

THE VERBS FOR ‘AND’ IN WALMAN, A TORRICELLI LANGUAGE OF PAPUA NEW GUINEA

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In Walman, a language in the Torricelli family spoken in Papua New Guinea, there are two words that have the function of conjoining noun phrases but that have the morphology of transitive verbs, exhibiting subject agreement with the first conjunct and object agreement with the second conjunct. We discuss two interrelated issues concerning these words: (i) Do these words behave syntactically like conjunctions in other languages, in combining with two noun phrases to form a single noun phrase, or are they really just verbs in a serial verb construction?, and (ii) Do these words have a meaning that is closer to a coordinative conjunction like *and* in English, or do they have a comitative meaning like English *with*? We show that the evidence on the first of these questions is somewhat contradictory, but that even in cases where the syntactic evidence argues that these verbs do not combine with two noun phrases to form a single noun phrase, they still have a meaning closer to that of *and* than of *with*.*

1. PRELIMINARIES. While there are often ways in which languages differ from each other in terms of what word classes they have, the differences are generally small compared with the similarities. Words meaning ‘man’ are almost invariably nouns, words meaning ‘die’ are almost invariably verbs, and words meaning ‘and’ are almost invariably not nouns or verbs. In this article, we report on an unusual word-class assignment in Walman, a language in the Wapei-Palei branch of the Torricelli language family of Papua New Guinea.¹ In Walman, there are two words for ‘and’ that are both transitive verbs, with the first conjunct as subject and the second conjunct as object. Morphologically, these words bear subject prefixes for the first conjunct and object affixes for the second conjunct, much like other transitive verbs. Syntactically, they behave in some respects like other transitive verbs, though they also exhibit syntactic properties that are unlike those of other verbs.

The example in 1 is an initial example from Becker 1971.²

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¹ Walman is spoken in four villages on the north coast of Papua New Guinea, about 175 km east of the border between Papua New Guinea and the Indonesian part of New Guinea, now called ‘Papua’. The data for this article comes from two sources. The first source is the authors’ own collection of texts and other data from fieldwork conducted in Lemieng in Papua New Guinea on five field trips since 2002. The second source is Becker 1971, a body of texts that were collected by Father August Becker, an Austrian missionary who lived with the Walman people from 1907 to 1934, but that were not published until 1971.

² We use the following abbreviations in this article for examples from Walman: 1.OBJ: first-person object (singular or plural), 2.OBJ: second-person object (singular or plural), COMPL: completed action, DEM: demonstrative, DIMIN: diminutive, F: feminine, FUT: future, GEN: genitive, M: masculine, NEG: negative, OBJ: object, PERF: perfect, PL: plural, POSS: pronominal possessive affix, PTCL: particle, RECP/REFL: reciprocal/reflexive, REL: relative clause marker, SUBJ: subject. The following abbreviations are used in examples from other languages: APT: aptative, DU: dual, IRREAL: irrealis, LINK: linker, REAL: realis, MIX: mixed gender.

- (1) Kon ngo- \emptyset [ru nyue **w-aro-n** ngan]
 night one-F 3SG.F mother **3SG.F.SUBJ-and-3SG.M.OBJ** father
 y-ekiel y-okorue- \emptyset pla lang ...
 3PL.SUBJ-go.south 3PL.SUBJ-dig-3SG.F.OBJ land orange ...
 'One night, [a mother and father] went (south) to dig the orange earth ...'
 (B)³

The fifth word in 1 is the verb *-aro-* 'and', with a third-person singular feminine subject prefix *w-*, agreeing with the first conjunct *ru nyue* 'a mother', and a third-person singular masculine object suffix *-n* agreeing with the second conjunct *ngan* 'father'. The morphology of this word is the same as that of the verb *weten* 'she saw him' in 2.

- (2) Ru wolu **w-ete-n** konu ngo-n
 3SG.F younger.sister **3SG.F.SUBJ-see-3SG.M.OBJ** young.man one-M
 n-umpuer n-an awa.
 3SG.M.SUBJ-hide 3SG.M.SUBJ-be.at bird.hide
 'The younger sister saw a young man hiding in a bird hide.'
 (E)

As mentioned above, there are two different verbs meaning 'and', one whose stem is *-aro-*, illustrated in 1 above, and the other whose stem is *-a-*, illustrated in 3, in which the prefix *n-* is third-person singular masculine, agreeing with *runon* 'he', and the zero suffix is third-person singular feminine, agreeing with *chu* 'wife'.

- (3) [Runon **n-a- \emptyset** chu] y-an
 3SG.M **3SG.M.SUBJ-and-3SG.F.OBJ** wife 3PL.SUBJ-be.at
 y-ayako- \emptyset klay-poch ...
 3PL.SUBJ-make-3SG.F.OBJ taro-porridge ...
 '[He and his wife] were making taro porridge ...'
 (B)

The two verbs are in general interchangeable, without any apparent difference in meaning. However, the verb *-aro-* is defective in that it occurs only with third-person objects and not with first- or second-person objects; with first- or second-person objects, only the verb *-a-* can be used. In addition, the verb *-a-* cannot occur in clause-final position without an overt nominal object or in vocative expressions. For the sake of convenience, we henceforth refer to the two verbs meaning 'and', *-aro-* and *-a-*, as the *and-VERBS*, and the construction involving them as the *and-CONSTRUCTION*.

There are two major issues that we address regarding the analysis of the two *and-*verbs in Walman. The first issue is whether the sequences of the form NP + *and-*verb + NP form noun-phrase constituents, like conjoined noun phrases in other languages.

The orthography we use for Walman is relatively straightforward. We use three digraphs for unit phonemes, <ng> for /ŋ/, <ny> for /ɲ/, and <ch> for /tʃ/. The phoneme /w/ varies between a bilabial approximant [w] and a labiodental approximant [ʋ]. The language is generally spelled 'Valman' in the literature, reflecting, we assume, the frequent labiodental pronunciation. The Walman themselves, however, use a <w> in the spelling of Wokau, one of the main Walman-speaking villages, and they expressed a preference for spelling the name of the language with a <w>.

³ Examples cited are annotated to indicate the source, according to the following set of abbreviations: (B): from one of the texts in Becker 1971, (T): from one of the texts that we have collected ourselves, (C): from one of a number of children's stories we have had translated from English or Tok Pisin into Walman, (E): an elicited example, and (J) an example constructed by us and judged acceptable by a native speaker. We have converted Becker's orthography to our own, making corrections only where there were errors that were obvious both to us and to a native speaker. In (i) we give Becker's version of 1, with his German translation.

(i) kon ngo ru nüe varon ngan yekiel yogorue pla lang ...
 'Eines Nachts waren Mutter und Vater südwärts gegangen, um gelben Lehm zu graben, ...'

The evidence for this is contradictory: while many instances of the *and*-verbs are clearly functioning like conjunctions, combining with two noun phrases to form a larger noun phrase, there are other instances in which these verbs do not, where they are best analyzed as taking part in a serial verb construction. The second issue we discuss is whether these words have a meaning like *and* in English; an alternative possibility is that they really have a meaning closer to *with*.⁴ We find that these verbs really do have a meaning closer to *and* in English. Although these two issues are connected, we first address the syntactic question and later in the article discuss the semantic question.

While it is clear that these two words meaning ‘and’ in Walman are verbs morphologically, it is not immediately obvious that they are verbs syntactically. We argue in §4 that some instances of these words are clearly verbs both morphologically and syntactically, while there are other instances for which there are no convincing arguments that they are or are not verbs syntactically. Throughout this article, in referring to these words meaning ‘and’ as verbs, we mean only that they are verbs morphologically, or more specifically, that they bear the same subject and object affixes that transitive verbs in the languages bear.

In the remainder of §1, we present a brief grammatical overview of Walman and a description of the morphology of these *and*-verbs.

1.1. BRIEF GRAMMATICAL OVERVIEW OF WALMAN. Walman, like Torricelli languages in general (Foley 1986, Laycock 1975), has less morphology than many Papuan languages. Verbal morphology is limited to four affixal categories, namely inflection for subject, inflection for object, an applicative suffix, and a now rarely used imperative form. There is no nominal morphology, beyond nonproductive and irregular plural formation. There is a genitive case prefix, *w-*, but only with pronouns (e.g. *kum* ‘I, me’, *wkum* ‘my’). There are two genders, masculine and feminine, reflected in subject and object agreement on verbs and in agreement on some nominal modifiers. There is also an inflectional diminutive that is reflected in agreement as an alternative to masculine and feminine in third-person singular, illustrated in 4, with the diminutive subject prefix on the verb.

- (4) Pelen I-aykiri.
 dog 3SG.DIMIN-bark
 ‘The puppy is barking.’ (J)

The diminutive is not a gender in terms of Corbett 1991, since there are no nouns for which diminutive agreement is obligatory and since in principle any noun can occur with diminutive agreement. Brown & Dryer 2008 provides a more detailed description of the diminutive in Walman.

Verbs are distinct by virtue of the presence of subject agreement prefixes. While some adjectives also exhibit agreement in gender and number, what defines adjectives as a distinct word class is the fact that when they occur in predicate position, they optionally occur with a copula verb, as in 5.

- (5) Kipin mon (k-o) choul.
 1PL NEG (1PL-be) afraid
 ‘We’re not afraid.’ (B)

This copula verb cannot occur with verbal or nominal predicates.

⁴ We are more precise in §5 about exactly what we mean by saying that these verbs have a meaning closer to *and* in English than to *with*.

Clausal word order, again as in most Torricelli languages and unlike most Papuan languages, is SVO, as in 2 above. SOV is not uncommon as an alternative order, however, although it is not common with animate objects. An example is given in 6, where the object *mkie* 'banana(s)' precedes the verb *yoko* 'take'.

- (6) Ako ru w-a-n muen mkie y-oko- \emptyset . . .
 then 3SG.F 3SG.F-and-3SG.M brother banana 3PL-take-3SG.F . . .
 'Then she and her little brother took the bananas . . .' (B)

One of the features that Walman shares with many other Papuan languages is the extensive use of serial verb constructions, as illustrated in 7.

- (7) a. Ako runon **n-orou n-arau n-an** nakol nngkal
 then 3SG.M **3SG.M-go 3SG.M-go.up 3SG.M-be.at** house small
 mnon.
 GEN.3SG.M
 'Then he went up to his own little house.' (B)
- b. Runon **n-a< \emptyset >pulu** wul **w-anan** wochu.
 3SG.M **3SG.M-pour<3SG.F>** water **3SG.F-go.down** bucket
 'He poured the water into the bucket.' (E)

In 7a, the verbs *norou* 'go', *narau* 'go up', and *nan* 'be at' all agree with the third-singular masculine subject pronoun *runon*, and together express the meaning 'go up to'. In 7b, *wul* 'water' is object of *napulu* 'pour' and subject of *wanan* 'go down', and the sequence of verbs *napulu* 'pour' and *wanan* 'go down' expresses the meaning 'pour into'.

Walman has a set of adpositions that can be used either prepositionally or postpositionally (though usually postpositionally). These have a low functional load, however, since Walman frequently uses serial verb constructions where other languages use adpositions; these are discussed in §4.2.

Since our focus is on the verbal aspects of the *and*-verbs, we describe here the morphology of verbs in Walman. As noted above, verbal morphology is limited to four categories, the first two of which are inflection for subject and object.⁵ The forms of the subject affixes, all of which are prefixes that occur as the first prefix on verbs, are given in Table 1.

1SG	m-	1PL	k-
2SG	n-	2PL	ch-
3SG.M	n-	3PL	y-
3SG.F	w-		
3SG.DIMIN	l-		

TABLE 1. Subject prefixes in Walman.

⁵ Our use of the terms 'subject' and 'object' in this article follows the position of Dryer 1997 that such notions are purely language-specific, and while one may find striking similarities among languages that lead one to use the same terms across languages, this is ultimately purely a matter of terminological convenience without theoretical significance. Applying this to Walman, one finds two sets of pronominal affixes on verbs whose linking to semantic roles is strikingly similar to the linking of semantic roles in other languages associated with categories that have been labeled subject and object. Hence it is terminologically convenient to call these two sets of affixes subject and object affixes respectively, and to extend these labels to noun phrases with which these affixes agree. The only other grammatical feature that we know to be associated with these categories in Walman is word order; as mentioned above, subjects (i.e. those noun phrases with which those verbal affixes we are calling subject affixes agree) always precede the verb, while objects generally follow (though they can precede). Because we define the terms 'subject' and 'object' in terms of verb agreement, we are saying that the noun phrases that occur with the verbs *-aro-* and *-a-* in Walman count as subjects and objects of those verbs. But as discussed in §4, this does not necessarily mean that, in all cases, these noun phrases combine with these verbs to form clauses.

The forms of the object affixes are given in Table 2.

PREFIXES		SUFFIXES	
1(SG/PL)	-p-	3SG.M	-n
2(SG/PL)	-ch-	3SG.F	-∅
RECP/REFL	-r-	3SG.DIMIN	-l
		3PL	-y

TABLE 2. Object affixes in Walman.

The first- and second-person and the reflexive/reciprocal object affixes are prefixes that normally immediately follow the subject prefixes,⁶ while the third-person object affixes are normally suffixes. The first- and second-person object prefixes do not vary for number. The object affixes are illustrated in 8; 8a illustrates an object prefix, 8b an object suffix.

- (8) a. Runon n-p-klwaro kum.
 3SG.M 3SG.M-1.OBJ-deceive 1SG
 'He deceived me.' (J)
- b. Ru w-klwaro-n runon.
 3SG.F 3SG.F-deceive-3SG.M 3SG.M
 'She deceived him.' (J)

With a minority of verbs, the third-person object affixes occur inside the verb stem, rather than as suffixes, as in 9.⁷

- (9) Kipin k-a<y>pu kemini.
 we 1PL-fight<3PL> enemy
 'We are fighting our enemies.' (E)

Personal pronouns vary for the same features as the subject and object affixes on verbs, as shown in Table 3.⁸

1SG	kum	1PL	kipin ~ kin
2SG	chi	2PL	chim
3SG.M	runon ~ ron	3PL	ri ~ rim
3SG.F	ru		
3SG.DIMIN	rul		

TABLE 3. Personal pronouns in Walman.

The third category of verbal morphology involves an applicative construction, with a meaning of benefactive or external possession, marked with a suffix *-ro* ~ *-re*, illustrated in 10.⁹

⁶ The qualification 'normally' here is due to the fact that with some verbs the imperative is formed with a prefix involving a nasal consonant that occurs between the subject prefix and the object prefix, as in 12 below.

