a focus on the use of the general classifier.


A unique comprehensive investigation of the loss of numeral classifiers in Thai by aphasics, whose features mirror child language acquisition patterns of classifiers (this includes overuse of the general classifier).


A pioneering study of the fate of noun classes in language dissolution in a selection of Bantu languages, showing that paths of language dissolution only partly mirror (in reverse) the paths of language acquisition by children.

A fundamental study of the use of classifiers by aphasic speakers of Mandarin Chinese, comparing speakers suffering from Broca’s aphasia with those suffering from Wernicke’s aphasia.

**Descriptions of Individual Areas, Languages, and Families**

Classifiers of different types are distributed differently across major families and major areas of the world. While noun classes and genders are a property of Indo-European languages, verbal classifiers are more prominent in the languages of North and South America, and numeral classifiers are a property of languages of Southeast Asia.

**Indo-European Languages**

Indo-European languages typically have a system of two or three genders. Bechert 1982 provides a useful survey. The extent of the semantic basis for gender choice varies, as shown in the seminal paper Zubin and Koepcke 1986. Baron 1986 explores the differences between male and female language, and the historical development of gender-marked forms in Modern English. Mathiot and Roberts 1979 reveals social stereotypes behind gender use. Correlations between gender and shape in Spanish are discussed by Holmquist 1991. Whether English can be said to have classifiers is explored by Lehrer 1968. Kilarski 2007 contrasts systems of semantically opaque genders. Also see Gender.


A concise and entertaining description of the semantics of English gender, the development of male and female speech, the emergence of a gender-neutral pronoun, and gender-sensitive formations in English.


An informative overview of the distribution and semantics of genders and noun classes in European languages.


An insightful analysis of the meanings of genders in Cantabrian Spanish, associated with semantic features of shape, size, and value.

A discussion of the semantic principles of gender choice in Indo-European languages and a selection of Algonquian languages, with a focus on semantically opaque gender.


An incisive and original attempt to analyze English quantification constructions such as *one head of lettuce* and attributive constructions such as *a slip of a girl* as classifier constructions, with convincing argumentation against this analysis.


A corpus-based original analysis of attitudes to males and females as realized through the use of gendered pronouns in American English.


This seminal paper makes a convincing argument in favor of a partial semantic basis for the choice of genders in German.

**Turkic and Finno-Ugric Languages**

Turkic and Finno-Ugric languages typically have no noun classes or other noun categorization devices. Beckwith 1992 argues for the existence of numeral classifiers in Hungarian; Beckwith 1988 and Waterson 1966 argue for their existence in Uzbek. A comprehensive picture of numeral classifiers and other devices in Japanese, Korean, and a few Turkic languages is in Vietze 1979.


Provides a survey of approaches to numeral classifiers in Asian languages and argues in favor of an incipient system of numeral classifiers (sortal and mensural) in Uzbek, a Turkic language.

Presents a convincing argument in favor of the status of quantifying forms such as “drop” in “one drop of honey” as mensural numeral classifiers in Hungarian.


A pioneering investigation of noun categorization in Turkic, Buryat-Mongolian, and Tungusic languages, in addition to the languages of the Far East, mentioning the existence of numeral classifiers across the area.


This seminal paper is the first attempt at presenting a scientific argument in favor of a category of classifiers in Uzbek, a Turkic language.

**Languages of the Caucasus**

East Caucasian languages have systems of noun classes whose size varies from two to five or six. A general overview is in Drossard 1982. Khaidakov 1980 is a comprehensive study of noun classes and their meanings in Daghestanian languages (Northeast Caucasian). Also see Corbett 1991 and Aikhenvald 2003 in Monographs.


An incisive snapshot of a variety of noun classification systems in East Caucasian languages (including Nakh-Daghestanian).


A comprehensive monograph with impressive coverage of Daghestanian (Northeast Caucasian) languages, combining a synchronic and a diachronic approach, well ahead of its time.

