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Source: Proceedings of the International Workshop on Information Structure of Austronesian Languages, 10 April 2014, pp.139-158.

Published by: ILCAA, TUFSS

Permanent URL: <http://hdl.handle.net/10108/75989>

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Information structure in Takivatan Bunun: topicality and the role of ellipsis

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This paper will give an overview of the various grammatical mechanisms in Takivatan Bunun that are involved in the realization of topicality and topic continuity. I will argue that such an account needs to allow for the occurrence of multiple topics per clause. Takivatan is typologically uncommon in that it allows for the deletion of almost all elements in a clause, both free and bound, that can be recovered from the discourse context, with the exception of the verbal root and some associated bound morphemes. Section 4 will discuss the role that the non-expression of information plays in the realization of topical and non-topical information.

1. Introduction

1.1. Takivatan Bunun

Bunun is one of the Austronesian languages spoken on Taiwan. As far as the historical record goes back, the Bunun have been hunters living in the mountainous interior of the country. The exact relationship of Bunun to other Austronesian languages of Taiwan (often referred to as Formosan languages) is not yet resolved (Tryon 1995).

There are five dialects, subdivided in the three dialect groups. Takivatan, together with Takbanuað, belong to the Central group; Isbukun, the largest dialect, is the only member in the Southern group; and Takibakha and Takituduh form the Northern group. These groups were already recognized more than a hundred year ago by Ogawa & Asai (1935) and are linguistically well-motivated (see De Busser 2009:85–91). Important to the discussion at hand, there are marked morphological differences between the dialects, and it is expected – though not investigated in sufficient depth – that this also the case for syntax.

1.2. Some theoretical preliminaries

Focus. The term *focus* does, especially in descriptions of Western Austronesian languages, often refer to “a system of verbal cross-referencing that is peculiar to a sizeable group of Austronesian languages of Taiwan and the Philippines. This system is used for expressing functional relationships between the predicate and pragmatically privileged arguments in the predicate-argument complex” (De Busser 2011:526). This idiosyncratic use of the term does not correspond to the concept of focus as introduced by the Prague School and later applied to the study of information structure (see e.g. Lambrecht 1996 or Van Valin & LaPolla 1997). This term was mainly introduced to

stress that in Philippine-type languages, the alternations between different cross-referencing options are not equivalent to voice (e.g. active-passive) alternations in traditional Latin grammar, but since it is confusing in the context of information structure, I will here avoid it for reference to argument alignment.

Pivot. Instead, I will use the terms *pivot* to refer to the syntactically and pragmatically privileged argument of a clause, and *pivot marker* or *alignment marker* for referring to the cross-reference markers on the verb that raise a certain argument into pivot position. The pivot of a clause is the pragmatically and syntactically privileged argument that is cross-referenced by argument alignment morphology on the verb. In clauses without extraposition, the pivot tends to be the primary topic of the clause.

The concept of a pivot arose in research on ergative alignment systems, and originally mainly functioned as a syntactic device (Heath 1975; Dixon 1979; Dixon 1994; see also Foley 2007:389–402 for a short overview). For Dixon (1994), languages use morphological marking, position, or other grammatical strategies to put certain types of arguments (S and A in accusative systems; S and O in ergative systems) in a grammatically privileged position in order to make them accessible to certain syntactic operations, such as relativization and subject deletion in clause combining.

Foley & Van Valin (1984) extended the idea of pivot in the pragmatic domain and argue that the typologically unusual Philippine-type alignment systems, which allows for three to five types of arguments to be cross-referenced on the verb, arose because topics partly grammaticalized into syntactic pivots (1984:134–148). It has since been used in a number of works on Western Austronesian morphosyntax, e.g. Himmelmann (2002), Ross (1995); see also Brill (this volume).

Topic. The topic of a clause (or sentence) is often simply defined as “the thing which the proposition expressed by the sentence is about” (Lambrecht 1996:118; see also Dik 1978:141). It encodes a referent and in most clauses without extraposition corresponds to the syntactic pivot.¹ Unless clearly indicated otherwise, the term topic in this paper refers to the clausal topic, as opposed to the discourse topic (see Lambrecht 1996:117).

