

PHRASAL EMOTION PREDICATES IN THREE LANGUAGES OF EASTERN INDONESIA

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0. Introduction

In many languages emotions are expressed by combining a verb with a body part noun, for example English *My heart bleeds* 'I am sad', and Choctaw *Nok-libisa* 'to have a hot neck' = 'to be in a passion'.

In this paper we examine similar noun-verb combinations in three related Austronesian languages of Eastern Indonesia: Kambera, Tetun,¹ and Buru, spoken on the islands of Sumba, Timor, and Buru, respectively. The data are from Klamer 1998, Van Klinken 1999, Grimes 1991 and Grimes, personal communication, July 2000.²

The noun in the VN combinations³ in these languages refer to actual body parts, for example, 'liver', 'waist', 'head', or to entities related to bodily functions, such as 'saliva' or 'breath', or to locational nouns that express bodily locations, e.g. 'inside' or 'back'.

(1) Kambera: *eti* 'liver', *ngaru* 'mouth', etc.:

hamu eti

be.good liver 'have a good liver' > 'be happy'

mbana ngaru

be.hot mouth 'have a hot mouth > be hot-tempered, malicious'

(2) Tetun *nawan* 'breath', *laran* 'inside', etc.:

nawan sa'e 'have ascending breath' > 'be angry'

breath ascend

laran moras 'have a sick inside' > 'be sad, upset'

inside sick

(3) Buru *lale* 'inside, content, character, desire, intention':

lale-n dofo

inside-Poss be.straight 'to have a straight inside' > 'be just'

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² The actual order of the verb and the noun is VN in Kambera, NV in Tetun, and variable in Buru, so whenever I use 'VN' in this paper, this is intended as mnemonic for "phrasal predicates formed by a combination of a verb and a noun – in any order".

³ Glossing conventions for the Kambera, Tetun, and Buru data: '1s.Subj', etc. marks the person, number and grammatical function of a pronominal clitic, 'App' = Applicative, Art = 'Article', 'Attr' = Attributive, 'Cau' = Causative, 'Cnj' = Conjunction, 'Coord' = Coordinator, 'Dei' = Deictic element, 'Dim' = Diminutive, 'Emp' = Emphasis, 'Imm' = Imminent, 'Impf' = Imperfective, 'Irr' = Irrealis, 'Loc' = Locational preposition, 'Mod' = Mood, 'Nom' = Nominaliser, 'Poss' = Possessive, 'Prf' = Perfective, 'Rel' = Relative clause marker.

Apart from describing emotions, the VN combinations also function to describe appearances of character or body. This paper will focus on those that express emotions.

We will see that, on the one hand, the VN combinations behave as a lexical unit: the two items form a semantic unit, with a conventionalized meaning that is not a literal sum of its parts, but is a metaphorically derived interpretation. In addition, the two items can also function as one base for morphological derivations, and can be expressed as a syntactic unit, a compound verb. On the other hand, they behave like syntactic phrases, because in the regular case, syntactic rules may manipulate both elements separately so that they are expressed as syntactically discontinuous elements. It is this paradoxical behaviour of the VN predicates that the present paper is concerned about. It pursues three aims:

- (i) to provide a typological overview of the VN predicates and their expression in three genetically related Austronesian (Central-Malayo-Polynesian) languages of Eastern Indonesia,
- (ii) to accommodate the paradoxical behavior of the predicates within a lexicalist view of syntax, and
- (iii) to propose a scenario for the grammaticalization of these emotion predicates.

The paper is structured as follows. In section 1, I show that the VN predicates in Kambara, Tetun and Buru are syntactically expressed in both continuous and discontinuous configurations. I argue that the discontinuous configuration is the one used most generally and productively. I also show that, while permitting syntactic separation, the VN predicates constitute single semantic words on a number of criteria. In section 2 I present semantic, syntactic and morphological evidence that the VN combinations can be analyzed as lexical units, paying particular attention to their behaviour in morphological derivation. In section 3 I address the question of how such phrasal predicates are to be accounted for within a lexicalist view of syntax. My proposal follows up on proposals made by Ackermann and Lesourd (1997) for Hungarian 'pre-verb verb (PV V)' combinations, and Jackendoff (1997) on idioms like *bury the hatchet*, that can be analyzed as metaphorical semantic compounds. Canonically, a lexical entry contains the specifications of only *one* item (e.g., a stem, or a derivational morpheme), and is always a zero-level syntactic item. In this paper it is proposed that a lexical entry must be allowed to contain specifications of two or more words, i.e. that a lexical entry can be a syntactic *phrase*. This accounts for the fact that the V and the N in the emotion predicates at hand are expressed as two separate syntactic constituents, while at the same time the VN predicate is being treated as one morphological and semantic unit. In section 4 I propose a historical scenario for the development of the VN emotion predicates.

1. Continuous and discontinuous syntactic expression of VN predicates

I propose that the conceptual structure of VN predicates like Kambara *hamu eti* 'have a good liver' > 'be happy', Tetun *nawan sa'e* 'have ascending breath' > 'be angry', and Buru *lale-n dofo* 'to have a straight inside' > 'be just' minimally includes the three entities in (4), which belong to the word classes in (5). For the sake of concreteness, I have entered the Kambara items from example (7).