⁷ Apart from the examples in 1 to 3, we do not specify in the glosses for the pronominal affixes on verbs which affixes indicate the subject and which indicate the object, except for first- and second-person object prefixes. This is predictable, however, from the simple rule that the first prefix in a verb is always a subject prefix while object affixes occur later in the verb.

⁸ As mentioned in §1.1 and discussed later in this section, there are also genitive forms of pronouns that are used optionally to express possession.

⁹ While it is probably coincidental, we should draw attention to the fact that the formal difference between the two *and*-verbs, *-a-* and *-aro-*, is suggestive of applicativization of *-a-*. But there are good reasons for believing that *-aro-* is not an applicative form of *-a-*, as discussed in §8, where we also suggest more plausible sources for these verbs.

- (10) Kum m-ow-ro-y chon ri.
 1SG 1SG-split-APPLIC-3PL sago.tree 3PL
 'I split open the sago tree for them.' (E)

In some instances, it is possible for applicative verbs to inflect for three arguments, as in 11, where there is both a first-person object prefix (for the applied object) and a third-person object suffix (cross-referencing *yikie* 'thorn').

- (11) Runon n-p-apal-ro-y yikie.
 3SG.M 3SG.M-1.OBJ-pull.out-APPLIC-3PL thorn
 'He pulled the thorns out of me.' (E)

The fourth category of verbal morphology is a process for forming imperative verb forms, though these forms are largely obsolete in the modern language. This process is complex and somewhat irregular, but most commonly involves either a prefix consisting of a nasal consonant or a change in a vowel in the verb stem. The example in 12 illustrates a third-person imperative form involving a prefix *m-*.¹⁰

- (12) Mnon n-m-p-klwaro.
 GEN.3SG 3SG.M-IMPER-1.OBJ-deceive
 'Let him lie to me.' (E)

One of the issues we discuss is whether the verbs for 'and' combine with their conjuncts to form noun phrases. What we mean by this is whether they form phrases that have the external distribution that other noun phrases have in Walman. Here, therefore, we briefly describe the structure of ordinary noun phrases, and in §2 we consider their distribution and show that the *and*-construction occurs in all of them.

Noun phrases in Walman frequently consist of just a noun, such as *yikie* 'thorn' in 11 above, or just a pronoun, such as *kipin* 'we' in 9 above. Most modifiers of nouns follow the noun; this includes demonstratives, illustrated by *pla paten* [land that.F] 'that land'; adjectives, illustrated by *nyanam nngkal* [child little] 'little child'; numerals, illustrated by *nyiki wiew* [woman.PL two] 'two women'; and relative clauses, illustrated by *tokun eni kaypuey* [knot REL 1PL.tie.3PL] 'knots that we tied'. The structure of a relative clause is the same as that of a simple main clause except for the absence of the argument being relativized, and the fact that the clause may be introduced by a relative marker (*e*)*ni*. Third-person pronouns occasionally precede the noun serving as a kind of article, illustrated by *ru wolu* [3SG.F younger.sister] 'the younger sister' in 2 above.

There are a number of constructions used for expressing possession within noun phrases. Pronominal possession can be expressed by a pronoun not marked for case either preceding the noun, as in 13a and a', or following the noun, as in 13b and b', or by a pronoun in the genitive case following the noun, as in 13c and c'.

- | | | | | | |
|---------|----------------|-----|-----|----------------|-----|
| (13) a. | kum nyue | | a'. | kum selenyue | |
| | 1SG mother | | | 1SG axe | |
| | 'my mother' | (J) | | 'my axe' | (J) |
| b. | nyue kum | | b'. | selenyue kum | |
| | mother 1SG | | | axe 1SG | |
| | 'my mother' | (E) | | 'my axe' | (J) |
| c. | nyue w-kum | | c'. | selenyue w-kum | |
| | mother GEN-1SG | | | axe GEN-1SG | |
| | 'my mother' | (J) | | 'my axe' | (J) |

¹⁰ The example in 12 illustrates one notable feature of Walman phonology: the high frequency of complex initial consonant clusters. This example involves an initial cluster of six consonants.

The genitive form of pronouns is formed by adding a prefix *w-* to the basic form of pronouns, as in 13c and *c'*, except for the third-person singular masculine pronoun, whose basic form is *runon* and whose genitive form is *mnon*.¹¹

There are also three constructions for nominal possessors in Walman. The first two involve placing the possessor noun phrase either immediately before the possessed noun, as in 14a, or immediately after the possessed noun, as in 14b, without any morphological marking of the possessive relationship.

- (14) a. **Wuel ngotopuny** w-o lapo-∅.
pig heart 3SG.F-be large-F
 'The pig's heart is large.' (E)
- b. **Ngotopuny wuel** w-o lapo-∅.
heart pig 3SG.F-be large-F
 'The pig's heart is large.' (J)

The third construction for nominal possession is to place the possessor after the possessed noun, with an intervening genitive form of a pronoun, agreeing in number and gender with the possessor, as in 15, where we get *wru*, the genitive form of the third-person singular feminine pronoun (because *wuel* 'pig' is feminine, at least in this instance).

- (15) **Ngotopuny w-ru wuel** w-o lapo-∅.
heart GEN-3SG.F pig 3SG.F-be large-F
 'The pig's heart is large.' (J)

It is this last construction that becomes important when we consider the *and*-construction in possessor noun phrases in §2.5.

1.2. MORPHOLOGY OF THE *and*-VERBS. The two *and*-verbs occur with the same subject and object affixes given above in Tables 1 and 2.¹² In 16 to 18 are given some examples of *-aro-* illustrating subject prefixes and object suffixes. In 16, the subject prefix *n-* on *naro* is third-person singular masculine, agreeing with *runon* 'he', while the zero suffix is third-person singular feminine, agreeing with *mue* 'sister'.

- (16) Ako [runon **n-aro-∅** mue] y-esi y-an chalien.
 then 3SG.M **3SG.M-and-3SG.F** sister 3PL-go.out 3PL-be.at outside
 'So [he and his sister] came outside.' (B)

In 17, the subject prefix *w-* on *warol* is third-person singular feminine, agreeing with *wru chuto rounu alpa* 'one old woman', while the object suffix *-l* is third-person singular diminutive, agreeing with *nyanam nngkal ngol* 'a small child'.

- (17) [W-ru chuto rounu alpa-∅ **w-aro-l** nyanam nngkal
 GEN-3SG.F female old one-F **3SG.F-and-3SG.DIMIN** child small
 ngo-l] pa y-an nakol.
 one-DIMIN DEM 3PL-be.at village
 '[(Only) one old woman and a small child] were left behind in the village.' (B)

¹¹ In the texts in Becker 1971 (which were collected before 1934), third-person singular masculine genitive forms occur more frequently in an alternative form, *wnon*.

¹² Throughout this article, we sometimes refer to the first conjunct of these verbs as the first conjunct and sometimes as the subject and similarly we sometimes refer to the second conjunct as the second conjunct and sometimes as the object, depending on the context of the discussion. In referring to these elements as conjuncts, we do so in a purely semantic sense: they combine with a word that means something like 'and' to yield a construction that denotes a set that has a meaning similar to that of a conjoined noun phrase. As discussed below, however, it is not clear, particularly for some uses, that they are conjuncts syntactically.

In 18, both the subject and object affixes on *yaroy* are third-person plural, the subject prefix agreeing with *Palai* 'the Palai', the object suffix agreeing with *chutey wri* 'their wives'.

- (18) Lasi y-ete-y [Palai **y-aro-y** chu-tey w-ri] y-ara y-an
 then 3PL-see-3PL Palai **3PL-and-3PL** wife-PL GEN-3PL 3PL-come 3PL-be.at
 pie y-a<y>ko chon.
 bush 3PL-put<3PL> sago
 'Then they saw [some Palai men and their wives] coming to the bush to
 make sago.' (B)

The examples in 19 are similar examples with *-a-*, the other *and*-verb.

- (19) a. [Chuto **w-a-y** nyakom wiew nyiki wiew] y-orou y-an
 woman **3SG.F-and-3PL** children two women two 3PL-go 3PL-be.at
 ala.
 garden
 '[A woman and her two daughters] went to the garden.' (T)
- b. [Ngan **n-a-θ** nyue] nyi y-ao-y y-reliel ...
 father **3SG.M-and-3SG.F** mother fire 3PL-shoot-3PL 3PL-flare.up ...
 '[(His) father and mother] got a fire started ...' (B)
- c. Chi n-kay, [kum **m-a-n** ngan] k-a<θ>ko wuem
 2SG 2SG-look 1SG **1SG-and-3SG.M** father 1PL-eat<3SG.F> fish
 mngrieny nyopu-θ.
 meat good-F
 'Look, [I and my father] are eating some good fish meat.' (B)

As mentioned earlier, the two *and*-verbs differ in that the verb *-aro-* occurs only with third-person objects; only the verb *-a-* occurs with first- and second-person object prefixes. The examples in 20 illustrate the verb *-a-* with first- and second-person object prefixes. In 20a and 20b, the object prefix *p-* is first person (unspecified for number), agreeing in 20a with the first-person plural pronoun *kipin*, in 20b with the first-person singular pronoun *kum*; in 20c, the object prefix *ch-* is second person (again unspecified for number), agreeing with the second-person singular pronoun *chi*.¹³

- (20) a. Nyiki lapo-y [ri **y-p-a** kipin] k-an porue ...
 woman.PL old-PL 3PL **3PL-1.OBJ-and** 1PL 1PL-be.at birthing.shelter ...
 'The old women, they stay with us in the shelter ...' (T)
- b. [Ru **w-p-a** kum] k-orou k-ete-n wonulo
 3SG.F **3SG.F-1.OBJ-and** 1SG 1PL-go 1PL-see-3SG.M younger.brother
 nngkal n-an Achapei.
 small 3SG.M-be.at Aitape
 '[She and I] are going to visit our younger brother in Aitape.' (J)
- c. Ru w-etere-n [runon **n-ch-a** chi].
 3SG.F 3SG.F-see-3SG.M 3SG.M **3SG.M-2.OBJ-and** 2SG
 'She saw you ([him and you]).' (J)

We see from the examples in 16 through 20 that these two words meaning 'and' share the morphological properties of verbs in taking subject and object affixes. As noted in §1.1 above, there are only two other morphological processes associated with verbs in Walman, the applicative and the imperative. Neither of these processes is

¹³ The example in 20a involves an idiomatic construction in which the verbs *-a-* and *-aro-* occur with the verb *-an* 'be at, stay' where the meaning is specifically 'be with'. Other examples of this construction are found in 45b and example (i) in n. 37.

found with the verbs meaning ‘and’. Both of these processes occur in Walman only with verbs whose subjects are volitional, however, so the absence of these processes with the two *and*-verbs is perhaps not surprising; in other words, it just means that the two *and*-verbs are simply like other verbs with nonvolitional subjects in not occurring with applicative or imperative forms.

The examples in 16 through 20 above have overt nominals in both subject and object position. While a transitive verb in Walman requires both arguments to be present in the form of pronominal affixes, the most common clausal configuration for pronominal arguments is for the subject to be represented by both an independent pronoun and a subject prefix on the verb while object pronouns are left out, the object represented only by an object affix on the verb, as in the examples in 21.

- (21) a. . . . kum m-ch-arien.
 . . . 1SG 1SG-2.OBJ-look.after
 ‘. . . I would have looked after you.’ (B)
- b. Ru w-nare-y ‘. . .’
 3SG.F 3SG.F-tell-3PL
 ‘She said to them “. . .”’ (B)

This is also the most common configuration with the *and*-verbs when both conjuncts are pronominal, as illustrated for the verb *-aro-* ‘and’ in 22.

- (22) a. [Kum **m-aro-y**] k-awa, to chim ch-ara *pek*.¹⁴
 1SG **1SG-and-3PL** 1PL-call then 2PL 2PL-come back
 ‘When we ([I and they]) call, then you can come back.’ (T)
- b. [Runon **n-aro-n**] y-ekiel y-arau walay eni
 3SG.M **3SG.M-and-3SG.M** 3PL-go.south 3PL-go.up thorn.tree REL
 wonulo n-ete-∅.
 younger.brother 3SG.M-see-3SG.F
 ‘They ([he and him]) went inland to climb a thorn tree that the younger brother had seen.’ (B)

In 23 are given analogous examples with *-a-* ‘and’.

- (23) a. [Kum **m-ch-a**] k-anan k-korue wul.
 1SG **1SG-2.OBJ-and** 1PL-go.down 1PL-wash water
 ‘Let’s ([I and you]) go down and take a wash.’ (B)
- b. [Ru **w-a-y**] y-a<y>pu ako to ru
 3SG.F **3SG.F-and-3PL** 3PL-kill<3PL> COMPL then 3SG.F
 w-nare-y . . .
 3SG.F-tell-3PL . . .
 ‘After they ([she and they]) had killed them she said to them . . .’ (B)

While it is more common for verbs with two pronominal arguments to have an independent pronoun in subject position, it is also possible for both arguments to be represented entirely by verbal affixes. When this happens with the *and*-verbs, we get what appears to be a noun phrase that consists only of the inflected *and*-verb; examples illustrating this for *-aro-* are given in 24 and examples for *-a-* are given in 25.

- (24) a. Korue [**n-aro-n**] y-r-apar nyemi mlin.
 but **3SG.M-and-3SG.M** 3PL-RECP/REFL-be.related.to friend true
 ‘But they ([he and him]) became true friends.’ (B)

¹⁴ The word *pek* ‘back’ in 22a is a Tok Pisin word. In contemporary Walman, it is very common for speakers to use Tok Pisin words; in fact, it is fairly unusual for anyone to speak ‘pure’ Walman. Tok Pisin words in examples cited, like *pek* in 22a, are shown in italics to indicate that they are Tok Pisin.