Internal vs. external topic. For the purpose of the analysis of Takivatan Bunun, we will make a distinction between a clause-internal and a clause-external, or extraposed, topic.² The former refers to topical arguments that fulfill a normal grammatical function within a clause, occur in their predicted position inside the clause and exhibit a whole range of grammatical properties typically associated with that position within the clause.

The clause-external topic is a topical argument that, usually for reasons to do with pragmatic stress, has been moved in front of their matrix clause by using one of two topicalization constructions. Clause-external topics might or might not correspond to the clause-internal topic, but in Takivatan – unlike languages like Japanese – they must always correspond to an actual participant in their matrix clause, i.e. it must be possible to express them as an argument of some sort in the matrix clause without changing the intended meaning of the matrix clause.

¹ This relationship between syntactic pivots and topics exists because in certain languages the selection of pivots is at least partly motivated by a need for establishing cohesion in discourse; see e.g. Foley & Van Valin (1984:114–115).

² A similar distinction was made as early as Chafe (1976).

An implied consequence of the division between clause-internal and clause-external topic is that individual clauses can potentially have more than one topic (see e.g. Nikolaeva 2001; Lambrecht 1996:146ff).

2. The clause-internal topic

Within the structure of the main clause, information structure is realized through a combination of morphosyntactic mechanisms. In this paper, I will discuss:

- Verbal alignment morphology, in particular pivot marking (2.1)
- Argument order (2.2)
- Pronominal paradigms (2.3)
- Ellipsis (4)

I will not discuss definiteness marking, as – unlike in many other Austronesian languages – there is no clear correlation in Takivatan between definiteness and topicality.

2.1. Verbal alignment morphology

Takivatan has an argument alignment system that is often called a Philippine-style voice system system and that can raise the agent, undergoer (typically a patient, but sometimes also instrument or beneficiary), and locative argument of a clause into the pragmatically and syntactically privileged position (pivot position) of the clause. For the sake of simplicity, we will restrict this discussion of pivot marking as much as possible to bivalent dynamic verb roots (so excluding stative roots and minor verb types). I will also analyze the Takivatan alignment marking as consisting of suffixal marking only, contrary to common practice in Austronesian linguistics which tends to combine prefixes, suffixes, and sometimes infixes and reduplication in a single paradigm.³

Actor pivot (AP) constructions have no suffix, as in (1).

- (1) *siða* *malŋaŋaus-ta* *maduq-ta*
take shaman-DEF.REF.DIST millet-DEF.REF.DIST
The shaman took millet (simplified from TVN-012-001:69)⁴

In undergoer pivot (UP) constructions, the verb is marked with a suffix *-un*.

- (2) *siða-un* *asik*
take-UP shrub
they gathered the shrubs (simplified from TVN-012-001:24)

Finally, locative pivot (LP) constructions have a verb marked with a suffix *-an*.

- (3) *maqtu* *pa-siða-an-in ŋabul* *vanis*
can CAUS.DYN-take-LP-PRV antler wild.boar
We could [in that place] catch deer and wild boar (TVN-008-002:47)

³ For an argumentation of why this better reflects the Takivatan data, see De Busser (2009:266–281).

⁴ Codes at the end of examples refer to the location in the Takivatan corpus. Sequences of the letter *x* in a code indicate that this belongs to a set of elicited examples.

The interpretation of alignment suffixes function as cross-reference markers suggests that they put the cross-referenced argument in a pragmatically privileged position of some sort, and in general, it seems to make sense to interpret this position as the clause-internal topic.⁵ This elevation to topic status is associated with certain grammatical properties:

- Internal topics can be left-dislocated by means of the linker *-a* (see 3.1).
- When appearing as a bound pronoun, they appear in the topic case (see 2.3).
- When expressed by a free personal pronoun, they appear in the topical agent form in the AP and as a neutral form in all other alignment types (see 2.3).

