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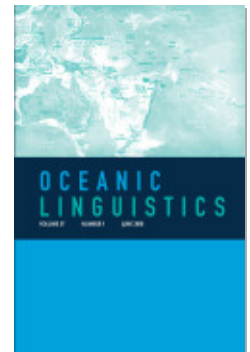
The Plural Word *hire* in Alorese: Contact-Induced Change from
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The Plural Word *hire* in Alorese: Contact-Induced Change from Neighboring Alor-Pantar Languages

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This article discusses the plural word *hire* in Alorese, an Austronesian language spoken on the islands of Alor and Pantar, in eastern Indonesia. Following the methodological requisites for contact-induced change, I claim that the plural word *hire* emerged through contact with Papuan Alor-Pantar languages, because (i) Alorese was and still is spoken in close contact with Alor-Pantar languages; (ii) Alorese and the neighboring Alor-Pantar languages share the presence of a plural word, and their plural words have similar syntactic and semantic properties; (iii) Alor-Pantar languages had plural words before they came into contact with Alorese; and (iv) Alorese did not have the plural word *hire* before it came into contact with Alor-Pantar languages. The innovation of *hire* is a case of contact-induced grammaticalization, whereby the form is inherited and developed from an original third person plural pronoun going back to Proto-Malayo-Polynesian **si-ida*, while the function of the plural word is borrowed from the neighboring Alor-Pantar languages.

1. INTRODUCTION.¹ This article discusses the plural word *hire* in Alorese, an Austronesian language spoken on the islands of Alor and Pantar in eastern Indonesia (see section 2). A plural word is “a morpheme whose meaning and function is similar to that of plural affixes in other languages, but which is a separate word that functions as a modifier of the noun” (Dryer 1989:865). An example of the plural word *hire* in Alorese is given in (1), where *hire* ‘PL’ modifies the noun *mato* ‘frog’.

1. This research was supported by the VICI research project “Reconstructing the past through languages of the present: the Lesser Sunda Islands” at Leiden University, funded by the Netherlands Organisation for Scientific Research, NWO project no. 277-70-012. An earlier version was presented at the Ninth Austronesian and Papuan Language and Linguistic conference (APLL9), held in Paris, June 21–23, 2017. I wish to thank the audience of APLL9 for their useful comments. I am also grateful to Marian Klamer, Owen Edwards, Hanna Fricke, and two anonymous reviewers for their critical comments on an earlier version of this paper. All errors remain mine.

Abbreviations used in this paper follow the Leipzig Glossing Rules with the following additions or modifications: ACT, actor; ATTR, attribute; CMP, Central Malayo-Polynesian; DEIC, deictic term; INTJ, interjection; LH, Lamaholot; MED, medial; MLY, Malay (loanword); NUM, numeral; PMP, Proto-Malayo-Polynesian; Q, quantifier; RDP, reduplication.

- (1) Mato anang hire kado kluar.
 frog small PL jump go.out(MLY)
 ‘(The) small frogs jump out.’ (Frogstory_Alor_2016_06_21)

The claim put forward in this paper is that the form of the plural word *hire* is inherited and developed from an original third person plural pronoun going back to Proto-Malayo-Polynesian **si-ida* (see Blust 2009:304), while the function of the plural word is not inherited, but rather emerged through contact with Papuan languages² that are spoken on Alor and Pantar (henceforth Alor-Pantar languages).

The claim that the plural word *hire* in Alorese is the result of contact is based on the methodological criteria for contact-induced change proposed by Thomason (2001, 2009). Thomason (2009:322) lists four methodological requisites that must be satisfied before we can establish a history of contact induced change:

- (i) Prove the existence of contact between language A and language B.
- (ii) Identify shared features in language A and language B.
- (iii) Prove that the shared features were present in language A before language A came into contact with language B.
- (iv) Prove that the shared features were *not* present in language B before it came into contact with language A.

Thomason (2001:93) warns that contact-induced change can be fully convincing only if we can point to other instances of structural interference from the same source language(s) to the same receiving language. In this paper, I will only focus on the plural word *hire*, because the exact extent of structural borrowing from Alor-Pantar languages into Alorese is still under investigation, and is part of the research presently carried out by the author. In section 2, however, I briefly discuss another structural interference borrowed from Alor-Pantar languages into Alorese.

Another methodological issue worth mentioning is that of the baseline. As pointed out by Poplack and Levey (2010:394), we need a reference point to claim that a *change* occurred, because “a change shows up as a difference between an outcome and an earlier stage.” In the case of historical contact-induced change in a language such as Alorese, of which no records of earlier stages exist, the “earlier stage” can be inferred by looking at its sister languages. In other words, sister languages function as the diachronic baseline that we can use to prove that a change has taken place, and, thus, satisfy requirement (iv).

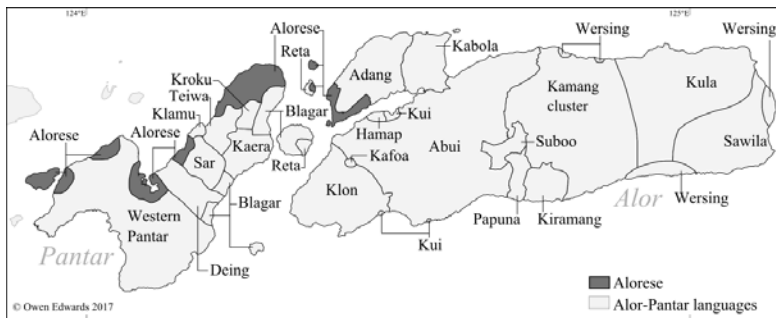
The subsequent sections of this paper illustrate that Alorese *hire* ‘PL’ satisfies all four requisites listed above, because (i) Alorese was and still is spoken in close contact with Alor-Pantar languages, as witnessed by the lexical and structural diffusion that has taken place among these languages; (ii) Alorese and the neighboring Alor-Pantar languages share the presence of a plural word, and their plural words have similar syntactic and semantic properties; (iii) Alor-Pantar languages had plural words before they came into contact with Alorese; and (iv) Alorese did not have the plural word *hire* before it came into contact with Alor-Pantar languages, because such a plural word is absent in the baseline.

2. The term “Papuan” is used here as a synonym of “non-Austronesian,” indicating that Alorese and the neighboring languages are not genealogically related. In the literature, “Papuan” is used to refer to a group of over 700 non-Austronesian languages spoken on Timor, Halmahera, and New Guinea, not all of which are demonstrably related to each other (Foley 1986).

This paper is organized as follows. Section 2 provides geographical and genealogical information about Alorese, and briefly discusses lexical and structural borrowing between Alorese and the Alor-Pantar languages. Section 3 is an overview of plural words among Austronesian languages. Section 4 presents data about plural marking in Alorese and its sister languages of the Flores-Lembata subgroup. Section 5 describes plural words in the Alor-Pantar languages. In section 6, I discuss the grammaticalization path and the scenario that accounts for the emergence of the plural word *hire* in Alorese. Section 7 gives a summary and concluding remarks.

2. ALORESE: GEOGRAPHY AND GENEALOGY. Alorese is spoken in the Alor archipelago, which belongs to the Province of Nusa Tenggara Timur, eastern Indonesia. It has about 25,000 speakers (Simons and Fennig 2017), and it is spoken in three villages on Alor island (Alor Besar, Alor Kecil, and Dulolong), in a number of villages on Pantar (the most important being Munaseli, Pandai, and Baranusa), and on two small islands in the Alor-Pantar strait (see map 1).

