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Sex Differentiable Terms in Languages of Flores Island: A Comparative Review

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Sex differentiable terms are lexemes that distinguish sex or gender among both humans and nonhuman animals. Focused linguistically and ethnographically on the island of Flores and neighboring islands in eastern Indonesia, the main topic is sex differentiable terms for animals and how these form distinct patterns in different languages. A pattern whereby nonhuman animals are sexually distinguished mainly by two pairs of terms is identified both for the Ngadha-Lio languages of central Flores and for Lamaholot, spoken in the extreme eastern parts of the island and on neighboring islands to the east. Different patterns are found in Sikkanese (spoken in the region intervening between central Flores and Lamaholot), among Manggarai-speakers in western Flores, and on the island of Sumba. In varying degrees, these correspond to the system of sex differentiables employed in Western Malayo-Polynesian languages like Javanese and Malay. Concerning Central Malayo-Polynesian languages spoken within one part of eastern Indonesia, this comparative study contributes to a discussion of a possible original Malayo-Polynesian pattern of sex differentiable classification and a consideration of how central and eastern Florenese patterns may have developed.

1. INTRODUCTION.¹ Found in all languages, sex differentiable terms (hereafter abbreviated as SDTs) are words, functioning as nouns or adjectives and often as both, that distinguish humans and nonhuman animals according to sex or gender. For animals, obvious English examples include ‘bull’ and ‘cow’, ‘stallion’ and ‘mare’, and ‘cock’ and ‘hen’. Whereas English SDTs are numerous and display a marked particularizing tendency, however, Malayo-Polynesian languages employ relatively few, and these are accordingly applied to large numbers of quite diverse creatures. One example is Malay (also Bahasa Indonesia and Bahasa Malaysia), where *jantan* and *betina* distinguish sex among animals of various kinds and, contextually in some dialects, male and female humans as well. Another is Javanese, where the qualifiers *lanang* and *wadon* apply both to humans (for example, *wong wadon*, ‘female person’, ‘woman’) and to *kéwan*, ‘animals’, described by Horne (1974) as “including all subhuman forms” (for example, *jaran lanang*, ‘male horse, stallion’).

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Linguists appear to have paid relatively little attention to animal SDTs. In a monograph entitled *Gender* (1991), Corbett (who describes such terms only as “sex differentiable nouns”) has little to say about SDTs in languages other than English, and a recent collection of linguistic essays edited by the same author (2013) makes no reference to the topic at all. In previous publications (Forth 2004, 2010, 2016) I have discussed SDTs used in Nage, a Central Malayo-Polynesian language spoken in the central part of the eastern Indonesian island of Flores.² One seeming peculiarity of Nage is the fact that, in principle, sex in any kind of animal (*ana wa*) can be distinguished by one of two pairs of terms—*mosa* and *metu* (or alternatively *dhéghu*) or *lalu* and *susu*. Moreover, with very few exceptions, *mosa* and *metu* (or *dhéghu*) are applied to both wild and domestic mammals; *lalu* and *susu* are then used for birds, reptiles, fish, and, in fact, all non-mammals. There are just three qualifications. First, *dhéghu* distinguishes the females of several smaller mammals (pigs, dogs, cats, monkeys, civets), whereas males of the same species retain the label *mosa*. Secondly, males of all murids (rats and mice) except one are distinguished with a special term, *hase*; the exception is the Flores giant rat *Papagomys armandvillei*, a creature much larger than other rats, whose males are called *mosa* like other male mammals. And thirdly, male and female porcupines are distinguished as *lalu* and *susu*, terms otherwise applied only to nonmammals (a matter I take up again below).

Based mostly on my own field research, the objective of this paper is to show how the patterns of sex differentiable terms found in Nage is also encountered in other languages of Flores. Languages reviewed include not just those of the notional Bima-Sumba subgroup (Esser 1938; cf. Wurm and Hattori 1981; Blust 2008), to which Nage and other “Ngadha-Lio” languages belong, but also Sikkanese, spoken immediately to the east of the Ngadha-Lio languages, and Lamaholot, spoken in far eastern Flores (the administrative district called Flores Timur, or East Flores) and in the Solor Archipelago. Wurm and Hattori (1981) place both Sikkanese and Lamaholot in a “Flores-Lembata subgroup,” which they then include in a “Timor area group.” Comparisons with Manggarai (spoken in western Flores) and Kambera (spoken in the eastern part of the neighboring island of Sumba)—two languages also included in Esser’s Bima-Sumba grouping—allows a determination of the regional extent of the Florenese patterns, as well as providing a view of the possible evolution of systems of SDTs in Malayo-Polynesian languages. As I show, like Malay, all these languages include a special term for male fowls, which would suggest that special terms for birds have been extended to include other nonmammals in a historical-evolutionary process apparently reaching its fullest development among Nage and Keo.

2. METHODS. For all of the languages considered here, questions concerning terms used to distinguish sex in a range of animal species were put to a minimum of four informants, including both males and females. A series of animal categories—including domestic mammals, wild mammals, birds, snakes, lizards, fish, and insects—were identified using local language names for either a folk-generic (*sensu* Berlin 1992; for example, Ngadha-Lio *wawi*, ‘pig’) or a life-form (*sensu* Berlin; for example, Ngadha-Lio *ika*, ‘fish’). Among Lamaholot speakers of East Flores, questions regarding the sex terms for

2. I mostly use “Nage” to refer to central Nage, the dialect spoken in the main village of Bo’a Wae, mentioning differences with other Nage dialects when necessary.

small, wild creatures other than mammals were sometimes met with either puzzlement or amusement and the rhetorical questions: “how could one tell the difference between male and female?”, or “why would anyone need to know?” (for example, the difference between male and female snakes). Even so, people responding in this way were usually able to supply SDTs for the animal category concerned. Interestingly, I never encountered these reactions among Nage-speakers, the group I know best (having conducted ethnographic research in the Nage region since the mid-1980s), nor usually among speakers of Ngadha or dialects of Keo. On the other hand, some Keo and Ngadha speakers responded that SDTs for certain nonmammals were indefinite or nonexistent because sex in these animals could not be determined. Perhaps connected with the comprehensive character of the Nage system, Nage-speakers regularly cite a number of observable factors indicating the existence of two sexes in a variety of wild animals, including invertebrates—for example, sexual dimorphism, mating behavior, the presence of eggs inside female specimens, proximity to eggs or young specimens, and so on. Also, it is a principle for Nage that any sort of animal (*ana wa*) will have both female and male members, even creatures that international science identifies as hermaphroditic, parthenogenetic, or asexual.

Like Malayo-Polynesian languages generally, no languages treated here express gender by inflection, gendered pronouns, or by any other grammatical device. Therefore, SDTs are the only linguistic means available to speakers for distinguishing sex in any species of living thing, although with humans, kin terms and other usages denoting social statuses mainly or exclusively associated with men or women (for example, terms denoting leaders, healers, or other functionaries) can also serve this function. Listed in table 1 are SDTs from ten eastern Indonesian languages and dialects.³ Classificatory variations discernible among sex terms in individual languages detailed in the table require further discussion. This is provided below under headings denoting language subgroupings.

3. NGADHA-LIO LANGUAGES. As discussed previously (Forth 2004), labeling various male animals as *mosa* is one of several usages which implicitly distinguish a category of mammals in Nage folk taxonomy. The same applies to other Ngadha-Lio languages, including Ngadha, Lio, and central and western dialects of Keo. In Nage, Ngadha, and Keo, *metu* similarly distinguishes a category of female mammals, while in central Keo and Lio *metu* further applies to female nonmammals. As noted, Nage marks an additional distinction among female mammals with *dhéghu*, a term labeling female specimens of smaller mammals. In fact, among wild mammals, only female deer are classified as *metu*, while *dhéghu* is applied to the females of other wild kinds. In western and central Keo, *dhéghu* is used only for female pigs or more specifically for domestic sows, and some Ngadha-speakers also judged the term as applicable only or mostly to pigs (cf. Arndt 1961, who glosses the term as ‘mother pig’, German *Müterschwein*), as

3. In each case, the male term is given first. Terms are transcribed throughout as in the original sources or (where collected by the author) in the script currently employed by literate speakers, which largely follows Bahasa Indonesia. The only exceptions are Verheijen’s entries for Manggarai, where I have replaced the older Indonesian spelling with the new (so that <tj> for example becomes <c>, <dj> becomes <j>, etc.). All values are approximately the same as in English, with the following exceptions: <e> is the schwa; <é> is a long /e/; <ú> (in Sumbanese) is a long /u/; <dh> is an implosive /dʔ/; <gh> is a voiced velar fricative /ɣ/; an apostrophe denotes a glottal stop /ʔ/.