These pragmatic and grammatical properties clearly hold for actor pivot and undergoer construction, but locative pivot constructions with the suffix *-an* are a lot trickier. LP constructions are relatively uncommon and it is not clear from the examples in the present Takivatan corpus that they are realized with a topicalized locative argument (LO).

- (4) *na-ka-lumaq-an ma-sihal-a*
 IRR-MAKE-house-LP STAT-good-LNK
 ‘The land is suitable for building houses.’ (lit: It is good to build a house there.)
 (TVN-012-002:131)

The lack of explicit locative arguments is possibly related to the gradual erosion of the locative marker, which appears a rather general tendency across Philippine-type languages. In such situations, two scenarios might play out: it either becomes increasingly rare and eventually disappears completely or is incorporated in the undergoer pivot, or it is retained only as a locative nominalizer (Blust 2009:389).

2.2. Argument order and number

Free arguments in Takivatan Bunun occur in a fixed order in the clause:

VERB < AGENT < INSTRUMENT < BENEFICIARY
 < PATIENT < LOCATION < PERIPHERAL

This argument order is inferred through a comparison of examples in the corpus and elicitation, and is not without exceptions (as will be demonstrated below). The following two examples illustrate this order for all core constituents realized as free forms apart from the locative argument.

- (5) *na-is-kalat-un ḍaku tuqnaḍ-i asu*
 IRR-INSTR-bite-UP 1S.N bone-PRT dog
 ACTOR INSTRUMENT BENEFICIARY
 I want to give the bone to a dog to bite it (TVN-xx2-005:65)

⁵ Whether this argument is also a subject in Philippine-type argument alignment systems is the topic of heated debate; see Schachter (1976) for an important early discussion. Since there is a strong tendency for subjects to be topics (see Lambrecht 1996:131ff), we will ignore this issue in the present discussion.

- (6) *maqtu-ʔas pa-simul ɖaku qaimaŋsuð*
 can-2S.TOP CAUS.DYN-borrow 1S.N thing
 (ACTOR) BENEFICIARY PATIENT
 Can you lend me the thing? (TVN-xx2:004:4)

In reality, it is not possible in Takivatan for more than three arguments to occur in a simple clause at any time. In fact, an overwhelming majority of clauses in the corpus has no more than a single argument, especially in real-world text. When only a single argument is expressed, its grammatical role is inferred from its semantics and that of the verb and from the general context.

All this means that word order plays a less central role in the realization of information contrast than in languages with a more flexible word order. For instance, in English, atypical word orders can be used to create topical contrast.

- (7) The man went to work.
 (8) To work the man went.

The contrast between (7) and (8) is realized mainly by the alternation between the pragmatically unmarked order in (7) and the marked order in (8). In Takivatan, such an alternation tends to be impossible or switch around grammatical roles.

- (9) *k<in>alat-un aipi asu*
 <PST>bite-UP DEM.S.PROX.VIS dog
 He has been bitten by a dog. (TVN-xx2-005:74)
- (10) *k<in>alat-un asu aipi*
 <PST>bite-UP dog DEM.S.PROX.VIS
 The dog has been bitten by it/him. (constructed)

There appears to be variation in the position of locative arguments, although it is difficult to ascertain the restrictions on this positional variation due to the rarity of locative arguments in multi-argument constructions.

A vast majority of locative constructions does not contain an explicitly expressed locative argument in the same clause

- (11) *... ʔiti ka-lumaq na pa-danji-an*
maduq-a
 here MAKE-house well CAUS.DYN-place-LP millet-LNK
 ... and here they built a house, well, in order to store the millet in it. (TVN-008-002:42)

In constructions where variation of certain arguments is possible, their position appears to be related to the general principle that important information tends to occur towards the beginning of a clause.

Note that there are idiosyncratic constructions that break the fixed argument order postulated above. For instance, in example (12) below, the patient argument occurs before the agent.