- | | | | |
|-----|--------------------------|-----------------------|---------------------------------|
| (4) | a. STATE/EVENT | b. THEME | c. LOCATION |
| (5) | a. V | b. N | c. N |
| (6) | a. <i>mbaha</i> 'be wet' | b. <i>eti</i> 'liver' | c. <i>na maramba</i> 'the king' |

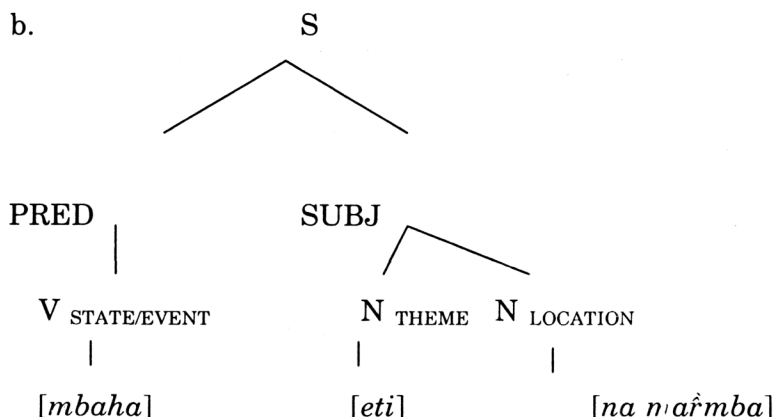
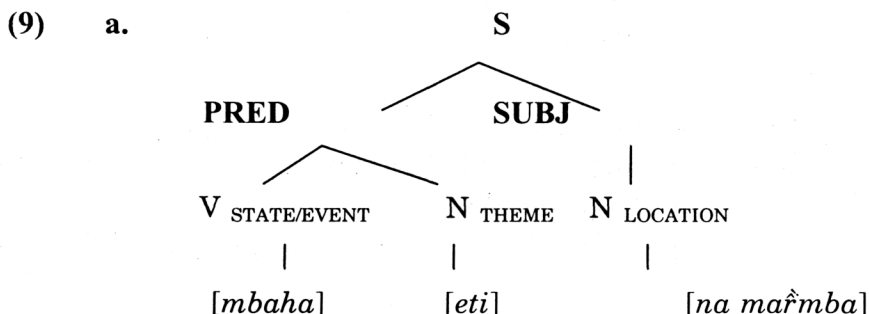
- (7) Mbaha eti -nanya_j -ka na maramba
 be.wet liver -3s.Subj -Prf Art king¹

'The king is pleased' (lit. 'The king has a wet-liver')

Syntactically, a clause with an emotion predicate such as *mbaha eti* 'have a wet liver' is an intransitive clause – a subject-predicate combination as in (8):

- (8) [PRED SUBJ] Clause

When the three lexical items of (4)-(6) are unified with the two syntactic functions in (8), the result can be either one of the two syntactic structures in (9):



Structure (9a) is illustrated in (7). Structure (9b) is illustrated in (10):

- (10) Mbaha -nanya -ka [na eti-na na maramba]
 be.wet -3s.Subj -Prf Art liver -3s.Poss Art king

'The king is (feeling) pleased' (lit. 'The king's liver is wet')

In (9a) and (7) we have a complex predicate that is made up of the verb and its Theme -- the body part noun. This is a synthetic construction: the predicate is (like) a compound verb construction, and has a lexicalized interpretation as expressing an emotion. In a clause with such a compound verb, the only argument that is left to become the grammatical subject is the locational argument -- the possessor of the body part.² This

¹ I assume that a locational argument in Kambera, Buru and Tetun can be grammatically expressed as nominal possessor or as oblique adjunct. Structural evidence for relating location to nominal possession in Kambera is presented in Klammer (1998a: 198-199).

² In Buru, a verbal compound can also be derived by incorporating an adjunct nominal (Instrument, Manner, Time, Location) in a similar way (Grimes 1991:231, 276, 339):

- (i) Da hai tu bohi-n bika-t
 3s follow with rear-3sPoss protrude-Nom
 'He followed with his bottom sticking out'

subject is interpreted as the experiencer of the emotion expressed by the predicate. In (8a) the subject of the clause is *na maramba* ‘the king’, the possessor of *eti* ‘liver’. In (8b) the subject of the clause is *na eti-na na maramba* ‘the king’s liver’.

In (9b) and (10) we have an emotion predicate whose V and N are expressed discontinuously. Here the syntactic predicate consists of one verb and the body part noun is expressed in a separate NP. In this case, the subject NP is made up of the Theme (the body part noun), and its Location (the possessor of the body part). The NP with the body part noun is the head, and it is modified – possessed -- by the following NP. Note, however, that the interpretation of (9b) is identical to that of (9a). That is, the *possessor* NP in (9b) is interpreted as the experiencer of the emotion. The emotion is expressed by the V and the possessed body part N, even though these belong to different constituents in syntax. In other words, the interpretation of the VN combination is always the same; whether it is expressed continuously or not.

In Kambera and Tetun, one and the same predicate allows for both possibilities. In Kambera the discontinuous expression is allowed for all types of body part nouns, while the continuous construction (where the N is incorporated into the predicate) is only possible when N= *eti* ‘liver’ -- compare (11b) with (7):

- (11) a. Mbana-nanya -ka na ngaru-na na maramba
be.hot-3s.Subj-Prf Art mouth-3s.Poss Art king
‘The king is (feeling) malicious’
- b. * Mbana ngaru -nanya -ka na maramba
be.hot mouth -3s.Subj-Prf Art king

In Tetun, both the continuous and the discontinuous construction are equally allowed without any apparent difference in meaning (Van Klinken 1999: 199-200). This is illustrated in (12a,b), where the auxiliary *at(u)* can, but need not, be positioned between the noun and the verb:

- (12) a. Nia at nawan sa’e onan
3s Irr breath ascend Imm
He is about to get angry
- b. Nia nawan at sa’e onan
3s breath Irr ascend Imm
‘He is about to get angry’

Van Klinken (1997:206-7) reports that all Tetun VN predicates may in principle be expressed as two separate syntactic constituents when they are modified by the auxiliaries *atu* ‘Irrealis’, *keta* ‘don’t’ and *sei* ‘still’, and the adverbs *hetak* ‘increasingly’ and *bei* ‘also’. In (13b), the negation *keta* intervenes between N and V, in (14b) it is the auxiliary *hetak*:

- (13) a. Keta neon kadolik
don’t emotion tremble

(ii) Da hai boh.biha-k
3s follow bottom protrude-App
He followed with his bottom sticking out

It is generally agreed on that the incorporation of adjuncts is a distinctly lexical process, not a syntactic one (cf. the discussion in Spencer 1995).