TABLE 1. SEX DIFFERENTIABLE TERMS FOR HUMANS AND NONHUMAN ANIMALS[†]

Language	Humans	Mammals	Birds	Other nonmammals
Nage	<i>ana haki, fai ga'e</i> (or <i>ata ta'a ana haki, ata ta'a fai ga'e</i>)	<i>mosa, metu</i> (<i>dhégghu</i>)	<i>lalu, susu</i>	<i>lalu, susu</i>
Western Keo	<i>ana yaki, fai ga'e</i>	<i>mosa, metu</i>	<i>lalu, susu</i>	<i>lalu, metu</i>
Central Keo	<i>'aki, fai</i> (<i>ata 'aki, ata fai</i>)	<i>mosa, metu</i>	<i>dadu, metu</i>	<i>dadu, metu</i>
Menge-Ruda	<i>ana haki, fine ga'e</i>	<i>mosa, metu</i> (<i>dhégghu</i>)	<i>lalu, susu</i>	<i>lalu, susu</i> or <i>moka</i>
Ngadha	<i>ana haki, ana fai</i>	<i>mosa, metu</i> (<i>dhégghu</i>)	<i>lalu, susu</i>	<i>lalu, susu</i>
Lio	<i>ata haki</i> (or <i>ata kaki, dialectal</i>) <i>ata fai</i>	<i>mosa, metu</i>	<i>lalu, metu</i>	<i>lalu, metu</i>
Sikkanese	<i>ata la'i, ata du'a</i>	<i>lameng, waing</i>	<i>ama, muhung</i>	<i>lameng, waing</i>
Lamaholot (eastern Flores & Solor)	<i>belakin</i> (<i>belake</i>), <i>kewae</i>	<i>laki, roné(n)</i>	<i>lalu, roné(n)</i>	<i>lalun, roné(n)</i>
Lamaholot (Adonara)	<i>belakin</i> (<i>belake</i>), <i>kewae</i>	<i>laki, roné</i>	<i>baran, roné</i>	<i>baran, roné</i> (at least some non-mammals, e.g., scorpions)
Manggarai	<i>ata-rona, ata-wina</i> (or <i>kina</i>)	<i>laki</i> or <i>rona, kina</i> or <i>wina</i>	<i>lalong, kina</i> or <i>wina</i>	(no information)
Kambera (Eastern Sumbanese)	<i>tau mini, tau kawini</i>	<i>mini, kawini</i> or <i>bai</i>	<i>manu wulu, manu bai</i> or <i>manu kawini</i> (domestic fowls only)	<i>mini, kawini</i>

[†] Sources: Lamaholot (Belogili): Pampus 2008; Manggarai: Verheijen 1967, 1970.

did speakers of Nage dialects (Géro, Réndu) spoken to the northeast of Bo'a Wae. Thus, as a marker of a whole class of female mammals, *dhégghu* would appear to be mostly a (central) Nage usage. At the same time, my oldest Ngadha informant (81 years) also applied the term to female dogs and cats, and in the dialect of Menge-Ruda, spoken some 25 km to the northwest of Nage and described by speakers as “intermediate” between Nage and Ngadha, different informants gave *dhégghu* for dogs, cats, civets, porcupines, and rats, as well as for both domestic and wild sows.

Complementing *mosa* and *metu* in both Nage and Ngadha are *lalu* and *susu*, applied respectively to male and female birds, including both domestic and wild kinds. Matters are more variable in western Keo, where *susu* was given specifically for domestic hens that had produced offspring, and where one informant gave *metu* as the general term for female fowls and for the females of all wild species regardless of their parental status. This last assessment was also recorded in central Keo, where informants invariably gave *metu* as the female SDT for birds, reserving *susu* for domestic hens that had borne chicks. *Lalu* (cf. central Keo *dadu*) reflects Proto-Malayo-Polynesian **lalun*, ‘cock, rooster’ bird’ (Blust 2002:91, 95). However, in Nage and Ngadha, *susu* and *lalu* are further applied to other nonmammals, and in Nage particularly, the two terms can be called a negative category pair insofar as speakers apply them to any animal whose males and females cannot be classified as *mosa* and *metu* (or *dhégghu*). This, of course, puts the logical onus on identifying animals whose sexes can indeed be distinguished with these last

two (or three) terms. But these are readily identifiable as creatures displaying the combination of morphological and behavioral features that includes four legs, a tail, body hair or fur, live birth, and suckling—or in other words, mammals. (Bats, it should be noted, are classified as birds in all languages considered in this discussion.)

For Ngadha, Arndt (1961) glosses *susu* as ‘females of birds and snakes’ and *lalu* as ‘males of birds and snakes’. But informants I questioned applied the terms more widely than this, giving them also for lizards and fish. Similarly, *lalu* and *susu* (or *moka*, a term for young females I discuss below) were given in Menge-Ruda as the SDTs for all birds, snakes, monitors (the only lizards I explicitly inquired about), fish, crustaceans, frogs, and earthworms. Whereas central Keo distinguishes female nonmammals as *metu* (the term also applied to female mammals), in this language *dadu* (a cognate of *lalu*) denotes not only male birds but the males of snakes, lizards, and fish, thus maintaining the same pattern, and in regard to the absence of an SDT specific to female nonmammals (including birds), central Keo is identical to Lio, spoken much further to the east.

These comparisons are significant, for they reveal that over a large part of central Flores, SDTs articulate a folk taxonomic contrast of mammals and nonmammals. Or since “nonmammal” does not unambiguously constitute a taxon but rather glosses an unnamed congeries of partly named life-forms in the Ngadha-Lio languages (for example, Nage *ika*, ‘fish’; *nipa*, ‘snake’, terms employed in all languages of this group), the system, in all its variants, reveals an unnamed or covert taxon of mammals as a component of folk zoological taxonomy (Forth 2004, 2016). How far speakers themselves are able or inclined to articulate these taxonomic (or phylogenetic) distinctions is an interesting question, although it does not, of course, affect the formal properties revealed in recorded usage. Informants in the eastern Lio village of Léke Ba’i described *metu mosa* (the composite term incorporating the SDTs for mammals) as applying to ‘large animals’, and *metu lalu* (the composite for non-mammals) as denoting ‘smaller animals’, among which they specified fish, birds, snakes, and insects. In contrast, an informant in Ma’u Lo’o, a Lio village on Flores’s south coast, described *metu mosa* as applying to ‘four-legged animals’ and *metu lalu* as distinguishing ‘two-legged animals like domestic fowl’. Subsequently, however, the informant revealed that the two terms can further be applied to limbless animals like fish.

Interestingly, in listing Ngadha terms, Arndt (1961) similarly translates the mammalian SDTs (*mosa* and *metu*) as ‘males and females among four-footed animals’, while he specifies *lalu* and *susu*, the SDTs for nonmammalian creatures, as ‘males and females of birds and snakes’. Here, Arndt possibly followed generalizations offered by Ngadha informants, but it is also noteworthy that, as his numerous inaccurate glosses of Ngadha animal names attest, Arndt himself appears to have been neither knowledgeable about, nor to have had much interest in, Flores fauna. However, ethnozoological research reveals that Nage are well aware of numerous morphological differences between creatures in which sex is distinguished with *mosa* and *metu* and those for which *lalu* and *susu* are employed, including differences in methods of reproduction and mating behavior (Forth 2004). Similarly, western Keo informants remarked how all animals that lay eggs are distinguished as *lalu* and *susu* (or *moka* for younger females), so in both Keo and Nage physical differences correlated to different SDTs coincide with a taxonomic contrast of mammals and

nonmammals. Finally, I would emphasize the view, recorded for speakers of all Flores languages, that *lalu* (to focus on the more distinctive, male term) should apply to all birds, including even the smallest of wild bird species, and not just the males of domestic fowl. This too shows that it is a complex (or gestalt) of morphological features—rather than specifically the size of animals, for example, or the number of limbs, or indeed their utilitarian value—that finds expression in the differential application of SDTs.

4. LAMAHOT. Although used in languages spoken in the far eastern part of Flores, the Lamahot SDTs reveal the same general system found in the Ngadha-Lio languages. For one thing, male birds are specified as *lahun*, thus, with a cognate of Ngadha-Lio *lalu*. For another, while female mammals and nonmammals are designated with a single SDT, *roné* (cf. *metu* in Keo and Lio), the males, and accordingly the two major phylogenetic categories (mammals and nonmammals), are distinguished—as *laki* (cf. *mosa* in Ngadha-Lio languages) and *lalu*. In addition, Lamahot-speaking informants in varying degrees extended the SDTs for birds to snakes, fish, lizards, and one or more invertebrates. The same pattern is revealed by entries in Pampus's (2008) Lamahot dictionary based on the Belogili dialect, where he glosses *lalu* (or the form *lahun*) as 'males among animals that do not suckle their young (for example, birds, snakes)', a category that Pampus elsewhere in the same publication exemplifies as 'snakes, etc.'. For 'female animal', Pampus also gives *roja*. However, Lamahot speakers I questioned were generally unfamiliar with this as a SDT. Just one Belogili man glossed the term as 'female animal' and '(young) unmarried woman', remarking how these senses were also expressed with the parallelism *roné roja*.