**Sino-Tibetan Languages**

Most Sino-Tibetan languages have numeral classifiers. Some also have classifiers in other environments. General issues concerning classifiers in Sino-Tibetan languages are also discussed in general papers on classifiers across Southeast Asia. Goral 1978 is a general survey focusing on numeral classifiers, complementary to Jones 1970. Hashimoto 1977 discusses the historical development of classifiers from nouns. Bisang 1999 argues in favor of the numeral classifiers as a major type in the area.

An overview of functions of numeral classifiers in Sino-Tibetan languages and other languages in Southeast Asia (including Thai, Vietnamese, and Hmong), extending the discussion to classifiers in other contexts and suggesting that the counting context of classifiers’ use is primary.


A fundamental investigation of numeral classifiers across every family in Southeast Asia, including Sino-Tibetan. A classic in the field.


This pioneering paper surveys the functions and the development of numeral classifiers across Sino-Tibetan languages.


The first survey of classifiers as a feature of the area, focusing on numeral classifiers.

Sinitic Languages


A comprehensive dictionary of classifiers in Mandarin Chinese, with contexts of use and examples.

In Chinese. A highly informative source on semantics and use of classifiers, with a focus on Mandarin Chinese.


A pioneering discussion of pragmatic variation and discourse-based use of classifiers in Mandarin Chinese.


An innovative analysis of classifiers in possessive constructions in Cantonese, with comparison with other Sinitic languages.


A comparative-historical analysis of the development of numeral classifiers across Sinitic languages.


A reappraisal of the use of numeral classifiers in Mandarin Chinese depending on the discourse status of the referent.


A comprehensive study of numeral classifiers in a variety of Sinitic languages with special focus on a cognitive foundation for categorization of noun referents through classifiers.


A comprehensive study of the etymology and semantics of classifiers, mostly focusing on Mandarin Chinese.
A brief reappraisal of the system of numeral classifiers in Mandarin Chinese, their semantics, and assignment.

**Tibeto-Burman Languages**

Numeral classifiers are a pervasive feature of Tibeto-Burman languages. Becker 1975 is a classic study of numeral classifiers in Burmese and of noun reclassification. Burling 1965 is another classic. Bharsakaro and Joshi 1985 is a comprehensive study of numeral classifiers in Newari. The issue is reassessed by Hale and Shresthacarya 1973. Weidert 1984 provides historical background. Bradley 2001 introduces the notion of kinship classifiers (in Yi languages). Honorific nouns and classifiers are discussed by DeLancey 1998. Peterson 2008 argues for the existence of verbal classifiers in a variety of Tibeto-Burman languages. (See Aikhenvald 2003 in Monographs for further references on classificatory existential verbs in Tibeto-Burman.)


A classic paper with a focus on highlighting distinct meanings of noun referents using different classifiers.


A pioneering study of numeral classifiers in Newari, with an incisive semantic analysis.


This seminal paper addresses kinship-based numeral classifiers in a poorly described subgroup of Tibeto-Burman languages.


A classic account of the intricate semantics, pragmatics, and variability of use of numeral classifiers in Burmese.

A highly important analysis of classifiers and class terms in Tibetan, based on classification of honorifics.


A classic reappraisal of numeral classifier constructions in Newari dialects.


A comprehensive and well-argued analysis of verbal classifiers in a selection of Tibeto-Burman languages. This pioneering work demonstrates the existence of verbal classifiers in the family.


A classic investigation of numeral classifiers in Newari in the context of other Southeast Asian languages, with a focus on their history and the role of language contact.

Languages of Southeast Asia

Numeral classifiers, and classifiers in multiple environments, are a pervasive feature of languages of Southeast Asia. Kölver 1982 offers a comparative perspective. Barz and Diller 1985 introduces the issue of cultural stereotypes as reflected in classifiers. Some general issues are addressed by Weidert 1984 (cited under Tibeto-Burman Languages); see also the general literature on Sino-Tibetan languages (see Sino-Tibetan Languages, especially Bisang 1999).


A classic paper dealing with semantics and use of classifiers across Southeast Asia (with a special focus on Tai languages) in comparison with Indo-Aryan languages of South Asia.

An informative and cohesive structural comparison of numeral classifiers in Thai, Vietnamese, and Chinese (focusing on Mandarin Chinese) in an areal perspective.

