

Chapter 19

Noun classes

Amalia Skilton

19.1 Introduction

Australian languages display a rich variety of noun classification systems. There are strong areal and genetic trends in the properties of these systems—for example, the majority of all Non-Pama-Nyungan languages with noun class have exactly four noun classes. At the same time, there is significant diversity. Languages of the same family or geographic area may have significantly different kinds of noun classification system. Within the Daly River family, for example, one of the five best-described languages has non-concordial classifiers only, two have intersecting systems of concordial and non-concordial classifiers, and two display both concordial noun class and classifiers.

In this chapter, I overview two kinds of noun classification systems found in the languages of Australia: noun class systems and classifier systems. I focus on noun class systems, where the parameters of diversity are easier to quantify, but also discuss classifier systems as a point of comparison. My approach is typological, focusing on higher-level patterns across languages rather than on the details of any individual language. Earlier typological and comparative works on noun classification in Australia include [Capell \(1962b\)](#), [Alpher \(1987\)](#), [Harvey and Reid \(1997\)](#), and [McGregor \(2013: Chapter 1\)](#).

I begin this chapter by laying out the criteria that I use to define each type of noun classification system ([Section 19.2](#)). I then discuss noun class systems which do **not** involve completely semantically transparent assignment of nouns to classes ([Section 19.3](#)). Such systems are the ones most often called ‘noun class’ in descriptive literature, and are found

almost exclusively in Non-Pama-Nyungan languages. Since they have been the focus of more descriptive attention than other kinds of noun classification systems, [Section 19.3](#) makes up the majority of the chapter. In [Section 19.4](#), I consider noun class systems where class assignment is based entirely on properties of the nominal referent, such as its animacy and social gender. [Section 19.5](#) treats classifier systems, including generic-specific constructions, in comparison to noun class. [Section 19.6](#) makes recommendations for further reading, and [Section 19.7](#) summarizes and concludes.

19.2 Types of noun classification system

This section makes explicit what I take to be the defining characteristics of noun class systems, in comparison to classifier systems (within which I include generic-specific constructions). My definitions of noun class and classifier systems are drawn from [Corbett \(1991\)](#), and my definition of generic-specific constructions from the literature reviewed in [Sections 19.3–19.5](#). I assume that if some collocation of nominals displays concord, then it forms a hierarchically organized noun phrase headed by a single noun. While this assumption is useful for describing concord patterns, not all Australianist authors share it (see the citations in, e.g., [Louagie and Verstraete 2016](#)).

19.2.1 Noun class systems

In **noun class** or **gender** systems, all nouns are assigned to a noun class. The noun class assignment of the head noun of a noun phrase governs concord on other constituents of the noun phrase, such as adjectives and demonstratives, and may also govern concord on verbal argument markers. Tiwi (Tiwi; [Osborne 1974](#)) and Mawng (Iwaidjan; [Singer 2006a](#)) are two examples of Australian languages with noun class systems. Well-studied non-Australian

languages with noun class systems include the Romance languages and Swahili. Forms of nominal classification that fail to classify the entire lexicon, or that fail to display concord, are not generally analyzed as noun class systems. Instead, they are treated as classifier systems (Allan 1977; [Corbett 1991](#): 136; [Grinevald 2000](#)).

All noun class systems have some semantic basis. However, the importance of semantics to noun classification varies across languages. Again following [Corbett \(1991\)](#): 8), I distinguish between **strict semantic** noun class systems and **predominantly semantic** noun class systems. In a **strict** semantic system, there is a one-to-one association between some property of a nominal referent—for instance, animacy—and its noun class. In a **predominantly** semantic system, properties of the nominal referent influence but do not completely determine its classification. Semantic natural classes of nouns may fall into different morphological noun classes, or phonology as well as semantics may influence classification. Mangarayi ([Merlan 1983](#)) is an Australian example, and Tamil (Dravidian; [Corbett 1991](#), citing Asher 1985) a non-Australian one, of a strict semantic noun class system. Ngalakgan ([Merlan 1983](#)) is an Australian example, and Ojibwe (Algonquian; Bloomfield 1957) a non-Australian one, of a predominantly semantic noun class system. Noun class systems where class assignment is predominantly phonological, like those of Spanish and Portuguese, are not found in Australia.

Observing [Corbett's \(1991\)](#) division between strict and predominantly semantic noun class systems, I divide the discussion of languages with noun class below into two sections. [Section 19.3](#) deals with languages with predominantly semantic noun class systems, and [Section 19.4](#) with languages with strict semantic noun class systems.

The terms 'noun class' and 'gender' are often used as equivalents in the literature. However, I use only 'noun class' to designate the concord-governing property of nouns. This

is in order to reserve the term ‘gender’ for the socially constructed property of human beings, which often but not always ([Section 19.3.3](#)) predicts the class assignment of human nouns.

19.2.2 Classifiers and generic-specific constructions

In a language with a classifier system, a proper subset of nouns are associated with a classifier. The classifier appears with the noun in a subset of morphosyntactic environments. The environments which require a classifier define the type of the classifier system. If only quantification requires a classifier, the language has a **numeral** classifier system. If environments other than quantification also require a classifier, the language is said to have a **noun** classifier system (Allan 1977; Dixon 1986; a.o.). Outside Australia, Southeast Asian and East Asian languages, such as Thai (Tai-Kadai), are well-known examples of (numeral) classifier systems.

Works on Australian languages often describe **generic-specific constructions**. This is a specifically Australianist term for a particular kind of noun classifier construction. In a language with generic-specific constructions, a proper subset of nouns are associated with a hypernymic lexical noun, called a ‘generic.’ When a noun associated with a generic acts as the head of a noun phrase, the generic introduces the head noun—called the ‘specific’—on the first mention and/or replaces the noun on second and later mentions. Generic-specific constructions do not necessarily involve concord (though some do) and are not uniquely associated with quantification.

Generic-specific constructions are treated as a type of noun class system in some works, as a type of classifier system in others, and as a sui generis class of constructions in others still. Authors who treat generic-specific constructions as representing noun class include [Ford \(1990\)](#) on Bachamal (Daly River) and [Tryon \(1970\)](#) on Maranungku (also Daly River). Those who treat generic-specific constructions as a type of classifier system include [Wilkins](#)

(1989) on Mparntwe Arrernte (Pama-Nyungan: Arandic; but cf. Wilkins 2000) and Gaby (2006; 2017) on Kuuk Thaayorre (Pama-Nyungan: Paman). Merlan (2011), on Wardaman, does not label the language's generic-specific constructions as involving either classifiers or noun class.