Lamahot spoken on Adonara, a smaller island immediately east of Flores, appears identical in these respects to eastern Florenese Lamahot, except that, for birds and other nonmammals, I recorded *baran* instead of *lahun*. In his Belogili dictionary, Pampus (2008) translates *baran* as term for young animals (including young male fowl), young plants, and young people who have yet to marry. My single informant for Adonara Lamahot stated that *baran* (and the female complement *roné*) applied not just to all kinds of domestic and wild birds but also to scorpions, the sexes of which, he pointed out, could be distinguished by the presence of 'eggs' inside the female's body. (Scorpions are ovoviviparous.) On the other hand, the same man claimed that sex among geckos and monitor lizards should be specified with *laki* and *roné*, the terms for mammals—although for geckos he first gave *baran* before changing his mind. Which SDTs should be applied to snakes and fish he was unsure.

5. SIKKANENESE. Like Lamahot, Sikkaneese is classified within the "Flores-Lembata" group of languages. Intervening spatially between central Flores (the region in which the Ngadha-Lio languages are spoken) and the Lamahot-speaking region in the far eastern part of the island, Sikkaneese is curious insofar as SDTs in this language do not comprehensively distinguish mammals from nonmammals. Sikkaneese *lameng* and *waiŋ* (*lamen* and *wain* in northern dialects) respectively distinguish males from females among mammals, while *ama* and *muhung* (or *inang*; cf. northern Sikkaneese *aman* and *muhun/inan*) do

the same for both domestic fowl and wild birds. However, sexes among other nonmammals are distinguished as *lameng* and *waing*, the terms also used for mammals.

The Sikkinese SDT for male birds, *ama*, is the kin term for 'father'. Similarly, Pareira and Lewis (1998) give '*lameng*,'⁴ apparently a variant of *lameng* ('male mammal'), as 'young man', though in this case it may be the first, nonhuman sense that is primary—as in the English use of 'buck' with the same human referent. *Inang*, a form of Sikkinese *ina*, 'mother', applies both to female mammals and nonmammals, but this usage distinguishes not females in general but females with offspring (as in *wawi inang*, 'mother pig', or *manu inang*, 'mother hen'). Other than denoting female birds, *muhung* can modify *kabor*, 'coconut', in reference to a nut 'that is still small' (Pareira and Lewis 1998 s.v. *muhung*) and, as I later explain, has a peculiar application to female cats.

6. MANGGARAI AND SUMBANES. Although spoken in western Flores, SDTs used in Manggarai reveal interesting similarities to Lamaholot, spoken in the far eastern part of Flores. Female mammals and birds are, thus, designated by a single term, *kina*, *wina*, or *wai*; male animals are specified as *laki* (for mammals) and *lalong*. These last two terms, it will be noted, are virtually identical to their Lamaholot equivalents. However, Manggarai SDTs otherwise reveal significant differences from both the Lamaholot pattern and that found in Ngadha-Lio languages. To begin with, although Verheijen's entry suggests that *lalong* applies to all birds, there is no indication that it applies to other nonmammals. Second, *rona*, another Manggarai term distinguishing male animals (and probably specifically male mammals), is remarkably similar to Lamaholot *roné*, a term that denotes not male but female animals (both mammals and nonmammals). Finally, Manggarai *rona* further applies to human males (as in *ata rona*, where *ata* is 'human, person'), and in the same way, *wina*, which denotes human females (*ata wina*), is also the SDT for female animals—although the variant *kina* appears to be more often applied to animals. By the same token, the male SDT *laki* also refers both to humans and animals (Verheijen 1967).

In general, therefore, the Manggarai pattern of SDTs appears identical to that found in Javanese, where (with the exception of a separate term for male domestic fowl, Javanese *jago*) a single pair of terms (*lanang* and *wadon*) distinguish sex in both humans and nonhumans. The same applies to Kambera (eastern Sumbanese). In fact, differences in SDT usage between Kambera and Manggarai are minor. In place of Manggarai *lalong* (cf. Ngadha-Lio and Lamaholot *lahu* and *lahun*), for male fowl Kambera employs *wilu* (more completely, *manu wilu*; *manu* is 'domestic fowl'), a term apparently identical to *wilu* in the sense of 'rich, wealthy, capable' (also 'to make, create'). Also, whereas the Manggarai *lalong* apparently applies to the males of all birds, Kambera *wilu* refers specifically to male domestic fowl. On the other hand, Kambera speakers alternatively call cocks *manu mini* ('male fowl', cf. *tau mini*, 'male human, man', *karambua mini*, 'male buffalo'), but this is less usual, and while *manu kawini* specifies female fowls (or 'hens'), the more common usage is *manu bai*. *Bai*—related to terms in other Central Malayo-Polynesian languages meaning 'woman' or 'wife' (see *fai* in Ngadha-Lio languages, 'wife, woman';

4. This begins with a sound represented by 'l', which is not described but which differs somehow from *l*.

Central Manggarai *iné-wai*, western Manggarai *inwai*, ‘wife’; Sikkinese *wai*, ‘wife’; and Lamaholot *wae*, *kewae*, ‘woman, wife’)—seems more often applied to mature females. Also, when it precedes an animal name, it usually specifies a mother animal or the mate of a male animal: for example, *bai manu*, ‘(mother) hen’, *bai wei*, ‘sow with young’, *bai njara*, ‘mare in relation to a stallion leading a herd’ (Onvlee 1984).

These comparisons are interesting insofar as the similar patterns of SDTs in Kambera (Sumba) and Manggarai (Flores) are not consistent with more general relationships between these languages. For example, citing lexicostatistical data, Blust (2008:83) states that among so-called “Bima-Sumba” languages, Manggarai “appears to subgroup” with Ngadha-Lio languages rather than with Sumbanese. And it is already clear how the system of SDTs found in Ngadha-Lio languages most closely resembles what is found in Lamaholot, a language classified as one of the “Flores-Lembata” languages, thus another grouping altogether. The point gains further support from Rotinese, a Central Malayo-Polynesian language closely related to languages of Timor, which displays much the same pattern of SDTs as do Kambera and Manggarai. Thus, Rotinese applies *mane* (male) to both humans and a variety of mammals; male domestic fowl are distinguished as *lahuk* (another reflex of Proto-Malayo-Polynesian **lalun*); and both female fowl and female mammals are specified with *ina* (as in *busa-ina*, ‘female dog’), the kin term for ‘mother’ (Jonker 1908).

7. TERMS FOR YOUNGER OR OLDER ANIMALS. The SDTs given in table 1 refer to mature animals, including animals that have already borne offspring. In addition to these, Ngadha-Lio languages employ separate terms for young mammals, namely, *moka* for immature females (for example, *ja moka* or *jara moka*, ‘female foal, filly’; *manu moka*, ‘young hen’) and *haki* for young males (Nage, Ngadha; for example, *jara haki*, ‘young stallion’) or *yaki* (western Keo). In Manggarai, *moka* occurs in the form *mokang*, ‘female animal that has yet to bear offspring’ (Verheijen 1967). In Lio, however, *moka* is not used as a term for young animals, nor is *kaki*, the Lio cognate of Nage and Keo *haki* and *yaki*. Interestingly, in all these languages, *haki*, *yaki*, or *kaki* each has the primary meaning of ‘husband’ or ‘man (human male)’, and when combined with *ana* (‘child, person’) denotes a human male (see Nage *ana haki*, *ata ta’a ana haki*, ‘(person who is) male’, cf. western Keo *ana yaki* and Lio *ana kaki*).

Especially in regard to female animals, terms for younger specimens are variously applied in the Ngadha-Lio languages, and there is a noticeable tendency to represent *moka* as the general SDT for the females of wild species. Some informants rationalized this with reference to difficulty in discerning whether specimens had already produced offspring or not. But this only underlines a possible use of *moka* as the generic or default term for certain female animals. At the same time, use of *metu* or *moka* for female mammals, including female domesticates, appears to be partly idiolectal. By contrast, *haki* (‘young male animal’) and cognates are mostly if not exclusively applied to young male mammals and not to male birds or other nonmammals, where age is usually not distinguished. Accordingly, the usual default term for males is *mosa* (for mammals) or *lalu* (for nonmammals). In Nage, *haki* and *moka* are not usually applied to rats and mice (animals that, as noted, possess a special term for males), nor, it seems, to porcupines. And special

terms are employed for young domestic cocks in all Ngadha-Lio languages (for example, Nage *manu kako bake*, ‘fowl that crows ineptly’).