**Miao-Yao Languages**

All Miao-Yao languages have multiple classifier systems, with classifiers employed with numerals, in possessive constructions, and with nouns as noun classifiers. A typical system is described for Hmong by Bisang 1993. Jaisser 1987 focuses on numeral classifiers in Hmong. Wang 1972 describes numeral classifiers in a Miao variety.


An incisive analysis of classifiers in multiple environments in Hmong varieties. Focuses on the correlations between the functions of classifiers and of quantifiers, and, inter alia, on the interaction between possession types (alienable versus inalienable) and classifier use.


A pioneering account of classifiers in White Hmong, with a focus on numeral classifiers.


A comprehensive account of numeral classifiers in a Miao dialect from southern China.

**Austroasiatic Languages**

All Austroasiatic languages have numeral classifiers. The best-described classifier system is that of Vietnamese (Löbel 2000). Adams 1989 is a classic study of classifiers across Austroasiatic languages. Adams 1992 focuses on human classification. Daley 1996 is a pioneering analysis of how Vietnamese classifiers are used in discourse. Wajanarat 1979 focuses numeral classifiers in a Mon-Khmer language.


A comprehensive investigation of numeral classifiers, their semantics, use, and extensions across Mon-Khmer, Nicobarese, and Aslian languages.

An incisive analysis of the semantics and form of numeral classifiers for human referents across the Mon-Khmer family.


An extensive discourse-based, state-of-the-art analysis of classifiers in Vietnamese, their semantics, and pragmatics.


A competent survey of classifiers in Vietnamese and a comparison with other noun classification devices (such as genders).


An exemplary study of numeral classifiers in a previously undescribed Mon-Khmer language.

**Tai-Kadai Languages**

All Tai-Kadai languages have numeral classifiers, and many also have multiple classifiers. Enfield 2004 outlines the use of classifiers with demonstratives and adjectives in Lao, showing how these are different from classifiers with numerals. Chapters in Diller, et al. 2008 focus on classifiers in a variety of languages across the family. Haas 1942 is a pioneering study. Hundius and Kölver 1983 introduces other types of classifiers in Thai, such as those used with demonstratives and adjectives. Pragmatic analysis is in Carpenter 1986. Conklin 1981 compares the use and the meanings of numeral classifiers in Tai and in Austronesian languages. Juntanamalaga 1988 turns to the ways classifiers reflect social change and cultural stereotypes. A historical approach is taken in Gerner 2006. Also see Child Language Acquisition for the analysis of the semantics of classifiers in Thai in light of their relatively late acquisition by children.


An incisive reappraisal of the semantics, pragmatic contexts, and frequency of use of several Thai classifiers.

A seminal piece of work focusing on numeral classifier constructions in a number of Tai languages (especially Thai) and a few Austronesian languages.


A comprehensive overview of the Tai-Kadai family, with most chapters focusing on numeral classifier systems.


A seminal paper dealing with various aspects of classifiers in Lao, with a special focus on their use with adjectives and modifiers other than numbers.


A comprehensive discussion of noun classifiers and numeral and verbal classifiers in the Kam-Tai subgroup of the Tai-Kadai family.


A pioneering outline of classifiers in Thai by a major figure in the field of linguistics.


A seminal paper on the semantics and pragmatics of numeral classifiers in Thai, with a brief discussion of Thai classifiers on modifiers such as demonstratives and adjectives and their special features.


An important contribution dealing with how the use of Thai classifiers changed depending on sociocultural environment (including royal decrees that prohibited the use of the generic classifier tua to refer to a noble elephant).

Languages of South Asia
Numeral classifiers are known to be an areal feature of India, as pointed out by Emeneau 1964, and are found in Indo-Aryan, Dravidian, Tibeto-Burman, and Munda languages. Classifiers and absence of genders in Bengali are discussed by Kölver 1982. Noun classification devices and their history in Dravidian are in Krishnamurti 2003. Mahapatra 1979 introduces a Dravidian language with obligatory number and gender and numeral classifiers.


A seminal paper establishing India as a linguistic area, with numeral classifiers as one of the key defining features.