MAP 1. ALORESE AND THE NEIGHBORING ALOR-PANTAR LANGUAGES

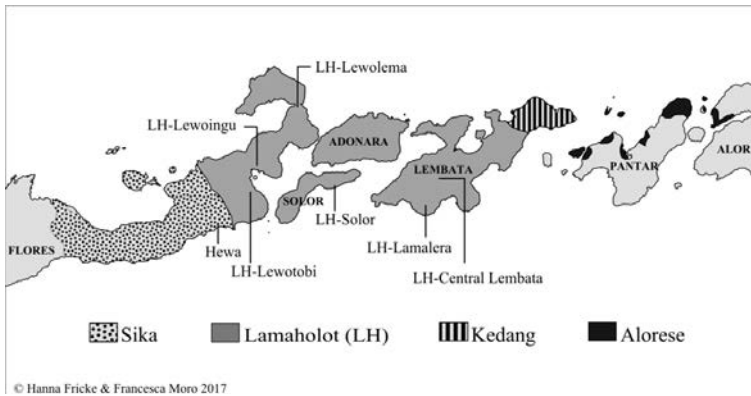


Beside Indonesian and the local Malay variety, Alorese is the only indigenous Austronesian language on Alor and Pantar, which are predominantly Papuan speaking. On Alor, Alorese is spoken in close proximity to Adang; in the northern part of Pantar, it is spoken next to Blagar, Kroku, Teiwa, and Kaera, and in the central part of Pantar next to Sar, Deing, and Western Pantar (see map 1). These Papuan languages all belong to a single language family, the Timor-Alor-Pantar family (Holton et al. 2012).

Genealogically, Alorese is a member of the Flores-Lembata subgroup of Malayo-Polynesian, which also includes Sika, Kedang, and the Lamaholot (LH) varieties (Fernandez 1996; see map 2). Within the Flores-Lembata languages, the closest relatives of Alorese are Lamaholot varieties, while Sika and Kedang lie at the geographical and genealogical “borders” of the family (Doyle 2010:30; Elias 2017).

Keraf (1978) conducted a lexicostatistical survey of 33 Lamaholot varieties. On the basis of his survey, he identified three groups: Western Lamaholot, Central Lamaholot, and Eastern Lamaholot. Elias (2017) is the first attempt to subgroup Lamaholot varieties

MAP 2. THE FLORES-LEMBATA LANGUAGES AND THEIR GEOGRAPHICAL SPREAD



using the comparative method. His internal subgrouping agrees with those of Keraf, but he found evidence that Eastern and Western Lamahot belong in a subgroup together.

Based on sound correspondences, Doyle (2010) shows that Alorese is more closely related to the Western Lamahot varieties (LH-Lewolema, LH-Lewoingu, LH-Solor, and LH-Lamalera, see map 2) than to the other Flores-Lembata languages. The same finding was obtained by Elias (2017), who uses the Historical Glottometry method (see François 2015). In this analysis, phonological, lexical, and syntactic innovations are considered for subgrouping. For instance, the lexical innovations that, according to Elias (2017), define the Western Lamahot varieties, are also found in Alorese: a reflex of the form *siʔa* ‘salt’ (Alorese *sia*), a reflex of *bəlahə* for ‘long’ (Alorese *blahak*), and a reflex of the form *kotə* for ‘head’ (Alorese *koton*). Finally, Alorese also shares at least one syntactic change with Western Lamahot varieties, namely clause-final negation. While Central Lamahot varieties (like LH-Central Lembata) still have double negation, Western varieties (and Alorese) have completed the Jespersen Cycle and only have a single clause-final negation particle (Fricke 2017a).

Historically, Alorese speakers are descendants of groups migrating eastward from the Western Lamahot speaking area (Stokhof 1975:8; Klamer 2011:8–15; Wellfelt 2016:248–49). These groups settled on Pantar roughly in the first half of the fourteenth century. Apparently, the first Alorese settlers arrived “5 to 600 years ago” (Anonymous 1914:77), meaning that they arrived around 1300–1400. This observation is corroborated by oral history: the king of Pandai, Rajab Suleiman Abu Bakar (whom I interviewed on July 7, 2016 in Pandai), told a legend about a Javanese king who came to Pantar in 1310 and founded the village of Pandai. Later, in the sixteenth century, a group of Alorese speakers moved to the Bird’s Head of Alor. Wellfelt (2016:273) reports that, in 1971, the lineage of the royal house in Alor Besar counted seventeen generations. If we allow for generations of 25 years ($17 \times 25 = 425$ years), the establishment of the first Alorese village on the Alor coast must have taken place about 425 years before 1971, roughly in 1550.

Since at least the fourteenth century, the Alorese have been in contact with speakers of Alor-Pantar languages. This is witnessed by the number of loanwords found in the languages. Robinson (2015) estimates that the percentage of Austronesian loanwords on a 200-word Swadesh list for twelve different Alor-Pantar languages is about 8 percent. The majority of these loanwords appear to be relatively recent; thus, it is likely that many of them came into Alor-Pantar languages from Alorese. The number of loanwords from Alor-Pantar languages into Alorese is more limited, but still noteworthy. Klamer (2011:105) estimates that the percentage of Alor-Pantar loanwords in Alorese is 5.2 percent (14 in a 270-item list), while Robinson (to appear) only counts 2.2 percent (4 in a 185-item list). What is important here is that the presence of loanwords provides additional evidence for contact, and leads us to assume that, if lexicon has diffused from A into B, structure could in principle also have diffused (Thomason 2009:322).

So far, besides the plural word *hire*, I have been able to find one other structural feature borrowed from Alor-Pantar languages into Alorese. Interestingly, this borrowing also pertains to the domain of quantification. The Alorese numeral *kartou* ‘ten’ is formed combining the decimal base *kar* ‘tens’ and the numeral *tou* ‘one’. The pattern of forming ‘ten’ as ‘ten-one’ was borrowed from Alor-Pantar languages (see Schapper and Klamer 2014 for an extensive description of numerals in Alor-Pantar languages). This is an innovation only present in Alorese, absent from the other Flores-Lembata languages, which all preserve reflexes of the Proto-Austronesian form *puluq for ‘ten’ (Schapper and Klamer 2014:328ff). Alorese did not only borrow the pattern, it also borrowed the phonological material. In fact, the form *kartou* ‘ten’ combines the loanword *kar* ‘tens’ and the native word *tou* ‘one’ (see also Robinson to appear). The loanword *kar* was borrowed from one of the Alor-Pantar languages, which all have reflexes of Proto-Alor-Pantar *qar (Schapper and Klamer 2014:305). Table 1 shows that Alorese shares with its sister Austronesian languages the numerals from ‘one’ to ‘nine’, while it patterns with non-Austronesian Alor-Pantar languages for ‘ten’.

To sum up, Alorese is part of the Flores-Lembata subgroup of Malayo-Polynesian languages. Its closest genealogical relatives are Western Lamaholot varieties. Colonial sources, as well as local oral histories, confirm that the first Alorese settlers arrived on Pantar in the fourteenth century; since then, Alorese has been in contact with the neigh-

TABLE 1. NUMERALS IN LH-LEWOTOBI, LH-SOLOR, ALORESE, TEIWA, AND KABOLA

Number	LH-Lewotobi (Nagaya 2011:161)	LH-Solor (Kroon 2016:150)	Alorese (Klamer 2011:42)	Teiwa (Schapper & Klamer 2014:292ff)	Kabola (Schapper & Klamer 2014:292ff)
1	toʔu	to'u	tou	nuk	nu
2	rua	rua	rua	haraq	olo
3	təlo	telo	telo	jerig	towo
4	pa	pa	pa	ut	ut
5	lema	léma	lema	jusan	iwesej
6	namu	nemū	namu	tia:m	talaj
7	pito	pito	pito	jesraq	wutito
8	buto	buto	buto	jesnerig	turlo
9	hiwa	hiwa	hifa	jesnaʔut	tiʔino
10	pulo	pulo	kartou	qa:r uk	kar nu

boring Alor-Pantar languages. Contact has made transfer of lexical items and of structural features possible. We find loanwords from Alor-Pantar languages into Alorese, as well as shared structural features. The plural word *hire* is not the only structural borrowing in Alorese; the pattern of numeral ‘ten’ was also borrowed from Alor-Pantar languages. I believe that the presence of two shared structural features in the same domain allow to make a strong case for *hire* as a contact-induced change.

3. PLURAL WORDS IN AUSTRONESIAN LANGUAGES. The distribution of plural words among Austronesian languages is skewed to the northern and eastern parts of the Austronesian world. The data from Dryer (1989) and Wu (2017) show that plural words are well attested among the Austronesian languages of the Philippines and the Pacific; however, they are much rarer among the Malayo-Polynesian languages of central and east Indonesia (the putative Central Malayo-Polynesian languages).