Within Australia, whether a language has concordial noun class does not categorically predict whether it also has generic-specific constructions or other classifiers. Rather, languages can have multiple overlapping systems of noun classification. There are Australian languages which have noun class and also have generic-specific constructions (such as Wardaman, Merlan 2011). Conversely, there are others which have classifiers and generic-specific constructions, but lack concordial noun class (such as Kuuk Thaayorre, Gaby 2006; 2017); which have concordial noun class but lack classifiers or generics (such as Mawng, Singer 2006a); or which have generics, but lack any other form of nominal classification (such as Bardi, Bovern 2012a).

I discuss generic-specific constructions and classifier systems together, focussing on those systems which have been labeled in descriptive literature as 'noun class,' in Section 19.5.

19.3 Noun class systems

In this section, I discuss a sample of 34 languages which have noun class systems in which the class assignment of nouns is predominantly semantic, in the sense of Corbett (1991). I identified the 34 languages primarily by reviewing approximately 60 published and unpublished descriptive sources on 57 different Non-Pama-Nyungan languages. This yielded 30 languages in which the author described a noun class system as defined in Section 19.2.1. I then reviewed a smaller number of descriptive sources on Pama-Nyungan languages which

have been described as having ‘noun class’ in previous literature. This yielded the four additional Pama-Nyungan languages included in the noun class sample. The sample is a judgment sample and is not intended to be random or exhaustive. After assembling the sample, I coded each language for 25 variables relating to the number of noun classes, semantic basis of noun class assignment, and targets of noun class agreement. The resulting data table and the coding standards which I used to create it can be found in the supplementary materials to this volume.

[Section 19.3.1](#) describes the genetic and geographical distribution of the languages in the sample. [Sections 19.3.2–19.3.6](#) discuss properties of noun class in these languages, beginning with the number of noun classes ([Section 19.3.2](#)) and the basis of noun class assignment ([Section 19.3.3](#)). I then go on to formal properties of the noun class systems, such as the marking of noun class on the noun itself ([Section 19.3.4](#)), interactions of noun class and number ([Section 19.3.5](#)), and which constituents are targets of noun class agreement ([Section 19.3.6](#)).

19.3.1 Geographical and genetic distribution

The great majority of Australian languages with predominantly semantic noun class systems (30 of 34) are Non-Pama-Nyungan. The converse is also true: the majority of Non-Pama-Nyungan languages have predominantly semantic noun class systems. The only Non-Pama-Nyungan groupings which completely lack noun class are Nyulnyulan ([Bowern 2012a](#): 1), Bunuban ([McGregor 1990](#); [Rumsey 2000](#)), Garrwan ([Mushin 2012a](#)), and Tangkic ([Klokeid 1976](#); [Round 2009](#)); the only Non-Pama-Nyungan language with a strict semantic noun class system is Mangarayi ([Merlan 1982b](#)).

Only a handful of Pama-Nyungan languages—I was able to identify just four lects—have predominantly semantic noun class systems. These are Dyirbal (Dyirbalic; [Dixon](#)

1972); Gidabal, a member of the Bandjalang dialect continuum (Geytenbeek and Geytenbeek 1971; Sharpe 2005); Wagaya (Warluwarric; Breen 1974); and Yanyuwa (also Warluwarric; Kirton 1971a; 1971b; Kirton and Charlie 1996; Bradley 1992). Many more Pama-Nyungan languages have strict semantic noun class systems; these are discussed, with Mangarayi, in Section 19.4.

19.3.2 Number of noun classes

The majority of all Australian languages with predominantly semantic noun class have four noun classes. 17 of the 30 Non-Pama-Nyungan languages in the sample have exactly four noun classes; so do two of the four Pama-Nyungan languages.

Despite the large proportion of languages with exactly four noun classes, some of the continent's languages have more or fewer noun classes. Considering only noun classes that contain at least some singulars (see Section 19.3.3 on the interaction of noun class and number), the number of noun classes in Non-Pama-Nyungan languages ranges from two to eight. Languages with only two noun classes include Ndjebbana (Maningrida; McKay 2000) and Alawa (Gunwinyguan; Sharpe 1972). Languages with more than four noun classes include Mawng (Iwaidjan; Singer 2006a), with five noun classes; Ngankikurrungkur (Daly River; Hoddinott and Kofod 1988), with seven; and Nunggubuyu (Gunwinyguan; Heath 1984), with eight.

19.3.3 Basis of noun class assignment

19.3.3.1 Semantic basis

The semantic basis of noun class assignment is similar across languages in the sample, but it is not identical. To illustrate the similarities, I consider the class assignment of nouns of

various positions on the animacy hierarchy, beginning with humans and ending with inanimates.

19.3.3.1.1 Human nouns

The greatest similarity among noun class languages is in the treatment of human nouns. Almost all Australian languages with predominantly semantic noun class (30 of 34) have exactly two noun classes which contain singular human nouns. In every one of these, the division among human noun classes is based on social gender. One of the singular human noun classes contains all nouns denoting human men; the other noun class contains all nouns denoting human women. It is not common in Australia for all human singular nouns to belong to the same noun class (as they do in many Bantu languages, [Katamba 2003](#)). Only four languages assign all human nouns to the same class: Wunambal (Worrorran; [Capell 1941](#)), Limilngan (Limilngan; [Harvey 2001](#)), Laragia (Laragian; [Capell 1984](#)), and Wardaman (Gunwinyguan; [Merlan 2011](#)).

19.3.3.1.2 Animal species

By contrast to the great similarity in the treatment of human nouns, languages are much more diverse in their treatment of nouns denoting animal species. The most common pattern, found in 16 languages, is that animal species nouns are divided into the same two noun classes as human nouns.

Gurr-goni (Maningrida; [Green 1995](#): 55) provides an example of human-like classification of animal species nouns. The language has four noun classes, two of which contain nouns denoting animates. One of the animate noun classes includes all nouns denoting human women; the other includes all nouns denoting human men. Nouns denoting animal species are divided between the ‘feminine’ and the ‘masculine’ noun class. However, a noun phrase denoting a specific animal of known sex can be reclassified according to its

sex (i.e. according to the pattern of human nouns). The table in (1) illustrates this treatment of animal species nouns.