In contrast to Ngadha-Lio languages, in Lamaholot it is more definitely older rather than younger animals that are marked by special terms. For the Belogili dialect, Pampus lists *inan* (cf. *ina*, the formal or ritual term for ‘mother’) as a modifier specifying older female animals that have already borne young (see *manuk inan*, ‘mother hen’; *aho inan*, ‘mother dog’). Female animals that have yet to give birth are listed as *manuk roné* (alternatively *gorék*) for domestic fowl, and *aho roné* for a young female dog. The term for a young female goat (*witi*) is given simply as *witi ronén*. But as all these examples suggest, rather than distinguishing young specimens, Lamaholot *ronén* functions as a default term for all female animals, both mammals and nonmammals. For a female pig (*wawé*), Pampus records *wawé wajo*; however, since the same authority translates *wajo moho* ‘as ‘a female sacrificial animal’, *wawé wajo* may have a more specific meaning. (In regard to animals, *moho* ‘is translated as ‘barren, sterile’, thus suggesting that Belogili people may reserve for slaughter females that have not produced offspring.)

8. TERMS FOR HUMANS. A list of human SDTs, terms meaning ‘man’ and ‘woman’ or (sometimes qualifying words for ‘child’) ‘boy’ and ‘girl’, are listed in table 2, together with related words employed as SDTs for nonhuman animals.

TABLE 2. SDTs FOR HUMANS COMPARED TO SPOUSE TERMS AND OTHER USAGES[†]

Language	SDT for ‘man, human male’	SDT for ‘woman, human female’	Spouse terms in the same language	Comparable SDTs for non- human animals
Nage	(<i>ata ta’a</i>) <i>ana haki</i> (In the Géro and Réndu dialects, <i>haki</i> is ‘ <i>aki</i> and <i>raki</i> ’)	(<i>ata ta’a</i>) <i>fai ga’e</i>	<i>haki</i> , H; <i>fai</i> , W	<i>haki</i> , young male mammal
Western Keo	<i>ana yaki</i>	<i>fai ga’e</i>	<i>yaki</i> , H; <i>fai</i> , W	<i>yaki</i> , young male mammal
Central Keo	<i>ata ‘aki</i>	<i>ata fai</i>	‘ <i>aki</i> , H; <i>fai</i> , W	‘ <i>aki</i> , young male mammal
Ngadha, Menge-Ruda	<i>ana haki</i>	<i>ana fai</i> or <i>fine ga’e</i>	<i>haki</i> , H; <i>fai</i> , W	<i>haki</i> , young male mammal
Lio	<i>ata kaki</i> , <i>ata haki</i> (dialectal)	<i>ata fai</i>	<i>kaki</i> , <i>haki</i> , H; <i>fai</i> , W	(none)
Sikkanese	<i>ata la’i</i>	<i>ata du’a</i>	<i>la’i</i> , H; <i>wai</i> (impo- lite), <i>du’a</i> , W	<i>waing</i> , female mammal
Lamaholot	<i>belakin</i> , <i>belake</i>	<i>kewae</i>	<i>lake</i> , H; (<i>ata</i>) (<i>ke</i>) <i>wae</i> , W	<i>laki</i> , male mam- mal
Manggarai	<i>ata-rona</i> , <i>rona</i>	<i>ata-wina</i> , <i>ata- kina</i> ; <i>wina</i> , <i>kina</i>	<i>rona</i> , H; <i>wina</i> , W	<i>rona</i> , male animal; <i>kina</i> , <i>wina</i> , female animal
Kambera (eastern Sumbanese)	<i>tau mini</i> (<i>tau</i> , human, person)	<i>tau kawini</i>	<i>lei</i> (dialectal <i>lai</i>), H; <i>papaha</i> , W	<i>mini</i> , male ani- mal; <i>kawini</i> , female animal

[†] In all languages, *ana* is ‘child’, ‘person’, ‘member of a collectivity’; *ata* is ‘human being, person’ in all languages except Kambera, where the term is *tau*. H = husband, W = wife.

As table 2 shows, the SDTs for humans recur in all languages, either in the same or slightly different form, as SDTs for animals. Noteworthy comparisons include: Nage and Ngadha *haki*, ‘young male animal’ and *ana haki*, ‘male person, man’; Lamaholot *laki*, ‘male nonhuman mammal’ and *belakin* (or *belake*), ‘man, male person’; Sikkaneese *waing*, ‘female mammal’ and *wai*, ‘wife’ (both cognates of Ngadha-Lio *fai*, ‘woman, wife’); and Manggarai *wina* (or *kina*), ‘female animal’ and *ata wina* (or *ata kina*; *ata*, ‘human, person’), ‘woman’. Consistent with other variation in animal SDTs in the different languages, the extent of this replication also varies. Thus, in Ngadha-Lio languages, it occurs only in terms for immature animals (*haki*, *yaki*, or ‘*aki*’); in Lamaholot, it is revealed only in terms for ‘male mammal’ (*laki*) and ‘human males’ (*belakin*, *belake*); while in Sikkaneese, one finds only *wai*, ‘wife’ and *waing*, ‘female mammal’. In Sikkaneese, however, SDTs for fowl draw on human kin terms; thus *manu ama*, ‘cock’ (*ama*, ‘father’) contrasts with *manu inang*, denoting a mature hen (*ina*, ‘mother’), and this usage parallels the synonymous use of (*manu*) *inan* in Lamaholot, where *ina* is ‘mother’ in ritual language (but otherwise *ema*).

A similar connection is found in Manggarai, where *wina* (dialectal *kina*), denoting both female animals and human females, is apparently related to *ine*, ‘mother’ (in several Manggarai dialects) and *inang*, ‘father’s sister, mother-in-law’. The application of Manggarai *laki*—an obvious cognate of Ngadha-Lio *haki* (*yaki*, ‘*aki*’) meaning both ‘husband’ and ‘young male animal’—is ambiguous in Verheijen’s (1967) listings, although it seems to refer only to human males. Kambera is peculiar insofar as *lei* or *lai* denotes only ‘husband’ and is applied neither to nonhuman animals nor to male persons (called *tau mini* or simply *mini*). Like Malay *laki* (‘male’) and *laki-2* (‘husband’), all these terms, it should be noted, reflect Proto-Malayo-Polynesian *laki ‘man, male’. As various comparisons reveal, terms distinguishing sex or gender among humans in Malayo-Polynesian languages are typically identical to or cognates of the spouse terms—a matter I take up again below.

9. EXCEPTIONAL USAGES. As indicated earlier, zoological distinctions registered in systems of SDTs found in languages considered here admit several exceptions. The most arresting is the Nage usage whereby male and female porcupines (*Hystrix javanica*) are distinguished not with the mammalian SDTs but with the terms applied to birds and other nonmammals. This peculiarity has been comprehensively treated elsewhere (Forth 2004)—and indeed is the inspiration for the title of a recent book (Forth 2016)—so there is no need for an extended discussion here. I should stress, however, that Nage are well aware that porcupines are, in effect, “mammals” (or like ‘pigs [and] dogs’, *lako wawi*, as they articulate this specification), and that by all indications the usage is not taxonomic—that is, it does not express a conception of porcupines as creatures other than mammals, but rather reflects a symbolic representation based selectively on several physical features of porcupines that distinguish them from all other mammals.

Among the more significant of the comparative findings informing the present paper is the occurrence of the same usage in western Keo and Ngadha, and even further afield in Lio, specifically eastern Lio, thus in the region bordering on the area where Sikkaneese is spoken. In western Keo, female porcupines were mostly specified as *moka* (the term more specifically referring to young females among both mammals and nonmammals),

but male porcupines were invariably classified as *lahu*. Neither in Keo nor elsewhere on Flores, however, did I encounter any evidence that people consider porcupines as substantially different from other mammals—for example, in regard to method of reproduction, number of limbs, or other morphological features. Eastern Lio informants gave several reasons why porcupines should take the nonmammalian SDT *lahu*—including the creatures’ possession of a “comb” (*pépe*) somewhat like a coxcomb, and quills (*pédo*) that resemble the feathers of a bird, and accordingly the animal’s lack of the fur or body hair typical of other mammals. However, like other Ngadha-Lio speakers, eastern Lio were quite certain that porcupines are otherwise far more like other mammals than they were like either birds or other nonmammals. In Menge-Ruda, porcupine sexes were distinguished with the mammalian SDTs. However, speakers were familiar with the use of *lahu* and *susu* for porcupines, and an elderly informant described this as the former usage that is no longer observed.