In Dryer’s (1989) sample, of the Austronesian languages with plural words, 68 percent are Oceanic languages on Pacific islands and east New Guinea, while 32 percent are Western Malayo-Polynesian languages in the Philippines (only one, Toba Batak, is spoken in western Indonesia). The sample of Wu (2017) shows a similar, but not identical, distribution: of the Austronesian languages with plural words, 48 percent are Oceanic languages on Pacific islands and east New Guinea, 35 percent are Western Malayo-Polynesian languages (22 percent in the Philippines, 13 percent in other areas), 15 percent are Central Malayo-Polynesian, and 2 percent are South Halmahera-West New Guinea. Interestingly, of the 16 languages with plural words that are non-Philippine and non-Oceanic, 10 are spoken in contact zones between Austronesian and non-Austronesian languages: Tetun Dili, Tugun, Southern Mambai, Leti, Batuley, Alune, Buru, Selaru, and Taba are spoken in close proximity with Papuan languages, while Chamorro has been heavily influenced by Spanish (Rodríguez-Ponga 1995). Wu (2017:45) observes that within the area where CMP languages are spoken, plural words are only present in the eastern part of the region (especially on Timor), while to the west, all languages (Donggo, Kambera, Kéo, Lamaholot, Lewotobi) lack plural words.

This geographical and genealogical distribution suggests that the presence of plural words in some of the Austronesian languages in eastern Indonesia and around New Guinea is not due to inheritance, but may be an independent development (in some cases due to contact). Corroborating evidence for this hypothesis comes from the actual form of plural words. In fact, although a prenominal marker of plurality **maŋa* has been reconstructed for Proto-Malayo-Polynesian (Blust and Trussel ongoing), reflexes of **maŋa* are only found among languages of the Philippines (for instance *mga* in Tagalog, see Schachter and Otanes 1972) and among some Oceanic languages (for instance, *mana* in Kara, see Lynch, Ross, and Crowley 2002).

The other Austronesian languages, especially CMP and Oceanic languages, have innovated new lexemes for plural words, mostly derived from third person nonsingular pronouns (Wu 2017:51–71). For almost all the languages in eastern Indonesia that have plural words, this plural word is derived from a third person plural (3PL) pronoun. As shows, this is the case of all the Austronesian languages of Timor (Tetun Dili, Tugun,

TABLE 2. PLURAL WORDS IN THE AUSTRONESIAN LANGUAGES OF TIMOR AND IN ALORESE

LANGUAGES	PLURAL WORD	3PL PRONOUN
Tetun Dili (Williams-van Klinken, Hajek and Nordlinger 2002)	sira	sira
Tugun (Hinton 1991)	hira	hira
Southern Mambai (Hull 2003)	sêr	rom
Alorese (Kaiping and Klamer 2017)	hire	we

Southern Mambai), and of Alorese. As we will see in 6.2, the 3PL pronoun *we* in Alorese is an innovation.

To sum up, although a plural word has been reconstructed for Proto-Malayo-Polynesian, plural words that are related to this form are consistently found only among Austronesian languages in the Philippines and in the Pacific. The plural words found in languages of eastern Indonesia seem to have developed independently. Furthermore, many CMP and Oceanic languages have innovated new lexemes for plural words derived from 3PL pronouns.

4. PLURAL WORDS: ALORESE AND ITS SISTER LANGUAGES.

In this section, I illustrate the plural word *hire* in Alorese, and I show that a similar word is absent from its sister languages, Lamaholot, Sika, and Kedang. In the case of Alorese, the sister languages represent the diachronic baseline. A comparison with Lamaholot, especially Western Lamaholot dialects, is, thus, necessary to satisfy the requirement (iv): prove that the shared features were not present in language B before it came into contact with language A.

4.1 ALORESE. This section presents the syntactic and semantic properties of the plural word *hire* in Alorese. The source of the data is the corpus of Alorese compiled by the present author in the period May–August, 2016. Data were obtained from 17 different speakers (12 females and 5 males), with an age ranging from 23 to 67 years. The dataset consists of 59 Alorese texts collected in Alor, in the villages of Alor Besar, Alor Kecil, and Dulolong (31 texts), and in Pantar, in the villages of Munaseli and Pandai (28 texts). The 59 texts are divided as follow: 15 descriptions of the Frog Story, 15 descriptions of the Surrey elicitation list, 15 descriptions of the H&F list, and 14 free narratives, such as personal experiences or fairy tales.³ The dataset contains 100 instances of the plural word *hire*. In addition, elicited sentences are included to provide negative evidence.

Before moving to the syntactic and semantic description, it is important to mention that the use of *hire* is optional in Alorese, and that bare nouns can also receive a plural interpretation depending on the context. Furthermore, *hire* can modify both animate and inanimate nouns.

3. A complete description of the video clips in the Surrey list is available in Fedden and Brown (2014:447–51). The H&F list is an elicitation list compiled by Hanna Fricke and Francesca Moro in the NWO Vici Grant Research Project “Reconstructing the past through languages of the present: the Lesser Sunda Islands (2014–2019).” The list is made up of various video clips developed by the Language and Cognition Department of the Max Planck Institute for Psycholinguistics (see <http://fieldmanuals.mpi.nl/>). It includes stimuli to elicit spatial relations, placement events, cut and break events, give-events, and reciprocals.

4.1.1 Syntactic properties. The plural word *hire* occurs inside the noun phrase (NP). As presented in (2), the structure of the Alorese NP is as follows: the head noun (N) can be followed by an adnominal modifier in the attribute slot (ATT), a numeral (NUM) or the plural word *hire* (PL), a (nonnumeral) quantifier (Q), and a demonstrative (DEM).

(2) [N ATT NUM/PL Q DEM]_{NP}

The plural word *hire* occurs after the head noun and the attribute but before the demonstrative, and it occupies the same slot as the numeral, as shown in (3).

(3) a. *məsia rua ke*
 person two DEM.PROX
 ‘two persons’ (H&F list_Pantar_2016_08_04)

b. *məsia hire ke*
 person PL DEM.PROX
 ‘these/the persons’ (Surrey_Pantar_2016_08_03)

Since numerals and the plural word *hire* cannot cooccur, they occupy the same slot. This is illustrated in the elicited pair of sentences in (4).

(4) a. **mato anang namung hire*
 frog small six PL
 Intended: ‘six frogs’ (elicited sentence_Alор_2016_10_24)

b. **mato anang hire namung*
 frog small PL six
 Intended: ‘six frogs’ (elicited sentence_Alор_2016_10_24)

In the same way as numerals (5a), *hire* can also combine with a classifier, such as *odang* ‘stick’, as in (5b).

(5) a. *Kafae tou te nate kurajafa odang talo ...*
 woman one DEM.MED 3SG-carry cassava CLF.stick three
 ‘That woman carries three cassavas ...’
 (H&F list_Alор_2016_05_17)

b. *Klake te no nate kurajafa odang hire*
 man DEM.MED 3SG 3SG-carry cassava CLF.stick PL
 ‘That man carries the/some cassavas ...’
 (elicited sentence_Alор_2017_04_11)

The plural word *hire* can combine with a nonnumeral quantifier, such as *mafa* ‘many’, as shown in (6).

(6) *Kame m-ei joget m-ong kabei kafae hire mafa*
 1PL.EXCL 1PL.EXCL-go dance 1PL.EXCL-with children girl PL many
lebe ka.
 very INTJ
 ‘We go dancing with a lot of girls.’ (Surrey_Alор_2016_05_10)

Hire can also modify reduplicated nouns, although the combination of reduplicated noun and *hire* is quite rare (three instances of *anang-anang* ‘RDP~child’ and one of *toko-toko* ‘RDP~shop’).