'Don't (let your) heart tremble'

- b. Emi neon keta kadolik
 2p emotion don't tremble

'Don't (let) your heart tremble'

(reconstructed on the base of 9.95 and 9.94, Van Klinken 1999:200)

- (14) **Nia hetak isin kreon**

 3s increasingly body thin

 He grew thinner

- b. Nia isin hetak kreon

 3s body increasingly thin

 He grew thinner

Van Klinken (1999:199) also mentions the fact that verbal modifiers directly precede or follow the predicate head in Tetun. That is, the pattern in (12b) is the regular pattern for complex predicates in Tetun, and the pattern in (12a), where a noun appears between the verbal modifier and the verb is only possible with emotion predicates. We analyse the latter pattern as one where the VN predicate, which is already a semantic unit, is also a syntactic unit -- a verbal compound. In the configuration in (12a) the auxiliary has scope over both N and V: *hetak* 'increasingly' modifies both *isin* 'body' and *kreon* 'thin', and not just *isin* or *kreon*. VN compound verbs are thus the syntactic reflex of the semantic unity of VN emotion predicates in Tetun.

Now that we have considered the patterns in Kambera and Tetun, let us finally turn to Buru. In Buru, too, VN emotion predicates can be expressed discontinuously in syntax, (15a), as well as appearing as a compound, (15b). In (15a) the V and the N are separate syntactic constituents: both are independent words, and the N *lale* is marked with a possessive suffix *-n*. In (15b) the V and the N form a compound. The first item *lala* now has secondary stress and its final vowel is reduced.

- (15) a. **Da 'lale-n 'dofu**
 3s inside-3sPoss be.straight
 b. **Da ,lal- 'dofu**
 3s inside be.straight
 'S/he is just'

The word order in the discontinuous construction is variable. It is unclear which factors determine this; it may be the valency of the base verb. If the verb is transitive, *lale-n* is the grammatical object and follows the V, as in (16)- (17). If the verb is intransitive, *lale-n* acts as the grammatical subject, and precedes the V, as in (18). However, in intransitive constructions the subject may also optionally precede the verb, as in (19), compare (15a) (Grimes, p.c. 2000).

- (16) transitive **Da foni lale-n**
 3s hide inside-3sPoss
 'He clams up'
- (17) transitive **Da bele-k lale-n**
 3s be.stupid-App inside-3sPoss
 'He is confused'

(18) **intransitive** **Da** *lale-n* **boho**
 3s inside-3sPoss be.bad
 He is evil/crazy

(19) **intransitive** **Da dofo** *lale-n*
 3s be.straight inside-3sPoss
 'He is just'

In other words, a phrasal emotion predicate retains the valency of the base verb and expresses the body part noun as either the grammatical object or the grammatical subject.

The compound emotion predicates are much more idiosyncratic. The first element of a Buru compound is phonologically reduced (its final vowel is lost and cliticizes to the second element, cf. *lale* > *lal* 'inside' in (15a-b)). As a rule, Buru compounds are (morpho-)syntactically left-headed, so that the category of the first element determines the category of the entire compound. Strictly speaking then, the compound in (15b) is a nominal compound. But it is interpreted as a verbal predicate. In other words, compounds like (15b) are exceptional in that not the first, but the second element is interpreted as the head.

Another idiosyncratic property of compound emotion predicates is that the order of the N and the V within a compound also appears to be variable in Buru. In some compounds the order is NV, as in (15b), in others it is VN, as in (20a). The analytic counterpart of (20a) has a variable word order, as in (20b).

(20) a. **Da sus-** **lale**
 3s be.difficult inside
 S/he is troubled

b. *Da susa lale-n* / *Da lale-n susa*
 3s be.difficult inside-Poss

(18) **Da** **lal-** **foni-k** **ii saa**
 3s inside hide-APP some thing
 S/he is keeping something secret (from us)

(19) **Geba** **lal-dofot**
 person inside be.straight
 'A just person'

However, while the analytic VN construction allows variation in word order (at least, when the V is intransitive), a Buru emotion compound is either VN or NV. And the choice for either order is idiosyncratic in the sense that no regular derivational process seems to be involved. Buru emotion compounds are thus conventionalized lexical units without a transparent structure. They are also lexical units in the sense that they may function as the base for further morphological derivations (section 2.3).

The conclusion of this section is that, though the VN emotion predicates in Kambara, Tetun and Buru are semantically a unit, in all three languages the phrasal syntactic expression of V and N is the regular, productive construction. This suggests that we need to posit a type of lexical items that consist of a two-word combination and is expressed as a syntactic phrase (or XP). This proposal will be further motivated in section 2 and 3.

In addition to their regular phrasal expression, the VN predicates may appear as compound verbs, without difference in interpretation. The formal characteristics of the compounds are different for each one of the three languages: Tetun emotion compounds are syntactically derived (compound NV predicates are derived when the auxiliary/adverb is moved one position to the left: [N [Adv/Aux V]] > [Adv/Aux [N[V]]]). In Kambera, emotion predicates are generally expressed in a phrase, and cannot become a verbal compound. However, when the verb combines with the noun *eti* the NV regularly becomes a compound. Kambera emotion compound verbs are thus lexically derived.

Finally, the compound verbs in Buru have so many idiosyncratic features that they must be considered as lexically listed items.¹

The data indicate distinct stages in the grammaticalization of emotion predicates in these languages. Tetun illustrates the initial stage, where the emotion compounds are the result of a syntactic movement. Kambera represents an intermediate stage, where the derivation of emotion compounds is lexically restricted (only allowed with one body part noun, *eti*) but yet regularly applicable on any V + *eti* combination. Buru represents the most lexicalised stage, where all the emotion predicates can be compounds, and the compounds are not (or no longer) transparently derived. A first summary is (21). Another summary are the diagrams in (43)-(46) at the end of section 3.