- b. To [w-aro- \emptyset] y-raun y-orou y-oko- \emptyset .
 then 3SG.F-**and**-3SG.F 3PL-paddle 3PL-go 3PL-get-3SG.F
 'So the two of them ([she and her]) paddled [to it] and got it.' (T)
- (25) a. Ch-ara [m-ch-a] k-orou cha kum.
 2PL-come 1SG-2.OBJ-**and** 1PL-go place 1SG
 'Come, let's ([I and you]) go to my place.' (T)
- b. [W-a-n] y-r-ouyuen.
 3SG.F-**and**-3SG.M 3PL-RECP/REFL-exchange.marriage
 'They ([she and he]) were involved in an exchange marriage.' (T)

These uses of the *and*-verbs with inflectional arguments are often most naturally translated into other languages using personal pronouns; for convenience we refer to them as QUASI-PRONOMINAL. For example, *wan* in 25b is literally 'she and he', but many other languages would probably use a personal pronoun in this context. It is not uncommon in texts to have recurrences of these quasi-pronominal uses of the *and*-verbs that are coreferential with a preceding occurrence, in the way that coreferential pronouns occur in sequence in texts in other languages.¹⁵

1.3. THE NONVERBAL CONJUNCTION *o* 'AND'. In addition to the two verbs meaning 'and', Walman also has a nonverbal conjunction *o* 'and'. Like conjunctions in other languages, it is an invariant form and does not behave like a verb. Unlike the *and*-verbs, this word can conjoin not only noun phrases, as in 26a, but also clauses, as in 26b, and adjectives, as in 26c.

- (26) a. To ri wara o kuel o Chamul wangkile
 then 3PL wara.drum **and** kuel.stick **and** Chamul flute
 y-aru-y chruk.
 3PL-crush-3PL in.many.pieces
 'They took the wara drum and the kuel stick and the Chamul flutes
 and crushed them.' (B)
- b. Y-iliel *ailan*, o kum a m-iliel uwa.
 3PL-go.north island **and** 1SG start 1SG-go.north north
 'They went to the islands, and I headed north.' (T)
- c. ngal nyotu o pisi
 bird black **and** white
 'a black and white bird' (C)

¹⁵ These quasi-pronominal uses of the *and*-verbs (as well as occurrences of *and*-verbs with overt pronouns as subjects) are apparently always interchangeable with true personal pronouns, at least in every case that we have tested. Occasionally in texts, one clause uses a personal pronoun to denote a given set of referents while the next clause uses a quasi-pronominal use of an *and*-verb to denote the same set of referents. The quasi-pronominal uses of *and*-verbs, however, have the advantage of specifying more information; while *ri* is simply third plural, *naron* specifically denotes two males, *wan* specifically denotes one male and one female, and *nay* specifically denotes a male plus a plural set, making it clear that some specific male and some specific set of individuals referred to in the previous discourse are both included. They in effect provide a richer pronominal system than any true pronominal system we are aware of. While we have not yet performed a systematic study of this, our impression is that sets consisting of two individuals are typically denoted by *and*-constructions (most frequently with an overt subject pronoun but not infrequently in their quasi-pronominal form without any overt pronouns) rather than by third-person personal pronouns. Also, when the members of a set have been distinguished from each other in some way in a discourse, it appears to be more common to use *and*-verbs than personal pronouns. For example, if a mother and her children have both been referred to in a discourse, they are more likely to be referred to by *waroy* or *way* [3SG.F-**and**-3PL] 'she and they' than by *ri* '3PL'. Bhat (2004a,b) makes a related observation on the difference between conjunction and plurality: when NPs are conjoined, a difference between the referents of the conjuncts is emphasized, whereas in plural forms a similarity between the entities grouped together is emphasized.

In every case we have tested, we have found that the conjunction *o* is interchangeable with the *and*-verbs in conjoining noun phrases. For example, all three sentences in 27 are judged equivalent in meaning and equally acceptable.

- (27) a. [Ngan **o** nyue] y-alma.
father **and** mother 3PL-die.
'[(Their) father and mother] died.' (J)
- b. [Ngan **n-a-θ** nyue] y-alma.
father 3SG.M-**and**-3SG.F mother 3PL-die
'[(Their) father and mother] died.' (J)
- c. [Ngan **n-aro-θ** nyue] y-alma.
father 3SG.M-**and**-3SG.F mother 3PL-die
'[(Their) father and mother] died.' (J)

In texts, however, noun phrases conjoined by *o* predominantly have inanimate conjuncts, while those conjoined by *and*-verbs generally have animate referents. Also, while there are cases of conjoined noun phrases with three conjuncts involving two *and*-verbs (see §2.9), it is more common in texts for such noun phrases to employ *o* in conjoining the second pair of conjuncts, as in 28.

- (28) ru chuto ngo-θ **w-aro-n** mukan **o** nyakom
3SG.F woman one-F 3SG.F-**and**-3SG.M husband **and** child.PL
'one woman and her husband and children' (B)

The remainder of the article is structured as follows. We first present evidence that the *and*-construction is a noun-phrase constituent, at least in some instances, and then present evidence that in other instances, it does not appear to form a noun-phrase constituent. We next bring together these various syntactic observations and discuss their implications for the analysis of the *and*-construction. We then turn to the question of what these verbs mean and argue that they have a meaning like *and* in English (rather than *with*). Following this analytic discussion, we consider how Walman fits into Stassen's (2000, 2005) typological distinction between *AND*-languages and *WITH*-languages. We then turn to the evidence of other Torricelli languages that also appear to have verbs meaning 'and', and finally consider possible historical sources of the *and*-verbs in Walman.

2. ARGUMENTS THAT THERE ARE CASES IN WHICH THE *and*-CONSTRUCTION IS A NOUN-PHRASE CONSTITUENT. The clearest evidence that the *and*-construction is a noun-phrase constituent is the fact that it occurs in all of the syntactic environments in which noun phrases in general occur in Walman. In this section, we examine these environments and show that the *and*-construction occurs in each of them: subjects, objects, complements of semantically transitive predicates, nominal predicates, possessors, vocative expressions, objects of adpositions, expressions modified by *alpa* 'only', and conjuncts of words meaning 'and'.

2.1. THE *and*-CONSTRUCTION IN SUBJECT POSITION. In many of the examples cited above (and the majority of examples in texts), the *and*-construction occurs in subject position, as in 29.

- (29) To [ru **w-a-θ**] y-ayako-θ osnu nngkal ako, ...
then 3SG.F 3SG.F-**and**-3SG.F 3PL-make-3SG.F spirit.house small COMPL ...
'So they ([she and her]) built a small spirit house, ...' (T)

2.2. THE *and*-CONSTRUCTION IN OBJECT POSITION. In addition to occurring as subject, the *and*-construction also occurs as object, as in 30 (see also 18 and 20c above).

- (30) Runon n-arau n-p-altawro [kum **m-ch-a**].
 3SG.M 3SG.M-come.up 3SG.M-1.OBJ-look.for 1SG **1SG-2.OBJ-and**
 'When he came up, he looked for us (me and you).' (B)

As is found in a number of other languages (Corbett 2006), it is possible for the verb to exhibit object agreement with either the entire conjoined phrase or the closest conjunct, which in Walman is usually the first conjunct, since the object normally follows the verb. For example, the verb agrees with both conjuncts in 31a, where we find third-person plural object inflection on *meterey* 'see', but with just the first conjunct in 31b, where we find third-person singular masculine object inflection on *meteren* 'see'.¹⁶

- (31) a. Kum m-etere-y [John **n-aro-∅** Mary].
 1SG 1SG-see-3PL John **3SG.M-and-3SG.F** Mary
 'I saw [John and Mary].' (J)
- b. Kum m-etere-n [John **n-aro-∅** Mary].
 1SG 1SG-see-3SG.M John **3SG.M-and-3SG.F** Mary
 'I saw [John and Mary].' (J)

Examples from texts where the verb shows object inflection for only the first conjunct are given in 32. In 32a, the verb shows third-person singular masculine agreement with the first conjunct, while in 32b the verb shows third-person singular feminine agreement with the first conjunct (Olou is male, Chapul is female).

- (32) a. Ru w-awaro-n [Olou **n-aro-∅** Chapul]
 3SG.F 3SG.F-became.parent.of-3SG.M Olou **3SG.M-and-3SG.F** Chapul
 eni.
 at.that.time
 'She gave birth to [Olou and Chapul] then.' (Literally: 'She became the parent of Olou and Chapul at that time.') (T)
- b. Nganu ngo-n runon msin n-nare-∅ [chu
 day one-M 3SG.M ancestor 3SG.M-tell-3SG.F wife
w-aro-n na] y-an nakol.
3SG.F-and-3SG.M son 3PL-be.at house
 'One day, an ancestor told [his wife and son] to stay at home.' (B)

How does the alternation between agreement with the first conjunct versus agreement with both conjuncts bear on the question of how to analyze constructions with the *and*-verbs? One might take the possibility of agreement with only the first, or closest, conjunct as suggesting that in those examples, the *and*-verb is not in fact forming a conjoined noun phrase. Under such a view, an example like 31b might be analyzed as having a structure something like 'I saw John, he was with Mary'. The same two agreement possibilities exist with the nonverbal conjunction *o*, however, discussed above in §1.3. The examples in 33 are the same as those in 31 above, except that the forms of the verb *-aro-* 'and' have been replaced by the nonverbal conjunction *o*.

- (33) a. Kum m-etere-y John o Mary.
 1SG 1SG-see-3PL John and Mary
 'I saw John and Mary.' (J)
- b. Kum m-etere-n John o Mary.
 1SG 1SG-see-3SG.M John and Mary
 'I saw John and Mary.' (J)

¹⁶ The two sentences in 31 are also grammatical with *na*, the form of *-a-* that corresponds to *naro*.

The examples in 33 show that with the nonverbal conjunction *o* the verb exhibits the same possibility of agreeing with the first conjunct as with *and*-verbs. Since constructions with *and*-verbs and constructions with the conjunction *o* behave syntactically in the same way with respect to verb agreement, this argues that the constructions with *and*-verbs are noun phrases, like noun phrases conjoined with *o*. What is perhaps more striking here is that it also suggests that despite their verbal morphology, the *and*-verbs are treated grammatically as conjunctions for the purposes of the rule that allows object agreement with either the first conjunct of a conjoined phrase or with the entire conjoined phrase.

2.3. THE *and*-CONSTRUCTION AS A COMPLEMENT OF A SEMANTICALLY TRANSITIVE PREDICATE. In addition to occurring as the object of a transitive verb, the *and*-construction can occur as the complement of a semantically transitive predicate, such as idiomatic expressions denoting emotions. The example in 34 illustrates the predicate *won no kisiel* ‘be angry’ (literally ‘chest be quick’) followed by a personal pronoun *chi* ‘you’, while the examples in 35 illustrate this predicate and another semantically transitive predicate *-an won woyuen* ‘feel bad, miss’ (literally ‘be.at chest bad’) followed by the *and*-construction.¹⁷

- (34) Kum won n-o kisiel chi.
 1SG chest 3SG.M-be quick 2SG
 ‘I am angry with you.’ (E)
- (35) a. Wuel won n-o kisiel [runon **n-aro-n**].
 pig chest 3SG.M-be quick 3SG.M **3SG.M-and-3SG.M**
 ‘The pig was very angry with them ([him and him]).’ (C)
- b. Ako runon n-an won woyue-n [chu **w-aro-n** na].
 then 3SG.M 3SG.M-be.at chest bad-M wife **3SG.F-and-3SG.M** son
 ‘Then he (began to) miss [his wife and son].’ (B)

2.4. THE *and*-CONSTRUCTION AS NOMINAL PREDICATE OF A CLAUSE. Another syntactic position in which noun phrases occur in Walman is as nominal predicates. While Walman has a copula verb *-o* that is used with adjectival predicates (illustrated in 5 above) and a locative copula verb *-an* that is used with locative predicates (illustrated in 2 above), it does not use a verbal copula with nominal predicates. Nominal predicates occur either directly after the subject without any marking, as in 36a, or after the demonstrative word *pa*, which functions as a nonverbal copula, as in 36b and 36c.

- (36) a. Riak konu woyue-n.
 Riak boy bad-3SG.M
 ‘Riak is a naughty boy.’ (J)
- b. Kum pa Amos.
 1SG COPULA Amos
 ‘I am Amos.’ (J)
- c. Y-achapie- \emptyset chon pa ala w-ri konungkol.
 3PL-scrape-3SG.F sago COPULA work GEN-3PL man.PL
 ‘Scraping the sago is men’s work.’ (T)

The *and*-construction can also occur in predicate position either alone, as in 37, or after the demonstrative *pa*, as in 38.

¹⁷ We gloss the word *won* as ‘chest’ since outside various idioms like these it means this. On its literal meaning of ‘chest’, it is grammatically feminine, but in idioms like those in 34 and 35, it controls masculine agreement.

- (37) a. . . . chu-tey w-ri lasi [Kampail **w-aro- \emptyset** Slim].
 . . . wife-PL GEN-3PL name Kampail **3SG.F-and-3SG.F** Slim
 ' . . . their wives' names were [Kampail and Slim].' (B)
- b. Ora, osunu w-kum [[Ptang **y-aro-y** Nyankuei] *na* Walapon]
 OK clan GEN-1SG Ptang **3PL-and-3PL** Nyankuei and Walapon
 ri y-ilie! y-anan mpuer.
 3PL 3PL-go.north 3PL-go.down all
 'Now, my clans are [[Ptang and Nyankuei] and also Walapon], who
 all came down (from the bush).'¹⁸ (T)
- (38) a. Chu-tey w-ri lasi pa [Kampail **w-aro- \emptyset** Slim].
 wife-PL GEN-3PL name COPULA Kampail **3SG.F-and-3SG.F** Slim
 'Their wives' names were [Kampail and Slim].' (J)
- b. Kipin pa [Amos **n-a- \emptyset** Vanessa].
 1PL COPULA Amos **3SG.M-and-3SG.F** Vanessa
 'We are [Amos and Vanessa].' (J)

2.5. THE *and*-CONSTRUCTION AS POSSESSOR. As discussed in §1.1, nominal possession involves three different constructions, one of which involves a postnominal possessor, preceded by a personal pronoun in genitive case agreeing with the possessor in person, number, and gender as in 39.

- (39) osnu w-ri nyiki
 spirit.house GEN-3PL women
 'the women's spirit house' (T)

Phrases conjoined with *and*-verbs, like ordinary noun phrases, can also serve as possessors, although their occurrence in this function is limited to the construction in 39,¹⁹ as in the examples in 40.²⁰

- (40) a. Ako ru w-aro- \emptyset y-oko-n lasi
 then 3SG.F 3SG.F-and-3SG.F 3PL-take-3SG.M then
 n-r-any mukan [w-ru **w-aro- \emptyset**].
 3SG.M-RECP/REFL-do husband GEN-3SG.F **3SG.F-and-3SG.F**
 'So they took him as their ([her and her]) husband.' (Literally: 'So
 [she and her] took him then he became husband [of her and her].') (B)
- b. Kompowaley [w-kum **m-aro-y**] w-orou kelki pa.
 story GEN-1SG **1SG-and-3PL** 3SG.F-go end DEM
 'Our ([my and their]) story has come to an end.' (T)

¹⁸ Example 37b contains another word for 'and', namely the Tok Pisin word *na*, which coincidentally has the same form as the Walman *and*-verb form *n-a- \emptyset* 'him and her'.