- (12) *kalat-un-ʔak* *bantas* *asu*
 bite-UP-1S.TOP leg.and.foot dog
 (BENEFICIARY) PATIENT / AFFECTED OBJ ACTOR
 I have been bitten in the leg by a dog. (TVN-xx2-005:61)
- (13) * *kalat-un-ʔak asu bantas*
 bite-UP-1S.TOP dog leg.and.foot

2.3. Pronominal marking

Personal pronouns are the only constituents in Takivatan that get any form of argument marking. All other noun phrases are normally unmarked and are recognized by their fixed position in a clause and by inference. Takivatan has a set of bound and free pronouns (Table adapted from De Busser 2011).

Table 2.1 - Takivatan Bunun pronouns

	Bound		Neutral (N)	Topical agent (TOP.AG)	Free Locative (LO)	Possessive pre-nominal (POSS)	Possessive post-nominal
	Topic (TOP)	Non-topical agent (N.TOP.AG)					
1S	<i>-(ʔ)ak</i>	<i>-(ʔ)uk</i>	<i>ðaku, nak</i>	<i>sak, saikin</i>	<i>ðakuʔan</i>	<i>inak</i>	<i>nak</i>
2S	<i>-(ʔ)as</i>	—	<i>suʔu, su</i>	—	<i>suʔuʔan</i>	<i>isu</i>	<i>su</i>
1I	—	—	<i>mita</i>	<i>ʔata, inʔata</i>	<i>mitaʔan</i>	<i>imita</i>	—
1E	<i>-(ʔ)am</i>	—	<i>ðami, nam</i>	<i>ðamu, sam</i>	<i>ðamiʔan</i>	<i>inam</i>	<i>nam</i>
2P	<i>-(ʔ)am</i>	—	<i>muʔu, mu</i>	<i>amu</i>	<i>muʔuʔan</i>	<i>imu</i>	<i>mu</i>

Importantly, both in the bound and the free paradigm, the distinctions that are made between forms are not based on abstract syntactic categories, as would have been the case in an accusative or an ergative marking scheme. Instead, they are best explained in terms of semantic roles and – importantly to the discussion at hand – topicality. Note that the bound pronominal paradigm and the free pronominal paradigm make different distinctions.

Most bound forms mark the topic of the clause, as indicated by pivot cross-referencing. This is demonstrated in (14) and (15) for the first person singular pronoun. Example (14) is an AP construction, in which the bound first person singular functions as an agentive topic.

- (14) *laupaŋ-ʔak taldanav-in*
 a.moment.ago-1S.TOP wash-PRV
 I just finished washing. (TVN-xxx-xx1:166)

Example (15) is an undergoer pivot construction (indicated by UP *-un*). The same bound pronoun here functions as an undergoer topic.

- (15) *hasul-un-ʔak ma-ludaq*
 together-UP-1S.TOP DYN-beat
 I have been beaten by many people (TVN-xx2-005:48)

The only exception to the topical character of bound pronouns is the form *-(ʔ)uk*, a portmanteau morpheme marking the non-topical agent in undergoer pivot constructions.

- (16) *madam-uk-i talikuan*
 catch-1S.NTOP.AG-PRT butterfly
 I was catching butterflies (TVN-008-002:138)

Free pronominal forms cut up the functional space in a different way: they distinguish between an agent topic form (which only occurs in AP constructions) and a neutral form that marks everything else with the exception of certain locative forms and the possessive. This includes (demonstrated with first and second person singular forms):

- a. non-topical agents (see also (20) *ǰaku*)

- (17) *duq ludaq-un suʔu*
 whether beat-UP 2S.N
 Did you maybe/by any means hit it? (TVN-xx2-001:97)

- b. undergoer topics (see also (20) *suʔu*)

- (18) *antalam-ʔak suʔu*
 answer-1S.TOP 2S.N
 I answer you (TVN-xx2-001:2)

- c. non-topical undergoers

- (19) *antalam-un suʔu*
 answer-UP 2S.N
 I answer you. (TVN-xx2-001:2)

If two pronominal forms occur in a single clause without any extraposed topics, particularly both are free forms, there tends to be a person hierarchy: the first person overwhelmingly marks an agent, and the second an undergoer. This is illustrated in (20) with two free forms, and in (18) with a bound and a free form.