- (7) *mato ina, mato ama, nong mato nang anang-anang hire*
 frog mother frog father with frog POSS RDP-child PL
 ‘frog mother, frog father, and their children’
 (Frogstory_Pantar_2016_07_13)

Unlike numerals and nonnumeral quantifiers, *hire* cannot function as the predicate. Examples (8a) and (8b) show that *namung* ‘six’ and *mafa* ‘many’ can occur as predicates, while (8c) shows that *hire* ‘PL’ cannot.

- (8) a. *Kafae kalake nong ne neing anang hire ha*
 woman man with 3SG.POSS POSS child PL DEM.PROX
ada namung.
 exist(MLY) six
 ‘(Frog) husband and wife with their children (there) are six.’
 (Frogstory_Alor_2016_06_12)
- b. *Mato ha no neing anang di ada mafa.*
 frog DEM.PROX 3SG POSS child also exist(MLY) many
 ‘The frog, her children are many.’ (Frogstory_Alor_2016_06_04)
- c. **Mato ha no neing anang di ada hire.*
 frog DEM.PROX 3SG POSS child also exist(MLY) PL
 Intended: ‘The frog, her children are many.’
 (elicited sentence_Alor_2017_04_11)

In sum, the Alorese plural word *hire* occurs inside the NP after the head noun and the attribute, but before the demonstrative. The fact that it cannot cooccur with numerals seems to suggest that it belongs to the word class of numerals. However, it differs from numerals because (i) it can combine with a nonnumeral quantifier, such as *mafa* ‘many’, while numerals cannot, and (ii) unlike numerals and nonnumeral quantifiers, *hire* cannot function as the predicate of a clause.

4.1.2 Semantic properties. The main function of *hire* is to encode the category of plurality. However, alongside plurality, *hire* can also encode other notions, such as completeness and ethnicity. For instance, *hire* can convey a sense of completeness, indicating that the entity referred to by the noun is affected in its entirety, as in (9), or it is complete, as in (10) and (11).

- (9) *Go bote mo tide lalu aleng hire bɔlara neka.*
 1SG hold 2SG stand then(MLY) waist PL sick already
 ‘I have been holding you while standing and then my whole back hurt.’
 (Surrey_Alor_2016_05_10)
- (10) *Ro lelang na uma hire ke, luk skali.*
 3SG make POSS house PL DEM.PROX luxurious all
 ‘It (the golden goose) made a complete house (for him), very luxurious.’
 (Free narrative_Pantar_2016_08_04)
- (11) *Kodok ke nang na keluarga hire skali tobo.*
 frog(MLY) DEM.PROX with POSS family(MLY) PL all sit
 ‘The frog and its whole family sit.’ (Frogstory_Pantar_2016_08_04)

Additionally, *hire* can combine with a place name to indicate the geographical origin or ethnicity of a person. In (12), *hire* follows the place name Austria to express provenance.

- (12) Fe Austria hire.
 3PL Austria PL
 ‘They were Austrian.’ (Free narrative_Alör_2016_06_03)

In (13), *hire* combines with the noun *dola* ‘mountain’ to express the ethnic origin of the speaker, who comes from an Adang village located in the mountain part of the Bird’s Head of Alör. This example is better understood in light of the dichotomy that exists between the coastal, sea-oriented Alörese people and the inland, land-oriented Adang people.

- (13) Go ha dola hire ...
 1SG DEM.PROX mountain PL
 ‘I am (a person) from the mountains (I am not a native person from here) ...’
 (elicited sentence_Alör_2017_04_11)

In sum, in addition to expressing plurality, the plural word *hire* has other connotations, such as expressing comprehensiveness and entirety, and indicating origin or ethnicity.

4.2 DIACHRONIC BASELINE: WESTERN LAMAHOLOT. The Western Lamaholot varieties that are best described are LH-Lewotobi (Nagaya 2011), LH-Solor (Kroon 2016), and LH-Lewoingu (Nishiyama and Kelen 2007) (see map 2).

Neither LH-Lewotobi nor LH-Solor has a dedicated marker of plurality. Plurality of the referent noun is understood from the context, as illustrated in (14) and (15), or signaled by a quantifier, as in (16).

- (14) LH-LEWOTOBI
 Wane lou tərǎ səpu aho.
 bee exit chase sting dog
 ‘Bees went out and chased and stung the dog.’ (Nagaya 2011:623)

- (15) LH-LEWOTOBI
 Kǎdi məto, lake n-ǎǎ wae p-ǎǎ, n-ǎǎ ana? n-ǎǎ ...
 so frog husband 3SG-do wife DEM.DIST.NMLZ 3SG-do child 3SG.NMLZ
 ‘So that frog, that husband and wife and his children ...’ (Nagaya 2011:633)

- (16) LH-SOLOR
 Go’é herū ana sekolah ata aya’ā.
 1SG meet kid school person many
 ‘I met a lot of school children.’ (Kroon 2016:249)

In LH-Lewoingu, plurality may occasionally be expressed by means of reduplication, as shown in example (17).

- (17) LH-LEWOINGU
 Inamvlake-inamvlake svga-ka urin.⁴
 man~RDP come-3PL late
 ‘Men came late.’ (Nishiyama and Kelen 2007:110)

Additionally, Nishiyama and Kelen (2007:43) report the presence of a plural marker *-we*, which attaches to a noun to mean ‘X and other people’, or attaches to a common noun to

4. The mid central vowel /ə/ is represented orthographically as <v> in Nishiyama and Kelen (2007:9).

make it plural. They provide only two examples, (18) and (19), and in both *-we* seems to be more a marker of associative plurality. Besides the examples below, *-we* does not occur anywhere else in their grammatical description.

- (18) LH-LEWOINGU
Lado-*we*
'Lado and the folks' (Nishiyama and Kelen 2007:43)
- (19) LH-LEWOINGU
guru-*we*
'teachers' or 'the teacher and his family' (Nishiyama and Kelen 2007:43)

It is worth mentioning here that the form *we* is also present in Alorese, where it functions as the free 3PL pronoun (see table 2). In 6.2, I hypothesize that an original noun *we* meaning 'people, folks' grammaticalized into a 3PL pronoun in Alorese, while it became a maker of associative plurality in LH-Lewoingu.

4.3 DIACHRONIC BASELINE: OTHER FLORES-LEMBATA LANGUAGES. This section describes how plurality is expressed in the other Flores-Lembata languages, more distantly related to Alorese. Here, LH-Central Lembata (a Central Lamaholot variety), Sika, and Kedang are taken as representatives (see map 2). LH-Central Lembata is spoken in the central part of Lembata Island, while Sika and Kedang are spoken at the borders of the Flores-Lembata region, and they are the two languages that have the least in common with Alorese and the other Lamaholot dialects (Doyle 2010:30).

In LH-Central Lembata (Fricke 2017b), there is a plural suffix *-dʒa* that can attach to animate (20a) and inanimate nouns (20b).

- (20) LH-CENTRAL LEMBATA
- a. kopoŋa
kopoŋ-dʒa
child-PL
'children' (Fricke 2017b:756)
- b. snae-dʒa
shawl-PL
'shawls' (Fricke 2017b:758)

This suffix attaches only to a subset of alienable nouns, excluding body part nouns, kinship terms, and parts of wholes (see Fricke 2017b).

For the description of Sika, I rely on the grammatical description of the Hewa variety by Fricke (2014). In Hewa, bare nouns can have a plural reading, as illustrated by the example in (21).

- (21) (SIKA) HEWA
'Ia 'ai pu'a -n ha rimu 'ita' n -ora wani.
LOC tree stem-POSS one 3PL 3PL.see 3SG-be.with bee
'On a tree, they see bees.' (Fricke 2014:81)

Fricke (2014:63) reports one example including the plural word '*ahan* given in (22); however, she acknowledges that "*ahan* might indicate plural but [the] data is insufficient to doubtlessly confirm this claim."

- (22) (SIKA) HEWA
 Dedi' anak 'ahan sementara lêbe 'ia lêpo to'e main.
 child small PL PROG play LOC house back come
 'The (small) children are playing outside the house.'
 (Fricke 2014:863).