¹⁹ The fact that the *and*-construction does not occur in the other two possessive constructions in which noun-phrase possessors can occur, namely in prenominal position or postnominally without an intervening genitive pronoun, suggests that if this construction is currently undergoing a process by which it is acquiring nominal features, then that process is still not completed.

²⁰ When the first conjunct is a pronoun, the genitive prefix occurs just on that pronoun, as in 40a and 40b. That the genitive marker is not a clitic is shown by the fact that when the initial pronoun is third-person singular masculine, we get the irregular genitive form *mnon*, as in (i).

- (i) cha [mnon n-aro- \emptyset chu o nyakom]
 place 3SG.M.POSS 3SG.M-and-3SG.F wife and child.PL
 'the place of him and his wife and children' (B)

In other words, only the first conjunct is marked for case.

- c. Ri *stopim* elieu [w-ri Wokau **y-aro-y** Malol].
 3PL stop war GEN-3PL Wokau **3PL-and-3PL** Malol
 ‘They stopped the war between [Wokau and Malol].’ (Literally: ‘the
 war [of the Wokaus and the Malols]’) (T)

2.6. THE *and*-CONSTRUCTION AS A VOCATIVE EXPRESSION. Another syntactic environment in which noun phrases occur is in vocative or addressee phrases, illustrated by *au* ‘older sibling’ in 41.

- (41) E **au**, kum m-ch-arien.
 hey **older.sibling** 1SG 1SG-2.OBJ-ask
 ‘Hey older sibling, I [want to] ask you [something].’ (B)

Such phrases typically lack external syntax, bearing no syntactic relation to other elements, somewhat like parenthetical expressions.

Significantly, *aro*-phrases can occur in such expressions, as in 42, although there appears to be a restriction on these instances in that they require an overt pronoun as first conjunct.

- (42) [Chi **n-aro-Ø**], to cha ch-an nyien to ch-ara?
 2SG **2SG-and-3SG.F** then place 2PL-be.at where then 2PL-come
 ‘You two ([you and her]), where do you come from?’ (T)

The initial phrase *chi naro* in 42 literally means ‘you (sg.) and her’.²¹ Again, since it is only noun phrases that can occur as vocative expressions, this argues that *chi naro* is a noun phrase.

2.7. THE *and*-CONSTRUCTION AS OBJECT OF ADPOSITION. Another position in which noun phrases occur in Walman is as objects of adpositions. Walman does not use adpositions extensively. As discussed in §4.2 below, Walman often uses verbs where many other languages would use adpositions. But Walman does have some adpositions, which are normally used postpositionally, but which occasionally occur as prepositions. The most frequent adposition, however, is a preposition *lo* ~ *long*, a loanword from Tok Pisin that covers a wide range of meanings in both Tok Pisin and Walman. The examples in 43 illustrate three adpositions occurring with noun phrases that do not involve one of the *and*-verbs, the postpositions *wor* ‘above’ and *rpia* ‘under’ and the preposition *lo* ~ *long*.

- (43) a. Ako y-rchere-n y-a<n>ko n-an apar **wor**.
 then 3PL-lift-3SG.M 3PL-put<3SG.M> 3SG.M-be.at bed **above**
 ‘Then they lifted him up and put him on the bed.’ (B)
- b. O runon n-mpulue-n ngan ako krok n-an apar
 and 3SG.M 3SG.M-afraid.of-3SG.M father then hide 3SG.M-be.at bed
rpia.
under
 ‘And because he was afraid of his father he hid under the bed.’ (B)
- c. Runon n-ikie-y **lo** por.
 3SG.M 3SG.M-put-3PL **PREP** canoe
 ‘He put them into a canoe.’ (T)

Parallel examples are given in 44 with phrases conjoined by one of the *and*-verbs functioning as object of the adposition.

²¹ As noted in §1.1, phrases with *-a-* cannot be used as vocative expressions.

- (44) a. Nyi y-roul [Rita w-aro- \emptyset Millie] **wor**.
 lamp 3PL-hang Rita 3SG.F-and-3SG.F Millie **above**
 'The lamp is hanging above [Rita and Millie].' (J)
- b. Ranguang y-an [Rita w-aro- \emptyset Millie] **rpia**.
 piece.of.cloth 3PL-be.at Rita 3SG.F-and-3SG.F Millie **under**
 'The cloth is under [Rita and Millie].' (J)
- c. N-kaya-y *na.olsem* runon *igat* wrloy **lo** [ru
 3SG.M-watch-3PL like.that 3SG.M there.is desire **PREP** 3SG.F
 w-aro- \emptyset].
 3SG.F-and-3SG.F
 'And as he watched them like that he felt desire for the two of them
 ([her and her]).' (T)

2.8. THE *and*-CONSTRUCTION MODIFIED BY *alpa* 'ONLY'. The word *alpa* 'only' (*alpa* can also mean 'one, alone') modifies only noun phrases, agreeing in number and gender with that noun phrase, as in 45. It occurs at the end of the noun phrase, even following a relative clause, as in 45c.

- (45) a. [Kipin **alpa-y**] k-orou Achapei.
 1PL **only-PL** 1PL-go Aitape
 '[Only we] went to Aitape.' (J)
- b. [Nyanam mntim **alpa-y**] y-a<y>pulu y-aro-n
 child small **only-PL** 3PL-leave.behind<3PL> 3PL-and-3SG.M
 Chamul y-an.
 Chamul 3PL-be.at
 '[Only the little children] had been left behind with the Chamul
 (a spiritual being).' (B)
- c. Peni nakol osnu, [ri kamilapoy ni tu Chamul n-ete-y
 inside house osnu 3PL elders REL PERF Chamul 3SG.M-see-3PL
alpa-y] ri y-an peni.
only-PL 3PL 3PL-be.at inside
 'Inside the osnu house, [only the adults whom the Chamul has initiated]
 could remain inside.' (T)

Alpa 'only' cannot follow verbs, as shown in 46 (unless the verb occurs at the end of a noun phrase, in which case it is modifying the entire noun phrase, as in 45c above).

- (46) *Kipin k-orou **alpa(-y)** Achapei.
 1PL 1PL-go **only(-PL)** Aitape
 'We only went to Aitape.' (J)

But crucially *alpa* 'only' can follow the *and*-construction, as in 47.

- (47) a. [Rita w-aro- \emptyset Millie **alpa-y**] y-orou Achapei.
 Rita 3SG.F-and-3SG.F Millie **only-PL** 3PL-go Aitape
 '[Only Rita and Millie] went to Aitape.' (J)
- b. [Kum m-aro- \emptyset **alpa-y**] nt-k-an.²²
 1SG 1SG-and-3SG.F **only-PL** here-1PL-be.at
 '[Only I and she] are here.' (J)

²² The form *nt-k-an* in 47b is an apparent exception to our claim in §1.1 that subject prefixes always occur as the initial prefix on verbs. This verb is one of a number of demonstrative verbs that consist of an initial demonstrative morpheme followed by a subject prefix followed by the stem of the verb *-an* 'be at'. This particular verb is transparently derived from *nta* 'here' plus *kan* 'we are at'.

We say that *alpa* modifies the noun phrase, since the plural agreement shown in both examples in 47 reflects the plurality of the entire conjoined noun phrase. Again, since *alpa* modifies only noun phrases, this argues that *aro*-phrases are noun phrases.²³

2.9. THE *and*-CONSTRUCTION AS CONJUNCT OF WORDS MEANING ‘AND’. A final syntactic context in which noun phrases can occur in Walman is as conjuncts of words meaning ‘and’, of which we have cited many examples in this article. What we have not provided examples of so far, however, are instances of the *and*-construction that are themselves subjects or objects of *and*-verbs, in other words an *and*-construction embedded within an *and*-construction, as in 48.

- (48) [[Steve **n-aro- \emptyset** Mary] **y-p-a**] k-orou *tesin*.
 Steve **3SG.M-and-3SG.F** Mary **3PL-1.OBJ-and** I **1PL-go** town
 ‘[[Steve and Mary] and I] went to town.’ (E)

This example contains two verbs meaning ‘and’, *naro* and *ypa*. The first of these, *naro* ‘he and she’, conjoins *Steve* and *Mary*. Then *Steve naro Mary* serves as the subject of *ypa* ‘they and I’.

The examples in 49 are two examples from texts in which the *and*-construction serves as a conjunct within another *and*-construction.

- (49) a. [[Ru **w-aro-n** muen] **y-aro-n** ani] y-orou cha
 3SG.F **3SG.F-and-3SG.M** brother **3PL-and-3SG.M** snake 3PL-go place
 w-ri ani.
 GEN-3PL snake
 ‘[[She and her brother] and the snake] headed for the snakes’ place.’ (B)
- b. Ampa ri nyanam wiew sule ako ri y-unau to [kum
 FUT 3PL children two school COMPL 3PL 3PL-go.west then 1SG
m-ch-a [n-aro-y]] k-unau.
1SG-2.OBJ-and **2SG-and-3PL** 1PL-go.south
 ‘When the two boys get back from school, we ([I and [you and they]])
 will go south (to the garden).’²⁴ (T)

²³ There are also examples in texts of the *and*-construction being modified by adjectives and relative clauses, as in the example in (i), where the *and*-construction *runon naron* ‘he and him’ is modified by *lapoy* ‘large.PL’.

- (i) To [runon n-aro-n lapo-y] y-ara y-olo- \emptyset par prie.
 then 3SG.M 3SG.M-and-3SG.M large-3PL 3PL-come 3PL-cut-3SG.F loose completely
 ‘And then the two big ones (birds) came and cut it loose.’ (B)

Since adjectives typically modify nouns rather than noun phrases, examples like these do not provide any evidence that the *and*-construction is a noun phrase, but it is not clear, in that case, how it ought to be analyzed. Since constructions exist of the form [pronoun + adjective] with similar meaning, such as *ri lapoy* ‘the big ones’, we suspect that these examples are evidence of quasi-pronominal uses of the *and*-construction grammaticalizing into pronouns. (In using the term ‘grammaticalization’, we do not wish to imply that there is a process of grammaticalization that is independent of other processes of historical change. We are strongly inclined to believe, in fact, that grammaticalization is entirely the result of such independent processes.)

²⁴ In Walman there is a group of verbs of motion that indicate cardinal direction. This group can be divided into two subsets of verbs, one subset that refers to going a short distance and a second subset for going a longer distance. An oddity of the system is that two of the verbs belong to both subsets, but are associated with different cardinal directions depending on whether they refer to going a short distance or a long distance. The verb *-unau* is used either for going south a long distance or for going west a short distance. Both uses of *-unau* are illustrated in 49b. The second verb like this, *-iliel*, is used either for going north a long distance or for going east a short distance. In all occurrences in this article, *-iliel* is used with the former meaning. For reasons of space, we do not include the indication of distance in the glosses.

In 49a, *ru waron muen* 'she and her brother' serves as the first conjunct of *yaron* '3PL-and-3SG.M', while in 49b, *naroy* 'you and they' serves as the second conjunct of *mcha* 'I and you'.

And just as the *and*-construction can function as an argument of an *and*-verb, so too can it function as a conjunct of the nonverbal conjunction *o*, as in 50.

- (50) [[Kum **m-aro-Ø**] **o** [runon **n-aro-Ø**]] k-orou Achapei.
 1SG 1SG-and-3SG.F and 3SG.M 3SG.F-and-3SG.F 1PL-go Aitape
 'We ([I and she] and [he and she]) went to Aitape.' (J)

In summary, we have presented evidence in this section that the *and*-construction occurs in all of the contexts in which noun phrases occur in Walman, from which we conclude that, at least in these instances, the *and*-construction is, itself, a noun phrase.

3. ARGUMENTS THAT SOME INSTANCES OF THE *and*-CONSTRUCTION DO NOT FORM CONJOINED NOUN PHRASES. To give an intuitive idea of what we conclude at the end of this section, consider the example in 51.

- (51) [Maikakol **n-aro-y** nyakomwali mnon] y-ara y-ara
 Maikakol 3SG.M-and-3PL grandchildren GEN.3SG.M 3PL-come 3PL-come
 y-an Panyil.
 3PL-be.at Panyil
 '[Maikakol and his grandchildren] came to Panyil.'/'Maikakol came to Panyil with his grandchildren.' (B)

Although we argue in §5 that these verbs have a meaning closer to that of *and* in English rather than *with*, the intuition behind the alternative analysis we want to discuss here is clearer if we think of *naroy* in 51 as meaning 'be with' (or 'accompany'), so that the sentence has a structure something like 'Maikakol was with his grandchildren, they came to Panyil'.²⁵ In other words, rather than conjoining two noun phrases, the meaning of the first verb is such that the union of the subject and object of the first verb serves as subject of the second verb.

Evidence that something like this is correct, at least for some instances of the *and*-verbs, is provided by the fact that it is possible for various sorts of material to intervene between the subject and the *and*-verb. The first case of this sort involves instances in which the *and*-verb plus object may be separated from its subject by another verb. Contrast 52a, where *-a-* plus its object immediately follows the subject, with 52b, where *-a-* plus its object is separated from the subject by *norou Achapei* 'he goes to Aitape'.

- (52) a. **Runon n-a-n** **Xavier** y-orou Achapei.
 3SG.M 3SG.M-and-3SG.M **Xavier** 3PL-go Aitape
 'He and Xavier went to Aitape.' (E)
- b. **Runon** n-orou Achapei **n-a-n** **Xavier**.
 3SG.M 3SG.M-go Aitape 3SG.M-and-3SG.M **Xavier**
 'He and Xavier went to Aitape.' (E)

Note also that the agreement on *-orou* 'go' is different in 52a and 52b: in 52a, we get plural subject agreement on the verb (*y-* 'third-person plural'), while in 52b we get

²⁵ This English translation fails to capture the flavor of what we have in mind in one respect: we view the Walman construction as a serial verb construction and the biclausal nature of this English translation misses this. The English translation 'Maikakol came to Panyil with his grandchildren' captures the monoclausal structure more closely, but does so using a preposition rather than a verb.

singular agreement (*n-* ‘third-person singular masculine’). This difference is parallel to the agreement contrast between *are* and *is* in the English examples in 53.