(1) Gurr-goni ([Green 1995](#): 55–62)

Animate-	Class I – ‘Masculine’	Class II – ‘Feminine’
Inanimate	All human men	All human women
	Some animal species	Some animal species
	Individual animals known to be male	Individual animals known to be female
	Some inanimates	
Inanimate Only	Class III	Class IV
	Most plants and plant products	Remaining inanimates / Residue
	Other inanimates	

After human-like classification schemes like Gurr-goni’s, the next most common pattern, found in six languages, is that all animal species names belong to the same class. This class may be the human male noun class (as in Ngalakgan; [Merlan 1983](#)); the general human noun class (as in Wunambal; [Capell 1941](#)), or a dedicated animal noun class (as in Gidabal; [Geytenbeek and Geytenbeek 1971](#)). It is never the human female noun class.

The other 12 languages in the sample present a variety of other classification schemes for nouns denoting animals. These include dividing animal species among all of the noun classes, as in Worrorra (Worroran; [Clendon 2014](#)), or dividing them among several different

noun classes that do not include humans, as in Nunggubuyu (Gunwinyguan; [Heath 1984](#)) and Yanyuwa (Warluwarric; [Kirton 1971b](#)).

In languages where animal species names are distributed across multiple noun classes, mythological associations are often mentioned as motivating their class assignment, both for individual species and for taxonomic groups. At the level of species, [Evans \(2003a\)](#): 209 suggests that the emu is classified as feminine in Bininj Gun-Wok (Gunwinyguan) because it is an old woman in myth; [Dixon \(1972\)](#): 308) writes that birds are classified as feminine in Dyirbal because speakers believe that they are the spirits of dead women. Mythologically and culturally oriented explanations of noun class assignment have attracted great interest from both Australianists (e.g. [Clendon 1999](#)) and non-Australianists ([Lakoff 1987](#)).

On the other hand, authors mention taxonomic groupings and/or economic value as motivating the noun class assignment of animal species names almost as often as they mention mythological associations. [Singer \(2006a\)](#): 165), for instance, observes that the Masculine (human male) noun class in Mawng (Iwaidjan) includes ‘most large prey animals’, three-quarters of birds, and most snakes. The first of these is a grouping based on economic (i.e. food) value; the second two are taxonomic groupings.

19.3.3.1.3 Inanimates

The classification of inanimates is more similar across languages than the classification of animal species. Considering first the relationship of animate and inanimate noun classes, the most common treatment of inanimates, found in 14 of the languages, is that they appear in a proper subset of the animate noun classes (usually in the human male noun class only) and also in one or more noun classes containing only inanimates. The next most common pattern, found in nine of the languages, is that inanimates are distributed across all of the noun classes, including all of the animate noun classes and additional inanimate-only noun classes.

Taxonomic groupings and economic value are the most common factors that motivate the noun class assignment of inanimates. In the domain of taxonomy, in 13 languages, most or all plant species names are assigned to the same noun class, and in 10 languages, most or all tree species names are assigned to the same class. These classes also often include the names of artifacts made from the relevant plants. For example, in Mawng, the noun class which includes the names of most plants also includes nouns denoting wood artifacts (Singer 2006a: 164).

Turning to economic value, 11 languages have most or all nouns denoting kinds of non-meat food assigned to the same class. The vegetable food noun class can be, but is not necessarily, the same noun class that contains plant species names. For example, MalakMalak divides trees and vegetable food into two different noun classes (Birk 1976: 98–104), but Laragia assigns trees and vegetable food to the same noun class (Capell 1984: 64).

Human body parts and ‘person part’ terms like ‘name’ also very often pattern together in noun class assignment. There are 14 languages where human body parts are described as part of the semantic core of one or more noun classes. In some languages, body parts define the core of a dedicated body part noun class, as in Waray (Gunwinyguan; Harvey 1986). In others, such as Kitja (Jarakan; Kofod 1996), they are part of an inanimate noun class which also has other core members.

Ngalakgan (Merlan 1983) provides a clear example of a language where all of the semantic properties just discussed are relevant to noun class assignment. The table in (2) shows this language’s four noun classes. Human men and women are the core members of two noun classes. Animal species names are all in the human male noun class (which also includes inanimates), though individual animals known to be female can receive agreement for the human female noun class. Body parts and tree names are the core members of one of

the two inanimate-only noun classes, while non-meat foods are the core members of the other inanimate-only class.

(2) Ngalakgan (based on [Merlan 1983](#): 36–7)

Include Animates	‘Feminine’ (animate only)	‘Masculine’ (animate and inanimate)
	All human women	All human men
	Individual animals known to be female	All animal species names
		Some inanimates
Include Only Inanimates	Prefix gu- (inanimate only)	Prefix mu- (inanimate only)
	Trees	Vegetable foods
	Most body parts	Some plant species
	Some plant species	Some inanimates
	Some inanimates	

19.3.3.1.4 Identifying a default noun class

In languages with semantically based noun class systems, it is often possible to identify one class as the morphosyntactically default noun class. Identification as the default class can be based on noun class resolution rules in conjunction; on the noun class agreement used on pronouns that have quantificational expressions, such as ‘nobody’, as their antecedent; or on other factors ([Corbett 1991](#): [Chapter 7, 9](#)). However, authors on Australian noun class systems rarely identify a specific noun class as the default based on such tests, perhaps because the frequent interactions of number and noun class ([Section 19.3.5](#)) make it difficult

to apply tests based on noun class resolution rules. One exception is [Heath \(1984\)](#): 535), who identifies the plant noun class of Nunggubuyu as the default based on evidence from propositional anaphora, and another is [Rumsey \(1978\)](#): 195), who suggests that the w2-neuter noun class of Ngarinyin may be the default based on its use for discourse deixis.

Even though few authors apply syntactic tests to determine the default noun class, many do identify one noun class as the ‘residue’ class based on semantic breadth. For instance, van [Egmond \(2012\)](#): 107) states that the neuter noun class of Anindilyakwa (which includes only inanimates) is the residue class for that language.

19.3.3.2 Phonological basis

In comparison to semantics, phonology and morphology play a minor role in noun class assignment in Australian languages. In only four of the 34 noun class languages do authors describe any phonological or morphological influence on noun class assignment.

