Existential, Possessive, and Locative Clauses in Formosan Languages

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22.1   Introduction

This chapter provides an overview of the morphosyntactic characteristics of existential, possessive, and locative clauses in Formosan languages, which have been widely investigated in languages of the world (Lyons 1967, Kuno 1971, Clark 1978) and have been recognized typologically as sharing the same underlying structure (Freeze 1992). This type of clauses constitutes a subtype of verbal clauses, which have been explored in some depth (see Tan 1997, Zeitoun et al. 1999, Zeitoun 2000, Tsukida 1999, Sung et al. 2006, Teng 2008). Compared to the earliest studies of the late 1990's and in the first decade of the 21st century, we now possess enough data to provide a full spectrum of these struc-

tures, which are quite similar across the Formosan languages—some discrepancies are found but can be accounted for language-internally—and reconstruct the PAN negator *uka 'not exist' (Lin 2011) based on the Formosan data (§ 22.2.2).

Existential, possessive, and locative clauses are headed by a verb that shows interesting morphological properties across the Formosan languages (§ 22.3) with similar paths of grammaticalization in some of them (see Hsieh, this handbook, Chapter 34). Some languages exhibit two *have*-structures, which are examined in detail in § 22.4. Finally, the argument structure of this type of clauses has some interesting traits (Zeitoun 2000, H. Wu 2009) (§ 22.5). Concluding remarks are given in § 22.6.

22.2   Cross-linguistic Structural Similarities and Variation

Nearly half of the Formosan languages exhibit the same structure in affirmative and negative existential, possessive, and locative clauses (§ 22.2.1). In others, a different negator is found in existential and possessive clauses in contrast to locative clauses (§ 22.2.2); in a third type, both affirmative and negative existential and possessive clauses diverge from locative clauses (§ 22.2.3). All these discrepancies can be accounted for in terms of syntactic and/or semantic factors.

TABLE 22.1   Type of structure, verb, and/or negator in Formosan languages

Type of structure, verb, and/or negator	Languages
Same structure in affirmative/negative existential/possessive and locative clauses	Amis, Atayal, Bunun, Kavalan, Puyuma, Labuan Rukai, Siraya
Same structure in affirmative clauses, but different negator in locative clauses	Paiwan, Mantauran Rukai
Same structure in existential/possessive clauses, but different in locative clauses	Kanakanavu, Saaroa, Seediq, Thao, Pazeh/Kaxabu, Tsou Saisiyat

The following generalizations will not be discussed here in order to avoid repetition. Typologically, existential and locative clauses differ from each other in terms of word order because of a definiteness effect (Kuno 1971, Clark 1978,

Freeze 1991). Freeze (1991, p. 2) shows that in verb-initial languages, the theme precedes the locative phrase (if any) in existential clauses but follows it in locative clauses because it is definite. First, in many Formosan languages, order in existential, possessive, and locative clauses follows that of declarative clauses. Whenever word-order variations exist, pragmatic factors (e.g., an answer to a question) must be taken into account. Second, contrary to cross-linguistic generalizations regarding the human status of the possessor (see Clark 1978, Freeze 1991, 1992), there is no restriction whatsoever in possessive clauses in Formosan languages. It may refer to a [±human] or [±animate] entity, as long as an inherent relationship can be established between the possessor and the possessee. Third, though different types of constructions can be distinguished in Formosan languages—one corresponds to *This house is mine*, and the second includes a numeral or a quantifier, as in *Two are my children*, to convey *I have two children*—which are quite similar in terms of structure and properties, in this chapter, only possessive clauses that are existential (or locative) in nature, i.e., corresponding to *My money exists* or *I have money*, will be discussed.

22.2.1   *Same Structure in All Subtypes of Clauses*
In Amis, Atayal, Bunun, Kavalan, Puyuma, Labuan Rukai, and Siraya, affirmative and negative existential, possessive, and locative clauses all have the same structure. It can be schematized as Y's X (does not) exist (at/in Z). Existential clauses consist minimally of a verb[1] followed by the subject. In possessive clauses, the theme (i.e., the possessed argument) is marked as nominative, and the possessor as genitive. In locative clauses, the existential verb acquires a locative meaning through the addition of a location NP introduced either by a preposition, as in Amis and Bunun, or by a locative case marker, as in Kavalan and Puyuma. In Labuan Rukai and Siraya, locative nouns are unmarked for case, as they are treated as adjuncts. In the following examples, the three types of clauses are given for each language, with additional explanations given that are language-specific.

In Central Amis, existential, possessive, and locative clauses are headed by *ira* (morphologically made up of *i-* 'LOC' and *ra* 'that') in the affirmative (1) and *awa* in the negative (4). Note that in (1c), the location is subsumed in the verb itself, i.e., 'be there'.

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1   In some languages (e.g., Puyuma), existential/possessive and locative clauses are treated as non-verbal and headed by a copula (see Teng 2008).

(1)   Central Amis (based on J. Wu 2018)
    a. ***ira   ku   fu'is   i   kakayayan.***
       exist NOM:CN star PREP sky
       'There are stars in the sky.' (p. 43)

    b. ***ira   ku   sapaiyu   ni   faki.***
       exist NOM:CN medicine GEN:PN uncle
       'The uncle has medicine.' (Lit. 'The uncle's medicine exists.') (p. 76)

    c. ***ira   ciira   a   t⟨um⟩ireng.***
       be.at 3SG.NOM LNK ⟨AV⟩stand
       'He is standing there.' (p. 76)

The existential verb *ira* can take aspectual clitics, e.g., =*hu* 'still' (2a) and undergo C*a*-reduplication to refer to an irrealis event (2b).

(2)   Central Amis (based on J. Wu 2018)
    a. ***ira=hu   ku   ciiraanan=ay a   'usaw   nu   paysu.***
       exist=still NOM:CN 3SG.LOC=FAC LNK left-over GEN:CN money
       'He/she has money on him/her.' (p. 76)

    b. ***a~ira   ku   'urad i²   tini.***
       RED~exist NOM:CN rain PREP here
       'It will rain here.' (p. 77)

In locative clauses, the existential verb *ira* can be replaced by a prepositional phrase headed by *i* 'LOC' (see also J. Wu 2018).

(3)   Central Amis (based on J. Wu 2018, p. 77)
    a. ***i   ka-wili nu   luma' ku   cawka niira.***
       PREP DIR-left GEN:CN house NOM kitchen 3SG.GEN
       'His/her kitchen is on the left of the house.'

    b. ***i   dafdaf a   mi-paluma tu   funga   kami.***
       PREP plain LNK AV-PLANT OBL:CN sweet.potato 1PL.EXCL.NOM
       'We are planting sweet potatoes in the plains.'

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2   I follow Wu's (2018) analysis in treating *i* as a preposition in this example and those that follow, but it might well be the case that this is a bound morpheme that attaches to a nominal host.

What changes in negative clauses is the replacement of *ira* 'exist, be at' by *awa* 'not exist'.