- (53) a. He and Xavier are going.
b. He is going with Xavier.

The difference between the pairs of sentences in 52 and 53 is also the basis of the distinction made by Stassen (2000, 2005) between what he calls AND-languages and WITH-languages, which we discuss below in §6.

In 54 is a text example of *-a-* plus its object, *yay chutey nyakom* ‘and/with the women and children’, separated from the subject *rim* ‘3PL’ by the verb *yarau* ‘they go up’ and the verb plus noun *yara nakol* ‘they come to the village’.²⁶

- (54) Rim y-oko-∅ kiri w-anan **rim** y-arau y-ara
3PL 3PL-take-3SG.F sago.flour 3SG.F-go.down **3PL** 3PL-go.up 3PL-come
nakol **y-a-y** **chu-tey nyakom.**
village **3PL-and-3PL wife-PL children**
‘When they have put the sago flour in them, they come back to the village
with (them and them) their wives and children.’ (T)

In 55 is a similar example with *-aro-* rather than *-a-*, where *waro rongkun* ‘and/with its base’ is separated from the first conjunct *kolu* ‘branch’.

- (55) ... **kolu** w-ru pa ru w-ekiel atuko **w-aro-∅**
... **branch** GEN-3SG.F that 3SG.F 3SG.F-go.south bush **3SG.F-and-3SG.F**
rongkun ri y-ekiel.
base 3PL 3PL-go.south
‘... the branch of that tree moved off southwards to the bush, with the
base, they went off south.’ (T)

It is also possible for various clausal particles to intervene between the subject and the *and*-verb. This includes the negative particle *mon*, the particle *pe* ‘still’, the perfect particle *tu*, and the future particle *ampa*. The first three of these normally appear between the subject and the verb, as in the examples in 56.

- (56) a. Ako ri Malol **mon** y-ara y-a<y>pu ri Walman.
then 3PL Malol **NEG** 3PL-come 3PL-kill<3PL> 3PL Walman
‘But the Malol did not come and kill Walman.’ (B)
b. Kukul **pe** y-o chelie.
fireplace **still** 3PL-be warm
‘The fireplace is still warm.’ (E)
c. Na **tu** n-alma nta n-an puchar!
son **PERF** 3SG.M-die here 3SG.M-be.at inside
‘(Our) son has died here inside his house!’ (B)

The future particle *ampa* most commonly precedes the subject, as in the second clause in 57a where it precedes the subject *kamany olun* ‘some people’, but it can also occur between the subject and the verb like the other three particles, as in the second clause in 57b, where it follows the subject *nyiki* ‘women’.

²⁶ Example 54 employs another construction for coordination that is less common than the *and*-verbs, but not infrequent, that of simple juxtaposition; the nouns *chutey* ‘wives’ and *nyakom* ‘children’ are implicitly conjoined to mean ‘the wives and children’, but without any overt marker of coordination.

- (57) a. Chi n-na n-unau nakol eyn, **ampa** kamany olun pa
 2SG 2SG-want 2SG-go.south village real FUT person some DEM
 y-ch-oko y-ch-a y-unau.
 3PL-2.OBJ-take 3PL-2.OBJ-and 3PL-go.south
 'If you wanted to go on to the actual village, some people will take
 you there.' (T)
- b. Ri y-achapie- \emptyset , nyiki **ampa** y-ara wkan.
 3PL 3PL-scrape-3SG.F woman.PL FUT 3PL-come later
 'Later after they've scraped it, the women will come.' (T)

Significantly, these four particles can occur between the subject and the *and*-verb, as in 58.²⁷

- (58) a. Vanessa **mon** w-a-n Amos y-o ro<y>rani.
 Vanessa NEG 3SG.F-and-3SG.M Amos 3PL-be tall<PL>
 'Vanessa and Amos are not tall.' (J)
- b. Sister Fran **pe** w-aro-n Brother Steve y-an Achapei.
 Sister Fran still 3SG.F-and-3SG.M Brother Steve 3PL-be.at Aitape
 'Sister Fran and Brother Steve are still in Aitape.' (J)
- c. Kum **tu** m-aro-n k-ara.
 1SG PERF 1SG-and-3SG.M 1PL-come
 'I and he have come.' (E)
- d. Rita **ampa** w-aro- \emptyset Millie y-orou Achapei.
 Rita FUT 3SG.F-and-3SG.F Millie 3PL-go Aitape
 'Rita and Millie are going to go to Aitape.' (J)

The possibility of these particles occurring between the subject and the *and*-verb is unexpected if these verbs are simply functioning like nominal conjunctions and the *and*-construction forms a noun phrase, since noun phrases cannot usually be broken up by such particles, especially since the semantic scope of these particles is apparently the entire clause rather than the conjoined noun phrase. In 58a, for example, it is the main predicate *yo royrani* 'be tall' that is negated. Here again, as in the examples in 52b, 54, and 55 above where the *and*-verbs are separated from their subjects by another verb, it would appear that syntactically the *and*-verbs in these examples are not combining with their subjects to form conjoined noun phrases, but are at most combining with their objects to form clause-level constituents.

4. RECONCILING THE DATA. In §2, we saw that, in at least some instances, the *and*-verbs appear to combine with their conjuncts to form conjoined noun phrases. In §3, however, we saw that there are other instances in which the *and*-verb plus its object is separated from its subject and thus does not appear to form a noun-phrase constituent with its subject. There seems to be no way to avoid the conclusion that these two verbs occur in two constructions, one in which they combine with their conjuncts to form noun phrases, the other in which they do not form noun phrases but function in a serial verb construction. We refer to these two constructions as the NOUN PHRASE *and*-CONSTRUCTION and the SERIAL VERB *and*-CONSTRUCTION. In this section, we elaborate on the analyses of these two constructions.

4.1. THE NOUN PHRASE *and*-CONSTRUCTION. The evidence in §2 demonstrates that there are instances of the *and*-construction that are clearly noun phrases. Even so, there

²⁷ It does not seem possible to analyze these particles as second-position particles appearing inside noun phrases since they otherwise never occur inside noun phrases.

are two possible analyses of the noun phrase *and*-construction. On one analysis, the CONJUNCTION ANALYSIS, the *and*-verbs are like conjunctions syntactically: they combine with noun phrases directly to form conjoined noun phrases. In other words, the structure of these phrases differs from that of conjoined noun phrases in other languages only in that they involve a verb rather than a conjunction. One might formulate this analysis by saying that on this analysis the *and*-verbs are verbs morphologically but conjunctions syntactically. On the second analysis of the noun phrase *and*-construction, the CLAUSAL ANALYSIS, the *and*-verbs are still verbs syntactically: although the noun phrases they combine with are conjuncts semantically, they are clausal subjects and objects syntactically. In other words, on the second analysis, the *and*-verbs combine with the two noun phrases to form clauses and these clauses in turn are noun phrases, in the way that complement clauses and headless relative clauses in some languages can be noun phrases consisting only of clauses.²⁸

Arguments can be given for each of these two analyses. One argument in favor of the conjunction analysis is that under the clausal analysis these would be rather defective clauses: first, no clausal elements can occur other than the subject, verb, and object; and second, the word order is strictly fixed. But both of these features are exactly what we would expect under the conjunction analysis: we expect that in a conjoined phrase, the word order will be rigidly first conjunct plus conjunction plus second conjunct (although in some languages other orders occur²⁹), and we do not expect any material other than the conjunction and the two conjuncts. One could further argue for the conjunction analysis by arguing that syntactically the *and*-verbs behave much like the nonverbal conjunction *o*, especially in the fact that in object position, both object agreement with noun phrases conjoined by *o* and object agreement with noun phrases conjoined by *and*-verbs exhibit the option of agreement with the entire conjoined noun phrase or with just the closest (i.e. first) conjunct; this would be a coincidence under the clausal analysis.

By contrast, the fact that the verb exhibits subject and object agreement with the two conjuncts in exactly the way ordinary verbs exhibit agreement with subjects and objects of clauses certainly provides an initial argument for the clausal analysis. A further argument in favor of the clausal analysis is that the two noun phrases are optional, just as subject and object are optional at the clause level; this would be unusual for conjoined noun phrases.³⁰ An additional argument for the clausal analysis is that subject pronouns normally occur with *and*-verbs while object pronouns are often omit-

²⁸ One referee suggested that these noun phrases could be viewed as headless relative clauses. We think that this may not be the best analysis, however, since noun phrases consisting of headless relative clauses have a grammatical or syntactic role inside the relative clause (or, in some approaches, a gap inside the relative clause that is coindexed with the noun phrase containing the headless relative clause). More technically, a headless relative clause normally has a pronoun, pronominal affix, or a gap that is equivalent to a bound variable, in the sense that it is necessarily coindexed with the encompassing noun phrase. In contrast, any pronoun or pronominal affix in an *and*-construction in Walman is equivalent to a free variable; in other words, it necessarily takes its reference outside the encompassing noun phrase. A related difference is that noun phrases consisting of headless relative clauses may in principle be either definite or indefinite, but an *and*-construction in which at least one of the conjuncts is pronominal is necessarily definite.

²⁹ For example, in Latin the conjunction *-que* follows the second conjunct.

³⁰ A proponent of the conjunction analysis could respond to this argument, however, by arguing that it is natural for the conjuncts to be optional in Walman since they are coded on the verb. That is to say that if we were to find a language in which a conjunction agreed with its conjuncts in a way that was completely different from the way that verbs agreed with subjects and objects, we might expect the noun-phrase conjuncts in this language to be optional as well.

ted (§1.2), which would be expected if the noun phrase *and*-construction were a clause, since this is analogous to the way pronouns pattern in ordinary clauses in Walman, but unexpected if it were a conjoined noun phrase.

In short, there are arguments for both the conjunction and the clausal analyses of the noun phrase *and*-construction, and it seems that there is no strong basis for choosing between them.³¹

4.2. THE SERIAL VERB *and*-CONSTRUCTION. Let us turn now to the second of the two *and*-constructions, the serial verb *and*-construction. We are less specific about how to analyze instances of this construction since, although it is unusual to have a serial verb construction with the meaning of nominal conjunction, the *and*-construction appears to be relatively ordinary grammatically as a serial verb construction and we wish to remain neutral as to the best way to analyze serial verb constructions in general.³² One simple possibility, however, would be to analyze serial verb constructions as sequences of verb phrases, in the sense of a verb plus possible object. Hence, applying this to the serial verb *and*-construction, an example like 59 would involve the subject noun phrase *runon* 'he', followed by the negative particle *mon*, followed by two verb phrases, *naro ru* 'and she' and *yarul* 'run away'.

- (59) Runon mon n-aro- \emptyset ru y-arul.
 3SG.M NEG 3SG.M-and-3SG.F 3SG.F 3PL-run.away
 'They ([he and she]) did not run away.' (E)

In line with studies of serial verbs over the past two decades (Sebba 1987, Durie 1988, 1997, Bisang 1995, Crowley 2002, Aikhenvald 2006), we assume a serial verb construction to be a construction involving two or more verbs in a single predication without any marker of subordination. The *and*-verbs clearly satisfy this: in 59 there is only a single predication negated by the verb. That the *and*-verbs do not express a separate predication is reflected by the fact that they cannot be used as the sole verbs in a sentence, as illustrated by the ungrammaticality of the examples in 60 (except in an elliptical use, as in an answer to a question).³³

³¹ Another feature of the noun phrase *and*-construction that might argue for the clausal analysis is that it appears to be possible to relativize out of it, something that is unusual crosslinguistically for conjoined noun phrases (cf. Ross 1967), as illustrated by the text example in (i).

- (i) Ron n-oko-y nyiki wiew n-a-y y-ara warupu nyiki wiew ru
 3SG 3SG.M-marry-3PL women two 3SG.M-and-3PL 3PL-come Warupu women two 3SG.F
 w-aro- \emptyset wolu-wlapo ...
 3SG.F-and-3SG.F younger.sister-older.sister ...
 'He had married the two women **that he had come with**, the two Warupu women, two sisters,
 ...' (T)

The clause *nay yara* 'that he had come with' in (i) appears to be a relative clause modifying the noun phrase *nyiki wiew* 'the two women'. Under this analysis, the head of the relative clause functions as the object of *-a-* 'and'. A literal translation of (i) with 'and' is 'He had married the two women that he and (___) had come, ...'.

³² Although we consider the use of the *and*-verbs that do not occur in the noun phrase *and*-construction to be serial verbs, it is actually not crucial to the argument here that they be analyzed as serial verbs; all that is crucial is that they be verbs at the clause level and not be combining with their subjects to form noun phrases.

³³ Example 60a is grammatical on another reading. Namely, there is another verb *-aro-* that is homophonous with the verb for 'and' that means 'take, touch, catch, grab, pick up', so that 60a is grammatical with the meaning 'He touched/grabbed/caught him' and so on. We discuss a possible historical connection between the verb *-aro-* 'and' and the verb *-aro-* 'take etc.' in §8 below.

- (60) a. *Runon **n-aro-n** au.
 3SG.M **3SG.M-and-3SG.M** elder.brother
 'He is with elder brother.'/'He and elder brother.' (J)
- b. *Runon **n-a-n** au.
 3SG.M **3SG.M-and-3SG.M** elder.brother
 'He is with elder brother.'/'He and elder brother.' (J)

In not occurring as main verbs, the *and*-verbs are instances of what Aikhenvald (2006) calls minor verbs in an asymmetric serial verb construction. Note that there is another verb *-a-* (or, perhaps, another use of the *and*-verb *-a-*) that has instrumental meaning and that also cannot occur as a main verb but only as a serial verb. Thus, while 61a is possible, 61b is not (again, except in an elliptical use).

- (61) a. Kum **m-a-∅** erkey mnon m-olo *popo*.
 1SG **1SG-use-3SG.F** small.knife 3SG.POSS 1SG-cut pawpaw
 'I used his knife to cut the pawpaw.' (J)
- b. *Kum **m-a-∅** erkey mnon.
 1SG **1SG-use-3SG.F** small.knife 3SG.POSS
 'I used his knife.' (J)

It seems likely that it is because of their meaning that the *and*-verbs cannot be used as main verbs: it is not clear what a verb meaning 'and' would mean as a main verb. An expression of the form 'X and Y' where 'X' and 'Y' are referring expressions is just another referring expression, not a proposition, just as a conjoined noun phrase in other languages cannot stand on its own as a proposition. Other than the fact that they do not occur as main verbs, they differ little from other serial verbs in Walman.