(21)	VN PREDICATES	
	Continuous syntactic expression (Compound)	Non-continuous syntactic expression (Phrase)
Tetun:	Compound verb [N V] _v is syntactically derived, by moving Aux/Adv. Regular and productive for all body part nouns. Syntactic compounds may become lexicalised.	Discontinuous syntactic expression: N , V Regular and productive for all body part nouns
Kambera:	Productive category when N = <i>eti</i> Lexically derived compound verb [V <i>eti</i>] _v	Discontinuous syntactic expression: V, N (including <i>eti</i>) Regular and productive for all body part nouns
Buru:	Unproductive but large category Lexically listed compound verb: [<i>lal</i> - V] _v or [V- <i>lale</i>] _v	Discontinuous syntactic expression N, V or V, N Regular and productive

2. VN emotion predicates are lexical units

Despite the fact that their preferred expression is as two separate syntactic units, the VN emotion predicates constitute single semantic units on a number of criteria: semantic, syntactic and morphological.

¹ There is no reason to assume a syntactic incorporation of *eti* for the instrumental derivations, as standard analyses of syntactic incorporation assume that it takes place for reasons of case. In such a scenario we would expect *eti* to incorporate in the applicative derivation as well, contrary to fact.

Semantically, they are non-compositional – the verb and the body part noun jointly express *one* emotion, and together have *one* experiencer argument (the possessor of the body part). This interpretation is based on the metaphor that a person's emotional experiences are an event or state of a part of his/her body. Obviously, the metaphor is completely conventionalized – no Kambera speaker would e.g. think that a malicious person literally has a hot mouth, just like no English speaker would think that sadness literally involves a broken heart.

The syntactic fact that the body part nouns in such emotion predicates cannot be modified (e.g. by an adjective or a quantifier) is also a reflection of their non-referential, metaphorical status, and the lexicalised status of the predicates they belong to.

Morphologically, the VN combinations are treated as a unit when they are the bases of morphological derivations. They *can* be morphologically derived, in spite of the fact that the derived forms may still express V and N as separate constituents in syntax. In the remainder of this section we consider the morphological evidence that VN predicates are lexical units, first for Tetun (2.1), then for Kambera (2.2), and finally for Buru (2.3).

I assume some version of a lexicalist theory of morphological derivations. In a lexicalist theory it is hypothesized that:

- (i) morphological derivations are carried out in the lexicon, not in syntax (the Lexicalist Hypothesis), and
- (ii) syntactic rules neither analyze nor alter word-internal structure (the principle of Lexical Integrity) (cf. Ackerman and LeSourd 1997).

These hypotheses explain the basic and fundamental distinctions between words and affixes. For example, Lexical Integrity accounts for the fact that words are syntactic atoms, while affixes are not. In other words, words can be affected by rules of syntax, as in (22a), while affixes cannot, as illustrated by (22b):

- (22) a. **This sentence is ungrammatical > Ungrammatical is this sentence**
 b. * Un- is this sentence grammatical, * Grammatical this sentence is un-,
 etc.

The Lexicalist Hypothesis accounts for the fact that syntactic processes treat derived and underived words as atoms. This implies, for instance, that syntactic rules do not apply in the lexicon, and that syntactic rules cannot 'look into' the morphological structure of a word. In other words, lexicalists assume that morphological derivation is distinct from syntactic derivation.

Apart from defining the relation between syntax and morphology, lexicalism also assumes specific restrictions on the relation between morphological operations and lexical entries. For example, it is commonly assumed that only *lexical* rules may alter or determine information about the argument structure and valence of a word. In other words, causative and applicative affixes are part of *lexical* derivational rules, because they change the argument structure of their base. Another common belief is that morphological objects exhibit lexical integrity, that is, they should not be separable in syntax -- they are units that cannot be broken up by syntactic rules. (See Ackermann and Lesourd 1997 and the references cited there).

In the following sections, I show that VN predicates in Tetun, Kambera and Buru can be morphologically derived to become causative, applicative, or instrumental verbs. These are assumed to be lexical processes because they manipulate the argument structure of

the base. As the bases of such lexical derivations, the VN combinations are also lexical, morphological objects. But, as we will see, at the same time, they do not behave like proper lexical items, because in syntax the V and the N constitute separate constituents. In other words, the VN predicates are lexical items, but they are special because they do not exhibit lexical integrity and are not syntactic atoms.

2.1. Tetun

In Tetun, the VN predicates can be the base for causativization. Tetun causatives can be periphrastic with the verb *halo* ‘make, do’, or morphological, with the prefix *ha-*. The VN predicate may be the base for both types of causative (Van Klinken 1999: 199). However, both constructions have a different word order. In the periphrastic causative, the word order of the base predicate is retained, as in (23a-b), while in the morphological causative it is reversed (NV > VN), as in (24a-b).

- (23) a. **nawan** **mohu**

breath finished ‘be furious’

b. Oan ne’e n-**alo** ha’u **nawan mohu** liu

Child this 3s-make 1s breath finished further

‘This child makes me furious’
- (24) a. **matan wa’ i**

eye grow ‘wide awake’

b. Ita hakdiuk hodi **ha-wa’ i** **matan**

1Pl eat play Coord Cau-grow eye

‘We eat snacks to make (us) wide awake’

These facts are interpreted as follows. The periphrastic construction in (23) treats the NV predicate as a single, embedded, complex predicate (a compound verb?). The causative derivation in (24), however, treats V and N as separate syntactic constituents. The word order is changed, which is evidence that what we are not dealing with a compound in (24) (Van Klinken 1999:199; see also p. 84 on compounds) but rather with a construction where the V is causativized and inflected, while the N functions as an independent NP (the object). This NP is obligatorily present.

In sum, then, the emotion predicates in Tetun are lexical units because they function as the bases for productive causativization. The periphrastic causative seems to take a compound verb as its input. But the morphological causative has a phrasal base: though both V and N are the base for this morphological derivation, they are expressed as separate constituents in syntax. The fact that a morphological (prefixing) derivation takes a phrase as its base is evidence that this phrase is indeed available in the lexicon, and is a lexical entry, just like a word or a morpheme is.