(4) Central Amis
   a. ***awa=ay=tu*** *ku mama naira.*
      not.exist=FAC=COS NOM father 3PL.GEN
      'Their father has already passed away.' (J. Wu 2018, p. 78)

   b. ***awa*** *ku paysu nira.*
      not.exist NOM money 3SG.GEN
      'He/She has no money.' (Zeitoun et al. 1999, p. 4)

   c. ***awa*** *i luma' ci mama=aku.*
      not.exist PREP house NOM father=3SG.GEN
      'My father is not at home.' (J. Wu 2018, p. 78)

A prepositional phrase introduced by *i*, as in (3a–b), is negated by the (predicative) verb *cai* (or *ca'ay*) rather than *awa* 'not exist'.

(5) Central Amis
   cai ka-i *ka-wili nu luma' ku cawka niira.*
   NEG CONEG-PREP DIR-left GEN house NOM kitchen 3SG.GEN
   'His/her kitchen is not on the left of the house.' (Wu 2018, p. 78)

Both Squliq and C'uli' Atayal exhibit two existential verbs, which differ in terms of spatial (and by extension temporal) distance in reference to the speaker (see L. Huang 1993, 1995). Mayrinax Atayal (as a subdialect of C'uli' Atayal) features two existential verbs, *hani'an* (near, immediate) and *kia'*[3] (far, remote) 'exist, be at'.

(6) Mayrinax Atayal
   a. ***hani'an*** *ku' ngiyaw ka' rahuwal.*
      exist NOM.REF cat LNK big
      'There is a big cat (here).'

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3 The existential verb *kia'* takes an AV voice affix when marked as perfective, cf. *m⟨in⟩a-kia'*, cf. *m⟨in⟩a-kia i' bali' cu'ngga' 'i' baicu'* [⟨PFV⟩AV-exist LOC Miaoli before NOM Baicu] 'Baicu used to live in Miaoli.' (Zeitoun et al. 1999, p. 24).

a'. **kia' ku'   ngiyaw ka' rahuwal.**
exist NOM.REF cat   LNK big
'There is a big cat (there).' (Zeitoun et al. 1999, p. 5)

b. **hani'an ku'   qutux imuwaag=mu.**
exist   NOM.REF cat   house=1SG.GEN
'I have a house (here).' (Huang 1995, p. 174)

b'. **kia' ku'   qutux imuwaag=mu.**
exist NOM.REF cat   house=1SG.GEN
'I have a house (there).' (Huang 1995, p. 174)

c. **hani'an cku'   'ulaqi'=mu   ku'   'ulaqi'=su.**
exist   ACC.REF child=1SG.GEN NOM.REF child=2SG.GEN
'Your child is in my child's place.' (Speaker is at the child's place answer-
ing the listener's phone call.) (Huang 1995, p. 172)

c'. **kia' cku' 'ulaqi'=mu   ku'   'ulaqi'=su.**
exist ACC child=1SG.GEN NOM child=2SG.GEN
'Your child is in my child's place.' (Speaker is not in at the addressee's
child's place now. I am on the street talking to you.) (Huang 1995, p. 172)

In contrast to the predicate 'exist, be at', there is no spatial distinction for the
negative existential verb. In Mayrinax Atayal, this form is *ukas* (7); in other
Atayal dialects, it is *ungat*, as in Squliq Atayal (Wulai variety), e.g., **ungat
laqi'=nya'** [not.exist child=3SG.GEN] 'He/She has no child.'

(7)   Mayrinax Atayal (Zeitoun et al. 1999, p. 6)
a. **ukas   a'   ngiyaw ka' rahuwal.**
not.exist NOM cat   LNK big
'There is no big cat.'

b. **ukas   a'   imuwaag=nia.**
not.exist NOM house=3SG.GEN
'He does not have a house.'

c. **ukas   ku'   'ulaqi'=su   i'   imuwaag.**
not.exist ACC child=2SG.GEN PREP house
'Your child is not in the house.'

In Isbukun Bunun, existential, possessive, and locative clauses are introduced by *'aiza* 'exist, be at' (8) and negated by *'uka* (9). As in Amis, the predicate *'aiza* can be replaced in locative clauses by the verbalizer *i-* 'at', which attaches directly to a noun or to the preposition *sia* (cf. *'isia* 'at'), e.g., *i-lumah tama='alang* [LOC-house father=Alang] or *'isia lumah tama='alang* [PREP house father=Alang] 'Uncle Alang is at home'. In possessive clauses, the verb *'aiza* can be marked for voice, cf. *'aiza-an*. This marking will be further discussed in § 22.3.

(8)   Isbukun Bunun (based on Li 2018)
      a. ***'aiza** da~dusa tu   bunun.*
         exist RED~two LNK Bunun
         'There are two persons.' (p. 103)

      b. ***'aiza** 'inak   'a~'ima   tas'an.*
         exist 1SG.GEN RED~five sibling
         'I have five siblings.' (p. 121)

      c. ***'aiza** tama='alang 'i-lumah.*
         exist father=Alang LOC-house
         'Uncle Alang is/was at home.' (p. 447)

(9)   Isbukun Bunun (based on Li 2018, p. 448)
      a. *siahdut-an   tauzu   at   'uka   danum.*
         get.clogged-UVL water.pipe CONJ not.exist water
         'The water pipe got clogged, so there is no water.'

      b. ***'uka**   'is-Puni=tia   kaviaz.*
         not.exist belong.to-Puni=DIST.OBL friend
         'Puni does not have a(ny) friend.'

      c. ***'uka**   tama='alang 'i-lumah.*
         not.exist father=Alang LOC-house
         'Uncle Alang is not at home.'

In Kavalan, *yau* introduces affirmative existential, possessive, and locative clauses (10); *mai* negates these three types of clauses (11). It also negates other predicative clauses, e.g., *mai=iku q⟨em⟩an tu Raaq* [NEG=1SG.NOM ⟨AV⟩eat OBL wine] 'I did not drink wine' (Chang 2000b, p. 143).