Since Walman makes extensive use of serial verb constructions, we illustrate some of these here and show how instances of the *and*-verbs that do not combine with the conjuncts to form noun phrases fit the overall pattern of serial verb constructions in Walman. Our discussion here focuses on expressions of location and direction for which Walman uses serial verbs where other languages might use adpositions. The fact that a language uses verbs where many other languages use adpositions makes the use of verbs where most other languages use a conjunction somewhat less strange.

The examples in 62 illustrate some of the various cases in which Walman employs a verb where many languages would employ an adposition: in 62a 'jump' + 'go down' for 'jump down to', in 62b 'chase' + 'go out' for 'chase out of', and in 62c 'stand' + 'be beside' for 'stand beside'.

- (62) a. Runon n-r-awukul **n-anan** chapul.
 3SG.M 3SG.M-RECP/REFL-lift **3SG.M-go.down** ground
 'He jumped down to the ground.' (E)
- b. Kum m-rachere-∅ pelen **w-esi** nakol.
 1SG 1SG-chase-3SG.F dog **3SG.F-go.out** house
 'I chased the dog out of the house.' (J)
- c. Ru w-rai **w-apur** runon.
 3SG.F 3SG.F-stand **3SG.F-be.beside** 3SG.M
 'She is standing beside him.' (E)

Many cases of *and*-verbs in Walman are particularly clear instances of inclusory subject serial verb constructions in which the subject of a serial verb is the union of the subject and the object of the preceding verb (Crowley 2002:41). There are other instances of inclusory subject serial verb constructions in Walman. The example in 63 is a variant of 62b, differing only in that the subject of the second verb is the union

of the subject and object of the first verb, as indicated by the first-person plural subject prefix on *-esi* 'go out'. This differs slightly in meaning from 62b, in that 63 entails that the speaker went out of the house in the process of chasing the dog, while 62b has no such entailment.

- (63) Kum m-rachere- \emptyset pelen **k-esi** nakol.
 1SG 1SG-chase-3SG.F dog **1PL-go.out** house
 'I chased the dog out of the house.' (J)

Those cases in which the *and*-verb is separated from its subject are clear instances of an *and*-verb occurring in the serial verb *and*-construction. But it is also possible to analyze cases in which the *and*-verb is not separated from its subject as instances of the serial verb *and*-construction. In 64, for example, the *and*-construction appears to be forming a noun phrase in subject position, but it could as easily be analyzed as an inclusory serial verb construction.

- (64) To ru **w-aro-n** na y-anan.
 then 3SG.F **3SG.F-and-3SG.M** son 3PL-go.down
 'Then she and the son went down.' (B)

In other words, these cases are apparently syntactically ambiguous between the two *and*-constructions: *ru waron na* in 64 could be analyzed as a noun phrase 'she and the son' or *ru* could be analyzed as subject and *waron* 'and' could be analyzed as the first verb in a serial verb construction, with *na* as its object.

In some syntactic positions, however, a serial verb analysis does not seem possible, such as when the *and*-construction occurs as a possessor of a noun phrase. For example, *wkum maroy* 'my and their' in 40b, repeated here as 65, is possessor of *kompowaley* 'story'; since it is apparently embedded in a noun phrase, it cannot be analyzed as a serial verb at the clause level.

- (65) Kompowaley [w-kum **m-aro-y**] w-orou kelki pa.
 story GEN-1SG **1SG-and-3PL** 3SG.F-go end DEM
 'Our ([my and their]) story has come to an end.' (T)

The same applies to occurrences of the *and*-construction as objects of adpositions, as vocative expressions, or as phrases modified by *alpa* 'only' (since *alpa* modifies the entire phrase). But the majority of examples in texts seem to be analyzable either as noun phrases or as serial verb constructions, since the majority occur in subject position.

What we have referred to as the quasi-pronominal uses of the *and*-verbs such as those in 66, in which the two conjuncts are expressed entirely by the verbal affixes (§1.2), might seem to be better analyzed as instances of the noun phrase *and*-construction rather than the serial verb *and*-construction, given the extent to which they function like pronouns.

- (66) a. [**N-aro-n**] Ailou nchour y-orou y-arau olun.
3SG.M-and-3SG.M Raihu wade 3PL-go 3PL-go.up other.side
 'They ([he and him]) waded across the Raihu River and climbed up the other side.' (B)
 b. Kum m-oko-y opucha, to [**m-ch-a**] k-orou cha chi.
 1SG 1SG-get-3PL thing then **1SG-2.OBJ-and** 1PL-go place 2SG
 'I will get my things and then we ([I and you]) will go to your village.' (B)

But there is one way in which these quasi-pronominal uses behave differently from ordinary noun phrases. As discussed in §3 above, the negative particle *mon* normally occurs between the subject and the verb, as in 67.

- (67) Ri mon y-ara.
 3PL NEG 3PL-come
 'They didn't come.' (E)

It is also possible for *mon* to occur before the subject, as in 68, but when it occurs in this position the meaning is different: it is not simply that of clausal negation, but has the meaning of 'should not'.

- (68) Mon ri y-ara.
 NEG 3PL 3PL-come
 'They shouldn't come.' (E)

When one of the *and*-verbs occurs in subject position without nominal arguments, however, the negative particle *mon* can occur before the *and*-verb without this difference in meaning. In other words, both sentences in 69 mean 'they did not come', and 69b, unlike 68, does not mean 'they should not come'.

- (69) a. **N-aro-n** mon y-ara.
 3SG.M-**and**-3SG.M NEG 3PL-come
 'They ([he and him]) didn't come.' (J)
- b. Mon **n-aro-n** y-ara.
 NEG 3SG.M-**and**-3SG.M 3PL-come
 'They ([he and him]) didn't come.' (E)

The text example in 70 illustrates this point, with the negative particle *mon* preceding the *and*-verb but without the meaning 'should not'.

- (70) Ako mon **n-a-n** y-uror.
 then NEG 3SG.M-**and**-3SG.M 3PL-fight
 'And so they [(he and him)] did not fight anymore.' (B)

The fact that *mon* can precede what appears to be a quasi-pronominal occurrence of one of the *and*-verbs in subject position, without the meaning 'should not', is most likely related to the fact that *mon* can appear after the first conjunct and before an occurrence of one of these verbs, as discussed in §3, the only difference being that in 69b and 70, the subject of the *and*-verb is expressed only by the subject prefix on this verb. This implies that the occurrences of *naron* in 69b and *nan* in 70 are not noun phrases in subject position, but are still instances of the serial verb *and*-construction, despite the fact that they most naturally translate into other languages as pronouns.

5. SEMANTICS OF THE *and*-VERBS. We have been referring to the two verbs *-aro-* and *-a-* as the *and*-verbs, but we need now to address the semantic question of whether these two verbs have a meaning like *and* in English or a meaning that is closer to *with* in English. The difference between *and* and *with* in English involves a contrast in meaning that can be seen by comparing the two sentences in 71.

- (71) a. John and Mary went to Toronto.
 b. John went to Toronto with Mary.

These differ in that 71b necessarily entails that John and Mary went to Toronto together, while 71a does not (though in many contexts it will implicate this). This difference can be characterized in terms of whether there is an entailment, the ENTAILMENT OF TOGETHERNESS, whereby the two participants in the situation expressed in the sentence (where one participant or both of them may be a set containing more than one individual) are together in the same location at the same time. Example 71b could be paraphrased as 72.

- (72) John and Mary went to Toronto together.

Analogous differences are found in other languages in which there are pairs of sentences like those in 71, but with the same word, as discussed by Stassen (2000).³⁴

It is not just English sentences describing an action, such as 71b, that carry an entailment of togetherness when *with* is used, but also sentences describing a locational state. For example, the pair of sentences in 73 and the pair in 74 both also contrast in whether there is an entailment of togetherness.

- (73) a. John and Mary are in Toronto.
 b. John is in Toronto with Mary.
- (74) a. I saw John and Mary yesterday.
 b. I saw John with Mary yesterday.

Throughout this section, we use the expression 'means "with"' to denote situations where there is an entailment of togetherness. In other words, the question of whether the Walman verbs *-aro-* or *-a-* mean 'with' is a question of whether sentences containing these verbs entail that the referents of the two conjuncts are physically together at the same time and in the same place, as in 71b, 72, 73b, and 74b. And we use the expression 'means "and"' to denote situations where there is no entailment of togetherness, that is, where there is no entailment that the referents of the two conjuncts are together physically, as in 71a, 73a, and 74a.³⁵ In the next section we examine instances of the noun phrase *and*-construction and show that, in these cases, the *and*-verbs can only mean 'and'. Following that, we demonstrate that the same is true for the *and*-verbs in the serial verb *and*-construction, despite the fact that the *and*-construction in this case does not form a noun-phrase constituent.

5.1. EVIDENCE THAT THE *and*-VERBS MEAN 'AND' RATHER THAN 'WITH' WHEN ADJACENT TO THEIR SUBJECT. Many instances of *and*-verbs in texts could equally well be translated by 'and' or 'with', as in 51 above. However, there are also many instances of the *and*-verbs that are less readily translated by 'with'; in other words, they lack the entailment of togetherness. For example, 75 involves a plural verb that is interpreted distributively; since the predication does not involve any location, there can be no entailment of togetherness.

- (75) [John **n-aro-n** Simon] y-o ro<y>rani.
 John **3SG.M-and-3sg.m** Simon 3PL-be tall<PL>
 '[John and Simon] are tall.' (J)

The example in 76 is a text example illustrating the same point: being related is a state that lacks a physical location.

- (76) [**Kum m-ch-a**] k-r-apar wonulo-wlapon.
1SG 1SG-2.OBJ-and 1PL-RECP/REFL-be.related.to little.brother-big.brother
 'We ([I and you]) are related to each other as brothers.' (T)

³⁴ We formulate our discussion in terms of a comparison between the meanings of the words *and* and *with* in English, rather than in terms of whether they mean 'and' or mean 'with' (without reference to English), in order to avoid the implication that one can talk about whether a word in another language means 'and' or means 'with' independently of the metalanguage in which the article is being written. We are aware that there are other issues in English beyond the entailment of togetherness, but since it is only the question of whether there is an entailment of togetherness associated with the *and*-verbs in Walman that is of concern to us in the examples we present, we do not involve ourselves here with those other issues.

³⁵ There are uses of *with* in English that do lack an entailment that the participants are physically together. Two examples are given in (i) and (ii).

- (i) Hoover, with Coolidge, may be among former US presidents that many Americans have forgotten.
 (ii) Overpopulation, with global warming, will make any prediction of future market movements in this area unreliable.

The examples in 77 involve verbs denoting events that could in principle involve the participants doing something together, but the second clause or sentence in both examples makes it clear that the referents of the two arguments of *-aro-* do not perform the action together.

- (77) a. [John **n-aro-n** Simon] y-orou Achapei amtre. John
 John **3SG.M-and-3SG.M** Simon 3PL-go Aitape yesterday John
 n-orou chapul, o Simon n-orou iyoy.
 3SG.M-go on.foot and Simon 3SG.M-go car
 ‘[John and Simon] went to Aitape yesterday. John walked, and Simon
 went by car.’ (J)
- b. [Steve **n-aro-n** John] y-ara, korue Steve n-ara
 Steve **3SG.M-and-3SG.M** John 3PL-come but Steve 3SG.M-come
 eni o John n-ara amtre.
 now and John 3SG.M-come yesterday
 ‘[Steve and John] (both) came, but Steve came today while John came
 yesterday.’ (J)

The examples in 78 and 79 are examples from texts illustrating the same point. In 78, the verb *-aro-* (in *naron* ‘he and him’) cannot mean ‘with’, since Kawita and Kayuen were not twins (as is true also for 32a above).

- (78) Ru w-an w-awaro-n [Kawita **n-aro-n**
 3SG.F 3SG.F-be.at 3SG.F-become.parent.of-3SG.M Kawita **3SG.M-and-3SG.M**
 Kayuen] mue alpa-Ø Mokai.
 Kayuen sister.of.male one-F Mokai
 ‘She gave birth to [Kawita and Kayuen], and (only) one sister, Mokai.’³⁶
 (T)

In 79, we have the same verb *-awaro-* ‘to become the parent of’ that occurs in 78; however, in 79 it is the subject that is conjoined. Note that Kanam and Pokanam are both males, so that the meaning cannot be ‘with’ (in the sense of ‘together with’).

- (79) [Kanam **n-aro-n** Pokanam] y-awaro-y nyakom
 Kanam **3SG.M-and-3SG.M** Pokanam 3PL-become.parent.of-3PL children
 chomchom lasi . . .
 many name . . .
 ‘[Kanam and Pokanam] were the fathers of many children whose names
 were . . .’ (B)

Some of the syntactic positions in which *and*-constructions occur are not consistent with a meaning ‘with’, again because of the lack of a physical location. For example, conjoined possessors lack the entailment of togetherness, such as *wru nyue wan ngan* ‘the mother and father’ in 80.

- (80) yie-parpari [w-ru nyue **w-a-n** ngan].
 bag-basket GEN-3SG.F mother **3SG.F-and-3SG.M** father
 ‘the bags and baskets [of the mother and father]’ (B)

We can conclude that these instances of the *and*-verbs carry no entailment of togetherness and hence mean ‘and’ rather than ‘with’.³⁷

³⁶ Example 78 has another example of simple juxtaposition as a form of coordination (see n. 26 above); the third conjunct *mue alpa Mokai* ‘one sister, Mokai’ is implicitly conjoined with *Kawita naron Kayuen* ‘Kawita and Kayuen’.

³⁷ The *and*-verbs do have an entailment of togetherness when used in an idiomatic construction with the verb *-an* ‘be at’, illustrated in (i).