In one of these four languages, Anindilyakwa (van [Egmond 2012](#): 100–7), phonology and morphology influence noun class assignment only for loanwords. This effect is due to analogy: if a loanword shares its initial segment with a native vocabulary noun class prefix, then it is assigned to the class associated with that prefix (van [Egmond 2012](#): 99). For example, the vegetable food noun class of Anindilyakwa is marked by a noun class prefix with initial /m/. Loanwords with initial /m/ are therefore treated as part of the vegetable food class, regardless of semantics. Thus, the Macassan loan *minyajirra* ‘tar’ (< Macassan *minya?*) and the English loan *milka* ‘milk’ belong to the vegetable food class, even though they have little semantic connection to the native-vocabulary members of that class (van [Egmond 2012](#): 93).

The other three languages where phonology matters to noun class are Ngarinyin (Worrorran; [Rumsey 1978](#)), Limilngan (Limilngan; [Harvey 2001](#)), and Jingulu (West

Barkley; Pensalfini 1997). In these languages, the class assignment of a (native vocabulary) noun is partially predictable from the initial segment of the noun (Limilngan) or the final one to three segments (Jingulu, Ngarinyin).

To illustrate how phonology can influence noun class assignment, the table in (3) presents Pensalfini's (1997: 255–6) phonological generalizations about the noun class system of Jingulu. This language has four classes. Based on the semantic cores of the four classes, Pensalfini labels them as ‘masculine’ (male animates and inanimates), ‘feminine’ (female animates and a few inanimates), ‘vegetable’ (vegetable food and other inanimates) and ‘neuter’ (inanimate residue). Each noun class is associated with a final segment (or string of segments) which appears in a majority of nouns in the class, as shown in (3).

(3) Jingulu noun class assignment (Pensalfini 1997: 255–9)

Noun Class	Final Segment/String	Example Noun
Masculine	/a/	<i>yarrilinja</i> ‘sand’
Feminine	/i[coronal C]i/ <ini, irni, irdi, idi>	<i>lirrikbirni</i> ‘cockatoo’
Vegetable	/i[labial C]i/ <imi, ibi>	<i>ngimirrikimi</i> ‘bush banana’
Neuter	/u/	<i>yurrku</i> ‘flower, nectar’

Pensalfini analyzes the final segments associated with each noun class in (3) as **predictors** of noun class assignment, rather than as **exponents** of noun class marking, for two reasons.

First, not all nouns in a given class include the characteristic final segment of that class. For example, *yakakak* ‘sulphur-crested cockatoo’ lacks a final /i[coronal]i/ sequence, but still belongs to the feminine class. Second, not all nouns with the characteristic final segment for

a given class are necessarily members of that class. The noun *wajirru* ‘praying mantis’ has the characteristic final /u/ of the neuter class, but is actually assigned to the masculine class; likewise, the noun *bikirra* ‘grass’ has the final /a/ of the masculine class, but is actually assigned to the neuter class. This non-unique, probabilistic relationship between form and class assignment sharply contrasts with the biunique, categorical relationship found in languages with overt noun class marked by prefixes (discussed in [Section 19.3.4](#) below).

Some recent authors have suggested that descriptive sources may understate the relevance of phonology to noun class assignment in Australian languages. [Plaster and Polinsky \(2010\)](#), for instance, reanalyze the basis of noun class assignment in Dyirbal using the lexical data presented in [Dixon \(1972\)](#). On Dixon’s analysis, noun class assignment in Dyirbal is exclusively semantic and involves many intersecting properties of the nominal referent, including mythological associations, exceptionality relative to other referents in the same taxonomic category, and associations with fire and water. On Plaster and Polinsky’s analysis, the Dyirbal noun classes retain semantic cores: for example, most nouns denoting edible plants belong to the same noun class. The membership of nouns that are not core members of any class, however, is determined by (a) the phonological form of the noun and (b) the animacy of the referent, rather than by the more complex semantic principles that [Dixon \(1972\)](#): 306–11) posits.

19.3.4 Covert vs. overt noun class

Noun class systems are said to be ‘overt’ if a noun’s class is consistently predicted by its phonological form or by a marker appearing on it in the majority of morphosyntactic environments. They are ‘covert’ if a noun’s class membership is revealed only by concord with other constituents ([Corbett 1991](#): 62). Outside of Australia, German is a well-known example of a ‘covert’ noun class system, while Swahili represents an ‘overt’ system.

Both overt and covert noun class systems appear in Australian languages. In the 34-language sample, each kind of system is equally frequent: 17 of the 34 languages display marking of noun class directly on the noun, and 17 do not. The 17 languages with overt noun class belong to a variety of different Non-Pama-Nyungan groupings, including Worroran, Jarakan, Jaminjungan, Gunwinyguan, Iwaidjan, as well as the Warluwarric subgroup of Pama-Nyungan. The 17 languages with covert noun class are also genetically diverse, belonging to the Maningrida, Daly, West Barkly, and Gunwinyguan groupings, as well as to the Dyirbalic and Bandjalangic subgroups of Pama-Nyungan. Within the sample, Ngalakgan (Merlan 1983) provides a clear example of an overt noun class system, while Gurr-goni (Maningrida; Green 1995) represents a covert noun class system.

The **overt** noun class system of Ngalakgan, previously introduced in (2), divides all nouns into four classes. Merlan labels these classes as ‘masculine’, ‘feminine’, ‘gu-’, and ‘mu-’. In most morphosyntactic environments, nouns bear prefixes that expone their class. Every noun class has a unique ‘short’ and ‘long’ prefix, as shown in (4). Whether a particular token of a noun bears the ‘short’ or the ‘long’ prefix for its class is determined by the noun’s case suffix.

(4) Ngalakgan (based on Merlan 1983: 37)

Noun Class	Class Prefix: Short Form	Class Prefix: Long Form
‘Masculine’	ɲu-	ɲugu-
‘Feminine’	ju-	jugu-
‘gu’(inanimate)	gu-	gungu-
‘mu’ (inanimate)	mu-	mungu-

Because of Ngalakgan’s overt class marking by prefixes, it is possible to determine the class membership of a noun even if it has no (agreeing) modifiers. For example, in (5) the object noun phrase ‘his name’ has no free modifiers. Nevertheless, the class membership of the noun *ŋey* ‘name’ can still be recovered from (5), because it is marked with the prefix for the *gu-* class.