In southeastern Indonesia, porcupines occur only on Flores, and possibly the smaller islands of Solor and Adonara located a short distance off Flores’s eastern tip (and to where they could easily have been transported from Flores). They are not found further eastward, nor on Sumba, Timor, or the smaller islands of Sawu or Roti. SDTs for non-mammals, or specifically birds, are not applied to porcupines in Sikka or the Lamaholot-speaking region and I have no evidence for Manggarai (western Flores). Nevertheless, it is noteworthy that Lamaholot speakers in eastern Flores represent porcupines as the form that domestic fowl assume among unseen forest spirits (*nitun*; cf. *nitu* in Ngadha-Lio languages). The notion reflects a widespread idea, amply attested in Nage and other parts of Flores (Forth 2016) and also found in other parts of insular and mainland Southeast Asia (see, for example, Århem 2016:99), according to which wild animals, and especially mammals, figure as the livestock of forest spirits. Among Lamaholot-speakers, civets are the spirits’ dogs and wild pigs are their domestic swine, as they are in other parts of Flores. As recorded previously (Forth 2016), porcupines are implicitly linked with birds on the island of Alor, where one source gives the animal’s name as *manu katutu* (*manu*, ‘domestic fowl’; *katutu* is Lamaholot for ‘porcupine’)—even though porcupines appear not to occur on Alor. Although it is apparently only speakers of Ngadha-Lio languages that specify sex in porcupines with the SDTs employed for birds and other nonmammals, therefore, this linguistic usage evidently reflects a cultural representation of the creatures that is more widespread in eastern Indonesia.

While Sikkanese does not distinguish sex among porcupines with any SDT otherwise applied to birds, this language reveals a parallel exception in regard to another mammal, the domestic cat (*meong*). Thus, Sikkanese label male cats as *ama*, and female cats as *muhung* (or *inan*)—the same SDTs they apply to male and female birds. And consistent with this usage, speakers of northern dialects, at least, describe female cats not as “giving birth,” as they do for other mammals, but as “laying eggs” (*delo*; cf. *telo* ‘egg’). Recalling this last practice is the Nage custom whereby cats delivering kittens should be spoken of as “vomiting” (Forth 2016:104). Similarly, a southern Sikkanese informant gave the term for a cat whelping as *da’i*, otherwise meaning ‘to defecate’. In both northern and southern Sikka, I was told, cat sexes are distinguished with the bird terms in order to dissuade them from killing and eating chickens. According to another idea, they are described, in effect,

as “cocks” and “hens” because their cooked flesh smells like cooked chicken, and it was also claimed that, were one to apply the mammalian SDTs to cats, or describe them as “giving birth” (like other mammals), they would become distressed and run away. Whatever is to be made of these explanations, they appear to express the special status of cats, particularly in relation to humans and within human settlements, and a recognition of some exceptional character possessed by this animal, in Sikka as in other parts of Flores (Forth 2016:101–4). In this connection, it seems significant that, according to speakers of northern Sikkane, the SDTs for birds should be applied only to domestic cats and not to wild (or feral) cats, separately named as *maong* or *meong uta* (‘forest cat’).

As noted earlier, Nage distinguish male rats and mice (*dhéke*) with a special term, *hase* (for discussion, see Forth 2004, 2012a, 2016). A similar usage is found in central Keo, where I recorded *lase* for male murids, or especially old males. (At the same time, central Keo also applies this term to Giant rats *Papagomys armandvillei*, separately named there, as in Nage, as *bétu*, whereas Nage reserve *hase* for smaller rats and mice.) Central Keo *lase* is significant as it is evidently cognate with *lasu*, the word for ‘penis, male genitalia’ in Keo, Nage, and Ngadha, as well as with Lio *lase*, ‘male member (penis)’ (Arndt 1933), and Ngadha *lase* ‘testicles and scrotum’ (Arndt 1961), thereby lending support to an interpretation of Nage *hase* as a term with specifically genital associations (Forth 2012:61).

Another exceptional usage for male animals is Lamaholot *lota*, specifically denoting a male deer. Van der Hulst (1982) lists *lota* as one of two terms for ‘deer’ in the Lamaholot dialect spoken on Solor island; the other is *ruha*, an obvious reflex of Proto-Malayo-Polynesian *uRsa, deer (Blust 2002:100, 102; cf. Malay *rusa*), which, in fact, is the general name for deer in Lamaholot. In at least some Lamaholot dialects, *lota* (or *ruha lota*) may refer more specifically or especially to mature male deer, or deer with fully developed antlers (six points according to one specification), with younger males being distinguished as (*ruha*) *lakin*—like other male mammals. By the same token, Lamaholot *ruha inan* denotes an older doe that has already borne young. (Another special term for deer is (*ruha*) *kenahu(n)*, which refers to a young male or female.)

Lota is of comparative interest since some Nage know it as a term for ‘deer’ formerly employed in the district of Wolo Wea and in coastal regions of eastern Keo (Forth 2016; for ‘deer’ terms elsewhere in the Nage region, see Forth 2012b). Otherwise, *lota*—or *kogha lota* (*kogha* is the usual term for ‘deer’ in Nage, Ngadha, and most parts of Keo)—occurs only in standard Nage metaphors, in which context most speakers can describe it only as a reference to an animal of an unknown kind. Paralleling the Lamaholot (and perhaps eastern Keo) use of *lota* for male deer is the use in central and western Keo of *langga* and *yaga* for male goats and sheep, although it is unclear, especially for western Keo, whether the general male SDT, *mosa*, might alternatively be applied to these animals. As I describe just below, another cognate is ‘*aga* (or *raga*)’, employed in Nage specifically for large male sheep.

Besides porcupines in Ngadha-Lio languages and cats in Sikkane, other cases where SDT usage does not consistently align with the zoological contrast of mammal and nonmammal concern sea mammals and large reptiles. As exclusively marine creatures, dugongs (*Dugong dugon*) are classified by Lio-speakers as members of the life-

form *ika* ('fish'), yet male dugongs are usually distinguished as *mosa*, like the males of all terrestrial mammals (other than porcupines). The specification of female dugongs as *metu* is not diagnostic, as Lio apply this term to all female animals. I recorded essentially the same usage in western Keo, where male dugongs were given as *yaki*, like other (young) male mammals. Occupying interior regions of Flores, Nage by contrast are mostly unfamiliar with dugongs and know them only as (*ika*) *duyu*, an adaptation of Bahasa Indonesia *duyung*. Since most Nage are aware of dugongs only as creatures that live in the sea, they regard them simply as an unknown kind of "fish" and, therefore, infer that the applicable SDTs are *lahu* and *susu*.

The specification of male dugongs with terms for other male mammals agrees, of course, with the mammalian character of dugongs. Florenese living near the coast are fully aware of the dugong's mammalian features—including the female's possession of nipples and their suckling of young. In fact, in these respects, the animals are regularly described as resembling human beings. Bound up with this resemblance, Lio people call dugongs *ata ruju*, 'dugong people', as well as *ika ruju* ('dugong fish'), *ika ata ruju* ('dugong people fish'), or simply *ruju*, and consistent with the first name, when speaking about individual animals they often distinguish the sexes with the SDTs employed for human males and females. The implications of these usages for folk taxonomy are of importance for ethnobiological theory, but here it may be sufficient to note that the application of both the human SDTs and those used for nonhuman mammals accords with a local representation of dugongs either as humanlike creatures or as large marine animals that, regardless of their resemblance to people, are after all not human beings. On the other hand, the use of SDTs of either sort contradicts the further classification of dugongs as 'fish' (*ika*), animals whose male specimens Lio normally specify with the nonmammalian SDT, *lahu*.

In contrast to dugongs, Lio do not identify whales (*léla ngai*) with humans, nor are they so familiar with their mammalian characteristics—a difference largely attributable to the dugong's habit of feeding almost exclusively on seagrass that grows near the shore, where they are observed more often or at closer range than are cetaceans. The Lio designation of male whales as *mosa* ('male mammal') is, thus, likely attributable more to their large size than to knowledge of their mammalian methods of reproduction and infant care. Things may be different with dolphins (*lobu*). I have just two accounts by Lio informants that mentioned SDTs applied to these smaller cetaceans, and according to both, males should be distinguished as *lahu*. In contrast, Lamaholot-speakers gave *laki*, the male mammal term, for male dolphins. If there is any consistent difference in this respect between dugongs and whales, on the one hand, and dolphins, on the other, it likely reflects the fact that dolphins, usually encountered further from shore than dugongs, are considerably smaller than most whales, and that dolphins have a generally more fishlike shape than other sea mammals, swim more quickly, and—like other "fish"—travel in groups (pods).

Whereas in Lio the males of snakes and other reptiles should be distinguished as *lahu*, one Lio informant thought male monitor lizards (*degi*) could alternatively be specified as *mosa*, while another said the same in regard to male snakes. In the second case, the particular reference was pythons, so both reports are explicable with regard to the very large size

of these snakes (particularly *Python reticulatus*, the commonest of Flores pythons) and of monitors (*Varanus salvator*), which can attain a length of over one meter. (Evidence for *mosa*, as an SDT, deriving from a word primarily meaning ‘big’ is discussed below.)