(10) Kavalan

    a. *yau   a   u-tulu   taqsian tazian.*
       exist NOM NHUM-three school   here
       'There are three schools here.' (Jiang 2006, p. 59)

    b. *yau   sunis=ku.*
       exist child=1SG.GEN
       'I have a child.' (based on Chang 2000b, p. 139)

    c. *yau   ta   kinilan ni   Utay lazat   a   yau maded.*
       exist LOC side   GEN Utay person LNK that AF.sit
       'That man is sitting beside Utay.' (Jiang 2006, p. 105)

(11) Kavalan

    a. *mai   Riis   ta   lima-an=su.*
       not.exist mosquito LOC hand-LOC=2SG.GEN
       'There isn't any mosquito on your hand.' (Zeitoun 1999, p. 6)

    b. *mai=ti   sunis=ku.*
       not.exist=COS child=1SG.GEN
       'I do not have a child (now).' (based on Lee 1997, p. 127)

    c. *mai=imu   ta   repawan.*
       not.exist=2PL.NOM NOM house
       'You are not home.' (based on Hsieh 2018, p. 87)

In Nanwang Puyuma, existential, possessive, and locative clauses are headed by *ulaya* in the affirmative (12) and *unian* in the negative (13).[4] *Ulaya* can be cliticized with personal pronouns and the aspectual markers =*driya* 'still' and =*la* 'already'. Teng (2008, p. 199) mentions that out of the 60 locative clauses that she collected in her corpus, only five were headed by *ulaya*, speakers preferring the verb *kadru* 'inhabit, stay' to introduce a location. This does not undermine the present findings but does show the permeability of these different structures. Puyuma exhibits a rather complex case-marking system, with distinctions in definiteness and plurality, on top of the dichotomy between personal and common nouns. Definiteness plays a role in the identification of existen-

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4 Teng (2008, p. 193ff.) considers that the copula verb *ulaya* heads a nonverbal clause in
   Puyuma.

tial as opposed to locative clauses: in existential clauses, the theme is indefinite (12a), but it is definite in locative clauses (12c). The possessor is encoded through a nominative pronominal proclitic in affirmative clauses (12b), but as a nominative enclitic pronoun attached to the negator in negative counterparts (13b). The subject is the theme in affirmative existential clauses; in negative existential clauses, the theme is marked as indefinite oblique (13a), and there is no nominative marked subject (Teng 2008, pp. 201–202, 2012).

(12) Puyuma (Teng 2008)
    a. *asuwa=driya i* ***ulaya** a*   *saya a*   *drekal...*
       when=IPFV TOP exist NOM.INDF one NOM.INDF village
       'Long ago, there was one village …' (p. 198)

    b. ***ulaya** ku=idrus*   *a*   *k⟨em⟩adri.*
       exist 1SG.NOM.PSR=spoon NOM.INDF ⟨AV⟩here
       'I have such kinds of spoons.' (p. 200)

    c. ***ulaya** i*   *isatr kana*   *etu' na*   *paisu.*
       exist LOC above NOM.DEF table NOM.DEF money
       'The money is on the table.' (p. 53)

(13) Puyuma (Teng 2008)
    a. ***unian** dra*   *dralran dra*   *druma.*
       not.exist OBL.INDF road OBL.INDF other
       'There is no other road.' (p. 201)

    b. ***unian**=ku*   *dra*   *dralran m-uka i*   *taywan.*
       not.exist=1SG.NOM OBL.INDF road AV-go LOC Taiwan
       'I have no way to go to Taiwan.' (p. 200)

    c. ***unian**=ku*   *i*   *kiaedrengan.*
       not.exist=1SG.NOM LOC bed
       'I was not in bed.' (p. 213)

In Labuan Rukai, existential, possessive, and locative clauses are headed by *yakai* 'there is' (< *i-a-kai*, /i/ being glided to *y* before /a/, producing *ya*) (14)—which attracts the pronoun in locative clauses—and negated by *kadroa* 'there is/was not' (15), which is a predicative negator, as in Kavalan. Compare (15a–c) and (15d).

(14) Labuan Rukai (Zeitoun et al. 1999)

    a. *i-a-kai*   *beleng*   *ki*   *cokoi ko*   *sonate.*
       LOC-REAL-this   on/above   OBL   table   NOM   book
       'There is a book on the table.' (p. 11)

    b. *i-a-kai*   *ko*   *paiso=li.*
       LOC-REAL-this   NOM   money=1SG.GEN
       'I have money.' (p. 11)

    c. *i-a-kai-nga=nako*   *daane o-aga~aga.*
       LOC-REAL-this-already=1SG.NOM   house   SBJV-RED~cook
       'I am/was at home cooking.' (p. 24)

(15) Labuan Rukai (Zeitoun et al. 1999)

    a. *kadroa* *ka*   *i-a-kai*   *beleng*   *ki*   *cokoi ko*   *sonate.*
       NEG   CONEG   LOC-REAL-this   on/above   OBL   table   NOM   book
       'There is no book on the table.' (p. 11)

    b. *kadroa* *ko*   *paiso=li.*
       NEG   NOM   money=1SG.GEN
       'I have money.' (p. 11)

    c. *kadroa* *latadre ko*   *ina.*
       NEG   outside   NOM   mother
       'Mother is not outside.' (p. 11)

Compare with:

    d. *kadroa* *ka*   *o-a-ongolo*   *ko bava ko*   *ina.*
       NEG   CONEG   ACT-REAL-drink   OBL   wine   NOM   mother
       'Mother did not drink wine.' (p. 14)

In Siraya, existential possessive and locative clauses are introduced by *akumea* (16) and *aku-* (17), which both gloss as 'exist, be at', and are negated by *ausi* (18). The verbs *akumea* and *ausi* take a nominative subject, which can occur as a pronominal clitic (16b) and (18b), as well as aspect and mood affixes; the theme is incorporated into the predicate formed by the prefixation of *aku-* (17b) (Adelaar 2011).

(16) Siraya (Adelaar 2011)

    a. ***akume'-a hĭna ta tangi~tangi-an***
       exist-SBJV there NOM RED~cry-PAT.NMLZ
       'there is crying' (viii:12) (p. 74)

    b. ***akumea=kamu ki k⟨m⟩a~kading***
       exist=2SG.NOM DEFLT ⟨AV⟩RED~to.watch
       'you have a watch' (xxvii:65) (p. 75)

(17) Siraya (Adelaar 2011)

    a. ***ni-aku-yuax ki ma-dax ki vavuy.***
       PFV-exist-herd DEFLT STAT-many DEFLT pig
       'There was a herd of many swine.' (ix:30) (p. 74)

    b. ***aku-laulau ta ay~ayam ka tu vŭlŭm.***
       exist-nest NOM RED~animal LNK LOC cloud
       'the birds in the air have nests' (viiii:20) (p. 75)

(18) Siraya (Adelaar 2011)

    a. ***ausi ta timamang ka ma-riang...***
       not.exist NOM someone LNK STAT-good
       'there is no one who is good ...' (xix:17) (p. 74)

    b. ***ausi=kame hia ki mamang...***
       not.exist=2PL.NOM here DEFLT whatever
       'we do not have anything here ...' (xiv:17) (p. 75)

    c. ***ausi ta teni hia.***
       not.exist NOM 3SG.NOM here
       'he is not here' (xxviii:6) (p. 74)

22.2.3 *Same Structure in Affirmative Clauses but Different Negator in Locative Clauses*

In some languages, existential, possessive, and locative clauses are headed by the same verb, but a different negator occurs in locative clauses. Their behavior is otherwise similar to that of the languages in § 22.2.1. One major distinction made in Paiwan and Mantauran Rukai is that in existential and possessive clauses, the existence of the theme is negated, whereas in locative clauses, it is the predicative event that is negated. This results in the use of a different negator. We have shown in (11) and (15) that in some languages (e.g., Kavalan

and Labuan Rukai), the same negator is used both as an existential and as a predicative negator.