5.2. EVIDENCE THAT THE *and*-VERBS MEAN 'AND' RATHER THAN 'WITH' WHEN NOT ADJACENT TO THEIR SUBJECT. According to Stassen (2000), in languages where the same word sometimes means 'and' and sometimes 'with', it is normal for the word to mean 'and' when it is adjacent to the word that would be its first conjunct but 'with' when it is not. One might suppose, therefore, that *-aro-* and *-a-* might mean 'and' when they are flanked immediately by their subject and object, but would mean 'with' when separated from their subjects by another verb. But this is not the case in Walman: it turns out that even when an *and*-verb plus its object is separated from its subject by another verb, these sentences still do not carry the entailment of togetherness. For example, in 81 the *and*-verb with its object *Amos* is separated from its subject *Vanessa* by *warau sule* 'go to school', but the second sentence in 81 makes it clear that *Amos* and *Vanessa* are not physically together.³⁸

- (81) **Vanessa** *w-arau* *sule* **w-a-n** **Amos.** *Vanessa* *w-arau*
Vanessa 3SG.F-go.up school 3SG.F-and-3SG.M **Amos** *Vanessa* 3SG.F-go.up
sule *w-an* *Eleu, o* *Amos* *n-arau* *sule* *n-an*
 school 3SG.F-be.at Ali and *Amos* 3SG.M-go.up school 3SG.M-be.at
 Wewak.
 Wewak
 'Vanessa and Amos (both) go to school. Vanessa goes to school on Ali,
 and Amos goes to school in Wewak.' (J)

The example in 82 is similar.

- (82) **Rita** *w-orou* *Achapei* **w-a-∅** **Millie.** *Rita* *w-orou*
Rita 3SG.F-go Aitape 3SG.F-and-3SG.F **Millie** *Rita* 3SG.F-go
w-aro-n *Tom, o* *Millie* *w-orou* *w-aro-n* *Father*
 3SG.F-and-3SG.M *Tom* and *Millie* 3SG.F-go 3SG.F-and-3SG.M *Father*
 Eduardo.
 Eduardo
 'Rita and Millie (both) went to Aitape yesterday. Rita went with Tom, and
 Millie went with Father Eduardo.' (J)

The examples in 83 are also similar, except that here it is the stative nature of the predicates that precludes an entailment of togetherness, because they lack a physical location.

- (83) a. **John** *n-o* *ro<n>rani* **n-aro-n** **Simon.**
John 3SG.M-be tall<M> 3SG.M-and-3SG.M **Simon**
 'John and Simon are tall.' (J)
 b. **Kum** *m-nulue-y* *pelen* **m-a-∅** **chu** **w-kum.**
1SG 1SG-be.afraid.of-3PL dog 1SG-and-3SG.F wife GEN-1SG
 'I and my wife are afraid of dogs.' (J)

-
- (i) **Runon** **n-aro-n** *au* **y-an.**
 3SG.M 3SG.M-and-3SG.M elder.brother 3PL-be.at
 'He is with elder brother.' (E)

This construction simply predicates togetherness and cannot be used with another verb to express a meaning that involves the referents of the two conjuncts doing something together—that is, this construction could not be used with a verb meaning 'go' to express something like 'He and his elder brother went to the bush together'. This idiomatic construction is also illustrated in examples 20a and 45b above.

³⁸ Ali is an island offshore from the area where Walman is spoken. Wewak is a town about 110 miles east of this area. It is thus not possible for 81 to mean that Vanessa and Amos go to school together.

It is also the case that when the subject is separated from the *and*-verb by a clause-level particle, there is still no entailment of togetherness. In 84, for example, the negative word intervenes between the subject and the verb *-a-*, but again, there is no entailment of togetherness.

- (84) Vanessa **mon** w-a-n Amos y-o ro<y>rani.
 Vanessa NEG 3SG.F-and-3SG.M Amos 3PL-be tall<PL>
 ‘Vanessa and Amos are not tall.’ (J)

Similarly, in 85, the future particle *ampa* occurs between the subject and the *and*-verb, but the second sentence shows that there is still no entailment of togetherness.

- (85) Rita **ampa** w-aro-Ø Millie y-orou Achapei. Rita ampa w-orou
 Rita FUT 3SG.F-and-3SG.F Millie 3PL-go Aitape Rita FUT 3SG.F-go
 eni, Millie ampa w-orou pichi.
 now Millie FUT 3SG.F-go tomorrow
 ‘Rita and Millie are going to go to Aitape. Rita will go today and Millie will go tomorrow.’ (J)

The discussion and examples in this section have shown that even when the *and*-verbs occur in syntactic contexts that are typical of verbs in a serial verb construction, there is never an entailment that the referents of the subject and object of an *and*-verb are together in a physical sense. The lack of an entailment of togetherness may partly explain why these verbs do not occur as main verbs, as noted in §4. If verbs meaning ‘be with, accompany’ in other languages normally carry an entailment of togetherness, as English *be with* and *accompany* do, and if, as we claim, Walman *and*-verbs do not carry this entailment, then the fact that they cannot occur as main verbs may be a consequence of this.

It is important to emphasize that while we have shown that the *and*-verbs mean ‘and’ rather than ‘with’ in the sense that they lack an entailment of togetherness, this does not mean that there is not frequently an implicature of togetherness in the discourse context. To the contrary, for many of the instances of *and*-verbs in texts, perhaps the majority, there is a clear implicature that the referents of the conjuncts were together at the same location at the same time. For example, one of our translations for example 51 above is ‘Maikakol and his grandchildren came to Panyil’, which is a faithful translation according to our Walman consultants. But we should mention that Becker, in his German translation (1971:8), translates this sentence as *Der Ahnherr Maikagol kam mit seinen Enkelkindern nach Banyil* ‘The progenitor Maikakol came with his grandchildren to Panyil’, using *mit* ‘with’ rather than *und* ‘and’, and it was presumably assumed by the storyteller and by those who heard the story that in fact Maikakol and his grandchildren did come together. Our claim, however, is that the *and*-verbs never ‘mean “with” ’; that is, there is never an entailment of togetherness.

6. AND-LANGUAGES AND WITH-LANGUAGES. In two articles that examine instances of conjunctive noun-phrase constructions crosslinguistically, Stassen (2000, 2005) distinguishes two types of languages that he calls *AND*-languages and *WITH*-languages. This distinction relates to a more basic distinction he makes between two types of attested strategies for encoding events in which two distinct individuals participate. The first of these, his *COORDINATE STRATEGY*, is represented by the English construction in 86a, while the second, his *COMITATIVE STRATEGY*, is represented by that in 86b.

- (86) a. John and Mary left.
 b. John left with Mary.

AND-languages are those that employ both of these strategies and have unique markers for each one, while WITH-languages are those in which only the comitative strategy is used to encode both noun-phrase coordination and comitative marking. Stassen (2000: 21) summarizes the differences between the two strategies as in 87.

(87) Contrasts between the two strategies

COORDINATE STRATEGY	COMITATIVE STRATEGY
a. NPs have same structural rank	NPs differ in structural rank
b. unique coordinative particle	unique comitative marker
c. NPs form a constituent	NPs do not form a constituent
d. plural/dual agreement on verbs	singular agreement on verbs

At least on initial inspection, Walman does not appear to fit this typology very well. Walman has what could be described as two constructions, one in which the verb for 'and' and its two conjuncts apparently form a constituent, as in 52a (repeated here as 88a), and the other in which the verb for 'and' and its two conjuncts do not form a constituent and in which the verb for 'and' and the second conjunct are separated from the first conjunct by the main verb, as in 52b (repeated as 88b).

- (88) a. Runon **n-a-n** Xavier y-orou Achape.
 3SG.M **3SG.M-and-3SG.M** Xavier 3PL-go Aitape
 'He and Xavier went to Aitape.' (E)
- b. Runon n-orou Achape **n-a-n** Xavier.
 3SG.M 3SG.M-go Aitape **3SG.M-and-3SG.M** Xavier
 'He and Xavier went to Aitape.'/'He went to Aitape with Xavier.' (E)

The difference between these two constructions in Walman thus appears to satisfy the contrast in 87c; namely, in the construction in 88a, the verb for 'and' and its conjuncts form a constituent, while in the construction in 88b, they do not. The difference between the two constructions also appears to satisfy the contrast in 87d, in that we get plural agreement when the verb for 'and' and its two conjuncts form a constituent but singular agreement when they do not (note *yorou* 'they go' in 88a versus *norou* 'he goes' in 88b). These considerations suggest that Walman is an AND-language in Stassen's typology. It is not clear, however, that the difference between these two constructions in Walman satisfies the difference in 87a since one noun phrase is a subject, the other an object.

A more conspicuous difference between these two Walman constructions and the two constructions in all of the AND-languages Stassen discusses concerns the contrast in 87b, in that the same morphemes are used in both of the Walman constructions. This is one of the identifying features of WITH-languages. Stassen in fact discusses languages like Walman, and describes them as WITH-languages of an impure sort. He cites the examples in 89 from Hausa (obtained from Gerrit Dimmendaal, p.c.) as illustrating this.

(89) Hausa

- a. Audù yā zō **dà** ùba-n-sà.
 Audu 3SG.M.PAST come **with** father-LINK-3SG.POSS
 'Audu came with his father.' (Stassen 2000:28)
- b. Audù **dà** ùba-n-sà sun zō.
 Audu **and/with** father-LINK-3SG.POSS 3PL.PAST come
 'Audu and his father came.' (Stassen 2000:28)

The differences between these examples from Hausa parallel the difference between the Walman constructions in 88, except that the Walman words are verbs. It would appear, therefore, that Walman counts as a WITH-language on Stassen's typology.

But there is one thing that is somewhat unsatisfactory about simply classifying Walman as an impure WITH-language: even when the verbs for ‘and’ are separated by the verb from the first conjunct, as in 90, repeated from 83a above, they still have a meaning like that of English *and*.

- (90) **John** n-o ro<n>rani **n-aro-n** **Simon.**
John 3SG.M-be tall<M> **3SG.M-and-3SG.M** **Simon**
 ‘[John and Simon] are tall.’ (J)

Stassen implies that the ‘with’-meaning is basic in WITH-languages. In that respect, then, Walman appears not to conform.

Haspelmath (2004b:15) observes that there are two possible interpretations of the formal identity of words meaning ‘and’ and words meaning ‘with’ in WITH-languages:

On the one hand, one can argue that the comitative/conjunctive markers in WITH-languages have just one single function, which happens to be rendered in two different ways in AND-languages like English that must differentiate between ‘and’ and ‘with’. . . . On the other hand, one could argue that the comitative marker and the conjunctive marker differ synchronically, both semantically and syntactically, and that the identity of their shape is due to a very common semantic-syntactic change from comitative marker to conjunctive coordinator. Of course, it is quite possible (and actually very likely) that some WITH-languages are of the former type, while others are of the latter type.

It should be clear from the discussion in this article that there is little reason to think that the *and*-verbs in Walman are polysemous, since all uses are consistent with saying that these verbs always mean ‘and’. Walman is thus clearly not an instance of the second of the two types described by Haspelmath. But it is not clear that Walman fits his characterization of the first type either. It does not seem accurate to say that the meaning of the Walman verbs for ‘and’ is rendered in two different ways in English. There are clearly instances in which Walman sentences are interpreted in context as implying a sense that could be rendered in English by *with*. However, this is equally true of sentences with *and* in English. A sentence like 91 does not mean that John and Mary went to Toronto together, but there are contexts in which there is an implicature that they did.

- (91) John and Mary went to Toronto.

The same is apparently true for Walman sentences containing the verbs for ‘and’. Hence it appears that we can say that these verbs in Walman correspond most closely to the concept expressed by *and* in English.

Haspelmath (2004b) discusses a number of tests that can be used to determine whether words meaning ‘and/with’ in a language are monosemous or polysemous (with separate meanings ‘and’ and ‘with’), but the Walman data show that two of his tests are problematic. First, he argues that if an SVO language allows the word in question and a following noun phrase to occur either immediately after the subject or after the verb, then this implies that the word in the language is polysemous. But both possibilities occur in Walman, and there is no evidence of polysemy, because the meaning is still ‘and’ even when the verb for ‘and’ and the second conjunct follow the main verb, as in the examples in §5.2, and 88b and 90 above. Second, he argues that conjunctive constructions usually require plural agreement while comitative ones usually involve singular agreement, so if a language allows both possibilities, then the word is polysemous, although he notes that there are exceptions to this involving what are clearly comitative constructions that are associated with plural agreement. But Walman represents an exception of the opposite sort since it allows phrases that are interpreted conjunctively to be associated with singular agreement (see 81 to 85 above).

7. VERBS FOR 'AND' IN OTHER TORRICELLI LANGUAGES. While the main purpose of this article has been to document the properties of the verbs for 'and' in Walman, preliminary investigation of other Torricelli languages suggests that this feature may be widespread in this family. In some Torricelli languages, there is an intransitive verb used for noun-phrase conjunction, exhibiting only subject agreement with the first conjunct and no agreement with the second conjunct. In others, there is a transitive verb, like Walman. In three of the four other languages in the Wapei-Palei branch of Torricelli (the branch to which Walman belongs) from which we have collected data, namely Yeri (known in the linguistic literature as Yapunda), Sreengge (known in the linguistic literature as Aruop), and Mol (a previously undocumented language spoken in the village of Yanungen), the word for 'and' is a verb. There is also evidence of verbs for 'and' in dialects of Olo, another Wapei-Palei language. In the Somoro dialect of Olo, the intransitive verb *-(i)re* is glossed 'with' by Staley (1994), but has uses that suggest it functions like a nominal conjunction, as illustrated in 92.

(92) Olo, Somoro dialect³⁹

- a. [Metine **l-ire** moto] roum m-e liom.
man **3M-with** wife 3F.DU 3F.DU-go garden
'[The man and his wife], they two went to the garden.'⁴⁰
(Staley 1994:85)
- b. [Weli **l-ire** munkunum] te rounge miso t-insi
fire **3M-with** darkness they.M.DU M.DU APT 3M.DU-cover.up
route lo ma olo?
each.other.3M.DU OF IRREAL not
'[Fire and darkness], are they able to cover up each other or not?'
(Staley 1994:82)

Bukiyip Arapesh, in a different branch of the Torricelli family, also has what appear to be both intransitive and transitive forms of a verb for 'and', as illustrated in 93. In 93a, the word for 'and', *-nú*, bears a subject prefix *n-* agreeing with the first conjunct

³⁹ The Lumi dialect of Olo also has a verb with the meanings 'and, together with, also, too', which is phonologically similar to the verb *-(i)re* in the Somoro dialect but morphologically appears to have both transitive and intransitive forms (McGregor & McGregor 1982:78). Intriguingly, there is also another verb in the Lumi dialect, *-a<>si* 'lean up against, fasten to', that is used to conjoin nouns referring to things that are regarded as inseparable, as illustrated in (i)–(iv).