For Kedang, Samely (1991) does not discuss plurality in her grammatical description. It seems that the bare noun can convey a sense of plurality, which is inferred from the context, as shown in (23).⁵

- (23) KEDANG
 Bahe >anaq utun dèhuq >au >udeq bètè bunuq.
 then child small chase dog one DEIC descend
 'The small children chase a dog from above down.' (Samely 1991:152)

However, Samely and Barnes's dictionary (2013:73) reports the entry >ata with the following meanings: 'man, people', 'many', and 'plural marker'. Based on the data in Samely and Barnes (2013) >ata can be used to pluralize animate nouns (example 24) and inanimate nouns (example 25).⁶

- (24) KEDANG
 >Au >ata >oyo dilè pèlaq wèq.
 'Those dogs are licking each other.' (Samely and Barnes 2013:73)
- (25) KEDANG
 Lamaq makoq >ata noq >ole Sina puqen Jawa matan >aqya
 'These cups and plates are from China and Java.'
 (Samely and Barnes 2013:591, with *sina* corrected as *Sina*)

Unlike Alorese *hire*, >ata can cooccur with numerals, as illustrated in (26), where >ata follows the numeral *tèlu* 'three'.

- (26) KEDANG
 Labur tèlu >ata owe me, >ei sir ko putuq.
 'Of those three dresses over there, I like the red one best.'
 (Samely and Barnes 2013:592)

4.4 INTERIM SUMMARY. To summarize, Alorese has a productive plural word *hire*, which can modify both animate and inanimate nouns. None of the other Flores-Lembata languages has a plural word similar to *hire*. Western Lamaholot varieties, the closest genealogical relatives to Alorese, almost completely lack a plural marker: LH-Solor and LH-Lewotobi do not have any dedicated marker of plurality; LH-Lewoingu occasionally makes use of reduplication, and has a marker of associative plurality *-we*, which, however, seems quite marginal. The other, less closely related languages seem to have dedicated markers of plurality: LH-Central Lembata has a plural suffix *-dza*. In Sika Hewa there might be a plural word with the form *'ahan*, while in Kedang there is the plural marker >ata. An overview of plural marking strategies is presented in table 3.

The scattered pattern of plural markers and the lack of correspondences within the Flores-Lembata family suggest that the presence of the plural word *hire* in Alorese is an

5. The orthographic representation '>' is used for breathy vowels (Samely 1991:56).

6. The examples in the dictionary do not have interlinear glosses.

TABLE 3. EXPRESSION OF PLURALITY IN THE FLORES-LEMBATA LANGUAGES

FLORES-LEMBATA LANGUAGES	OPTIONAL PLURAL MARKER
Alorese	<i>hire</i> 'plural word'
LH-Solor	no marker of plurality
LH-Lewotobi	no marker of plurality
LH-Lewoingu	reduplication; <i>-we</i> 'associative plurality' (marginal)
LH-Central Lembata	<i>-dʒa</i> plural suffix for alienable nouns
(Sika) Hewa	(?) ' <i>ahan</i> 'plural word' (marginal)
Kedang	<i>>ata</i> 'plural marker'

independent development. Additional evidence comes from the fact that these markers have different, unrelated, forms. Alorese *hire* and the LH-Central Lembata plural suffix *-dʒa* developed from an original 3PL pronoun **si-ida*. The other putative plural markers LH-Lewoingu *-we*, Hewa '*ahan*', and Kedang *>ata* are not related to the 3PL pronoun in their respective languages: LH-Lewoingu *ra* '3PL' (Nishiyama and Kelen 2007:13), Hewa *rimu* '3PL' (Fricke 2014:29), and Kedang *suo* '3PL' (Samely 1991:69).

5. PLURAL WORDS: PAPUAN LANGUAGES ON ALOR AND PANTAR.

This section illustrates the main syntactic and semantic properties of plural words in the Alor-Pantar languages, based on the work of Klamer, Schapper, and Corbett (2014). Plural words are found across almost all the Alor-Pantar languages, as shown in table 4. Due to the presence of cognate forms in Teiwa, Adang, Klon, and Kamang, Klamer, Schapper, and Corbett (2014) have reconstructed the plural word **non* for Proto-Alor-Pantar.

In all Alor-Pantar languages, both animate and inanimate nouns can be pluralized using a plural word that occurs within the NP. Only in Kamang is the plural word placed outside the NP.

For instance, the structure of the NP in Teiwa is as follows: the head noun (N) can be followed by an adnominal modifier in the attribute slot (ATT), a numeral with an optional classifier ([CLF] NUM) or a plural word (PL), a (non-numeral) quantifier (Q), a demonstrative (DEM), and an article (ART). The template of the Teiwa NP is presented in (27).

TABLE 4. PLURAL WORDS IN THE ALOR-PANTAR LANGUAGES

LANGUAGE	PLURAL WORD REFLECTING * <i>non</i>	PLURAL WORD NOT REFLECTING * <i>non</i>
Western Pantar		<i>maru(ng)</i>
Teiwa	<i>non</i>	
Adang	<i>nun</i>	
Klon	(<i>o</i>) <i>non</i>	<i>maang</i>
Abui		<i>loku, we</i>
Kamang	<i>nung</i>	
Wersing		<i>deing, naing</i>
Kula		<i>du(a), araman</i>
Sawila		<i>do, maarang</i>

- (27) TEIWA
 [N ATT {(CLF) NUM/PL (Q)} DEM ART]_{NP}

In all the Alor-Pantar languages, plural words and numerals cannot cooccur. This is illustrated by the pair of examples in (28).

- (28) TEIWA
 a. war (bag) haraq
 rock CLF two
 ‘two rocks’ (Klamer, Schapper, and Corbett 2014:384)
 b. *war (bag) haraq non
 rock CLF two PL
 Intended: ‘two rocks’ (Klamer, Schapper, and Corbett 2014:384)

Only in Teiwa can the plural word *non* combine with a nonnumeral quantifier, such as *dum* ‘many’, as shown in (29). In the other Alor-Pantar languages, plural words do not cooccur with nonnumeral quantifiers.

- (29) TEIWA
 Wat non dum usan ma!
 coconut PL many pick.up come
 ‘Pick up the many coconuts!’ (Klamer, Schapper, and Corbett 2014:384)

Semantically, the plural words in Alor-Pantar languages also encode other notions, such as completeness, abundance, ethnicity, or clan membership. For, instance in Western Pantar, *maru(ng)* can convey a sense of comprehensiveness, as shown in example (30).

- (30) WESTERN PANTAR
 Ping pi mappu maiyang, lokke maiyang saiga si,
 1PL.INCL 1PL.INCL.POSS fishpond place fishtrap place DEM ART
 gai keʔe maru si aname ging haggi kanna.
 3.POSS fish PL ART person 3PL.ACT take already
 ‘We placed our fishponds, placed our fish traps, and then people took
 all the fish.’ (Klamer, Schapper, and Corbett 2014:398)

In Abui, the plural word can follow a place name or a clan name indicating geographical origin or clan membership, as illustrated in (31) and (32).

- (31) ABUI
 Kafola loku
 Kabola PL
 ‘people from Kabola’ (Klamer, Schapper, and Corbett 2014:403)
 (32) ABUI
 Afui Ata loku
 clan.name PL
 ‘people from the Afui Ata clan’ (Klamer, Schapper, and Corbett 2014:403)

To sum up, Proto-Alor-Pantar had a plural word **non*, and reflexes of it are attested in some of the daughter languages, while other languages have innovated new forms. Plural words in Alor-Pantar languages usually occur with the NP and cannot be combined with a numeral. In addition to plurality, plural words can convey other meanings, such as completeness, entirety, geographical origin, or clan membership.

6. DISCUSSION. This paper argues that the plural word *hire* in Alorese is the result of contact with neighboring Alor-Pantar languages. The following sections discuss the four methodological requisites for contact-induced change given in the introduction (section 6.1), the contact-induced grammaticalization process, the phonological development of *hire*, and the way in which this development took place (6.2).

6.1 HISTORICAL CONTACT-INDUCED CHANGE. To demonstrate that a historical contact-induced change occurred in Alorese, four requisites need to be fulfilled (Thomason 2001, 2009). I repeat them here and discuss them in turn.