2.2. Kambera

Kambera VN predicates, in particular those with N = *eti*, can function as the bases for the derivation of causative, applicative and instrumental verbs. We first consider the causative and applicative derivations.

Causativization is a very productive process in Kambera. Both intransitive and transitive verbs are transitivized with the causative prefix *pa-*. For example, the stative verb *ñmu* ‘be good’ becomes *pa-ñmu* ‘cause X to be good’, i.e. ‘improve/restore/relieve X’. In a similar way, the intransitive emotion predicates can also be the base for causativization:

- (25) Na-pa-*h̃*mu (*eti) -ya ; [na eti-nggu nyungga]_i
 3sSubj-Cau-be.good (liver) -3sObj Art liver-1sPoss I
 'He relieves my heart' (lit.: 'He causes my liver to be good')

Observe that in the causative construction, the noun *eti* must be expressed as a separate (object) NP, and cannot be incorporated into the predicate. This is the general pattern in Kambera, which does not employ a process of productive noun incorporation (Klamer 1998, chapter 7). The indices represent the fact that the NP containing *eti* is marked on the predicate with a pronominal element. In the normal case, such crossreferenced NPs are optional, but now *eti* is involved, the NP is obligatorily present. This indicates that *eti* is part of the VN base of the causative derivation.

Kambera applicatives are derived with the suffix *-ng*, e.g. *pa-*h̃*mu-ng* 'cause (X) to be good for Y' in (26). The nasal suffix is only visible in certain contexts, and for morpho-phonological reasons it disappears when the verb is inflected for its (applicative) object (see Klamer 1998, section 6.2, for an account of this alternation).

- (26) Na- pa-*h̃*mu (*eti) -ngga eti nyungga
 3sSubj-Cau-be.good (liver) -1sObj(App) liver I
 'He makes me happy/relieved' (lit.: 'He relieves (for) me (my) liver')

Again, the noun *eti* is not incorporated into the predicate, but expressed as a separate, but obligatory NP. In other words, though *eti* is an integral part of the and morphological base of both the causative and applicative derivation, in syntax it is always expressed as a separate constituent.

In the instrumental derivation, on the other hand, V and N are kept together as a compound verb. Kambera instrumental verbs are derived by compounding a transitive or intransitive base verb with the verb *w̃(ngu)* 'use', as illustrated in (27). (The final syllable *ngu* is visible in e.g. the infinitive form of the verb, but disappears with object marking, cf. (28b).

- (27) palu 'hit X' > palu wa(ngu) 'hit X using Y'
 kamakih 'be embarrassed' > kamakih wa(ngu) 'embarrassed because of Y'

Normally, the object(s) of an instrumental derivation (i.e., the Instrument, and, if the base is transitive, the Theme) are expressed as separate NPs and are not incorporated into the predicate. Example) illustrates this for the derivation of instrumental *palu wangu* 'hit X with/using Y': neither the object *tau* 'person' nor the instrument *hurung* 'spoon' can be incorporated into the predicate, cf. (28c,d):

- (28) a. Palu wangu hurung
 hit use spoon
 'Hit (it) with a spoon'
- b. Palu w̃-nya_i hurung [n i tau nuna]_i
 hit use-3sObj spoon Art person that.one
 'Hit that person with a spoon'
- c. * Palu hurung/tau wngu tau/hurung
 hit spoon/person use person/spoon
- d. * Palu tau/hurung w̃-nya na hurung/tau nuna
 hit person/spoon use-3sObj Art spoon/person that.one

The same is true when the base verb is intransitive. In the instrumental derivation of *kamakih* 'be embarrassed' the instrument *ana* 'child(ren)' cannot be incorporated:

- (29) Ta- kamakih (*ana) w̃ngu ana-nda
 1pSubj- be.embarrassed child use child-1pPoss
 'We are embarrassed about our child(ren)'

Kambera VN emotion predicates with *eti* can be derived to become instrumental predicates:

- (30) kudu eti w̃(ngu) 'be disappointed with Y'
 ('have a small liver with Y')
 bata eti w̃(ngu) 'be shattered because of Y'
 ('have a broken liver with Y')
 jangga eti w̃(ngu) 'be arrogant because/towards Y'
 ('have a high liver with Y')
 h̃mu eti w̃(ngu) 'be happy together with Y'
 ('have a good liver with Y')
 karau eti w̃(ngu) 'be angry because of Y'
 ('have a dark liver because of Y')

Above we saw that the regular pattern in Kambera is not to incorporate nouns. In contrast to this, we find that the instrumental derivation of VN predicates expresses the noun *eti* as part of the predicate, (31a). It cannot occur as a separate NP (31b).

- (31) a. Na- jangga eti w̃ -nda
 3sSubj- be.high liver use -1pObj
 'He behaves arrogantly towards us' (lit. 'He has a high liver with us')
 b. * Na- jangga w̃ -nda (na) eti (-na)
 3sSubj- be.high use -1pObj Art liver -3sPoss

In sum, then, though Kambera derivation generally does *not* involve noun incorporation, the instrumental derivation of an emotion predicate with *eti* expresses V and N as a verbal compound.¹ At the same time, however, the causative and applicative derivation of emotion predicates do *not* involve noun incorporation; in such constructions *eti* can only be expressed discontinuously.

The conclusion is that, while the same VN construct is the base for all three derivational processes, the regular syntactic expression of the noun is as an independent NP. In other words, not the compound verb with *eti*, but the phrasal construction is the base for the causative and applicative derivation. Kambera does not productively derive verbal compounds by noun incorporation; and causative, applicative or instrumental derivations are not normally fed by noun incorporation either. Thus, the fact that *eti* is incorporated in the instrumental derivation must be marked as exceptional in the lexicon. In other words, the instrumental derivation of emotion predicates has the compound verb [V *eti*] as its input, while the causative and applicative derivations of the emotion predicates have a phrasal base.

2.3. Buru

¹ The data in this section are from Chuck Grimes (personal communication, 2000; Grimes (1991:137-138)).