(5) Ngalakgan (Merlan 1983: 41)

ŋu-wi-na *gungu-ŋey-ŋowl*.

1sg-forget-PP GU-name-his

‘I forgot his name.’

The **covert** noun class system of Gurr-goni, previously introduced in (1), likewise divides all nouns into four classes. All noun phrase constituents agree in class with the head of the noun phrase; some argument prefixes to verbs also display class agreement. Nouns themselves, however, carry no marker of their class assignment, except in the ‘local’ case (which licenses spatial adjuncts; Green 1995: 47, 62).

Because of this lack of class marking on the noun, it is **not** possible to determine the class membership of a Gurr-goni noun unless it has modifiers, triggers class agreement on the verb, or is in the local case. For instance, in (6) the object noun phrase ‘the fish’ has no modifiers and does not trigger object noun class agreement on the verb. Therefore, it is impossible to recover the noun class of the noun *djitjitja*—which is noun class I (Green 1995: 56)—from (6) alone.

(6) Gurr-goni ([Green 1995](#): 48)

<i>mu-wupunj</i>	<i>Gabi</i>	<i>njiwu-gorrma-nay</i>	<i>djitjitja.</i>
LOCIII-canoe	LOC	1AUGA>3MINO-put-PRE	fish

‘We put the fish in the canoe.’

There is some slippage between the categories of overt and covert noun class. For instance, though I have counted Bininj Gun-Wok as one of the 17 ‘covert’ noun class systems in the sample, this language in fact cannot be easily categorized as having either overt or covert noun class. Bininj Gun-Wok has four noun classes defined by concord ([Evans 2003a](#); Evans et al. 2002, but **five** classes defined by prefixes which appear on the noun: four classes with overt prefixes, and one class with a zero prefix. Even though the nominal prefixes are phonologically similar to the concord markers, a noun’s nominal prefix does not always predict its concord class ([Evans 2003a](#): 182). Not only are zero-prefixed nouns spread across all four concord classes ([Evans 2003a](#): 185), nouns with the same non-zero nominal prefix can belong to different agreement classes. The crossing of nominal concord categories and prefix categories in Bininj Gun-Wok’s noun class system has some similarities to the crossing of concordial and non-concordial classifiers in Ngan’gityemerri (Daly River; [Reid 1990](#)).

19.3.5 Interactions between noun class and number

Noun class and number interact in the majority of Australian languages with noun class (22 of 34). In all of these cases, noun class distinctions are suppressed, on at least some targets of noun class concord, when nouns are marked for nonsingular number and/or when they appear

with certain quantifiers (much as, in English, the distinction between *he* and *she* in the 3SG personal pronouns is lost with the plural *they*).

What happens when noun class is suppressed varies across languages. In some, noun class marking (on the noun or on other constituents) is replaced by dedicated dual or plural marking, such that dual or plural can effectively be analyzed as an independent noun class. In others, non-singular nouns follow the concord pattern of a specific noun class that also includes singulars. I illustrate these two patterns with examples from Ngarinyin and Bininj Gun-Wok.

Ngarinyin (Rumsey 1978) is a case of a language where number marking replaces noun class marking. This language has four singular noun classes. They all contain both animates and inanimates. Noun class is covert. (7) presents example noun phrases showing an example noun and the form of the anaphoric demonstrative for each noun class.

(7) Ngarinyin (Rumsey 1978: 53–4)

Noun Class	Example
Feminine	<i>wonay njindi</i> (woman:Fem ANA:Fem) ‘woman’
Masculine	<i>wiyila djiri</i> (young.man:Masc ANA:Masc) ‘young man’
M-Class Neuter	<i>me mindi</i> (vegetable.food:M-Neut ANA:M-Neut) ‘vegetable food’
W2-Class Neuter	<i>jurul di</i> (tree:W2-Neut ANA:W2-Neut) ‘tree’

Both human and other nouns are compatible with the plural/collective construction (which, from Rumsey’s glosses, appears to function as a plural for count nouns and a value judgment

quantifier similar to ‘a lot’ for mass nouns). The plural/collective has no realization on the noun itself. Instead, it is marked by the use of suppletive plural/collective forms for all targets of noun class agreement. For example, the noun class-specific anaphors shown in (7) are replaced by a single plural/collective anaphor, *biri*, in the plural, as shown in (8).

(8) Ngarinyin ([Rumsey 1978](#): 53–4)

Noun Class	Example
Feminine	<i>wonay biri</i> (woman:Fem ANA:PI) ‘women’
Masculine	<i>wiyila biri</i> (young.man:Masc ANA:PI) ‘young men’
M-Class Neuter	<i>me biri</i> (vegetable.food:M-Neut ANA:PI) ‘mess of vegetable food’

When the noun class distinctions are neutralized in the plural in Ngarinyin, as shown in (8), they are neutralized in favour of a form which is exclusively plural/collective and is not associated with any singular noun class. This contrasts with the other type of interaction between number and noun class found in Australia, which involves neutralization to a form that does have a specific noun class value when used with singulars.

Bininj Gun-Wok ([Evans 2003a](#)) is an example of this second kind of interaction between noun class and number. In this language, there are four noun classes defined by concord (see [Section 19.3.4](#)). While the membership of the noun classes varies across dialects, in general human women, human men, plants, and body parts are respectively the semantically core members of the four classes ([Evans 2003a](#): 185).

Bininj Gun-Wok noun phrases which are marked for plural, whether by a morphological operation such as reduplication or by the use of a quantifier, trigger masculine agreement on all targets of noun class concord—regardless of the noun class of the head. This is shown in an example from the Kunwinjku variety of the language in (9).

(9) Kunwinjku (Bininj Gun-Wok) (Evans 2003a: 214, example 5.258)

<i>Na-ngale-ngale</i>	<i>bene-bogen</i>	<i>na-nhi</i>	<i>daluk-daluk?</i>
MASC-who-who	3UA-two	MASC-this.here	REDUP-woman

‘Who are these two women?’