The existential verb is *om-iki* in Mantauran Rukai (19) and *izua* in Paiwan (20).

(19) Mantauran Rukai (Zeitoun 2007)
      a. *...o-lriho'o-ka=nai*   ***om-iki***   *valrinae*
          ...DYN:FIN-know-NEG=1PL.EXCL.NOM DYN.FIN-exist Valrinae
          dha'ane.
          house
          '... we did not know that there were houses in Valrinae.' (p. 87)

      b. ***om-iki***   *paiso=li.*
          DYN.FIN-exist money=1SG.GEN
          'I have money.' (Lit. 'My money exists.') (p. 345)

      c. *mani* ***iki****=lrao*   *dha'ane...*
          then DYN.NFIN:exist=1SG.NOM house
          'then I was in the house ...' (p. 87)

(20) Puljetji Paiwan (W. Huang 2012)
      a. ***izua*** (*a*)[5]   *sicevud*   (*na*)   *zaljum i=maza.*
          exist (NOM) water.source (GEN) water LOC=here
          'There is a water source here.' (p. 112)

      b. ***izua*** (*a*)   *ku=cengelj.*
          exist (NOM) 1SG.GEN=lunchbox
          'I have a lunchbox.' (p. 68)

      c. ***izua*** *i*   *tjumaq ti*   *Kuljelje.*
          exist PREP home   NOM Kuljelje
          'Kuljelje is at home.' (p. 224)

The negative counterpart in existential and possessive clauses are *okaodho* in Mantauran Rukai (21a–b) and *neka*(*c*) in Paiwan (22a–b).

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5   In Paiwan, case markers are obligatory. The nominative case marker is not pronounced when it follows a predicate ending with the vowel /a/.

(21) Mantauran Rukai (Zeitoun 2007)
  a. *lo moromoro=mao,*   ***o-kaodho***
     if DYN.SBJV:rinse=IMPRS.GEN DYN.FIN-not.exist
     'a-moro~moromoro.
     INST.NMLZ-RED~DYN.NFIN:rinse
     'If we (wanted to) clean our teeth, there wasn't any toothpaste/tooth-
     brush.' (p. 220)

  b. ***o-kaodho***   *paiso=li.*
     DYN.FIN-not.exist money=1SG.GEN
     'I have no money.'

(22) Paiwan
  a. ***neka*(*c*)** *nu* *sicevud*   (*na*) *zaljum i-maza.*
     not.exist NOM water.source (GEN) water LOC-here
     'There is not a water source here.'

  b. ***neka*(*c*)** *nu* *paysu nimadju.*
     not.exist NOM money 3SG.GEN
     'He/She has no money.' (Zeitoun et a. 1999, p. 12)

By contrast, in locative negative clauses, the existential verb is negated as any
other verb, as in Mantauran Rukai *om-iki-ka=i* 'is not (in/on/at)' (23a) and in
Paiwan *ini=ka* 'is not (in/on/at)' (23b).

(23) a. Mantauran Rukai (Zeitoun 2007)
       om-iki-ka=i   *ka*   *dha'ane dhona'i*
       DYN.FIN-exist-NEG=3SG.GEN NEG house   that
       titina.
       middle-aged.woman
       'That middle-aged woman is not in the house.' (p. 350)

  b. Paiwan
     ini=ka   *i*   *tjumaq* *ti*   *Kuljelje.*
     NEG=LNK PREP home   NOM Kuljelje
     'Kuljelje is not at home.'

22.2.4   *Same Structure in Existential and Possessive Clauses, Different Structure in Locative Clauses*

The languages that exhibit the same structure in existential and possessive clauses, but a different one in locative clauses, are structurally diverse.

22.2.4.1   Kanakanavu, Saaroa, Thao, and Seediq

Existential and possessive clauses in Kanakanavu, Saaroa, Thao, and Seediq exhibit a similar structure to the aforementioned languages. They minimally contain a verb followed by a subject (the theme), and the structure can be schematized as Y's X exists/does not exist. In locative clauses, the verb corresponds to 'be at', or 'reside, stay, inhabit' and is thus negated by a predicative negator.

In Kanakanavu, existential and possessive clauses are headed by *'una* 'exist' in the affirmative (24) and *'akia* 'not exist' in the negative (25). Both *'una* and *'akia* can take evidential or aspectual markers, as shown, for instance, in (24a) and (25b). In the affirmative, the possessor can be encoded on the subject NP as a genitive pronoun (24b), or on the verb, which takes an enclitic nominative pronoun, e.g., *'una=ku manu* [exist=1SG.NOM child] 'I have a child'. Its negative counterpart with the expected ***'akia=ku manu* [not.exist=1SG.NOM child] 'I do not have a child' is not attested.

(24) Kanakanavu
    a. ***'una**=kan   kanakanavu miana   ni-mace=cu.*
       exist=EVID Kanakanavu REAL:a.long.time PFV-die=COS
       'There was a Kanakanavu (woman) who died a long time ago.'

    b. ***'una** manu=maku.*
       exist child=1SG.GEN.PSR
       'I have a child.'

(25) Kanakanavu
    a. ***'akia**   tarisinata sian.*
       not.exist school   here
       'There is no school here.' (Sung 2018, p. 64)

    b. *ni-arupala=kita   maan cinara nakai **'akia**=pa*
       PFV-marry=1PL.INCL.NOM ten   year   but   not.exist=still
       manu=mita.
       child=1PL.INCL.GEN.PSR
       'We have been married for ten years but we do not have any child yet.'

Affirmative locative clauses are introduced by *'esi* 'be at' (26a)—which has grammaticalized as a progressive marker—and by the negator *ka'an* 'do/did not', which precedes *'esi* (26b). There is another verb that can be glossed as 'be at, stay, live', and it is derived from *'una*, cf. *mu'una*, e.g., *mu'una ikua si'icɨpɨ* [be.at:IMP.AV 1SG.OBL sleep] '(You) sleep at my place!'.

(26) Kanakanavu

   a. ***'esi**=kasu   nanu si'icɨpɨ?*
      be.at=2SG.NOM where sleep
      'Where do you sleep?' (Sung 2018, p. 115)

   b. ***ka'an 'esi**   tanasa sua   cina.*
      NEG   be.at house NOM mother
      'My mother is not at home.'

In Saaroa, existential and possessive clauses are headed by *maaru* 'exist' (27) and are negated by *uka'a* 'not exist' (28).