- (20) *antalam-un ǰaku suʔu*
 answer-UP 1S.N 2S.N
 I answer you. (TVN-xx2-001:3)

Neutral forms are also used for extraposed pronominal topics (see 3.1).

Figure 1 visualizes the differences in how the bound and free pronominal paradigms divide up the functional-pragmatic space of pronominal deixis based on two main parameters: topicality and agentivity.

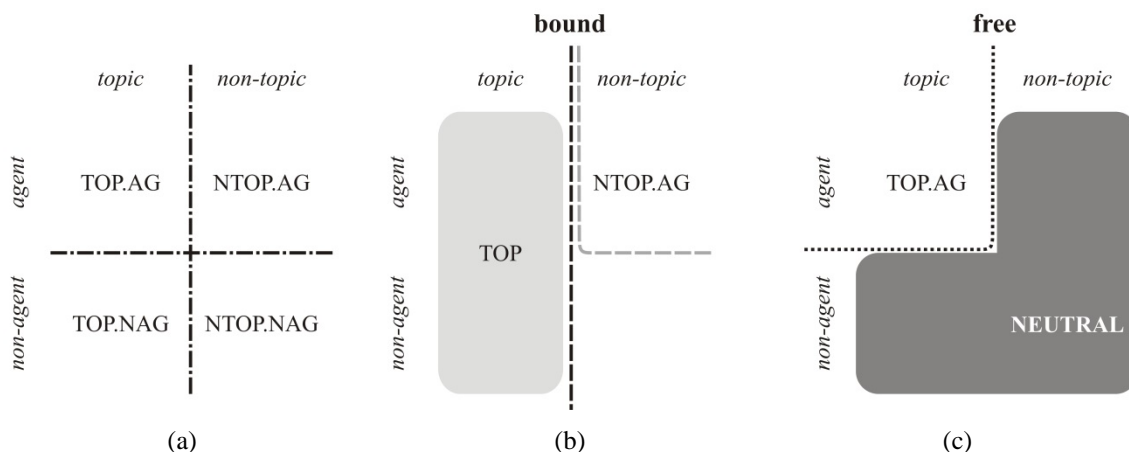


Figure 1. Segmentation of functional space of bound and free pronouns

Bound pronouns mainly mark topical arguments, more specifically first and second person topical arguments, disregarding whether they encode an agent or any other functional role. Free pronouns make a basic distinction between the topical agent, on the one hand, and everything else, on the other.

Importantly, these two systems are not fully complementary: there is a certain degree of overlap between the unmarked form of the bound paradigm (TOP) and that of the free paradigm (NEUTR). Note also that these distinctions do not neatly correspond to traditional grammatical distinctions in nominative or ergative systems. This appears to indicate that the Takivatan pronominal paradigms primarily encode a combination of pragmatic and functional distinctions, rather than more unified and abstract grammatical concepts, such as case.

3. The clause-external topic

3.1. Initial constructions with *-a*

The morpheme *-a* (or *a*; it is not entirely clear whether it is best analyzed as a free or bound morpheme) has multiple functions in Takivatan.⁶ A subset of these can be interpreted in terms of a general linking function connecting a grammatically subordinate element in a sentence or clause to its superordinate. We are here mainly interested in situations where *-a* is unambiguously used for left-dislocating the clause-internal topic, i.e. the constituent within the clause that is targeted by the suffixal pivot morphology or that in any other way functions as the topical argument within the clause. Some examples:

- a. The actor in an AP construction with a dyadic dynamic verb

⁶ The morpheme *-a* has various other functions and can occur at various positions in the sentence. It is not clear whether these all represent allomorphs of a single morpheme with a broad functional reach, or whether some are just homophones that go back to different historical sources and represent completely different functions. This problem of analysis regarding *-a* or functionally homologous morphemes is very common in other Austronesian languages of Taiwan. Since the historical corpus is absent or highly limited and – bar the discovery of some unknown lost manuscript – fixed for all Formosan languages, it is not likely that this problem will ever be resolved.