Buru VN predicates¹ can be the base of causative, applicative, and instrumental derivations, as well as be the base for the 'attributive' derivation which derives adjective-like modifiers of nominal elements.

The base of a Buru causative derivation is normally a root form like *gosa* 'be good' > *pe-gosa* 'to heal'. Buru VN emotion predicates can also be causativized. The base for the causative derivation may be a VN compound, as in (32), or a phrasal construction, as in (33).

- (32) a. **roi** **lale**
 be.small inside 'have a small inside'
- b. ep-ro.lale
 Cau-be.small inside
 'be discouraged, humiliated'
- (33) a. **Da dofo** **lale-n**
 3s be.straight inside-3sPoss
 'He is just'
- b. Da pe-dofolale-n
 Cau-be.straight inside-3sPoss
 'He reformed himself' (lit. 'He straightened his insides')

The instrumental derivation always takes the VN phrase as its base:

- (34) a. **Da bele-k lale-n tu ringe**
 3s be.stupid-App with 3s
 'S/he is confused with him/it'
- b. * Da lal.bele-k tu ringe

Applicative (35) and attributive (36) derivations take the VN compound as their base:

- (35) a. **Da foni lale-n**
 3s hide inside-3sPoss
 'He clams up'
- b. Da lal.foni-k ii saa
 3s inside hide some thing
 'She is keeping something secret (from us)'
- (36) a. **Da lale-n dofo / Da lal-dofolale-n**
 3s inside-3sPoss be.straight
 'S/he is just'
- b. Ringe geba lal.dofot
 s/he person inside be.just-Attr
 'S/he is a just person'

When a VN predicate is the base for both a causative and an applicative derivation, the base is a compound (37b). But when that verb is put in a sentential context, a final

¹ In the following diagrams, the structure of lexical entries is not dealt with in any technical detail. For example, I have collapsed Lexical Syntactic Structure and Lexical Phonological Structure (Jackendoff 1997) in the box 'Structure'. In this paper I am only concerned with pointing out the existence of verbal phrases and verbal compounds as lexical entries. The diagrams are meant as a summary of the various lexical properties of the emotion predicates in the languages at hand.

(37) a. lale gosa
inside be.good 'have a good inside'

b. ep-lal.gosa-k
Cau-inside be.good-App

c. Da ep-lal.gosa-k geba di lale-n
3s Cau-inside be.good-App person Dei inside-3Poss
'S/he pleased that person' (lit. 'She caused that person's

2.4. Summary and conclusion

We have also seen that in Tetun, Kambera, and Buru, one and the same emotion predicate can in principle be expressed in syntax both analytically *and* synthetically, without any apparent semantic differences between the two configurations. That is, the interpretation of the VN predicates does not depend on their surface realization as continuous or analytical. The conclusion is then that both the analytic and the synthetic realization of the VN predicate go back to the same lexical conceptual structure (LCS). I will return to this in the next section.

3. The lexical representation of VN predicates in Kambera, Tetun, Buru

The ambiguous behavior of the VN emotion predicates as morphological units that are also syntactic phrases is a problem for any linguistic theory that adopts some version of Lexicalism. A lexical item is lexically represented with the information that uniquely identifies it, and cannot be derived by (syntactic) rules. Canonically, the lexical information will concern only one morphological item (a morpheme which is either a zero-level syntactic item, or an affix). But the VN predicates at hand are lexical units that consist of two zero-level syntactic items, a V and an N. The standard case of a lexical unit that consists of two words is, of course, a compound. But we have seen that for the emotion predicates at hand, V and N are *not* regularly expressed as a compound, but rather as distinct clausal constituents. Yet, both types of expressions have the same

As mentioned above, I assume that there is one Lexical Conceptual Structure (LCS) for the VN emotion predicates which is the basis for the analytic *and* synthetic expression of these predicates. The conceptual structure of the VN predicates in Kambara, Tetun and Buru minimally include three semantic entities of the following type (see also (4), (5) and (6)):

- | | |
|---------------|-----------------------|
| | |
| [body part N] | [possessor body part] |

In emotion predicates, the Theme is standardly a body part noun, while the Location is the possessor of that body part. These conceptual entities are subject to the metaphor that a person's emotional experiences are an event or state of a part of his/her body; and have been conventionalized and lexicalised as expressions of an emotion. This can be seen as a kind of metaphorical semantic composition on the level of LCS, by which a new LCS is derived with two instead of three entities:

- (39) Basic LCS: Event/State Theme Location
[body part N] [possessor]
metaphorical composition

Derived LCS:	Event/State	Experiencer
--------------	-------------	-------------

We have seen that the emotion predicates regularly express V and N as distinct clausal constituents. Thus, the Theme and the Location of the basic LCS are projected into syntactic argument positions, and a regular clause is derived, where the Theme becomes the subject of the clause, and the Location is interpreted as the possessor of the subject.

- | | | | | |
|-------------|----------------|--------------------|--------------------------|--------------------------|
| (40) | LCS: | Event/State | Theme | Location |
| | | | | |
| | Syntax: | V | NP_{SUBJ} | NP_{POSS} |

Note that in this analysis, the metaphorical interpretation of the emotion predicates is a conceptual process that is not reflected in their syntactic expression. That is, though the emotion predicates are *interpreted* as a predicate with a single argument (the experiencer of the emotion), in syntax, the emotion predicate still has the same two arguments that it has in its basic LCS.