(27) Saaroa (Pan 2018)

   a. ***maaru** a   cucu'u m-aa   salia.*
      exist   NOM person AV-be.at house
      'There is someone in the house/at home.' (p. 42)

   b. ***maaru** a   tasau=isa   ka   tautau.*
      exist   NOM dog=3GEN.PSR LNK Tautau
      'Taotao has a dog.' (Lit. 'Taotao's dog exists.') (p. 49)

(28) Saaroa

   a. *aku=ku   mɨcɨkɨhlɨ ia, **uka'a**   (a)   cucu'u m-aa*
      when=1SG.NOM AV:come   TOP not.exist (NOM) person AV-be.at
      salia.
      house
      'When I came, there was nobody at home.' (Pan 2018, p. 150)

   b. ***uka'a**   a   tasau=isa   ka   tautau.*
      not.exist NOM dog=3GEN.PSR LNK Tautau
      'Taotao has no dog.' (Lit. 'Taotao's dog does not exist.')

Affirmative locative clauses are headed by *maa* 'be at (AV)' (29a) and negative locative clauses by the negator *ku* 'do/did not' followed by the bare form of *maa*, viz., *paa* 'be at' (29b).

(29) Saaroa (Pan 2018)

   a. ***m-aa***   *rɨrɨmaanɨ* *salia*   *mamaini.*
     AV-be.at inside   house child
     'The child is inside the house.' (p. 83)

   b. ***ku***   *paa* *rɨrɨmaanɨ* *salia*   *mamaini.*
     NEG be.at inside   house child
     'The child is not inside the house.' (p. 84)

Structurally, Thao does not depart from the other Formosan languages. It only differs in that it allows the verb in clause-initial or medial position. Existential and possessive clauses involve the predicate *itia* 'exist' (30a–b), taking the theme as the subject NP. The possessor is encoded as a genitive that occurs in the NP. Locative clauses involve the predicate *isa*, which introduces a locative noun (30c), the verbalizer *i-* 'at', which is prefixed to the locative noun, e.g., *i-taun* 'at home' (30d), or the verb *ianan*[6] 'be at (UVL)', a reflex of PAN *ian 'dwell, reside' (Blust 2003, p. 409), with the locative phrase occurring in initial position (30e).

(30) Thao

   a. ***itia***   *sa* *shput*   *miku kan sa shawiki.*
     exist CN Taiwanese like   eat CN betel.nut
     'There are people who like to chew betel.' (Blust 2003, p. 426)

   b. ***itia***   *s(a)* *nak=a*   *tuali.*
     exist CN   1SG.GEN=LNK money
     'I have money.' (ibid.)

   c. *nak=a*   *ina*   ***isa***   *taun.*
     1SG.GEN=LNK mother be.at house
     'My mother is at home.'

=   d. *nak=a*   *ina*   ***i-taun.***
     1SG.GEN=LNK mother LOC-house
     'My mother is at home.'

6　Jean (2018) treats *ianan*-clauses as existential clauses, but having reanalyzed the data, I have come to the conclusion that *ianan* is only found in locative clauses.

e. *pangka=wa fafaw **ian-an** sa patashan.*
table=LNK above be.at-UVL CN book
'The book is on the table.' (Jean 2018, p. 106)

The negator is *uka* in existential, possessive, and locative clauses, as shown in (31a–c).

(31) Thao (Jean 2018)
a. *pangka=wa fafaw **uka** sa patashan.*
table=LNK above not.exist CN book
'There is no book on the table.' (p. 109)

b. ***uka** s(a) nak=a tuali.*
not.exist CN 1SG.GEN=LNK money
'I have no money.' (p. 109)

c. *nak=a ina **uka** tu isa taun.*
1SG.GEN=LNK mother not.exist LNK be.at house
'My mother is not at home.' (p. 110)

In Tgdaya Seediq, affirmative existential and possessive clauses are introduced by *niqan* 'exist' (32). What is interesting about Seediq is that the verb 'exist, be at' is marked as UVL, and what is marked as the subject is the locative phrase (32a) or the possessor (32b), rather than the theme/possessed entity as is common in other Formosan languages discussed in this chapter that are marked as the subject.[7] Negative existential and possessive clauses are headed by *uka*, which is unmarked but takes the locative phrase (or the possessor) as its subject, as illustrated in (33a–b). As in its affirmative counterpart, the possessor is raised onto the verb and is encoded through a nominative enclitic.

(32) Tgdaya Seediq
a. ***niqan** kingan seediq ka sapah=su.*
exist:UVL one person NOM house-2SG.GEN
'There is a person in your house.' (Zeitoun et al. 1999, p. 18)

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7 There are dialectal variations, however. In Truku Seediq, the verb *niqan* is lexicalized so that the *-an* marking on the verb does not correspond to UVL anymore, and the subject is reinterpreted as the theme/possessed entity (cf. *niqan kingan laqi=mu* [exist one child=1SG.GEN] 'I have one child'); likewise, a nominative pronoun cannot be cliticized to the verb (see Zeitoun 1999).

b. ***niqan=ku***   ***kingan laqi.***
exist:UVL=1SG.NOM one   child
'I have a child.' (based on Chang 2000a, p. 107)

(33) Tgdaya Seediq
a. ***uka***   ***qbusuran ka***   ***Seediq.***
not.exist chief   NOM Seediq
'There was no chief in the Seediq tribe.' (based on Chang 2000a, p. 159)

b. ***uka=ku***   ***laqi.***
not.exist=1SG.NOM child
'I do not have a child.'

Affirmative locative clauses can be introduced by *meniq* 'exist, be at (AV)', as in (34a)—it thus represents the actor voice of *niqan* 'exist, be at' (UVL)—or by *gaga* 'be at', as in (34a'). These predicates are negated by a different negator: *ini* negates the verb *meniq*, which occurs in its base form, cf. *eniq*; and *uxe* negates *gaga*.

(34) Tgdaya Seediq (based on Chang 2000a, p. 108)
a. ***m-eniq*** ***sapah laqi=mu.***
AV-be.at house child=1SG.GEN
'My child is at home.'

=   a'. ***gaga sapah laqi=mu.***
be.at house child=1SG.GEN
'My child is at home.'

b. ***ini /*uxe enaq sapah laqi=mu.***
NEG   be.at house child=1SG.GEN
'My child is not at home.'

=   b'. ***uxe /*ini gaga sapah laqi=mu.***
NEG   be.at house child=1SG.GEN
'My child is not at home.'

22.2.4.2   Pazeh/Kaxabu and Saisiyat
Pazeh and Kaxabu, which are dialects of the same language (see Lim & Zeitoun, this handbook, Chapter 51), and Saisiyat share the same structure and the same word order. The predicate occurs in sentence-medial position. Likewise, the

verb that appears in existential and possessive clauses is not a verb of existence, as was shown in all the previously mentioned languages; rather, it is a verb of possession that translates as 'have', cf. Pazeh *nahada* / Kaxabu *nahaza* (35) and Saisiyat *hayza:* (36). Despite these commonalities, there are also discrepancies between these two languages. First, while the first-person pronoun is identical in form, cf. Pazeh/Kaxabu *yaku*, Saisiyat *yako* 'I'; it functions as a nominative in Saisiyat but does not bear any case in Kaxabu and is thus treated as 'neutral' (case). Second, in Saisiyat (but not in Kaxabu), a possessor can be encoded through a nominative (36b) or a genitive (36b'), with older speakers preferring the latter.