6.1.1 Prove the existence of contact between language A and language B. Alorese and the Alor-Pantar languages have been spoken in close proximity since the fourteenth century, when the first Alorese settled on Pantar (see section 2). Historical records and recent linguistic research (Klamer 2011, 2012; Moro to appear; Robinson 2015) suggest that the languages have been in contact for centuries. Furthermore, the contact situation has been sufficiently intense to make transfer of lexical items and of structural features possible. If a structural feature (formation of numeral ‘ten’) in the quantity domain has been borrowed from Alor-Pantar languages to Alorese, then we can safely assume that another feature (the plural function) in the same domain could also have been borrowed.

6.1.2 Identify shared features in language A and language B. The shared features are that Alorese and the Alor-Pantar languages employ a plural word to code nominal plurality and that they form the numeral ‘ten’ following the same pattern (see section 2). Here we focus on the plural word *hire*. The plural word strategy is found in only about 16 percent of the world’s languages (Dryer 2013), so the fact that neighboring (but unrelated) languages share this strategy raises a reasonable doubt about its origin. Even more interestingly, the Alorese plural word *hire* and the plural words in the Alor-Pantar languages have similar syntactic and semantic characteristics (see section 4 and 5). In Alorese, as well as in most of the Alor-Pantar languages, the plural words (i) occur within the NP, (ii) follow the head noun, and (iii) cannot cooccur with a numeral. Semantically, the Alorese plural word has similar connotations to plural words of other Alor-Pantar languages. In Alorese, as well as in most of the Alor-Pantar languages, the plural words can also express completeness and/or entirety and can indicate geographical or ethnic origin.⁷ Although the presence of syntactic and semantic similarities is not a sufficient requisite per se, it adds cumulative evidence for a diagnosis of contact-induced change.

6.1.3 Prove that the shared features were present in language A before language A came into contact with language B. The Alor-Pantar languages had plural words before they came into contact with Alorese, as witnessed by the fact that a plural word of the shape *non was reconstructed for Proto-Alor-Pantar (Klamer, Schapper, and Corbett 2014:409). Since Proto-Alor-Pantar dates back to somewhere around 3,000

7. One not infrequently finds such connotations in other languages. For instance, the Javanese verbal plural auxiliary *padha* can also indicate entirety (e.g., *aspal padha gempal* ‘the asphalt was all broken up’, see Hayward 1998:327). In Nakanai, an Oceanic language spoken in New Britain, the plural word *egite* can also apply to groups that consist of villages, tribes, or nationalities (Johnston 1980:174); e.g., the expression *egite Siapanipani* means ‘the Japanese’. Note that for this collective usage the nouns are reduplicated.

years ago (Klamer 2014:14), while the first Alorese settlers arrived on Pantar only approximately 600–700 years ago, the presence of plural words among Alor-Pantar languages is undoubtedly due to inheritance.

6.1.4 Prove that the shared features were NOT present in language B before it came into contact with language A. Alorese did not have a plural word before it came into contact with Alor-Pantar languages, because a plural word similar in form and function to *hire* is absent from the closely related languages, the varieties of Western Lamaholot.

One reviewer argued that, since plural words similar to *hire* are found in the languages of Timor, *hire* in Alorese is a retention from a higher level connecting Flores-Lembata languages with the languages of Timor. Then, all Western Lamaholot varieties lost the plural word, while only Alorese preserved it and its grammar was influenced by neighboring Alor-Pantar languages. Although this scenario is certainly possible, it cannot be proven. The level that connects Flores-Lembata languages with Timor languages is supposed to be CMP, which, however, is very controversial. If one believes that such a level exists, the plural word should be reconstructed to that level. It is very likely that there is a common ancestor for these languages, but we need more evidence before we can reconstruct it. Furthermore, if one claims that *hire* is a case of contact-induced retention, it remains to be explained why after centuries Alorese innovated the form for the 3PL pronoun and changed it into *we*. In my view, it is more reasonable to assume that *hire* is a contact-induced innovation, rather than a contact-induced retention, and that the innovation of the 3PL pronoun *we* happened contextually to the grammaticalization of *hire*.

Another possible explanation that might be offered is that *hire* is an independent internal innovation. Although this possibility cannot be completely ruled out, “the idea that internal sources of change should always be preferred over contact has no evidentiary basis” (Ross 2013:12). I believe that the circumstantial evidence of contact for *hire* is strong enough. One argument in support of this claim is that, if the emergence of plural words from 3PL pronouns is not due to contact, then in principle it should happen as frequently in languages of western Indonesia as it does in languages in eastern Indonesia and New Guinea. However, this is not the case. Out of 23 languages where the plural word developed from a 3PL pronoun, as in Alorese, 20 languages are spoken in eastern Indonesia and the Pacific (16 in the Pacific islands and east New Guinea, 4 on Timor and its offshore islands), and only 3 languages are spoken in western Indonesia, in the Philippines (see Wu 2017:61–72). Thus, although plural words can develop independently of contact, most of the Austronesian languages where a 3PL pronoun developed into a plural word are found in areas characterized by Austronesian and non-Austronesian contact. I believe that this geographical spread is suggestive of a contact origin, at least in some of these languages.

6.2 CONTACT-INDUCED GRAMMATICALIZATION AND THE PHONOLOGICAL DEVELOPMENT OF *hire*. The process whereby a grammatical category (for example, plurality) is copied from language A to language B is contact-induced grammaticalization (Heine and Kuteva 2005:81). In this type of grammaticalization, bilingual speakers copy a grammatical category, but recruit original material to express it, as illustrated in (a)–(d).

- (a) Bilingual speakers notice that in an Alor-Pantar language there is the grammatical category of plurality.
- (b) They create an equivalent category of plurality in Alorese on the basis of the use patterns available in Alorese.
- (c) They draw on universal strategies of grammaticalization, using an original 3PL pronoun (PMP *si-ida) to express the category of plurality.
- (d) They grammaticalize the original 3PL pronoun into a marker of plurality (PMP *si-ida > Alorese *hire*).

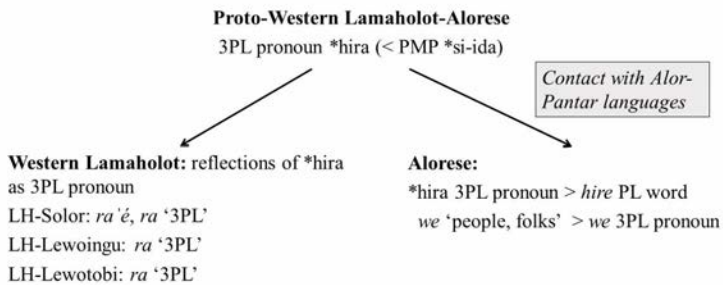
To express plurality, Alorese has grammaticalized the original PMP 3PL pronoun *si-ida, following a cross-linguistically very common pattern, whereby a pronoun bleaches out its deictic meaning and becomes a number marker (Heine and Kuteva 2002:237–38). The form *hire* evolved from PMP *si-ida ‘3PL’ in the following way. The change *s > h is regular in Western Lamaholot varieties, and, therefore, in Alorese (PMP *siwa ‘nine’, LH-Lewoingu *hiwa*, Alorese *hiwa*; PMP *tasik ‘sea’, LH-Lewoingu *tahi*, Alorese *tahi*; PMP *pusəj ‘navel’, LH-Lewoingu *kəpuhur*, Alorese *puhur*).⁸ Another change that occurred in Western Lamaholot dialects is *d > r in intervocalic position (PMP *si-ida ‘3PL’, LH-Lewoingu *ra*⁹, Alorese *hire*; PMP *ma-quḍip ‘live, alive’, LH-Lewoingu *mori*, Alorese *mori*; PMP *budaq ‘unnaturally white, albino’, LH-Lewoingu *bura* ‘white’, Alorese *bura* ‘white’). Finally, the change *a > e appears to be a sporadic instance of vowel assimilation. So, it is likely that Proto-Western Lamaholot had a 3PL pronoun *hira, which was inherited in Alorese as *hire*.