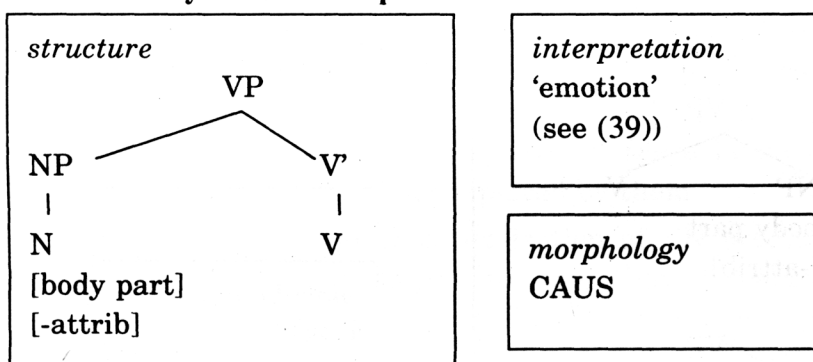
This analysis assumes that the analytic expression of the emotion predicates is the most regular and productive one, because it matches conceptual and syntactic arguments directly. And this is what we found to be the case in Tetun, Kambera and Buru: in all

[body part]

[-attrib]

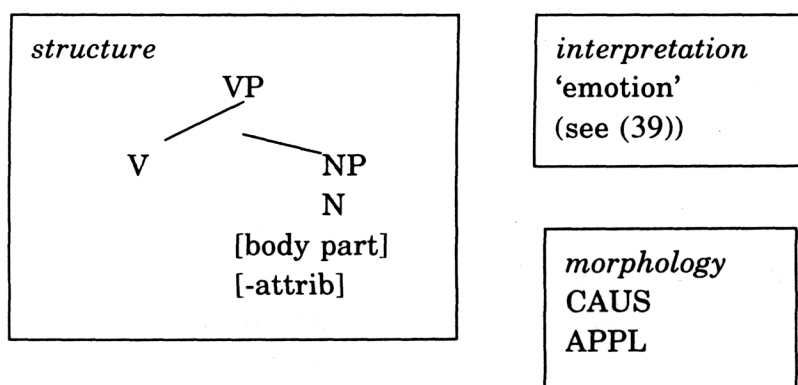
However, VN emotion predicates in Tetun must be lexically listed, because they have various special features. First, their special metaphorical interpretation, second, the fact that the N is unlike other nouns because it must be a body part and cannot be modified by other attributes such as nouns, adjectives or verbs. Neither can it be moved by syntactic rules like topicalization (Van Klinken, p.c., 2000). Finally, the VN predicate can be the input for morphological rules. In sum, the lexical entry for emotion predicates in Tetun is a phrasal item, a VP, as in

(44) Tetun: lexical entry for emotion predicate is VP¹



The lexical entry for emotion predicates in Kambera is also a VP. For Kambera, the same argumentation applies as for Tetun: the special interpretation of the VP, the fact that the N must be a body part and cannot be modified by other attributes nor moved by syntactic rules, and the fact that the VN predicate can be the input for morphological rules such as causative and applicative derivation:

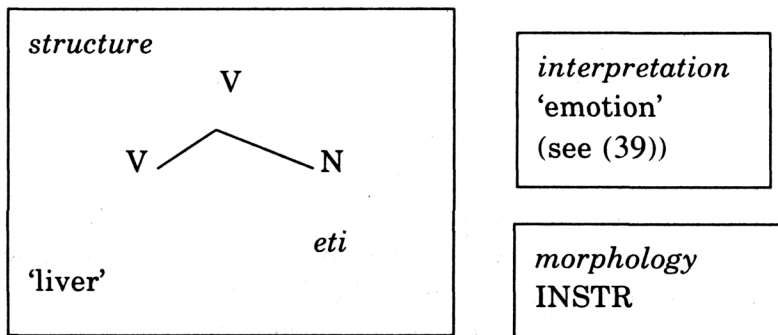
(45) a. Kambera: lexical entry for emotion predicate is VP



But unlike Tetun, Kambera also has lexically listed compounds to express emotions. The N in these compounds must be *eti* 'liver', the V can be any verb. This compound is the input for the instrumental derivation.

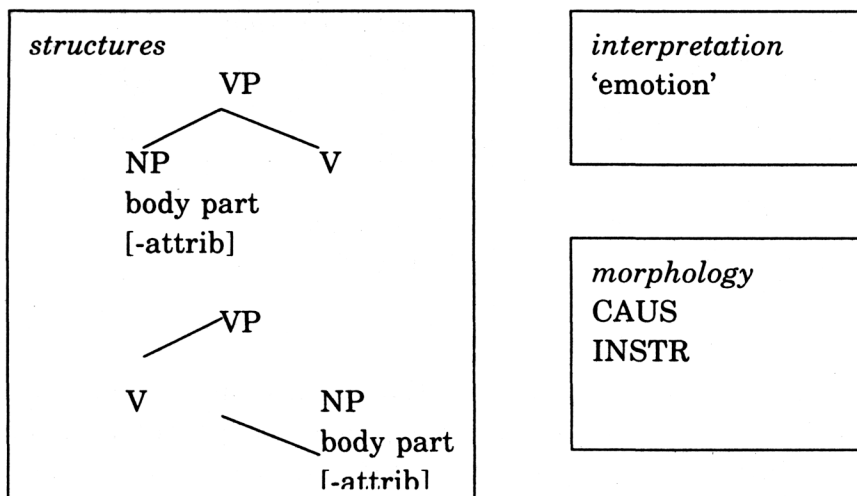
b. Kambera: separate lexical entry for emotion compounds

¹ Chomsky and Nguyen Tai Can used the criterion [\pm count] to classified nouns. This is, however, in their works, not used at level (1) but lever (2) and level (n).

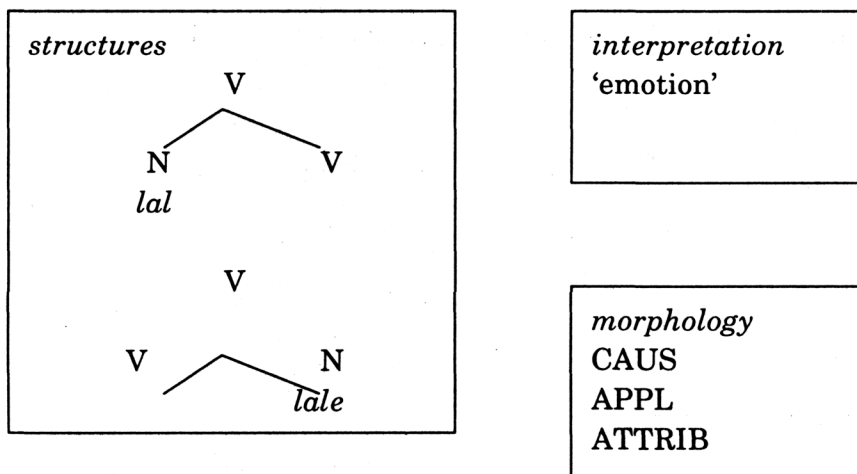


Buru is similar to Kambera; it also has lexically listed VPs and Vs for emotions. The word order within VPs and in compounds is variable.