(35) Kaxabu (Lim 2022)
  a. *binayu* **nahaza** *isilaw=a*   *tulala.*
     mountain have   white=LNK flower
     'There are white flowers in the mountains.'

  b. *yaku*   **nahaza** *pai.*
     1SG.NEUT have   money
     'I have money.'

(36) Saisiyat
  a. *ray roehoeran* **hayza:** *'ima=rikrika:*   *kaplalangoyan.*
     LOC city   have   STAT.NMLZ=hot swimming.pool
     'In cities, there are swimming pools with hot water.'

  b. *yako*   **hayza:** *ka*   *rayhil.*
     1SG.NOM have   ACC money
     'I have money.'

  b'. *yako*   *'oka'='i*   *ngoip 'a-marash*   *ka*
      1SG.NOM NEG=LNK forget GER=AV:bring ACC
      ka-kaat-an.   *ma'an   ma'* **hayza:** *ka*
      REAL-write-LOC.NMLZ 1SG.GEN also have   ACC
      ka-kaat-an.
      REAL-write-LOC.NMLZ
      'I did not forget to bring my notebook so I have something to write on.'
      (Zeitoun et al. 2015, p. 293)

Negative existential and possessive clauses are headed by *kuang*, followed by the ligature *=a* in Kaxabu (37) and *'oka'* in Saisiyat (38). Both negators can be glossed as 'do/did not have'.

(37) Kaxabu (Lim 2022)
   a. *binayu* **kuang**=*a*   *bauzak=lia.*
      mountain not.have=LNK pig=COS
      'There are no more pigs in the mountains.'

   b. *yaku*   **kuang**=*a*   *pai.*
      1SG.NEUT not.have=LNK money
      'I have no money.'

(38) Saisiyat
   a. (*h*)*abaan rikrika:,* **'oka'**   *ka   bai'; rikrika:, hoepay.*
      summer hot   not.have ACC wind hot   tired
      'In summer, there is no wind; it is hot and tiring.'

   b. *yako*   **'oka'**   *ka   rayhil.*
      1SG.NOM not.have ACC money
      'I do not have money.'

   b'. *ma'an*   **'oka'**   *ka   rayhil.*
      1SG.GEN not.have ACC money
      'I do not have money.'

Affirmative locative clauses are made up of the locative verb *kaidi*(*ni*) 'be at'
in Pazeh/Kaxabu (39a) and a locative predicate introduced by the case mark-
ers *ray, kala,* or *kan* (depending on the noun, see Zeitoun et al. 2015, p. 366ff.),
which function as locative case markers in Saisiyat (40a). Kaxabu and Saisiyat
differ in that Kaxabu makes use of the same negator, cf. *kuang* 'do/did not have'
(39b), while Saisiyat makes use of a fixed negative form *'okik,* which also negates
other nominal predicates (40b).

(39) Kaxabu (Lim 2022)
   a. *dadas*   **kaidi** *umamah.*
      sweet.potato be.at field
      'The sweet potatoes are in the field.'

   b. *dadas*   **kuang**=*a*   *kaidi umamah.*
      sweet.potato not.have=LNK be.at field
      'The sweet potatoes are not in the field.'

(40) Saisiyat (Zeitoun et al. 2015)

    a. *korkoring **ray** tae'wan 'abo'.*
       child   LOC house   inside
       'The child is inside the house.' (p. 367)

    b. *korkoring 'okik **ray** tae'wan 'abo'.*
       child   NEG LOC house   inside
       'The child is not inside the house.' (p. 367)

22.2.4.3   Tsou

Tsou is similar to Kanakanavu, Saaroa, Pazeh/Kaxabu, and Saisiyat in that existential (41a) and possessive (41b) clauses are structurally distinct from locative clauses (42). However, typologically and language-internally, it is difficult to account for the properties of existential and possessive clauses in this language (Tung 1964, Zeitoun 2000, pp. 255–256). First, in contrast with verbal clauses, there is no auxiliary verb heading this type of clause; rather, they are headed by *pan* 'exist'. Second, as opposed to verbal and nominal clauses that involve a predicate minimally followed by a nominative NP, *pan* is followed by an oblique NP, making these clauses seemingly subjectless.

(41) Tsou (Zeitoun et al. 1999, p. 8)

    a. *pan **to** oko ne emoo.*
       exist OBL child OBL house
       'There is a child in the house.'

    b. *pan **to** peisu='u.*
       exist OBL money=1SG.GEN
       'I have money.' (lit. 'My money exists.')

In the negative, existential and possessive clauses are negated by *uk'a* 'not exist'. What presently cannot be explained is the relativizer *ci* that obligatorily follows the negator.

(42) Tsou (Zeitoun 1999, p. 8)

    a. *uk'a **ci** oko ne emoo.*
       not.exist REL child OBL house
       'There is no child in the house.'

b. *uk'a   ci   peisu='u.*
not.exist REL money=1SG.GEN
'I have no money.' (Lit. 'My money does not exist.')

Locative clauses are verbal clauses, introduced by the auxiliary verb *mo*, which is followed by the lexical verb *eon* 'be at' (which might be a reflex of PAN *ian 'dwell, reside' (Blust & Trussel 2020), since PAN *a > Tsou *o* if unstressed) and negated by the predicative negator *o'a*, which occurs sentence-initially, preceding the auxiliary verb.

(43) Tsou
  a. *mo **eon** to   emoo 'o   oko.*
     AV be.at OBL house NOM child
     'The child is in the house.'

  b. *o'a   mo **eon** to   emoo 'o   oko.*
     NEG AV be.at OBL house NOM child
     'The child is not in the house.'

22.2.5 *Summary*

On the basis of the foregoing discussion, Table 22.2 presents the tabular classification that can be made of the Formosan languages.

Table 22.2 shows that, on the one hand, the Formosan languages exhibit dissimilar existential, possessive, and locative verb forms in the affirmative, and no reconstruction can be reached for PAN. On the other hand, as noted by Blust & Trussel (2020) and Lin (2011, p. 200ff.), *uka 'not exist' can be reconstructed in PAN based on the Formosan data. There is no problem with the sound correspondences in the reflexes of this form in Thao, Saisiyat, Seediq, and Bunun. The form *uka'a* in Saaroa can be easily explained: minimal words need to be trimoraic and if originally disyllabic, a glottal stop and a vowel are added at the end of the word in order to meet the minimal word constraint, e.g., *ama'a* 'father', *ina'a* 'mother'. In Atayal, the final *-s* cannot be accounted for, but as mentioned by Lin (2011), there are reasons to believe that *uka was retained in Proto-Atayalic. In Tsou, *uk'a* is potentially a false cognate and must be treated as a loanword, because PAN *k is reflected as a glottal stop in this language (Tsuchida 1976). It is the predicative negator *o'a*, found in negative locative clauses, which is the true reflex of PAN *uka.