The noun *daluk* ‘woman’ governs feminine concord when it is singular (Evans 2003a:182), but in (9) it is marked as plural by reduplication. As a result, it governs masculine concord on both its modifier, the demonstrative *na-nhi* (MASC-this.here), and the indefinite pronoun that acts as the predicate, *na-ngale-ngale* (MASC-who-who). Since the same concord on these constituents could also be triggered by a masculine singular noun, here noun class is being neutralized to masculine under non-singular number, rather than (as in Ngarinyin) being neutralized to a form with no noun class value.

Beyond Bininj Gun-Wok, neutralization to a specific noun class that also includes singulars is also attested in Kitja (Kofod 1996) and Worrorra (Clendon 2014). In those languages, however, the classes to which plurals are neutralized appear to have only mass or collective nouns as their other members. Bininj Gun-Wok may then be the only Australian example of merging of plurals into a class that also includes truly singular count nouns.

19.3.6 Targets of noun class agreement

A wide variety of constituents display noun class agreement in Australian languages. Among the 34 languages with predominantly semantic noun class, noun phrase constituents which undergo noun class agreement include adjectives, demonstratives and other determiners, numerals and other quantifiers, possessors/possessive pronouns (which may agree with the possessor, the possessum, or both), personal pronouns, indefinite pronouns, case markers, recognitionals, and number enclitics. Adjectives are the most common target of noun class agreement, undergoing agreement in every language in the sample but Dyirbal. Demonstratives are the second most common target, undergoing agreement in 29 of 34 languages.

Predicate constituents that undergo noun class agreement include verbal argument markers—including intransitive subject, transitive object, transitive subject, and indirect object roles—and nonverbal interrogative predicates (usually glossed as ‘Where is...?’). Intransitive subject and transitive object markers display noun class agreement more often than transitive agent and indirect object markers.

The table in (10) displays, for each of these target constituent types, the count of languages in the sample which display noun class agreement on that constituent type.



(10)

Syntactic category

Count of languages with agreement (out of 34)

Noun phrase

Adjectives

33 (only exception is Dyirbal;

Dixon 1972)

Demonstratives	29
Personal pronouns	24
Possessors, incl. possessive pronouns	19
Numerals and/or other quantifiers	12 (including 2 with concord only on the numeral 'one')
Indefinite pronouns	12
Case markers	8
Article or determiner other than demonstrative	4
Recognitionals ('you-know-what'/'what's-it-called')	2
Number enclitics	1 (Gaagudju; Harvey 2002)
Predicate	
Verbal argument markers (any role)	17
'Where is NP' nonverbal interrogative predicates	3
Derivational morphology	
Nominalizers/deverbal nouns	3

Several implicational generalizations are possible about the agreement target data shown in (10). These are listed in (11). Generalizations (b) and (c) may be due to chance, since 29 of 34 languages in the sample (85%) have noun class agreement on demonstratives (b), and 33 of 34 have it on adjectives (c). Generalization (a) is more likely to reflect a real hierarchy: only 23 of 34 languages in the sample (68%) have noun class agreement on all of demonstratives, personal pronouns, and adjectives.

(11) Implicational generalizations about noun class agreement targets

- a. Determiner Other Than Demonstrative → {Demonstrative & Personal Pronoun & Adjective}: If a language has noun class agreement on articles or determiners other than demonstratives, then it also has agreement on all of the following constituent types: demonstratives, personal pronouns, and adjectives.
- b. {Possessor or Personal Pronoun or Indefinite Pronoun} → {Demonstrative}: If a language has noun class agreement on possessors, definite pronouns, or indefinite pronouns, then it also has noun class agreement on demonstratives.
- c. Verb → Adjective: If a language has noun class agreement on any verbal argument marker, then it also has noun class agreement on adjectives (same as [Greenberg's 1963](#) Universal 31).

There are a number of constituent categories that do *not* generally display noun class agreement in Australian languages, though they do elsewhere in the world. For example, deverbal nouns and relative pronouns display noun class agreement in Latin, Russian, and many other Indo-European languages. However, relative clauses/pronouns are not mentioned as displaying noun class agreement in any of the sources (although this may be a gap in coverage, as relatively few of the sources include dedicated descriptions of relativization—see Hendery, Chapter 38, this volume). Deverbal nouns are described as having noun class agreement in only three languages in the sample: Anindilyakwa (van [Egmond 2012](#): 122–4), Ngankikurrungkur ([Hoddinott and Kofod 1988](#): 52), and Wagaya ([Breen 1974](#): 74).

19.4 Strict semantic noun class systems

Strict semantic noun class systems—ones where the noun class assignment of nouns is based entirely on properties of the referent, such as social gender or animacy—are also attested in Australia. While predominantly semantic noun class systems are found almost exclusively in Non-Pama-Nyungan languages, strict semantic noun class systems are attested more often in Pama-Nyungan languages.

19.4.1 Strict semantic noun class systems in Non-Pama-Nyungan languages

Mangarayi (Gunwinyguan; [Merlan 1982b](#)) appears to be the only Non-Pama-Nyungan language with a strictly semantic system of noun class assignment. Mangarayi has three noun classes. All nouns denoting human women and individual higher animals that are known to be female belong to the feminine noun class, while all those denoting men and higher animals known to be male belong to the masculine noun class. Animate nouns denoting lower animals, as well as all inanimate nouns, belong to the neuter noun class ([Merlan 1982b](#): 58–9).

Leaving aside the semantic basis of noun class, the formal properties of noun class marking are essentially the same in Mangarayi as in most other Gunwinyguan languages. Nouns bear prefixes that encode both noun class and case, and a variety of noun and verb phrase constituents display noun class agreement. The more transparent basis of noun class assignment is all that differentiates the Mangarayi system from those of related languages.

19.4.2 Strict semantic noun class systems in Pama-Nyungan languages

Pama-Nyungan languages with strict semantic noun class systems look very different from the Non-Pama-Nyungan noun class languages profiled in [Section 19.3](#). There are two main points of contrast:

- Pama-Nyungan languages with strict semantic noun classes have exactly two noun classes, as compared to the four-class systems typical of Non-Pama-Nyungan.
- Pama-Nyungan languages with strict semantic noun class display noun class agreement only on demonstratives and personal pronouns, not on the larger variety of targets seen in Non-Pama-Nyungan noun class systems.