(46) a. Buru: lexical entry for emotion predicate is VP



b. Buru: lexical entry for emotion predicate is V



4. The historical development of the VN emotion predicates

The account above assumes that in Kambera, Tetun and Buru the analytical syntactic expression of VN emotion predicates is the regular and productive one, while the synthetic (compound) structure is a derived structure which involves lexical noun incorporation and results in a syntactic valency change.

This accounts for the fact that, synchronically, the analytic expression is always available, whereas the availability of the synthetic construction is much more restricted, and varies per language and per item: Tetun incorporates all body part nouns, Buru seems more selective, and Kambera only incorporates *eti*.

In grammaticalization studies, it is commonly observed that synchronic derivational morphology may be the reflex of a historical change. For the VN predicates at hand, this suggests a historical scenario where they originated as simple subject-predicate combinations with a metaphorical interpretation of V and N as a single emotion predicate. The metaphorical interpretation became conventionalised and idiomatic, first leading to the lexical listing of phrasal expressions with combinations of verbs and body part nouns (VPs), and then to the reinterpretation of VP into compound V. The VP lexical items could subsequently be the base for morphological derivations such as causative, applicative and instrumental. But at the same time, the syntactic structure belonging to the original, literal interpretation of the predicates, remained available.

In other words, in Kambera, Tetun and Buru, the grammaticalization of VN emotion predicates started off with a *semantic* reinterpretation (a metaphor), not with the reinterpretation of syntactic structure or other surface patterns. In fact, the VP emotion predicate is surprisingly robust and productive in these languages. Though it may be supplemented by V compounds, it is not replaced by them.

With the observation that the grammaticalization of VN predicates started off with a semantic reanalysis I do not imply to say that I believe that this is how grammaticalization in general takes place. Elsewhere (Klamer 1999b, 2000) I compared the grammaticalization of verbs into complementisers in Kambera, Buru, and a third Eastern Indonesian language, *Tukang Besi*. I concluded that the change of verbs into complementizers must have started as syntactic reanalysis which resulted in a lexical change, where a verb lost an argument.

It seems, then, that we cannot generalize about the starting point of grammaticalization. For some phenomena, it is triggered by semantic reinterpretation, for other phenomena, the trigger is syntactic reanalysis. Thus, the question to ask is not: "Does grammaticalization start off with syntactic reanalysis or semantic reinterpretation?", but rather: "When does grammaticalization start off as semantic reinterpretation, and when as syntactic reanalysis?"

In this paper we have seen an instance of grammaticalization resulting from applying an emotion metaphor to the combination of a verb and a body part noun. We have also seen that the most interesting results of this grammaticalization process are not found in syntax, but in the lexicon: while the syntactic expression of the emotion predicates generally follows canonical rules of syntax, the lexica of Tetun, Kambera and Buru now feature interesting new types of items that they did not have before: a lexically listed VP, alongside compound Vs that are derived from it.

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GIAO TIẾP VÀ SỰ PHÁT TRIỂN CỦA HÀNH VI PHÁT ÂM Ở THỜI KỲ TIỀN NGÔN NGỮ CỦA TRẺ EM NGƯỜI VIỆT

(TÓM TẮT)

Nguyễn Huy Cẩn

Thời kỳ tiền ngôn ngữ thường được hiểu là thời kỳ trước khi đứa trẻ dùng ký hiệu ngôn ngữ để giao tiếp. Chúng tôi cho rằng thời kỳ tiền ngôn ngữ ở trẻ em Việt Nam từ sơ sinh đến khoảng 12 tháng tuổi.

Nghiên cứu về giao tiếp của đứa trẻ ở thời kỳ tiền ngôn ngữ ngoài việc xác định tính chất của các âm tố phát ra của đứa trẻ ta còn tìm kiếm các mối quan hệ và các bước chuyển từ hành động, cử chỉ đến ký hiệu.

Ở đây, để tìm kiếm và định vị các phương tiện giao tiếp (cử chỉ, sự biểu hiện về mặt, hoạt động của tay và thân thể và các hoạt động phát âm của đứa trẻ), chúng tôi không chỉ tiến hành phân tích mối quan hệ giao tiếp của bộ ba:

Trẻ ----- đối tượng -----người lớn

(sự vật, hiện tượng) (hoặc các trẻ khác)

mà còn tìm hiểu các nhân tố kích thích đối với sự hình thành các phương tiện giao tiếp; trong đó đặc biệt chú ý phân tích sự phát triển ý định giao tiếp của đứa trẻ, sự biến đổi về mặt chức năng của các phương tiện cảm giác - vận động (Senso - motor) và của các hành vi phát âm của đứa trẻ, sự hình thành các phương tiện giao tiếp đầu tiên và những cơ sở cho sự hình thành và phát triển các kiểu cấu trúc câu sau này của đứa trẻ. Cứ liệu được rút ra từ những quan sát trực tiếp các hành vi giao tiếp giữa trẻ và người lớn trong các hoàn cảnh điển hình như : trong lúc chơi, trước và sau bữa ăn. Để xác định một cách chính xác hơn hành vi giao tiếp của đứa trẻ ở những trường hợp khi xác định tính chất của hành vi, chúng tôi tiến hành các thí nghiệm lặp lại nhiều lần các hoàn cảnh chăm sóc trẻ, các tiếp xúc người lớn và trẻ.