TABLE 22.2 Existential, possessive, and locative affirmative and negative forms in Formosan languages

	Existential		Possessive		Locative	
	AFF	NEG	AFF	NEG	AFF	NEG
Cn Amis	*ira*	*awa*	*ira*	*awa*	*ira*	*awa*
Mx Ata	*hani'an kia'*	*ukas*	*hani'an kia'*	*ukas*	*hani'an kia'*	*ukas*
Isb Bun	*aiza*	*uka*	*aiza(-an)*	*uka(-an)*	*aiza*	*uka*
Kav	*yau*	*mai*	*yau*	*mai*	*yau*	*mai*
Ng Puy	*ulaya*	*unian*	*ulaya*	*unian*	*ulaya*	*unian*
Lb Ruk	*yakai*	*kadroa*	*yakai*	*kadroa*	*yakai*	*kadroa*
Siraya	*akumea aku-*	*ausi*	*akumea aku-*	*ausi*	*akumea aku-*	*ausi*
Pai	*izua*	*neka*	*izua*	*neka*	*izua*	*ini=ka*
Mt Ruk	*omiki*	*okaodho*	*omiki*	*okaodho*	*omiki*	*omiki-ka*(-PRO_{GEN})
Kan	*'una*	*'akia*	*'una*	*'akia*	*'esi*	*ka'an 'esi*
Sar	*maaru*	*uka'a*	*maaru*	*uka'a*	*maa*	*ku paa*
Thao	*itia*	*uka*	*itia*	*uka*	*isa, i-ianan*	*uka*
Tkg Sed	*niqan*	*uka*	*niqan*	*uka*	*meniq gaga*	*ini eniq uxe gaga*
Pazeh Kaxabu	*nahada nahaza*	*kuang*	*nahada nahaza*	*kuang*	*kaidi(ni)*	*kuang*
Sai	*hayza:*	*'oka'*	*hayza:*	*'oka'*	*(ray)*	*'okik*
Tsou	*pan*	*uk'a*	*pan*	*uk'a*	*eon*	*o'a eon*

22.3 Morphological Properties of the Existential, Possessive, and Locative Predicate

We have shown above that in Saaroa, Seediq, and Bunun (and to some extent Tsou), existential, possessive, and/or locative verbs are marked for voice (with AV and UVL being the most common voice marking for this type of verbs). With a few exceptions, in many other languages, the existential, possessive, and/or locative predicates constitute a special verb class, with specific morphological formation and/or grammaticalization paths.

In Kavalan, the existential/possessive/locative predicate *yau* is grammaticalized from the demonstrative *yau* 'that' still found very productively in the language, e.g., *wasu a yau* [dog NOM that] 'That is a dog'. In Seediq, the locative verb form *gaga* is also grammaticalized from the demonstrative *ga/gaga* 'that', e.g., *tama rodux=na bhege gaga* [male chicken=3SG.GEN white that] 'that white rooster' (Sung 2018, p. 52). Both *yau* and *ga/gaga* have further grammaticalized as progressive markers (Hsieh, this handbook, Chapter 34).

In Rukai, Amis, and Paiwan, the locative prefix *i-* attaches to a demonstrative. This derivation is more complex in Rukai: *yakai* 'exist' consists of the prefixation of the locative prefix *i-* to the realis marker *a-*, which commonly occurs in finite/non-stative verbs followed by the demonstrative *kai* 'this' (e.g., *kai balrio* 'this village', *kai lacenge* 'these vegetables'). In irrealis contexts, the locative verb surfaces as *i-kai*. Sound changes and analogy explain the form *om-iki* in Mantauran Rukai: the vocalic sequences *ia/ai* have been monophthongized as *i*, and *om-* (which represents the fusion of the active voice prefix *o-* 'ACT' and the dynamic verb class morpheme *am-* 'DYN') attaches to the few verbs starting with a vowel (only five have been identified so far) (Zeitoun 2007). In Paiwan and Amis, *izua* and *ira* can be analyzed as the clustering of the preposition *i* and a demonstrative *zua* and *ra*, respectively, which both translate as 'that'.[8] In Pazeh/Kaxabu, the locative verb 'be at' is also formed with the affixation of the directional *ka-* 'DIR', the locative *i-* 'LOC' to a locative demonstrative *dini* 'here'.

In Mayrinax Atayal, the suffix *-an* attaches to the demonstrative *hani'*, cf. Mx Atayal *k⟨um⟩itaal cu' xuil ku' hani* [⟨AV⟩see ACC.NREF dog NOM.REF this] 'This (person) is looking at a dog'.

22.4   Two *Have*-Structures

As shown in the examples given in §22.2, two *have*-structures are found across the Formosan languages. In the first, the verb selects only one argument, the theme; the possessor is marked by the genitive; and the structure corresponds to "Y's X exists". In the second, the verb selects two arguments, a theme (the possessee) which is marked as accusative, genitive, or oblique, and the loca-

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8   Note that the demonstratives *kai* 'this' (Rukai), *zua* (Paiwan), and *ra* (Amis) 'that' may combine with other morphemes to form other verbs, e.g., Labuan Rukai *ara-kai* 'use', *pasi-a-kai* 'do for someone', Paiwan *s⟨em⟩azua* 'go there (AV)', *mai-tazua* 'thus, in that way (AV)', and Amis *tayra* 'go', *tahira* 'arrive, reach'.

tive phrase (i.e., the possessor), which is marked as nominative, in a structure that can be schematized as "Y has X". Many languages feature only one of these structures, but some languages exhibit both.

TABLE 22.3   Classification of the Formosan languages exhibiting one or two *have*-structures

Languages	Y's X exists	Y has X
Central Amis	+	−
Mayrinax Atayal	+	−
Saaroa	+	−
Thao	+	−
Tsou	+	−
Paiwan	+	−
Labuan Rukai	+	−
Mantauran Rukai	+	+
Kanakanavu	+	+
Kavalan	+	+
Puyuma	+	+
Siraya	+	+
Bunun	+	+
Seediq	+	+
Pazeh/Kaxabu	−	+
Saisiyat	−	+

In § 22.2, I gave examples of languages that display only one construction. In this section, I concentrate on the languages that exhibit two *have*-structures, showing that despite structural similarities across these languages, there are noteworthy discrepancies between these two structures, which encode slightly different meanings.

I will start with Isbukun Bunun, in which, interestingly enough, the marking of the verb in affirmative and negative clauses is different in these two structures. As shown in (44a), *'aiza* 'exist' is unmarked for voice with the theme as the subject; the possessor cannot raise onto the verb as a nominative pronoun (44b). When the verb is marked for voice, as in (44c), cf. *'aiza-an* 'exist (UVL)', the possessor (rather than the theme) is encoded as the subject.