Incisive discussion of numeral classifiers in Bengali, an Indo-Aryan language, and their history.


A fundamental investigation of synchronic and historical aspects of all the Dravidian languages, with special attention to the status and development of noun categorization devices.


A comprehensive grammar of a Dravidian language that combines a system of genders with several numeral classifiers.

**Japanese**

Japanese has a complex system of numeral classifiers. The semantics and usage of numeral classifiers in Japanese have been described in considerable detail by Denny 1979, Martin 1975, and Downing 1996. Classifiers and individuation are discussed in Kobuchi-Philip 2007 and semantics of classifiers by Matsumoto 1993. Also see Child Language Acquisition for papers addressing semantics and form of Japanese classifiers as acquired by children.

An incisive analysis of sortal classifiers in Japanese and the basis of their assignment.


A comprehensive investigation dealing with every aspect of numeral classifiers in Japanese.


Analysis of morphologically complex numeral classifiers in Japanese and their interactions with quantifiers.


The most comprehensive reference grammar of Japanese to date, with an in-depth analysis of classifiers and their use.


A detailed investigation of semantic principles of assignment of numeral classifiers in Japanese.

**Korean**

Korean has a complex system of numeral classifiers, typologically similar to that in Japanese. Major categories are addressed by Sohn 2001, and shape and other semantic parameters are addressed in Bugaeva 1970 and Bugaeva 1979. Unlike Japanese, Korean has special honorific forms of classifiers, focused on by Lee 1997. Semantics and usage of numeral classifiers in Korean are still awaiting a full analysis.


A pioneering account of the semantics of classifiers in Korean, richly illustrated with examples from literary sources.

A seminal paper dealing with form and semantics of numeral classifiers in Korean, depending on the origin of the numeral, with a discussion of the history of approaches to classifiers in Korean grammars and dictionaries.


A study of the semantics and form of numerals classifiers in Korean (with a special focus on the discussion of Sino-Korean and native classifiers) and of their use among young Koreans in Australia.


The most comprehensive grammar of the Korean language to date, with a detailed analysis of the classifier system in the standard language.

### North American Indian Languages

North American Indian languages (especially Athabaskan languages, first detailed by Hoijer 1945 and then elaborated on by Carter 1976, Rushforth 1991, and Krauss 1968), have noun classes (or genders) and complicated systems of classificatory verbs and verbal classifiers. Cherokee (Blankenship 1997) and Muskogean languages also have classificatory verbs (Haas 1948). Various types are identified in Algonquian by Conathan 2004. Some Siouan languages have rare types of locative and deictic classifiers which come from verbs (Rankin 2004). An up-to-date survey is in Mithun 1999.


An incisive analysis of classificatory verbs in an Iroquoian language.


A classic analysis of classificatory verbs in an Athabaskan language.


Analysis of a complex system of classifiers used with numerals and verbs in Wiyot and Yurok (Algic) and a comparison with distantly related Algonquian languages.


A seminal contribution introducing the notion of classificatory verbs, using the material of a subgroup of Athabaskan languages.


A classic comparison of classificatory verbs and noun categorization devices in Athabaskan languages with those in related Eyak (based on original fieldwork with last speakers) and in Tlingit and Haida.


A state-of-the-art monograph dealing with every aspect of indigenous languages of North America, with special focus on classificatory verbs and noun classification devices and their genetic and areal distribution.


A classic paper (the revision of an earlier version in 1976) outlining the systems and the histories of unusual locative and deictic classifiers in Siouan languages.


An in-depth account of semantics and use of classificatory verbs in two Athabaskan languages and their variability.

**Mesoamerican Languages**

Mesoamerican languages have a variety of noun classification devices: Suárez 1983 provides a general picture. Numeral classifiers as salient feature of Mayan languages are identified and described in ethnographic context by Berlin 1968 and also in Hopkins 1970. Miram 1983 investigates many aspects of numeral classifiers in Yucatec Mayan. Numeral classifiers are analyzed in a general perspective by Vapnarsky 1993. Craig 1986 identifies noun classifiers in Jacaltec and other Q’anjobalan Mayan languages. De Leon
1987 compares noun classifiers with numeral classifiers in Mixtec and Tzotzil. Chinantec languages combine noun classifiers, numeral classifiers, and noun classes (Foris 2000).