One Pama-Nyungan language with a strict semantic system of noun class assignment is Diyari (Karnic; [Austin 2013 \[1981\]](#)). This language divides all nouns into two classes: feminine nouns, which refer only to human women and higher animates known to be female, and masculine nouns, which refer to human men, all higher animates not specifically known to be female, and all other animates and inanimates ([Austin 2013](#): 64). Noun class agreement is realized only on third person pronouns (which are also the morphological base of demonstratives). There is no noun class agreement on adjectives or any of the other most common targets of noun class agreement discussed in Section 19.3. Karnic languages in general are underdocumented, but [Bowern \(1998\)](#) shows that a large number of other languages of the subgroup display, like Diyari, noun class distinctions on third person pronouns and related demonstratives.

Moving from the southern to the northern part of the continent, Kala Lagaw Ya (Western Torres Strait; [Bani 1987](#)) is another case of a Pama-Nyungan language with a strict semantic noun class system. This language divides all nouns into two classes. Nouns denoting human men and individual higher animals known to be male are masculine; nouns denoting human women, all higher animals not specifically known to be male, and all other animates and inanimates are feminine. This treatment of inanimates and animates of unknown social gender is the inverse of Diyari, where such nouns are assigned to the human male noun class. Despite this difference in noun class assignment between Diyari and Kala Lagaw Ya, the targets of agreement in the two languages are identical. Kala Lagaw Ya noun class agreement

is also limited to demonstratives and morphologically related third person pronouns, and does not occur on adjectives or verbs (Bani 1987: 191–5).

Besides the Karnic and Western Torres subgroups, already mentioned, there are also distinct masculine and feminine pronouns in some dialects of the Bandjalang group (Smythe 1978) and in all of the Kuri languages of the central New South Wales coast (see the citations in Koch 2013: 64–8). With this wide geographic spread of strict semantic noun class systems in Pama-Nyungan, it is not surprising that a two-way noun class distinction in third person pronouns can be reconstructed for Proto-Pama-Nyungan (Koch 2013). The first proposal for this distinction was Blake (1988), who reconstructed a feminine third person pronoun *nhan for ‘Eastern’ Pama-Nyungan. More recent authors, such as Bower and Atkinson (2012) and Koch (2013), provide evidence, based on morphological reconstructions from a wider range of subgroups, that the form in fact reconstructs to Proto-Pama-Nyungan.

19.5 Classifiers and generic-specific constructions compared to noun class

Noun classifier systems, including the use of generic-specific constructions, are cousins to noun class systems—both are forms of nominal classification. As a result, some descriptive authors move between the terms ‘noun class marker’, ‘classifier’, and ‘generic’ in discussing a single morpheme. In this section, I discuss the properties of some systems which have been described sometimes as involving ‘noun class’ and sometimes as involving ‘classifiers’ or ‘generic-specific constructions’. My examples come from the Daly River family, but similar systems can be found in the Paman subgroup of Pama-Nyungan (see e.g. Gaby 2006: 278–83, on Kuuk Thaayorre, or Alpher 1991 on Yir Yoront) or in the Arandic languages (see e.g. Wilkins 2000 on Mparntwe Arrernte).

19.5.1 The classifier system of Murrinh-Patha

I take Murrinh-Patha (Walsh 1976b) as a case study of a language with several intersecting systems of nominal classification. This language is described in Walsh (1976b): 141–2) as simultaneously displaying noun class, noun classifiers, and generic-specific constructions.

Walsh (1976b): 141–3) enumerates 10 ‘noun classes’ in Murrinh-Patha. Each class is associated with a particular ‘noun classifier’. The noun classifier is always identical to a hypernymic lexical noun that denotes members of the relevant class (Walsh 1976b: 144). For instance, Class 1 contains all nouns denoting Aboriginal people; it is associated with the noun classifier *kardu*, which is also a noun meaning ‘man’. Class 4 contains all nouns denoting types of spear; it is associated with the noun classifier *thu*, also a noun meaning ‘weapon’.

Murrinh-Patha noun classifiers normally introduce the head noun of the noun phrase. However, classifiers can also be used as the head of a noun phrase—modified by another constituent like a demonstrative or adjective, or alone—especially for non-human referents (Walsh 1997c: 260–4). Separate from classifiers, the language also displays ‘generic-specific’ constructions (Walsh 1997c: 265), where a generic (i.e. hypernymic) noun other than a classifier introduces the head noun of the phrase. What distinguishes generic nouns from classifiers—since both exist as hypernymic lexical nouns—is that (most) classifiers can be used to derive negative existentials, while ordinary nouns cannot (Walsh 1976b: 127).

(12) and (13) respectively provide examples of a classifier-noun and a generic-specific construction in Murrinh-Patha from Walsh (1997c).

(12) Murrinh-Patha (Daly River; Walsh 1997c: 265)

thu

Kuragadha

CLF:weapon boomerang

‘boomerang’

(13) Murrinh-Patha (Daly River; [Walsh 1997c](#): 265)

thay *We*

tree (generic) paperbark

‘paperbark tree’

Since Murrinh-Patha’s classifier system does not display concord ([Walsh 1997c](#): 264), it is a noun classifier system and not a noun class system in the sense of [Corbett \(1991\)](#). Concord is not the only property of the Murrinh-Patha system which distinguishes it from the noun class systems of many other Non-Pama-Nyungan languages. For example, the noun class systems of the languages described in [Section 19.3](#) exhaustively partition all nouns, including abstract nouns, into noun classes. In Murrinh-Patha, on the other hand, at least some (deverbal) abstract nouns do not have noun classifiers ([Walsh 1997c](#): 282).

Despite these syntactic differences, noun classifiers in Murrinh-Patha do share semantic and pragmatic properties with noun class markers in concordial noun class systems. For example, [Blythe \(2015\)](#) shows that Murrinh-Patha speakers use classifiers in other-initiated repair in much the same way as speakers of noun class languages use noun class markers.

19.5.2 Other intersecting systems of nominal classification

Besides Murrinh-Patha, two other Daly River languages also have systems of nominal classification that have been called ‘noun class,’ but do not involve concord. These are Wadjiginy (Ford 1990) and Maranungku (Tryon 1970). Another two Daly languages have systems that do involve concord, but do not display an exhaustive division of all nouns into concord classes. These are Marrithiyel (Green 1997) and Ngan’gityemerri (Reid 1990). Finally, MalakMalak (Birk 1976) and Ngankikurrungkur (Hoddinott and Kofod 1978) are Daly languages that **do** have exhaustive assignment of nouns to classes and concordial noun class agreement (and they are therefore the only two Daly languages included in the sample discussed in Section 19.3).