(44) Isbukun Bunun

    a. *'aiza* ['*inak*   *'uvaz.*]$_{NOM}$
       exist 1SG.GEN child
       'I have a child.'

    b.* *'aiza*[*=ik*]$_{NOM}$ [*'uvaz.*]$_{OBL}$
       exist=1SG.NOM child

    c. *'aiz(a)-an*[*=ik*]$_{NOM}$ [*'uvaz.*]$_{OBL}$
       exist-UVL=1SG.NOM child
       'I have a child.'

    d.* *'aiza-an*   ['*inak*   *'uvaz.*]$_{NOM}$
       exist-UVL 1SG.GEN child

Seediq, which also displays these two *have*-structures, differs from Bunun in at least two respects: first, the verb in existential and possessive clauses is always marked as UVL, cf. *niqan* 'exist'. Solely the position of the possessor—on the noun, as a genitive (45a), or on the verb, as a nominative (45b)—allows us to distinguish these two structures. Second, possessor raising is only allowed in affirmative clauses. Thus, **uka=ku laqi* is ungrammatical for intended 'I do not have a child'.

(45) Tgdaya Seediq

    a. *niqan*   [*ka*   *laqi=mu.*]$_{NOM}$
       exist:UVL NOM child=1SG.GEN.PSR
       'I have a child.'

    b. *niqan*[*=ku*]$_{NOM}$ [*laqi.*]$_{OBL}$
       exist:UVL=1SG.NOM child
       'I have a child.'

Kavalan and Kanakanavu behave like Seediq in having possessor raising on the predicate as a nominative. The sole distinction is that the existential/possessive verb is unmarked for voice. Compare (46a) with (45a) and (46b) with (45b).

(46) Kavalan

    a. *yau*   [*sunis=ku.*]$_{NOM}$
       exist child=1SG.GEN.PSR
       'I have a child.'

    b. *yau*[*=iku*]_{NOM}   [*tu   sunis.*]_{OBL}
      exist=1SG.NOM OBL child
      'I have a child.'

Mantauran Rukai also exhibits these two structures with no modification on the verb. What differs is the marking of the possessor, encoded as a genitive when it cliticizes onto the noun (47a), and as an oblique when it attaches to the verb (47b). In both examples, the theme (i.e., the possessee) is selected as the subject.

(47) Mantauran Rukai
    a. *omiki* [*paiso=li*]_{NOM}.
      exist   money=1SG.GEN
      'I have money.'

    b. *omik*[*=iae*]_{OBL} [*paiso*]_{NOM}.
      exist=1SG.OBL money
      'I have money.'

Semantically, in the languages that display both *have*-structures, the first (Y's X exists) denotes the existence of the possessed entity, while the second refers to an inalienable or inherent possession.

    Puzzles remain in Saisiyat and in Tsou. Saisiyat only exhibits the "Y has X" structure, and the possessor can be encoded as a nominative (38b), as expected, or as a genitive (38b), and this difference in marking is still ill-understood. In Tsou, which only displays the "Y's X exists" structure, the sole argument is marked as oblique (41b).

22.5   Argument Structure

Argument structure in existential, possessive, and locative constructions is marked most notably through case marking (or, in very exceptional cases like Pazeh/Kaxabu and Thao, also through word order). In many Formosan languages, case markers are now optional, making case assignment difficult to determine. Wu (2009), for instance, argues that in Isbukun Bunun existential clauses, the predicate *'aiza* selects a small clause as its sole internal argument. Such a study does not account for possessive and locative clauses—which share the same structure as existential clauses, as shown in this chapter— but reveals the difficulties confronting the analyst. Table 22.4 is an overview

of the marking of nominal arguments in existential, possessive, and locative constructions, as based on the data provided in § 22.2.

TABLE 22.4 Marking of nominal arguments in existential, possessive, and locative constructions

Language	Existential		Possessive		Locative	
	Theme	**(Location)**	**Theme$_{PSS}$**	**Location$_{PSR}$**	**Theme**	**Location**
C. Amis	NOM	(PREP)	NOM	GEN	NOM	PREP
Mx Atayal	NOM	—	NOM	GEN	NOM	ACC/LOC
Bunun	Ø$_{NOM}$	—	Ø$_{NOM}$	GEN	Ø$_{NOM}$	LOC
			Ø$_{OBL}$	NOM$_{PRO}$		
Kanakanavu	NOM	Ø$_{LOC}$	Ø$_{NOM}$	GEN	NOM	LOC
	Ø$_{NOM}$		Ø$_{OBL}$	NOM$_{PRO}$	Ø$_{NOM}$	
Kavalan	NOM	(LOC)	Ø$_{NOM}$	GEN	Ø$_{NOM}$	LOC
	Ø$_{NOM}$		OBL$_{PRO}$	NOM$_{PRO}$		
Paiwan	NOM	(PREP)	NOM	GEN	NOM	PREP/OBL
Pazeh/Kaxaxbu	Ø$_{OBL}$	Ø$_{LOC}$	Ø$_{NOM}$	GEN	Ø$_{NOM}$	Ø$_{LOC}$
Puyuma	NOM$_{IND}$	(LOC)	NOM$_{IND}$	NOM$_{GEN}$	NOM$_{DEF}$	LOC
			OBL$_{IND}$	NOM$_{PRO/NOM}$		
Lb Rukai	NOM	(OBL)	NOM	GEN	NOM	Ø$_{LOC}$
Mt Rukai	Ø$_{NOM}$	(Ø$_{LOC}$)	Ø$_{NOM}$	GEN	Ø$_{NOM}$	Ø$_{LOC}$
			Ø$_{NOM}$	OBL$_{PRO}$		
Saaroa	NOM/Ø$_{NOM}$	—	NOM/Ø$_{NOM}$	GEN	NOM/Ø$_{NOM}$	Ø$_{LOC}$
Saisiyat	ACC	—	ACC	NOM	NOM	LOC
Seediq	Ø$_{OBL}$	NOM/Ø$_{NOM}$	Ø$_{NOM}$	GEN	Ø$_{NOM}$	Ø$_{LOC}$
			Ø$_{OBL}$	NOM		
Thao	NOM/Ø$_{NOM}$	—	NOM/Ø$_{NOM}$	GEN	NOM/Ø$_{NOM}$	LOC
Tsou	OBL	(OBL)	OBL	GEN	NOM	OBL
Siraya	NOM	(LOC)	DF	NOM	NOM	Ø$_{LOC}$

22.6 Conclusion

In Formosan languages, existential, possessive, and locative clauses are headed by a verb that usually means 'exist' and less commonly 'have'. The existential, possessive, and/or locative predicates commonly constitute a special verb class, with specific morphological formation: many are formed with the loca-

tive *i*, which attaches to a deictic; some have grammaticalized from demonstratives, which may have evolved into aspectual markers; in a few languages, these verbs can be marked for voice. Some languages exhibit two *have*-structures, the first denoting the existence of the possessed entity and the second referring to inalienable or inherent possession. Argument structure is marked most notably through case marking and in very exceptional cases, as in Pazeh/Kaxabu and Thao, through word order.

Acknowledgments

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