A classic investigation of the semantics and variability of choice of numeral classifiers in a Mayan language.


A seminal study of noun classifiers in a Q’anjobalan Mayan language, their semantics, and development.


A detailed and comprehensive comparative study of classifiers of two kinds, and their referential properties, based on Tzotzil and Mixtec.


A comprehensive grammar of a previously undescribed Chinantec language, with a special focus on numeral classifiers, noun classifiers, and noun classes as independent categories.


A pioneering survey of numeral classifiers and their different principles of assignment in three Mayan languages.


A comprehensive account at that date for numeral classifiers in Yucatec, one of the largest Mayan languages.


A comprehensive but somewhat outdated overview of languages of Mesoamerica, with special focus on numeral classifiers and possible classificatory verbs.
A typologically oriented investigation of numeral classifiers in Mayan languages.

South American Indian Languages

Amazonian languages, especially those of western Amazonia (see Aikhenvald 2003 in Monographs), have complicated systems of classifiers used in multiple environments (on adjectives, numerals, nouns themselves, and often also verbs and demonstratives and in possessive constructions). These are typical of Arawak, Tucanoan, Guahibo, Witotoan, and Pebayagua languages, and also Mndurukú, a Tupí language. Small gender systems are found in Arawá and Chapacura languages. Some Tupí-Guaraní and many Carib languages have possessive classifiers. Languages of the Andes have no classifiers, while some languages of the Pacific coast (e.g., Mochica and Chocoan) have numeral classifiers.

General Studies

Adelaar 2004 is a survey of languages of the Andes and adjacent areas and introduces some of the classifier systems. Derbyshire and Payne 1990 is a good example of a survey of classifiers in Amazonian languages. An up-to-date approach is in the papers in Dixon and Aikhenvald 1999. Aikhenvald 1996 reviews classifier systems across the Arawak family (the largest in South America). Aikhenvald 2007 analyzes classifier systems in languages of the Pacific coast of South America.


A comprehensive account of languages of the Andean area and neighboring regions, with a brief coverage of systems of classifiers and noun classes in most families in Lowland Amazonia and areas adjacent to the Andes.


A detailed discussion of systems of noun classification with a special focus on numeral classifiers and classifiers used in multiple environments in about sixty Arawak languages, with a tentative reconstruction of some forms.

A brief survey of languages of the Pacific coast of South America (including Mochica, Barbacoan, Chocoan, and others), with an overview of their classifier systems.


A pioneering overview of classifier systems in a selection of Lowland Amazonian languages (mostly outdated now).


A collection of state-of-the-art contributions on major and minor language families of Lowland Amazonian languages, with special focus on classifier systems.

Languages with Classifiers in One Environment

A few South American languages have classifiers or other noun categorization devices in just one morphosyntactic environment. Dixon 1996 is a paradigmatic example of historical analysis of a noun class system in Arawá languages. Dixon 2004 is a comprehensive analysis of a small noun class (gender) system in Jarawara and other Arawá languages. Deictic classifiers in Toba, a Guaiicuruan language from Argentina, are argued for by Klein 1979. Deictic classifiers originating in positional verbs and used in several constructions in Pilagá, also Guaicuruan, are discussed by Vidal 1997. Generic nouns as possessive classifiers in a Carib language are introduced by Koehn 1994. An unusual set of oppositions in possessive classifiers in Kariri, an extinct Macro-Jê language, is described by Rodrigues 1997.


A fundamental study of a system of two genders with semantically opaque assignment and the development of gender marking in Jarawara, an Arawá language.


A comprehensive grammar of a language from the Arawá family, focusing on the semantics, usage, and history of its gender system.

The first attempt at analyzing noun classifiers in Toba, a Guaicuruan language, with an unusual system of deictic classifiers categorizing the noun referent in terms of its position in space.


An incisive account of generic classifiers in constructions with alienable possession in Apalaí, a Carib language from Brazil, in the context of other Carib languages.