As discussed in section 2, 3PL pronouns are often the source for plural words. For instance, reflexes of the 3PL pronoun PMP *si-ida as a plural marker are found in the Austronesian languages of Timor (see table 2). The difference is that, synchronically, Timoric languages have an identical (or related) form for both the plural word and the 3PL pronoun, while Alorese innovated the form *we* for the 3PL pronoun. Regarding the origin of *we*, I propose that this form is related to the marker of associative plurality *-we* in LH-Lewoingu (see 4.2). My hypothesis is that Alorese speakers filled the gap left in the paradigm after *hire* shifted from being a pronoun to a plural word with the noun *we* meaning ‘people, folks’. While the noun *we* grammaticalized into a 3PL pronoun in Alorese, it became a maker of associative plurality in LH-Lewoingu. Both grammaticalization paths are cross-linguistically common. Generic nouns like ‘person’ or ‘people’ can give rise to pronominal markers and eventually to inflectional categories (people > 3PL pronoun > plural word, see Heine and Kuteva 2002:210). Similarly, nouns meaning ‘companion, fellow’ easily grammaticalized into comitative markers or end-of-list coordinator, like the English expression & *co* (see Heine and Kuteva 2002:91; Bril 2011).

The information presented so far suggests the following scenario, schematically illustrated in figure 1. Proto-Western Lamaholot-Alorese had the 3PL pronoun *hira (> PMP *si-ida). In the fourteenth century, after Alorese split from Western Lamaholot, the form was reinterpreted as a plural marker in Alorese (due to contact with Alor-Pantar lan-

8. The LH-Lewoingu, LH-Lewotobi, LH-Kalikasa, and Alorese data are taken from the online database LexiRumah (Kaiping and Klamer 2017, see references therein); the PMP data are from the Austronesian comparative dictionary online (Blust and Trussel ongoing).

9. The first syllable *(si) was lost after Alorese split from the Western Lamaholot varieties.

FIGURE 1. HISTORICAL DEVELOPMENT OF THE PLURAL WORD *hire*

guages), while it maintained its pronominal function in Lamaholot (although it underwent phonological reduction).

Diagnosing contact-induced change helps us reconstruct the history of small-scale communities (Ross 2013). Childhood bilingualism in a small multilingual society is likely to lead to grammatical complexification, while a substantial amount of adult-second language learning usually leads to grammatical simplification (Kusters 2003; Trudgill 2011; Ross 2013). The grammaticalization of *hire* led to an increase in the grammatical complexity of Alorese, because a new grammatical category, namely plurality, was added to the system. This category of plurality was then mapped onto the preexisting morpheme *hire*. Such functional remapping, whereby the functional category of one language (here plurality) is mapped onto a morphological unit of another language (here the 3PL pronoun), is usually found in young people's speech. The reason is that it is mostly bilingual children who are able to dissociate grammatical features from their morphological counterparts and remap them (Sánchez 2004, 2006). So, it is likely that the agents of such change were bilingual children who grew up acquiring Alorese and one or more Alor-Pantar languages in a small-scale bilingual society. This contact setting was probably most widespread in eastern Indonesia until historical times (see Ross 2013:7–11). Only later, when the Alorese community became larger and more fluid, did the language start to undergo a significant simplification process due to the considerable amount of adult second language learning (Klamer 2011, 2012; Moro to appear).

I believe that the grammaticalization of *hire* is a change that occurred in the early history of the Alorese language, probably soon after the first Alorese settled on Pantar, but before they spread to the other parts of Pantar and to Alor. The first argument in support of this claim is that, as we have seen above, changes that lead to complexification are typical of small-scale communities. The second argument is that the pronoun *we* undergoes the regular sound change *w > f attested in two of the four Alorese varieties that we know of, as illustrated in table 5. The fact that the 3PL pronoun *we* participates in this sound change means that this form was innovated before the Alorese speech community spread out.

If *we* was innovated to supply the gap left in the paradigm after *hire* shifted from being a pronoun to a plural word, then the grammaticalization of *hire* must have also

TABLE 5. SOUND CORRESPONDENCES IN FOUR ALORESE VARIETIES[†]

English	Alorese-Baranusa (Pantar)	Alorese-Pandai (Pantar)	Alorese-Munaseli (Pantar)	Alorese-Alor Besar (Alor)
3PL pronoun	fe	we	we	fe
water	fei	wai	wai	fei
stone	fato	wato	wato	fato
moon	fulaŋ	wulaŋ	wulaŋ	fulaŋ
pig	?	wawe	wawe	fafe
tongue	fefel	wewel	wewel	fefelaŋ

[†] The word list of Alorese Baranusa is from Klamer (2011). The word lists of the other three Alorese varieties were collected by the present author during a fieldwork trip between May and August 2016. All these Alorese data are available for consultation in the online database LexiRumah (Kaiping and Klamer 2017).

occurred before the Alorese speech community spread out, in other words, when the Alorese were still a small-scale bilingual community.

7. CONCLUSION. In this paper, I have claimed that the plural word *hire* in Alorese is the result of contact-induced change with the (Papuan) Alor-Pantar languages. Alorese *hire* ‘PL’ satisfies the four methodological requisites for establishing a history of contact induced-change: (i) Alorese was, and still is, spoken in close contact with Papuan languages, as witnessed by the number of loanwords and by another structural feature shared by the languages involved; (ii) Alorese and the Alor-Pantar languages share the presence of a plural word with similar syntactic and semantic properties; (iii) the Alor-Pantar languages had plural words before they came into contact with Alorese, because a plural word of the shape *non can be reconstructed for Proto-Alor-Pantar; and (iv) Alorese did not have the plural word *hire* before it came into contact with Alor-Pantar languages, because cognates of it are absent from its sister languages.

Hire is the product of contact-induced grammaticalization, a process most typically found in the speech of young speakers. In this process, bilingual preadolescents copy a grammatical category from one language into another language, but use original material to express it. This is what happened in Alorese, where an original 3PL pronoun *hire* (< PMP *si-ida) was recruited to express the category of plurality. Thus, Alorese inherited the form *hire* from its mother language, but borrowed the function of a plural word from the neighboring Alor-Pantar languages. Contextually, an original noun *we* ‘people, folks’ was innovated as the new form for the 3PL pronoun.

Finally, the development of the plural word *hire* in Alorese follows a pattern found among other Austronesian languages of the region, which also use reflexes of *si-ida as plural markers (Timoric languages). This pattern suggests that this development is common among languages spoken in a contact zone; however, it remains to be investigated whether other Papuan languages (not only Alor-Pantar languages) frequently use plural words or other plurality markers. Furthermore, additional research is needed to investigate how other Flores-Lembata languages, such as Kedang, Sika Hewa, and Central Lembata, developed their plural markers.