Similar differences are discernible in Lamaholot usage. In Belogili, male geckos (*Gecko* spp.) and monitors were given as *lahun*, whereas male snakes were given as *lakin*, the mammal SDT. Whether the latter interpretation referred to any particular kind of snake, such as pythons, is unclear. However, it should be recalled that this information contradicts Pampus (2008), who indicates that males of all nonmammals should be *lahun*. Belogili informants were not sure about the terms for other lizards. But one man thought that male skinks (*ua mea*) should also be *lakin*, mentioning spontaneously how these are able to mate with and impregnate pigs (sows)—an idea widespread on Flores and elsewhere in eastern Indonesia (Forth 2016). In Riang Kamie (East Flores), male geckos are called *lahu(n)*, but informants were either unsure about SDTs for monitors, skinks, and snakes (and also fish), or said these took no definite terms. The fact that Lamaholot-speakers were apparently more certain about geckos, and specifically the fact that male specimens should be labeled *lahu(n)*, is curious. By contrast to other reptiles, Florenese are more familiar with these relatively large and very vocal lizards, which are often seen or heard inside or near dwellings. However, even more common are the ubiquitous although much smaller house-lizards (*Hemidactylus* spp., also members of the Gekkonidae, and in English, somewhat misleadingly, also called ‘house geckos’), but in this case Lamaholot-speakers were generally less certain of the proper SDTs.

10. AGE TERMS. In addition to the general SDTs, most if not all languages surveyed here include special terms for old and large male animals. These terms, moreover, are specific to individual folk-generics, in which respect they recall the majority of English SDTs (like ‘stallion’, ‘ram’, and so on). Thus, Nage has: *pode* (or *o’a pode*, old male monkey), *kutu céra* (large male porcupine), and *’aga* (large male sheep). Although *’aga* is cognate with *langga* and *yaga*, general terms for the males of both sheep and goats in Keo dialects, rams in Nage can always be specified with *mosa*, as can males of other mammals. That *’aga*, *yaga*, and *langga* focus on the horns of rams, and in Keo the horns of billy-goats as well, is suggested by Ngadha *raga*, ‘antlers (of deer)’ (Amdt 1961) and also ‘old male deer’.

In contrast to *’aga* and *pode* (‘large male monkey’), Nage age terms for other animals comprise several series denoting growth stages in males or females of different species and are mostly composed of descriptive binomials (see Forth 2016:327–28). Nage also has special terms for old females that no longer bear offspring. For domestic animals this is *komo* (as in *ja komo*, ‘old mare’), while for old female deer and elderly wild sows the terms are, respectively, *metu waja* and *dhéghu waja* (*waja*, ‘old, ancient’). For old domestic sows, I recorded *wawi pola*, and for young wild sows that have yet to bear, *pola moka*.

Terms for large and older male animals seem to be especially numerous in Manggarai (in western Flores). Verheijen (1970) records: *kulés*, ‘large wild boar’ (see also *cu’ing* [s.v. *tju’ing*] ‘uncastrated male pig’); *lama* or *seket*, ‘large male monkey’; *raké*, ‘large male Giant rat (*Papagomys armandvillei*)’; *mucang* [s.v. *mutjang*], ‘large male Palm civet (*Paradoxurus hermaphroditus*)’; and *moca* (dialectal *poca* [s.v. *motja*]), ‘large male

porcupine'. Several terms deserve comment. First, it is noteworthy that two of the animals whose older males are distinctively labeled in Manggarai—monkeys and porcupines—are also singled out in Nage, thus possibly suggesting a similar motivation operative in both languages. Second, *mucang* 'large male civet' evidently reflects borrowing from Malay (or Indonesian) *musang*, the general term for the same animal in that language. *Moca*, the term for large male porcupines, is cognate with *mosa*, the SDT for male mammals in general in the Ngadha-Lio languages. And finally, *cu'ing*, 'uncastrated boar', is cognate with Ngadha-Lio names specifying wild pigs (western Keo *yui*, *wawi yui*, and Menge-Ruda *hui*).

Besides *raga* for deer, Ngadha terms specifying old males include *ha'e* for pigs (Arndt 1961; in Menge-Ruda *ha'e* is the general name for 'domestic pig'). Although I recorded *lobo ri'a* (literally 'big tip') for large male rats (*te'u*) in Lio, I have yet to systematically investigate special usages for old male animals in either Lio or Keo. However, such terms are certainly found in Lamaholot. Thus, for the Belogili dialect, Pampus (2008) lists *munak belakat* (cf. *lakat* 'far, to travel far') for a large male monkey (*munak*), specifically one that lives alone, or separate from a troop; and *tutung belan*, large male porcupine (younger males are *tutung lakin*; females are *tutung rone*). In addition, an Adonara informant gave *lako' kua* for old male civets (by contrast to younger males, distinguished as *lako' lakin*), and further described animals so named as distinguishable by a very strong smell. Although *kua* is not found in Pampus's dictionary, the term occurs in Nage as a qualifier specifying the larger of two putative kinds of porcupine (*kutu kua*), the largest kind of owl (*po kua*), and a particular variety of wild pig (*wawi kua*; Forth 2016). For the Lamaholot dialect spoken in Belogili, Pampus lists *ulen*, 'large male pig' (whether domestic or wild or both is not specified); *ulen kakan*, 'large pig or goat'; and *kakan*, 'male goat that is castrated' (by contrast to *koban*, 'a young male goat that has yet to be castrated'). Elsewhere in the Lamaholot region I recorded *keperuk* for 'large male monkey, the leader of a troop', but Pampus (2008:126) translates this simply as 'male monkey'.

Kambera (eastern Sumbanese) also has special terms for old male mammals distinct from the usual SDTs. For goats the term is *bumbu*, and for monkeys *bora*. The fact that these usages single out older males, and, moreover, that in all languages the referents are mostly wild animals, likely reflects their value in hunting, thereby suggesting a form of utilitarian classification distinct from both folk taxonomy and the special-purpose classification implicit in systems of SDTs (Forth 2016:151–55). Since mammals are the largest and most valued game, in regard to their significance for hunting it is also noteworthy that all of the terms apply to mammals, and none to nonmammals.

11. DISCUSSION AND CONCLUSIONS. Attested for two groupings of Central Malayo-Polynesian languages on Flores, the application of two pairs of SDTs to non-human animals in a way generally coinciding with a distinction of mammals and nonmammals may appear globally peculiar. Yet the pattern is not exclusive to these languages, since a very similar (albeit somewhat more complex) arrangement has been reported for Chuj, a Mayan language of Central America (Hopkins 1980, Forth 2010). The occurrence of this pattern in Lamaholot dialects spoken in the far eastern part of Flores as well as in the Ngadha-Lio languages of central Flores—thus, in two separate

subgroupings of Central Malayo-Polynesian—cannot readily be explained by diffusion because Sikkinese (a Flores-Lembata language like Lamaholot) intervenes geographically between the two. By the same token, since the contrast of SDTs distinguishing mammals and nonmammals seems not to occur elsewhere among Central Malayo-Polynesian languages, it might be concluded that these are independent developments, as obviously are similarities in patterns of SDTs between Flores languages and Chuj.

So far as I am aware, no one has yet produced a comprehensive study of SDTs or distinguished a universal series of types. This is certainly not my intention here, yet on the basis of materials detailed above, several remarks can be offered. On logical grounds, it is possible to conceive of a language in which a single pair of SDTs distinguishes sex in all known animals as well as in humans. Such languages are likely to be rare, by virtue of the widespread tendency to distinguish linguistically between nonhuman animals and people, and to do so regardless of any particular ideology (or “ontology,” *sensu*, e.g., Descola 2013) that a society may maintain in regard to human-animal relations. Among languages detailed in table 1, both Kambera (eastern Sumbanese) and Manggarai apply the same SDTs to humans and nonhumans (see Kambera *mini* and *kawini*), and so does Javanese (see *lanang* and *wadon*). Yet both languages employ a special term for males of the domestic fowl—as apparently do most Malayo-Polynesian languages—and Javanese also uses a different SDT for female fowl (*pitik*), although this can further refer to domestic fowl in general (see also Javanese *babon*, ‘mother hen’, *babun*, ‘female animal mate; animal that has reproduced, especially a hen’, Horne 1974).

If a language with a single pair of SDTs applied indiscriminately to humans and animals represents one end of a logical spectrum of inclusiveness and simplicity, then at the other would be a language where human beings and every kind of animal exclusively possessed a distinctive pair. On practical grounds, such a nomenclature would seem unlikely if not impossible, particularly in view of the burden this would place on memory. However, English and other European languages come closest to this model, by incorporating a large number of lexically diverse SDT pairs—such as ‘ram’ and ‘ewe’ for sheep or ‘goose’ and ‘gander’ for geese; components of other English pairs are morphologically related, as, for example, with ‘tiger’ and ‘tigress’ (a pattern more common in French) yet remain specific to given kinds (or “folk-generics,” *sensu* Berlin 1992). As illustrated by ‘ram’ and ‘ewe’, most pairs comprising terms that are lexically distinct, from one another and from the animal’s general name, apply to single animal kinds—or did so before Europeans became familiar with extraterritorial species comparable to indigenous animals, to which these terms were then extended (for example, elephants, distinguishable sexually with ‘bull’ and ‘cow’, or zebras, distinguishable with ‘stallion’ and ‘mare’).