A pioneering discussion of a highly unusual system of twelve possessive classifiers in Kipeá-Karirí, an extinct Macro-Jê language (based on old sources).


A comprehensive analysis of deictic classifiers in the context of other noun classification devices in Pilagá, a Guaicuruan language, with a discussion of how classifiers originate in positional verbs.

**Languages with Classifiers in Multiple Environments**

Classifiers used in multiple environments (on adjectives, numerals, and nouns themselves, and often also verbs and demonstratives and in possessive constructions) are a feature of several subgroups of Arawak languages discussed in Aikhenvald 2007, from a language contact perspective. Palikur, also Arawak, has the largest number of classifier types in the world (Aikhenvald and Green 1998). Tuyuca has numerous contexts of classifier use, as do most other Tucanoan languages (Barnes 1990). These vary in form and meaning and change in language contact situations, as shown in Gomez-Imbert 1996. Mundurukú, a Tupí language, has multiple classifiers, many of which go back to nouns (Gonçalves 1987). A typologically similar system in Witotoan languages is discussed by Seifart 2006. Unusual types of verbal classifiers are discovered by Malone 2004. Correlations between classifier semantics and ethnozoological classification are the subject of Shepard 1997.


A detailed analysis of systems of classifiers in multiple environments (with numerals, demonstratives, adjectives, and verbs and in possessive constructions) in Baniwa of Içana/Kurripako and Tariana, two related languages from the
Arawak family, from northwest Amazonia, with a historical scenario of development.


A detailed analysis of the most complicated system of classifiers (with three genders, numeral classifiers, verbal classifiers, locative classifiers, and possessive classifiers, different in form and meaning) in Palikur, an Arawak language spoken in Brazil and in adjacent areas of French Guiana.


A seminal study of a complex classifier system in an East Tucanoan language, where classifiers appear on demonstratives, nouns, verbs, and adjectives, and also in possessive constructions, with an additional discussion of classifiers that have the same form as the nouns, and the semantics of classifier choice.


An investigation of contact-induced change in Cubeo, an East Tucanoan language from Colombia, whose assignment of classifiers to animates underwent restructuring under the influence of Kurripako, an Arawak language.


A pioneering analysis of classifiers in Munduruku, a Tupí language, with numerous classifiers used with demonstratives, numerals, and verbs, and on nouns themselves, with an attempt at tracing a historical development for the classifier forms.


A seminal contribution to the study of verbal classifiers, addressing the coexisting systems of several classifier systems encoded in verbs in Chimila, a poorly described Chibchan language.


An in-depth study of a multiple classifier system in a Campa language, from the Arawak language family, with special focus on the correlations between linguistic and ethnozoological categorization of entities.

**Australian Aboriginal Languages**

Australian Aboriginal languages display a variety of systems of noun classes and noun classifiers (Dixon 1968; see also Dixon 1982 in Genders and Noun Classes). Verbal classifiers are attested in a few languages in northern Australia, while numeral classifiers are found exclusively in Anindilyakwa. Dixon 2002 is the state-of-the-art work on all issues in Australian languages. Nominal classification is specifically addressed in Harvey and Reid 1997. Sands 1995 introduces new classifier types (e.g., deictic classifiers). Noun classes are addressed by Harvey 1997. An in-depth analysis of noun classifiers appears in Dixon 1977, and a somewhat different system is in Reid 1990. Verbal classifiers are shown to relate to incorporated nouns by Evans 1996. Heath 1978 shows how noun classification can undergo restructuring in language contact.


A comprehensive grammar of an endangered Australian language with an elaborate system of noun classifiers. The most thorough investigation of noun classifiers in an Australian language to this date.


A state-of-the-art exhaustive study with a comprehensive discussion of noun classes, generic noun classifiers, and classifiers on verbs, and their historical development.

This incisive paper investigates syntactic properties of generic verbal classifiers and their historical relationships with incorporated body part nouns.


An introduction to Harvey and Reid 1997, with a survey of semantics and forms of noun class markers in a selection of Australian languages.