REFERENCES

- Anonymous. 1914. De eilanden Alor en Pantar, Residentie Timor en Onderhoorigheden. *Tijdschrift van het Koninklijk Nederlandsch Aardrijkskundig Genootschap* 31:70–102.
- Blust, Robert. 2009. *The Austronesian languages*. Canberra: Pacific Linguistics.
- Blust, Robert, and Stephen Trussel. Ongoing. *The Austronesian comparative dictionary*. [Available online at www.trussel2.com/ACD. Accessed on June 14, 2017.]
- Bril, Isabelle. 2011. Noun-phrase conjunction in Austronesian languages: Additive, inclusory and comitative strategies. In *Topics in Oceanic morphosyntax*, ed. by Claire Moyse-Faurie and Joachim Sabel, 235–86. Berlin: Walter de Gruyter.
- Doyle, Matthew. 2010. Internal division of the Flores-Lembata subgroup of Central Malayo-Polynesian. MA thesis, Leiden University.
- Dryer, Matthew. 1989. Plural words. *Linguistics* 27:865–96.
- . 2013. Coding of nominal plurality. In *The world atlas of language structures online*, ed. by Matthew Dryer and Martin Haspelmath. Leipzig, Germany: Max Planck Institute for Evolutionary Anthropology. [Available online at <http://wals.info/chapter/33>. Accessed on June 14, 2017.]
- Elias, Alexander. 2017. Subgrouping the Flores–Lembata languages using historical glottometry. Paper presented at the Ninth International Austronesian and Papuan Languages and Linguistics Conference (APLL9), held in Paris, June 21–23.
- Fedden, Sebastian, and Dunstan Brown. 2014. Participant marking: Corpus study and video elicitation. In *The Alor-Pantar languages: History and typology*, ed. by Marian Klamer, 413–56. Berlin: Language Science Press.
- Fernandez, Inyo Yos. 1996. *Relasi historis kekerabatan Bahasa Flores*. Ende, Indonesia: Penerbit Nusa Indah.
- Foley, William A. 1986. *The Papuan languages of New Guinea*. Cambridge, UK: Cambridge University Press.
- François, Alexandre. 2015. Trees, waves and linkages: Models of language diversification. In *The Routledge handbook of historical linguistics*, ed. by Claire Bowerman and Bethwyn Evans, 161–89. London and New York: Routledge.
- Fricke, Hanna. 2014. *Topics in the grammar of Hewa: A variety of Sika in eastern Indonesia*. Munich: Lincom Europe.
- . 2017a. The rise of clause-final negation in Flores-Lembata, Eastern Indonesia. *Linguistics in the Netherlands*, ed. by Sander Lestrade and Bert Le Bruyn, 47–62. Amsterdam: John Benjamins.
- . 2017b. Nouns and pronouns in Central Lembata Lamaholot (Austronesian, Indonesia). *Wacana* 18(3):746–71.
- Hayward, Katrina. 1998. The verbal auxiliary *padha* in contemporary Javanese. In *Productivity and creativity*, ed. by Mark Janse, 317–36. Berlin: Walter de Gruyter.
- Heine, Bernd, and Tania Kuteva. 2002. *World lexicon of grammaticalization*. Cambridge, UK: Cambridge University Press.
- . 2005. *Language contact and grammatical change*. Cambridge, UK: Cambridge University Press.
- Hinton, Bryan D. 1991. Aspects of Tugun phonology and syntax. MA thesis, The University of Texas at Arlington.
- Holton, Gary, Marian Klamer, František Kratochvíl, Laura C. Robinson, and Antoinette Schapper. 2012. The historical relations of the Papuan languages of Alor and Pantar. *Oceanic Linguistics* 51:86–122.
- Hull, Geoffrey. 2003. *Southern Mambai*. Díli, Timor Leste: Instituto Nacional de Linguística, Universidade Nacional Timor Lorosa'e.

- Johnston, Raymond L. 1980. *Nakanai of New Britain: The grammar of an Oceanic language*. Canberra: Pacific Linguistics.
- Kaipang, Gereon, and Marian Klamer. eds. 2017. *LexiRumah—A lexical database of Lesser Sunda languages*. Leiden, Netherlands: Leiden University Centre for Linguistics. [Available online at <http://www.model-ling.eu/lexirumah/>. Accessed on July 18, 2017.]
- Keraf, Gregorius. 1978. Morfologi dialek Lamlera. PhD diss., Universitas Indonesia.
- Klamer, Marian. 2011. *A short grammar of Alorese (Austronesian)*. Munich: Lincom Europa.
- . 2012. Papuan–Austronesian language contact: Alorese from an areal perspective. In *Melanesian languages on the edge of Asia: Challenges for the 21st century*, ed. by Marian Klamer and Nicholas Evans, 72–108. Honolulu: University of Hawai‘i Press.
- . 2014. The Alor-Pantar languages: Linguistic context, history and typology. In *The Alor-Pantar languages: History and typology*, ed. by Marian Klamer, 5–53. Berlin: Language Science Press.
- Klamer, Marian, Antoinette Schapper, and Greville Corbett. 2014. Plural number words in the Alor-Pantar languages. In *The Alor-Pantar languages: History and typology*, ed. by Marian Klamer, 375–412. Berlin: Language Science Press.
- Kroon, Yosep B. 2016. A grammar of Solor-Lamaholot: A language of Flores, Eastern Indonesia. PhD diss., University of Adelaide.
- Kusters, Wouter. 2003. *Linguistic complexity. The influence of social change on verbal inflection*. Utrecht: LOT Dissertation Series.
- Lynch, John, Malcolm Ross, and Terry Crowley. 2002. *The Oceanic languages*. Richmond, UK: Curzon Press.
- Moro, Francesca R. To appear. Loss of morphology in Alorese (Austronesian): simplification in adult language contact. *Journal of Language Contact*.
- Nagaya, Naonori. 2011. The Lamaholot language of Eastern Indonesia. PhD diss., Rice University.
- Nishiyama, Kunio, and Herman Kelen. 2007. *A grammar of Lamaholot, eastern Indonesia: The morphology and syntax of the Lewoingu dialect*. Munich: Lincom Europa.
- Poplack, Shana, and Stephen Levey. 2010. Contact-induced grammatical change: A cautionary tale. In *Language and space: An international handbook of linguistic variation*, ed. by Peter Auer and Jürgen Erich Schmidt, 391–419. Berlin: Walter de Gruyter.
- Robinson, Laura C. 2015. The Alor-Pantar (Papuan) languages and Austronesian contact in East Nusantara. In *Papers from 12-ICAL, 3: Language change in Austronesian languages*, ed. by Malcolm Ross and I Wayan Arka, 19–33. Canberra: Asia-Pacific Linguistics.
- Rodríguez-Ponga, Rafael. 1995. El elemento español en la lengua chamorra (Islas Marianas). PhD diss., Universidad Complutense de Madrid.
- Ross, Malcolm. 2013. Diagnosing contact processes from their outcomes: The importance of life stages. *Journal of Language Contact* 6(1):5–47.
- Samely, Ursula. 1991. *Kedang (Eastern Indonesia). Some aspects of its grammar*. Hamburg: Helmut Buske Verlag.
- Samely, Ursula, and Robert H. Barnes. 2013. *A dictionary of the Kedang language: Kedang–Indonesian–English*. Leiden and Boston: Brill.
- Sánchez, Liliana. 2004. Functional convergence in the tense, evidentiality and aspectual systems of Quechua Spanish bilinguals. *Bilingualism: Language and Cognition* 7(2):147–62.
- . 2006. Bilingual grammars and creoles: Similarities between functional convergence and morphological elaboration. In *L2 acquisition and creole genesis*, ed. by Claire Lefebvre, Lydia White, and Christine Jourdan, 277–94. Amsterdam and Philadelphia: John Benjamins.

- Schachter, Paul, and Fe T. Otanes. 1972. *Tagalog reference grammar*. Berkeley: University of California Press.
- Schapper, Antoinette, Juliette Huber, and Aone van Engelenhoven. 2014. The relatedness of Timor-Kisar and Alor-Pantar languages: A preliminary demonstration. In *The Alor-Pantar languages: History and typology*, ed. by Marian Klamer, 99–154. Berlin: Language Science Press.
- Simons, Gary F., and Charles D. Fennig (eds.). 2017. *Ethnologue: Languages of the world*, 20th ed. Dallas: SIL International [Available online at <http://www.ethnologue.com>. Accessed on March 31, 2017.]
- Stokhof, Willem. A. 1975. *Preliminary notes on the Alor and Pantar languages: East Indonesia*. Canberra: Pacific Linguistics.
- Thomason, Sarah G. 2001. *Language contact*. Edinburgh: Edinburgh University Press.
- . 2009. How to establish substratum interference. In *Issues in Tibeto-Burman historical linguistics*, ed. by Nagano Yasuhiko, 319–28. Osaka: National Museum of Ethnology.
- Trudgill, Peter. 2011. *Sociolinguistic typology: Social determinants of linguistic complexity*. Oxford: Oxford University Press.
- Wellfelt, Emilie. 2016. Historyscapes in Alor. Approaching indigenous histories in eastern Indonesia. PhD diss., Linnaeus University.
- Williams-van Klinken, Catharina, John Hajek, and Rachel Nordlinger. 2002. *Tetun Dili: A grammar of an East Timorese language*. Canberra: Pacific Linguistics.
- Wu, Jiang. 2017. Plural words in Austronesian languages: Typology and history. MA thesis: Leiden University.