Taking the English pattern as representative of what may be called an individualizing system of SDTs, two points are relevant. First, animals to which special terms for males and females apply were originally—that is, before their extension to foreign species—either domestic creatures (including domestic birds) or British game animals (for example, deer, rabbits, hares, all distinguished as ‘buck’ and ‘doe’). Second, English has no special SDTs for animals other than mammals and birds—thus none for reptiles, amphibians, fish, and so on, all of which can only be distinguished sexually with ‘female’ and ‘male’. Moreover, among birds, special terms for geese (‘goose’ and ‘gander’), ducks

(‘duck’ and ‘drake’) and swans (‘cob’ and ‘pen’) all apply to kinds which either admit domestic forms or, in the case of swans, have a special relationship with humans—a point that further applies to the use in falconry of a special term, ‘terciel’ or ‘tercel’, for a male ‘hawk’ (usually the male peregrine and goshawk). Similarly, the application of ‘cock’ and less often ‘hen’ to birds other than domestic fowl (*Gallus gallus*), is restricted to certain game birds (for example, pheasant, partridge, grouse) and, at least as far as the male SDT is concerned, to the very familiar and ubiquitous—indeed, virtually domesticated—House sparrow (*Passer domesticus*).

Somewhat comparable to the inclusion of a few birds besides domestic fowls, and then mostly gamebirds, under the rubrics of ‘cock’ and ‘hen’ is the use, in Britain at any rate, of ‘buck’ and ‘doe’ not only for deer, rabbits, and hares, but also for rats. But neither of these usages contradicts the fact that English SDTs nowhere coincide with any higher-order folk zoological class (for example, a ‘life-form’ or ‘folk-intermediate’, *sensu* Berlin 1992)—like ‘bird’, ‘snake’, or ‘fish’. At best, the categories implicitly delineated by ‘cock’ and ‘hen’ and ‘buck’ and ‘doe’ pertain to utilitarian or special-purpose classes, ones defined by particular human uses of animals rather than by comprehensive physical (morphological or behavioral) similarities. Nor, of course, does one find in English or other European languages anything like the pattern found in Florenese languages whereby SDTs effectively distinguish mammals from nonmammals. A partial exception may arguably be the use of English ‘cock’ and ‘hen’ to distinguish sex in salmon (and less often trout), lobsters, and crabs. However, this is a specialized usage unfamiliar to the large majority of Anglophones, and so hardly contradicts the general point. On the other hand, taken together with the eastern Indonesian usages, the English extension does suggest a widespread inclination of human thought, especially for utilitarian purposes, to group other nonmammals with birds, an inclination consistent with an equally utilitarian focus, in the elaboration of SDTs, on mammals and especially domestic mammals and game.

Another contrast between English and Malayo-Polynesian SDTs—both those found in central and eastern Flores languages and in languages like Kambera, Manggarai, and Javanese where, besides domestic fowl, a single pair of terms applies to all animals as well as humans—concerns the fact that, whereas the Malayo-Polynesian terms can (in principle at least) subsume all named or otherwise recognized animal kinds, the English SDTs cover only a limited range. Of course, where special terms are lacking, it is always possible in modern English to distinguish animal sexes with ‘male’ and ‘female’, as is also done in other European languages (cf. German *Männchen* and *Weibchen*). In this respect, then, European languages are partially comparable to those Indonesian languages where words for ‘male’ and ‘female’ apply not only to humans but also to animals (except for domestic fowl). Nevertheless, the English use of ‘female’ and ‘male’ is a largely modern usage, and one moreover confined to technical or specialist discourse. Also, the terms represent a default, employed in the absence of specialized SDTs, and so do not compromise the individualizing tendency of European languages in this respect.

Variation in patterns of SDTs found among related languages, and in the present case particularly among Central Malayo-Polynesian languages, calls up questions of evolution, or possible development from a single, original type. The occurrence of a common pattern in Western Malayo-Polynesian (Javanese) and Central Malayo-Polynesian lan-

guages (Kambera and Manggarai) would suggest that Proto-Malayo-Polynesian also distinguished sex in nonhuman animals in the same way as gender in humans. Accordingly, a review of forty Malayo-Polynesian languages belonging to both subgroupings and recorded in the Holle lists (Stokhof 1983–87) reveals that 21, thus over a half, apply terms meaning ‘male’ and ‘female’ equally to animals and humans (the Javanese pattern), while 11 employ one pair of terms for humans and another for animals (the Malay pattern); the remaining eight then display more complex patterns (for example, one term for male humans and animals and separate terms for human females and female animals; Forth 2004:443). These materials may appear inconsistent with the reconstruction for Proto-Austronesian of *RuqaNay ‘male’ and *baNaS, ‘male (of animals)’ (Blust and Trussel ongoing). On the other hand, some reflexes of the first term (for example, Manggarai *rona*) also apply to nonhumans, while all Proto-Malayo-Polynesian reflexes given for the second mean ‘husband’.

The further occurrence in both Western Malayo-Polynesian and Central Malayo-Polynesian languages of separate terms for male domestic fowl (*wilu*, *manu wilu* in Kambera, *jago* in Javanese) indicates that this specification was another original feature of Malayo-Polynesian languages, as, of course, do Central Malayo-Polynesian reflexes of Proto-Malayo-Polynesian *lalun (Blust 2002). Why fowl, and more specifically male fowl, should be singled out in this way is an interesting question which cannot be answered conclusively. However, part of the solution may lie in the fact that *Gallus gallus* was, if not the only then the most common bird and nonmammal raised by Malayo-Polynesian speakers. Furthermore, male fowl especially are used throughout the region as sacrifices, in which their entrails serve as auguries, and as contestants in cock-fighting, a practice with a long history in insular Southeast Asia, including Flores and Sumba (for an overview see Blust 2002:96–98).

If an original Malayo-Polynesian pattern of SDTs included a single pair of terms applied to all kinds of nonhuman animals (except of course for fowl), a question arises as to the derivation of Florenese terms that distinguish between mammals and nonmammals. As Ngadha-Lio *lahu*, Lamaholot *lahun*, and so on obviously reflect Proto-Malayo-Polynesian *lalun, it is an easy inference that this has been extended in these languages from domestic fowl to other birds, and thence to other nonmammals. And in view of evidence suggesting that Proto-Malayo-Polynesian *manuk (or *manok) may have specifically denoted domestic fowl rather than a more inclusive grouping of birds or birds in general (Blust 2002), a parallel extension may be discerned in reflexes of this prototerm found in many Central Malayo-Polynesian languages (including some on Flores) that occur in the names of a number, and sometimes a large number, of birds, or indeed as the general term for ‘bird’ (Forth 2006).

Employed in Nage and other Ngadha-Lio languages for female birds and other nonmammals, *susu* is curious because, in all languages of Flores and in most Malayo-Polynesian languages, the term (or a cognate) means ‘(female) breast’. Yet while this sense, which apparently is the primary meaning everywhere, might seem consistent with the further application of *susu* to female animals, ironically it is employed for creatures that lack mammae and so do not suckle their young. Nevertheless, a clue to the development of the term as an SDT for birds and other nonmammals may be found in Javanese *susuh*,

'nest, breeding place' (see also *susuḥ manuk*, 'bird's nest'; Horne 1974)—female birds and other oviparous nonmammals having a special association with nests and eggs, particularly in regard to incubation. (While male birds of some species assist in incubation, it is more usually the female that "broods," or sits on eggs, exclusively or most of the time; and certainly in domestic fowl—arguably the prototype of egg-laying creatures for Flores peoples—male birds never do so.)

Applied to female mammals in all Ngadha-Lio languages, and in some to female nonmammals as well, in the same languages *metu* is also the word for 'ant'. However, as it is difficult to see how female animals, including some of the largest, could be associated with ants, the second sense by all indications reflects a different protoform (see Proto-Malayo-Polynesian *X-metik 'ant sp.', Blust 2002:123). Indeed, as a female SDT, *metu* is likely related to Ngadha and Nage *meku*, especially as Arndt lists Ngadha *meku* as 'friend', 'mate, companion' (German *Freund*, *Genosse*) and because, in both languages, *meku* has the further senses of 'soft, smooth, weak, pliable'. Nage, thus, additionally applies the term to things symbolically feminine (for example, a wife-giver's counter-gift in opposition to bridewealth goods, described as 'hard', *dego*). Worth noting as well is Kambera *mātu*, pronounced identically to Ngadha-Lio *metu* (since the initial vowel in both terms is the schwa). *Mātu* means 'complete, (what makes) full; well equipped' (Kapita 1982; Onvlee 1984), and, thus, like Arndt's German glosses of Ngadha *meku*, suggests a "complement," or something that makes up a whole.