(21) *tini Tiaŋ-a haiða sia dusa p<in>anaq*
 alone T.-LNK have ANAPH two <PST>shoot
 Tiang by himself already managed to shoot two (TVN-008-002:119)

b. The actor in an AP construction with a monadic dynamic verb

(22) *aki-a matað-in*
 grandfather-LDIS die-PRV
 Grandfather, he has died (TVN-xxx-xx1:230)

c. The topical argument of an AP construction with a stative verb

(23) *aipun-a ma-sihaltu bunun*
 DEM.S.MED.VIS-LDIS STAT-good ATTR people
 He is a good man (TVN-xxx-xx1:71)

d. The topical argument of an UP construction with a stative verb

(24) *ma-aipi-a ka-pisiŋ-un*
 DYN-DEM.S.PROX.VIS-LDIS ASSOC.DYN-afraid-UP
 This here is a dangerous place (TVN-xx2-001:56)

e. The locative argument of a LP construction with a dyadic dynamic verb

(25) *kahaŋ-a ma ni sadu-an*
 high.grass-LDIS INTER NEG see-LP
 In the high grass, I did not see [the deer] there.

These extraposed topics can be nominal phrases or pronouns. If they are the latter, they can occur either as such, or (as in (24) above) in a verbalized form.

This might give us a clue as how the linker *-a* developed into a topicalizer in the first place. The morpheme *-a* also functions as linking element in what could be called a subordinating construction. These constructions connect an initial clause, which tends to be grammatically light in that it usually has at most a single core argument and no peripheral arguments, to a main clause. Typically, the linker *-a* occurs on the final element if it is verbal in nature or if there is no clear predicate verb in the subordinate clause.

(26) *min-suma-in-a maqai ʔuka lumaq*
 INCH-return-PRV-LNK if NEG.have home
na mun-han-in kiukai
 CONS ALL-go.to-PRV church
 When you come back, if there is nobody at home, I have gone to the church (TVN-xx2-002:3)

(27) *tuqas istun ʔita-a pan-ma-ka-ʔita-in*
 older.sibling 3S.MED there.DIST-LNK ITIN-DYN-HI.AG-there.DIST-PRV
 Her older sister was also there, and she had come over. (TVN-008-002-192)

If the verbal predicate is followed by any arguments, *-a* can occur on every word starting from the verbal head of the subordinate clause

- (28) *i-<lu>lusʔan-aŋ-a ma-daiŋ-ʔað-a,*
a,
 LOC-<RED>ritual-PROG-LNK DYN-large-PERSON-LNK INTER
qaðmaŋ baðbað
 meaningless have.conversation
 When the elders were worshipping, they spoke random talk(TVN-008-002:129)

Often, these constructions indicate temporal succession or causality.

Interestingly, the functional distribution of *-a* varies considerably between Bunun dialects. In the Isbukun dialect, the topicalizer used for left-dislocating the internal topic is not *-a* but *hai*.

- (29) *tama hai ma-ludah ðaku*
 father LDIS DYN-beat me
 'Father, he beats me.'

The marker *-a* is used in Isbukun for extraposing arguments not targeted by alignment morphology (and is therefore the functional equivalent of *maq ... a* in Takivatan)

- (30) *ðaku a ma-ludah tama*
 me LDIS DYN-beat father
 'I, father beats me.'

At least one of these morphemes (*hai* or *-a*) must have been a relatively recent innovation. (It seems relatively unlikely that proto-Bunun would have had multiple left-dislocation markers and that two would have developed in external topic markers in different dialects.)