As mentioned in Section 19.2, there is no necessary relationship between the presence of noun class and that of classifiers in a single language. MalakMalak illustrates this clearly. In this language, a noun class system—which divides nouns into four classes by the concord that they govern on verbs and adjectives—is orthogonal to a classifier system, which divides nouns according to the classifier or generic noun by which they are introduced (Birk 1976: 97–9). Concordial gender agreement also coexists with generic-specific constructions, a type of classifier construction, in Wardaman (Merlan 2011).

19.6 Further reading

In this section, I highlight some especially detailed descriptions and theoretical works on noun class phenomena in specific Australian languages which I have not previously discussed. I also note other comparative and historical work on noun class in the continent.

Detailed descriptions of noun class assignment and/or the targets of noun class agreement exist for many Non-Pama-Nyungan languages. Van Egmond (2012) provides an excellent description of phonological and semantic class assignment principles for

Anindilyakwa and critiques [Leeding's \(1989\)](#) widely cited claim that that language's noun classes are organized around an opposition between 'lustrous' and 'lustreless' referents. [Clendon's \(2014\)](#) grammar of Worrorra includes a detailed description of the membership of each class, with a strong emphasis on exhaustive semantic explanations for class assignment (in the style of [Dixon 1972](#)). [Pensalfini's \(1997\)](#) dissertation on Jingulu is one of the only works which seriously considers a phonological basis for noun class assignment. Other excellent descriptions of Non-Pama-Nyungan noun class systems, discussed in more detail in [Section 19.3](#), include [Green \(1995\)](#) on Gurr-goni, [Evans \(2003a\)](#) on Bininj Gun-Wok (cf. also [Evans 1997a](#) and [Evans et al. 2002](#)); [Merlan \(1983\)](#) on Ngalakgan; [Heath \(1984\)](#) on Nunggubuyu; and [Nordlinger \(1993\)](#) on Wambaya. Within Pama-Nyungan, [Kirton \(1971a\)](#); [1971b](#)) and [Kirton and Charlie \(1996\)](#) provide exceptionally complete descriptions of the four-class system of Yanyuwa (Warluwarric).

Moving outside the primarily descriptive domain, noun class systems interact with complex predication in at least some Australian languages. [Singer's \(2006a\)](#) dissertation offers a detailed study of lexicalized noun class agreement in complex predicates in Mawng. Her later work compares lexicalized noun class agreement to other forms of nominal classification ([Singer 2010](#); [2018a](#); a.o.) and pairs a revision of the Mawng study with a more general typological study (including other Australian languages) of lexicalized noun class agreement on predicates (Singer 2016).

There is also a significant body of comparative and historical work on noun class systems in Australia. The first comparative study of noun class on the continent was [Capell \(1962b\)](#) (though as Koch [2004b:27] notes, this work involves only comparison of broad typological properties, not the comparative method); however, comparative notes already appear in Capell's earlier work on individual noun class languages (e.g. [Capell 1941](#)). More

modern typological discussions of noun class appear in [Alpher \(1987\)](#), [Harvey and Reid \(1997: Chapter 1\)](#), and [McGregor \(2013: Chapter 1\)](#). Comparative studies of noun class morphology in particular families include [Green and Nordlinger \(2004\)](#) on the proposed Mirndi group of Non-Pama-Nyungan languages; [Merlan \(2003\)](#) on Gunwinyguan; and [Blake \(1988\)](#) and [Koch \(2013\)](#) on the feminine third person pronoun in Pama-Nyungan.

19.7 Conclusion

This chapter has illustrated a part of the diversity of noun classification devices found in Australian languages. Noun class is the best-known noun classification device on the continent. In [Section 19.3](#), I therefore provided an extended discussion of the similarities and differences among predominantly semantic noun class systems. This revealed remarkable similarities among unrelated (mostly Non-Pama-Nyungan) languages, including a very large proportion of languages with exactly four noun classes, and a cross-linguistically similar semantic basis for class assignment of nouns demoting humans and inanimates. In [Section 19.4](#), I contrasted the large number of classes and rich agreement found in predominantly semantic noun class languages with the smaller number of classes, and less extensive agreement, observed in (mostly Pama-Nyungan) strict semantic noun class languages. [Section 19.5](#) drew a further contrast between concordial noun class systems (with either kind of semantic basis) and classifier systems.

Despite this significant diversity, there are some well-known forms of nominal classification which do not appear to be attested in Australian languages. Numeral classifiers seem not to be attested in any Australian language (though several languages, as discussed in [Section 19.3.5](#), have noun *class* agreement on numerals and other quantifiers). Classificatory verbs—i.e. verbs which convey information about the animacy, shape, or other properties of

one of their arguments—are attested in several American language families (e.g. Athabaskan, Mayan), but do not seem to exist in Australia.

By way of conclusion, I identify four areas for further research on noun class in Australian languages. The first three of these areas could be pursued using either archival materials or (as some of the Non-Pama-Nyungan noun class languages still have hundreds or thousands of speakers) new fieldwork.

First, Australianist authors have focussed on the semantic basis of noun class assignment, sometimes to the exclusion of considering phonological or morphological motivations for class assignment. Quantitative work on phonological and morphological trends within noun classes could be fruitful, and could be pursued even for sleeping languages, using existing dictionaries (see e.g. Plaster and Polinsky 2010).

Second, very few sources on Australian noun class languages use syntactic tests to identify a specific noun class as the language's default. Analysis of the noun class treatment of coordinated noun phrases, propositional anaphors, and quantificational expressions could identify default noun classes in more languages. Such analyses would also likely clarify the (brief) discussions of quirky or optional noun class agreement found in some descriptive works.

Third, descriptions of noun class languages give much more space to morphology than to syntax. Research on the syntactic consequences of noun class—for example, on how the class of a noun affects its object syntax, quantificational syntax, or behavior as the head of a relative clause—would complement the discussions of morphology.

Fourth and last, there is an extensive literature on the acquisition of noun class, as well as the processing of noun class agreement, in Indo-European languages. Psycholinguistic and acquisition-oriented research on noun class in Australian languages would provide a much-needed non-European comparandum for those studies.