A collection of papers with a partial focus on noun classes and their areal distribution in Australian languages, and also on noun classifiers and generic classifier constructions, covering a number of poorly described languages of the Daly River area (Marrithiyel, Ngan’gityemerri and Murrinhpatha).


A seminal study of areal diffusion and contact-induced change between languages in northern Australia, with a focus on diffusion of noun classes and their exponents.


A comprehensive grammar of a northern Australian language from the Daly River area with an unusual system of noun classifiers and noun classes, which can be shown to have developed from classifiers.


A comprehensive and pioneering survey of noun classes, noun classifiers, and verbal classifiers in Australian languages.

**Austronesian Languages**

Many Austronesian languages (including Formosan languages) have numeral classifiers. In addition to these, most languages of the Oceanic subgroup have classifiers in possessive constructions. Most grammars of Oceanic languages address possessive classifiers (usually in a separate chapter).

**Possessive Classifiers**
A typical feature of Oceanic languages is classifiers in possessive constructions. These categorize the possessed noun in terms of whether the referent can be eaten, drunk, and so on, and also in terms of its shape and other physical properties. (See Lichtenberk 1983 in Possessive Classifiers and Conklin 1981 in Languages of Southeast Asia. See also Tai-Kadai Languages and Aikhenvald 2003 in Monographs.) Dixon 1988 discusses a previously undescribed system in Boumaa Fijian, and how new notions undergo reclassification. A historical scenario is in Harrison 1988, and a general picture is given in Lynch, et al. 2002. Elbert 1974 describes the largest system of possessive classifiers in the world. Correlations with social structures are revealed by Keating 1997. Lichtenberk 1985 places classifiers in the context of possessive constructions, and Song 2005 discusses their reinterpretation as benefactives.


A comprehensive grammar of a dialect of Fijian, with a special focus on the system of possessive classifiers.


A comprehensive grammar of an Oceanic language with an unusually large system of possessive classifiers.


A state-of-the-art discussion of the verbal origins of possessive classifiers in Micronesian languages, with special focus on Mokilese.


A seminal discussion of possessive classifiers in Pohnpeian, which distinguish three levels of honorific forms, and of the ways they reflect power relationships and attitudes to ownership, including those of food and of land.


A comprehensive discussion of the etymology and the development of possessive classifiers from Proto-Oceanic to modern languages.

This collection of papers contains an introductory chapter with some discussion of possessive classifiers and of numeral classifiers in Proto-Oceanic, and a number of grammatical sketches of Oceanic languages, most of which have classifiers.


A useful survey article summarizing the properties of possessive classifiers in Oceanic languages and their grammaticalization paths as benefactive markers.

**Other Contexts**

A few Austronesian languages have numeral classifiers. A pioneering study is in Silverman 1962. Lynch, et al. 2002 provides a survey. The combination of numeral and adjectival classifiers in Truquese is addressed by Benton 1968. Kilivila (Senft 1996) has an unusually large system of classifiers used in multiple environments (numerals, demonstratives, and adjectives). Malinowski 1920 is the pioneering study. Further aspects of classifier use are discovered by Lawton 1993. Minangkabau (Western Austronesian) combines noun classifiers with numeral classifiers, which, according to Marnita 1996, undergo attrition at different rates. Tang 2004 is a pioneering study of unusual semantics of numeral classifiers in a Formosan language.


A pioneering discussion of numeral classifiers, possessive classifiers, and classifiers used with modifiers in an Oceanic language. There is a large set of classifiers, and some of them have the same form as the noun they classify (this is known as “repeater” or “auto-classifier”).


A comprehensive fieldwork-based investigation of classifiers used in multiple contexts in Kiriwina (or Kilivila), an Oceanic language of the Trobriand Islands.


This collection of papers contains an introductory chapter with some discussion of possessive classifiers and of numeral classifiers in Proto-Oceanic, and a number of grammatical sketches of Oceanic languages, most of which have classifiers.

This pioneering study was the first one to describe the phenomenon of multiple classifiers in Kilivila, the Oceanic language of the Trobriand Islands.


An in-depth study of numeral classifiers and noun classifiers in Minangkabau, a Western Austronesian language, and their reduced usage by younger speakers of the language.