- Olo, Lumi dialect (McGregor & McGregor 1982:79)
- (i) Ki k-a<1>oi tēpe **k-a<n>si** nēmer.
1SG 1SG-drink<3SG.M> water **1SG-and<3SG.F>** milk
'I drink water and milk.'
- (ii) Ki k-ō<1>u nēmpē **k-a<1>si** orou.
1SG 1SG-see<3SG.M> tree **1SG-and<3SG.M>** mountain
'I see the tree and the mountain.'
- (iii) Ki k-a<n>po merio **k-a<n>si** tepal.
1SG 1SG-hit<3SG.F> mosquito **1SG-and<3SG.F>** table
'I hit the mosquito and the table.'
- (iv) Ki k-a<p>loi wapēne **k-a<1>si** sengke.
1SG 1SG-eat<3PL> taro **1SG-and<3SG.M>** pig.meat
'I eat taro with pig meat.'

Although this verb resembles the Walman *and*-verbs in that it is transitive and can be glossed as 'and' or 'with', it is in fact grammatically more serial verb-like than conjunction-like, since its subject reference is the same as that of the main verb rather than the first conjunct in the English translation.

⁴⁰ Third-person feminine dual agreement is used in 92a for agreement purposes: when two entities with different genders are grouped together in Olo, the default gender is feminine (Staley 1994:xi).

and has a lexical noun-phrase object as the second conjunct; the verb for ‘and’ also bears an irrealis prefix, further evidence of its status as a verb. In 93b, both conjuncts are represented solely by the affixes on the word for ‘and’, which is here in its short form, *-n-*, because it is followed by a pronominal suffix. In this example the verb appears to be transitive, with a subject prefix *m-* indexing the first conjunct and an object suffix *-anú* indexing the second conjunct; note the presence of a realis prefix, again evidence of its verbal status. The example in 93c is similar except that the object suffix *-ok* codes third-singular feminine object.

(93) Bukiyip Arapesh

- a. Kaman [Lumombuli **n-ú-nú** batowich]
 tomorrow Lumombuli **3SG.M.SUBJ-IRREAL-and** children
 ch-ú-nak Wiwek.
 3SG.MIX.SUBJ-IRREAL-go Wewak
 ‘Tomorrow [Lumombuli and his children] will go to Wewak.’
 (Conrad & Wogiga 1991:65)
- b. [**M-a-n-anú** m-o-nek-eny, . . .
1PL.SUBJ-REAL-and-3SG.M.OBJ 1PL-REAL-do-MIX.OBJ
 ‘[We and he] did it (the work) . . .’ (Conrad & Wogiga 1991:126)
- c. [Halipeim **n-a-n-ok** élmatok].
 Halipeim **3SG.M.SUBJ-REAL-and-3SG.F.OBJ** woman
 ‘[Halipeim and his wife]’ (Conrad & Wogiga 1991:64, 267)

What appears to be yet another occurrence of an intransitive verb for ‘and’ has also been reported in the westernmost Torricelli language, One (Donohue 2007:375).

Our conclusion that these words for ‘and’ are verbs in the other Torricelli languages is based entirely on the fact that they bear verbal affixes for subject and in some languages for object. Clearly, more detailed studies are required to determine to what extent they behave in other respects like the Walman *and*-verbs.⁴¹

8. POSSIBLE SOURCES OF THE *and*-VERBS IN WALMAN. The use of *and*-verbs thus appears to be widespread in the family, so it may be that the verbs for ‘and’ are quite old and potentially cognate, although without extensive comparative evidence it may be difficult to trace their origin. By contrast, it is also possible that the *and*-verbs in different Torricelli languages are not all cognate with each other, but that the specific nature of verb serialization in this family leads to the development of *and*-verbs, often from different sources. So while it is possible that the two *and*-verbs in Walman are related to each other, it is just as possible that they have arisen independently. If these two verbs are related to each other, a possible source might be applicativization. As mentioned in §1.1, the applicative morpheme in Walman is *-ro* ~ *-re*, so *-aro-* has the phonological shape of an applicative form of *-a-*. Apart from its form, however, *-aro-* shows no evidence of being applicative in origin. First, one of the objects of an applicative verb in Walman always has a benefactive, malefactive, or possessive reading, and

⁴¹ Nishiyawa and Kelen (2007:103) describe agreement on a conjunction *-o'on* in the Austronesian language of Lamaholot in Flores, in Eastern Indonesia, and note that four related languages of East Timor are also reported to have conjunctive agreement. In Lamaholot the conjunction *-o'on* agrees with the first conjunct, but unlike the *and*-verbs in Walman, sometimes occurs with default third-person singular masculine agreement regardless of the person and number of the first conjunct and also can conjoin predicates as well as noun phrases, suggesting that it has further grammaticalized as a conjunction. On Nishiyawa and Kelen’s (2007) analysis, *-o'on* is no longer a verb in Lamaholot. Nishiyawa (2007) also argues that the basic function of the *and*-verb in Lamaholot is comitative and not coordinative.

this is never the case for the object of *-aro-*. And second, if *-aro-* were an applicative *-a-*, it is not clear what the meaning of *-a-* would have been to allow it to add a benefactive or external possessor applicative such that both *-a-* and its applicative came to have the meaning 'and'.

A far more promising source for *-aro-* is a homophonous verb *-aro-* meaning 'take, touch, catch, grab, pick up', illustrated in 94.⁴²

- (94) To runon **n-aro-∅** ngotu n-ekele-∅ w-anan.
 then 3SG.M **3SG.M-take-3SG.F** coconut 3SG.M-pull-3SG.F 3SG.F-go.down
 'Then he grabbed a coconut and pulled it down.' (B)

It is possible that the verb *-aro-* 'and' originated from this verb, since if someone has grabbed or picked up or touched an entity, they must be in physical contact with that entity and thus be together with that entity. The example of *yaron* 'they take him' in 95 illustrates a use of the verb *-aro-* 'take, etc.' that is similar to *-aro-* 'and'.

- (95) Ngan n-orou n-aro-∅ nyue **y-aro-n** n-esi
 father 3SG.M-go 3SG.M-and-3SG.F mother **3PL-take-3SG.M** 3SG.M-go.out
 y-ikie-n n-an chalien.
 3PL-put-3SG.M 3SG.M-be.at outside
 'The father went with the mother and they picked him up and put him outside.' (B)

It is not immediately obvious that the verb *yaron* in 95 means 'take etc.' rather than 'and', since 95 might mean 'the father went with the mother and they and he [the son] . . .'. This possibility is excluded only by the fact that verb *nesi* 'go out' has a singular subject prefix, and if *yaron* had meant 'they and he', the verb following it would have required a plural subject prefix. But if the form *yesi* '3PL go out' had occurred, with a plural subject prefix, then *yaron* could have been ambiguous between 'they and he' or 'they picked him up', and the sentence could have meant either that the father and mother went outside with the son (all of them walking) or that the father and mother took him outside. In fact, the sentence in the actual text describes the parents' finding their son dead in their house, so context demands that in this instance *-aro-* cannot mean that the parents and the boy all go outside together, and the scenario in fact indicates that they took him outside and then did not stay with him. But the fact that *-aro-* can in principle be ambiguous between 'and' and 'take, etc.' illustrates how a verb meaning 'take, etc.' could be reinterpreted as a verb meaning 'and', possibly going through an intermediate stage meaning 'with'.⁴³ Verbs with a similar meaning have been documented as developing into comitative markers and thence conjunctions in

⁴² There is also a third homophonous verb *-aro-*, meaning 'to reach a place while en route to a further destination', illustrated in (i).

- (i) **K-aro** tot Nekir.
1PL-reach right.there Nekir
 'We reached the Nekir River.' (B)

It is less clear that this could be a source for *-aro-* 'and', or even a source for a verb with an intermediate comitative meaning, though it is possibly related to the verb *-aro-* 'take, touch, catch, grab, pick up', since reaching a place involves an entity moving toward that place and coming in contact with it, while grabbing, taking, picking up, and so on involves moving the hand toward someone or something and grasping it (coming into contact with it).

⁴³ There is a difference between these two verbs, however; the *and*-verb *-aro-* does not occur with first- or second-person objects, while the verb *-aro-* meaning 'take, etc.' does, although its stem with first- or second-person objects has a different form, *-aur*, for example, *w-p-aur* 'she grabbed me'.

some languages. Lord (1993:62) notes that some comitative markers in Niger-Congo appear to derive historically from verbs meaning 'hold, have, take', and Ameka (2006) illustrates this for Ewe. Lord and Craig (2004:360) make a similar observation about a verb meaning 'get, gather, collect' in Sgaw Karen, a Tibeto-Burman language.

A different line of explanation seems most likely for the other *and*-verb, *-a-*. We noted in §4.2 that there is a homophonous verb *-a-* 'use', illustrated in 61 above, and it seems most likely that the *and*-verb *-a-* is derived from this verb *-a-* 'use'. Walman sentences that employ the verb *-a-* 'use' are often most naturally translated using the English preposition *with* (in its instrumental rather than its comitative sense). But it is well documented that many languages employ the same morpheme for instrumental and comitative meaning (Stolz et al. 2005); the English preposition *with* is an obvious example of such. Hence a plausible scenario is that what was originally just an instrumental verb was extended to include comitative meaning as well, and was then further extended to take on coordinative meaning.⁴⁴

9. CONCLUSION. The data from Walman presented in this article have led to apparently contradictory conclusions. On the one hand, the evidence in §2 shows that at least some instances of the *and*-construction form noun-phrase constituents, like conjoined noun phrases in other languages. On the other hand, the evidence presented in §3 suggests that other instances of the *and*-construction do not form noun phrases, but involve a serial verb construction, with the first conjunct as subject of the clause and the *and*-verb as a serial verb at the clause level. The apparent conclusion is that we have to posit two separate constructions involving these verbs.

Based on the crosslinguistic evidence of the origins of coordinators in comitative markers (Haspelmath 2004a, Stassen 2000) and the syntactic structures of these constructions in Walman, it seems most likely that these verbs did originally have a meaning of 'be with', since the evidence presented in §3 showing that some instances of NP + *and*-verb + NP sequences are not constituents probably reflects that origin. In other words, the possibility of separating the *and*-verbs from their subjects could be explained if these verbs originally occurred only in serial verb constructions with the meaning 'be with'; under this scenario, the possibility of their occurring in serial verb constructions has survived, despite the fact that these verbs now mean 'and'. By contrast, the fact that other instances seem to form noun-phrase constituents, which appear in all environments in which noun phrases occur in Walman, could be interpreted as a later development, as an effect of their acquiring the meaning 'and'. But their changing into words meaning 'and' has not resulted in their losing verbal morphology. The fact that a clear majority of examples in texts are syntactically ambiguous in the sense that they could be analyzed either as noun phrases or as serial verb constructions, while apparently not being semantically ambiguous, probably plays a role in maintaining the two *and*-constructions as subconstructions of a single more general construction, allowing a core of features, particularly the morphological ones, to remain robust features of the construction.

⁴⁴ This scenario, however, violates a claim of directionality posited by Haspelmath (2004b): where morphemes cover both comitative meaning and instrumental meaning, it is normally the comitative that is extended to take on instrumental function. An alternative possibility consistent with his claim would be that the instrumental *-a-* in Walman and the *and*-verb *-a-* are both extensions of a comitative verb *-a-*. We suspect, however, that Haspelmath may be right as far as adpositions and case affixes are concerned, but perhaps not verbs.

As mentioned at the outset, although languages occasionally differ in what word classes they make and there are often idiosyncratic differences in word-class assignment, by and large, the extent to which languages differ in the word classes they have and the meanings associated with words in different word classes is remarkably small. So it is unusual, then, to find a language with a word-class assignment as anomalous as two verbs meaning 'and'. Perhaps the closest analog to the *and*-verbs in Walman is kinship verbs (Evans 2000), found in a number of languages in northern Australia and North America.⁴⁵ In these languages, words for expressing kinship relations exhibit certain properties of verbs. Like the Walman *and*-verbs, kinship verbs are crosslinguistically exceptional in that such meanings are more commonly expressed by nouns. In one sense, however, the Walman *and*-verbs are perhaps more unexpected. Kinship terms, and most meanings expressed by common nouns, have meanings that allow them, like verbs, to serve naturally as clausal predicates, and in languages with kinship verbs, these verbs can generally function as main verbs. But the *and*-verbs in Walman cannot function as main verbs (§4.2). This difference would appear to reflect the fact that nominal conjunctions differ semantically from verbs more fundamentally than nouns do. In predicate calculus, for example, nouns and verbs are both predicates, and both kinship words and transitive verbs are two-place predicates. And while there is no analog to nominal conjunctions in predicate calculus, they do not have the semantics of predicates: predicates combine with their arguments to form expressions that denote propositions, while nominal conjunctions combine with their conjuncts to form expressions that serve only as arguments of propositions.

Whenever a language exhibits a property that is unusual crosslinguistically, at least two questions immediately arise. Why is the property so unusual? And if it is so unusual, why does it arise at all? A plausible explanation for the rarity of verbs with the semantics of nominal conjunction is alluded to in the preceding paragraph: verbs combine with their arguments to form expressions that denote propositions, while nominal conjunctions combine with their arguments to form referring expressions. In other words, just as nominal conjunctions do not have the right semantics to serve as main verbs, main verbs do not normally have the right semantics to serve as nominal conjunctions. So why then do the Walman *and*-verbs exist at all? In the first place, nominal conjunctions share with transitive verbs the syntactic property of combining with two noun phrases. Semantically, nominal conjunctions exhibit considerable overlap with words implicating togetherness, and words meaning 'with' do combine with two nominal arguments to form expressions that denote propositions.⁴⁶ The fact that Walman makes extensive use of serial verb constructions to express meanings that other languages express by adpositions is probably crucial to explaining why it has verbs meaning 'and': it seems likely that these verbs originally did have meanings closer to 'with' in English, and that their meanings then extended to encompass the coordinative meaning of 'and'. Perhaps we find so few languages with verbs meaning 'and' because this may be the only way a verb meaning 'and' can arise, which would imply, then, that we would not expect to find a verb meaning 'and' in a language that did not make extensive use of serial verbs. However, this then raises the question of why there are not more serial verb languages that have verbs meaning 'and'. Perhaps more languages of this sort do

⁴⁵ We are grateful to Nick Evans for pointing out the similarities between the Walman *and*-verbs and kinship verbs.

⁴⁶ A transitive verb meaning 'with' is reported for Lewo (Vanuatu) by Early (1993:89).

exist, but they have not yet been documented, or they have been documented, but the phenomenon has been overlooked.

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