Comparative materials for *dhéghu* point to a derivation very similar to that proposed for *metu*. Although further applied to females of other mammalian species, especially in Nage, the primary and likely original meaning of *dhéghu* as an animal SDT is evidently 'mature sow (female pig)'; hence, by all indications, Nage has extended the term to include not just pigs but also the females of other animals comparable in size or morphology or considered as similar in some other way—for example, as nongrazers or omnivores. For Ngadha, Arndt (1961) further glosses *dhéghu* as 'friend' (German *Freund*, which can also be a romantic or sexual partner). This meaning is, thus, virtually identical to Arndt's first gloss of Ngadha *meku*, and if *metu*, the other mammalian SDT, is a variant of *meku* as proposed just above, then it follows that, while they are currently applied to different mammalian species, there is historically a close semantic correspondence between the two terms. In addition, it should be noted that both terms not only denote female mammals (albeit of different sorts) but, insofar as both incorporate the sense of 'companion, mate', they also do so identically with reference to a relationship, and specifically a sexual and reproductive relationship, to male animals.

The derivation of *mosa*, the Ngadha-Lio term for males of virtually all mammals, is similarly straightforward. For Ngadha, Arndt (1961) first glosses *mosa* as 'very large', 'famous', listing 'male with reference to four-legged animals' as the second gloss. In addition, in Sikkanese, the Flores-Lembata language spoken immediately to the east of Lio, one finds *mosa*, 'fat, thick', and *mosang*, 'big; exalted, impressive' (Pareira and Lewis 1998). It must be stressed, however, that in Nage and probably in Ngadha as well, *mosa* does not independently convey the sense of 'large', at least not in regard to animals and not in any purely physical sense, nor does it clearly do so in Lio (Arndt 1933). Also, while in all Ngadha-Lio languages *mosa* occurs in terms denoting high-ranking male

leaders, this usage is evidently metaphorical—expressing either social masculinity or symbolic bigness (see Forth 2016:21–22, regarding Nage *mosa laki*, ‘high-ranking man’)—and it is conceivably with reference to these applications that Arndt glosses Ngadha *mosa* as ‘famous’. Accordingly, Nage *ja mosa*, for example, can only mean ‘male horse, stallion’, and never ‘big horse’ (always expressed as *ja méze*, cf. Ngadha *jara mére*), while ‘large rooster’ could only be *manu lalu ta’a méze* and never *manu mosa*. Nevertheless, as male mammals are generally larger than females, and as mammalian animals tend to be larger than nonmammalian species, it is hardly surprising that *mosa* in all these languages appears to derive from a term that originally or primarily meant ‘big, large’. This historical interpretation, it should be noted, does not detract from the analysis of Ngadha-Lio SDTs as distinguishing two broad and comprehensive folk zoological classes, nor does it compromise the morphologically discernible phylogenetic aspect of the classification implicit in present-day applications of the terms.

As shown in table 2, terms for male and female animals in other Flores languages—Manggarai in the west and Sikkane and Lamaholot in the far east—are clearly related to words in the same languages denoting males and females among humans. These connections, too, support the hypothesis that, with the exception of terms for male domestic fowl, SDTs in these languages originally made no distinction between animals and humans—as is still the case in Kambera and Javanese. In a similar vein, it may be recalled how human SDTs in virtually all cases incorporate the further senses of ‘husband’ and ‘wife’. As a comparable synonymy occurs in many other languages, including, of course, European languages (see, for example, German *Weib/Frau* ‘woman, wife’, and *Mann* ‘man, husband’), this may seem unremarkable, and is quite consistent with universal or extremely widespread cultural practices distinguishing marriage among humans from the mating of animals—in regard to rules of exogamy, the incest prohibition, and in many societies, bridewealth and related forms of material exchange. But these usages can hardly explain the apparent extension, exemplified by Malayo-Polynesian languages, of human SDTs that also serve as spouse terms to nonhuman animals. On the other hand, the extension is hardly accounted for by the postulation of some distinct “animist” ontology supposedly characteristic of and pervasive among some portion of nonwestern peoples, since it is equally discernible in modern Western languages (see, for example, German *Weibchen* and *Mänchen* and Dutch *wijfe* and *mannetje*, in both languages involving diminutives of terms for ‘wife’ and ‘husband’ and distinguishing male and female animals). Although these matters cannot be further explored here, it should by now be clear how a comparative study of SDTs may well disclose a limited number of patterns, not confined to particular language families or parts of the world, and perhaps comparable to the several basic types of kinship terminologies. In any case, such a study promises to call forth a series of questions well worth the attention of both anthropologists and linguists.

REFERENCES

- Århem, Kaj. 2016. Animism and the hunter's dilemma: Hunting, sacrifice, and asymmetric exchange among the Katu of Vietnam. In *Animism in Southeast Asia*, ed. by Kaj Århem and Guido Sprenger. London and New York: Routledge.
- Arndt, Paul. 1933. *Li'onesisch-Deutsches Wörterbuch*. Ende-Flores: Arnoldus-Druckerei.
- . 1961. *Wörterbuch der Ngadhasprache*. Studia Instituti Anthropos 15. Posieux, Switzerland: Anthropos-Institut.
- Berlin, Brent. 1992. *Ethnobiological classification: Principles of categorization of plants and animals in traditional societies*. Princeton, NJ: Princeton University Press.
- Blust, Robert. 2002. The history of faunal terms in Austronesian languages. *Oceanic Linguistics* 41:89–139.
- . 2008. Is there a Bima-Sumba subgroup? *Oceanic Linguistics* 47:45–113.
- Corbett, Greville G. 1991. *Gender*. Cambridge Textbooks in Linguistics. Cambridge: Cambridge University Press.
- . 2013. *The expression of gender*. Berlin: De Gruyter Mouton.
- Descola, Philipe. 2013 [2005]. *Beyond nature and culture*. [Translated from the French by Janet Lloyd.] Chicago: University of Chicago Press.
- Esser, S. J. 1938. Talen. In *Atlas van tropisch Nederland*. Het Koninklijk Aardrijkskundig Genootschap in Samenwerking met den Topografischen Dienst in Nederlandsch Indië. The Hague: Nijhoff.
- Forth, Gregory. 2004. A “cock” and “bull” story: Nage sex terms and their implications for ethnozoological classification. *Anthropological Linguistics* 46(4):427–49.
- . 2006. Words for ‘bird’ in eastern Indonesia. *Journal of Ethnobiology* 26(2):177–207.
- . 2010. Sex differentiables and the ethnotaxonomic status of mammals and other animals in Central America and eastern Indonesia: A comparative analysis. *Anthropos* 105: 383–92.
- . 2012a. Of mice and rats: The place of murids in Nage animal classification and symbolism. *Journal of Ethnobiology* 32(1):50–72.
- . 2012b. Marking-reversals and their relevance for prehistory: An eastern Indonesian case. *Oceanic Linguistics* 51:456–69.
- . 2016. *Why the porcupine is not a bird: Explorations in the folk zoology of an eastern Indonesian people*. Toronto: University of Toronto Press.
- Hopkins, Nicholas A. 1980. Chuj animal names and their classification. *Journal of Mayan Linguistics* 2(1):13–39.
- Horne, E. C. 1974. *Javanese-English dictionary*. Princeton, NJ: Yale University Press.
- Jonker, J. C. G. 1908. *Rottineesch-Hollandsch woordenboek*. Leiden: E. J. Brill.
- Kapita, Oe. H. 1982. *Kamus Sumba/Kambara-Indonesia*. Ende, Indonesia: Persetakan Arnoldus.
- Onvlee, Louis. 1984. *Kambaraas (Oost-Soembaas)-Nederlands woordenboek*. Dordrecht: Foris Publications.
- Pampus, Karl-Heinz. 2008. *Koda Kiwan: Kamus bahasa Lamaholot dialek Lewolema, Flores Timur (NTT)*. Frankfurt-am-Main: Frobenius-Institut.
- Pareira, M. Mandalangi, and E. Douglas Lewis. 1998. *Kamus Sara Sikka bahasa Indonesia*. Ende, Flores: Penerbit Nusa Indah.
- Stokhof, W. A. L., ed. 1983–87. *Holle Lists: Vocabularies in languages of Indonesia*. 11 vols. Canberra: Pacific Linguistics.
- Van der Hulst, H. 1982. *Kamus bahasa Indonesia-bahasa Solor untuk para imam dan kaum cendekiawan di Solor-Adonara dan Lembata*. (Dikumpul oleh. H. van der

- Hulst SVD dan diperiksa oleh Drs. W. Wara Riang Heptat.) Adonara: privately published.
- Verheijen, J. A. J. 1967. *Kamus Manggarai I: Manggarai-Indonesia*. 's-Gravenhage: Martinus Nijhoff.
- . 1970. *Kamus Manggarai II: Indonesia-Manggarai*. 's-Gravenhage: Martinus Nijhoff.
- Wurm, S. A., and Shirō Hattori, editors. 1981. *Language atlas of the Pacific area*. Canberra: Australian Academy of the Humanities in collaboration with the Japan Academy.