A comprehensive investigation of multiple classifiers in Kilivila, with information on statistics of classifier usage and remarks on child language acquisition.


A pioneering study of a large system of numeral classifiers in an Oceanic language.


A typological analysis of numeral classifiers in Paiwan, a Formosan language, in comparison with Chinese.

**Non-Austronesian (Papuan) Languages of New Guinea**

Non-Austronesian (or Papuan) languages of the New Guinea area display complex systems of noun categorization devices, including noun classes, classificatory verbs, and classifiers in multiple environments.

**General Surveys**

Unusual noun class agreement systems in Papuan languages were first outlined by Foley 1986. Lang 1975 is the first comprehensive study of classificatory verbs in the languages of the New Guinea Highlands. Merlan, et al. 1997 shows similarities between the semantics of classificatory verbs and noun class systems (in Australian languages). Noun classes and additional classifier types are summarized in Aikhenvald and Stebbins 2007.

A survey article on languages of New Guinea with a brief state-of-the-art summary of noun class and classifier systems across the area.


An overview of non-Austronesian languages of New Guinea, with a survey of noun classification devices (state-of-the-art at the time).


An in-depth analysis of classificatory existential verbs in Enga (Engan family), from the Highlands of New Guinea.


A seminal paper with a potted description of classificatory existential verbs and verbal classifiers in the languages of Papua New Guinea, and how their semantics compares to noun classes in languages of northern Australia.

**Various Types**

Languages of the Highlands of New Guinea and also of the Sepik area display complex systems of classificatory existential verbs (Brown 1981). Languages of the Sepik area also have noun class systems of varying complexity (Foley 1991, Aronoff 1992, Dobrin 1999, Fortune 1942). The assignment of genders in the Sepik area can be based on the shape and size of a referent, as shown in Aikhenvald 2008. Baining languages (Stebbins 2005) have pervasive and complex noun class agreement. Complex systems of classifiers in multiple environments have been discovered in languages of Madang and Morobe provinces and in the Bougainville area (Ingram 2003, Hurd 1977).


A comprehensive grammar of a previously undescribed language from the Ndu family, with a focus on its small gender system correlated with shape of the referent; provides a perspective on languages of the Sepik area.

A comprehensive reappraisal of unusual and complex system of noun classes in Arapesh, based on information in Fortune 1942.


A comprehensive account of classificatory existential verbs in Waris (Border family).


A comprehensive fieldwork-based analysis of noun class system and agreement in Arapesh.


A comprehensive grammar of a previously undescribed language from the Lower Sepik family, with a complex system of noun classes (with noun class agreement based partially on the semantics of the referent and partially on phonological makeup of the noun).


Pioneering description of noun class system and agreement in Arapesh.


Comprehensive discussion of classifiers in multiple environments in Nasioi, a previously undescribed language from Bougainville.


A first account of the form and the meaning of classifiers and repeaters in multiple environments (with nouns, numerals, demonstratives, and verbs) in Anamuxra, a previously undescribed language from Madang province.

A comprehensive fieldwork-based analysis of noun class semantics and agreement in Mali, a Baining language from East New Britain.

Sign Languages

Most if not all sign languages have verbal classifiers realized as handshapes. There is a growing body of literature addressing noun categorization devices in sign languages, including edited collections (Emmorey 2003 and Morgan and Woll 2007). The first ever analysis of classifiers in a sign language is Supalla 1986. Zwitserlood 2003 investigates handshapes as classifiers in the sign language of the Netherlands. Aikhenvald 2003 puts classifiers in sign languages in typological perspective.


This source puts classifiers in sign languages in typological perspective.


A state-of-the art collection of papers on classifiers in a selection of sign languages.


A collection of papers on various issues in the use and interpretation of classifiers in a selection of sign languages (including telicity, causation, and body part classifiers). Covers contributions on German Sign Language, American Sign Language, and Hong Kong Sign Language.


A pioneering paper on classifiers in a sign language, laying the foundation for the analysis of handshapes on par with classifiers in spoken languages.


A comprehensive analysis of noun categorization devices in Sign Language of the Netherlands and their use in natural discourse.