3.2. Sentence-initial constructions with *maq (a) ... a*

The construction *maq (a) ... a* can be used for the extraposition of any core argument, disregarding its pragmatic status. However, the vast majority of occurrences in the corpus involves extraposition of the clause-internal topic (in which case it appears to function as a slightly more emphatic version of topicalization with *-a*). In (31), the actor of the locative verb is extraposed.

- (31) *maq aiŋka-a taki-hanludun*
 DEFIN DEM.P.DIST.VIS-LNK LIVE.IN-be.at mountain
 As for them, they are living in the mountains. (TVN-xx2-003:55)

In example (32), the extraposed element corresponds to the locative topic of the main clause.

- (32) *maq a naipa a ma<i>lan-kinuð-in-an*
 DEFIN LNK DEM.S.DIST.NVIS LNK <PST>VIA-afterwards-PRV-LP
niap-in tu u mu-lusqun ʔita
 know-PRV COMPL yes ALL-move there.DIST
 To that one[that new school] ,I know we only moved there in later times) .TVN-008-002:13)

In contrast to topicalization with *-a*, the construction involving *maq (a) ... a* can also be used for extraposing non-topical arguments. For instance, in (33), the extraposed argument, the toponym *Haul Madaiḡaḡan*, cannot possible function as the topic of the complex verb phrase *haiḡa ... mataḡ* ‘has died’.

- (33) *a* *maq a Haul Madaiḡaḡan-a*
 INTER DEFIN LNK H.M.-LNK
haiḡa-dau-ka *tan-<di>dip*
 have-EMO-DEF.SIT.DIST DIR-INTENS-then
qabas *mataḡ-a*
 in.former.times die-LNK
 As for H. M., somebody had died there
 in those days long ago, ... (TVN-012-002:158)

Similarly, it is unlikely that *maupati tu siniquimus* ‘this kind of life’ in (34) is the topic of *isanin madaiḡaḡin* ‘have reached old age’ (although this interpretation cannot be excluded with absolute certainty).

- (34) *aupa* *min-liskin* *tu*
 thus INCH-believe COMPL
maq a maupa-ti *tu* *sin-iqumis* *a*
 DEFIN LNK thus-DEF.REF.PROX COMPL RES.OBJ-life LNK
i-san-in *ma-daiḡaḡin-a* ...
 LOC-be.at-PRV STAT-old-PRV-LNK
 Thus, I believe that, as for this kind of life, when one has reached old age, ...
 (TVN-008-002:4)

The Takivatan corpus even contains a lonely example of a possessor to an noun phrase being extraposed. In (35), *nak* ‘me’ can only be meaningfully interpreted as the possessor of *lumaḡti* ‘house’.

- (35) *maq nak a* *i-han* *lumaḡti*
 DEFIN 1S.N LNK LOC-be.at home-DEF.REF.PROX
ḡasaḡ-ti *laupa-dau-ka*
 village-DEF.REF.PROX now-EMO-DEF.SIT.DIST
 As for me, my house is in the village now, ... (TVN-003-xxx:5)

Sometimes, the extraposed element is reprised in the matrix clause by a pronoun or demonstrative, as in (36), or – much more uncommonly – a noun, as in (37). In example (36), the extraposed topic *bananḡaḡ* returns in the matrix clause as the distal demonstrative *aiḡka*.

- (36) *maq a* *bananḡaḡ-a* *pan-qailaḡ aiḡka*
 DEFIN INTER man-LNK ITIN-come.together DEM.P.DIST.VIS
 ‘As for the men, they came together’ (TVN-012-001:60)

In (37), it is the head of the extraposed noun phrase (*iḡuq*) which is repeated in the matrix clause.

- (37) *maq a sin-suað-in t[u]iðuq a*
 DEFIN LNK RES.OBJ-sow-PRV ATTR orange LNK
ma-visqa-in-u-ka iðuq
 STAT-abundant.with.fruit-PRV-???-DEF.SIT.DIST orange
at-mu-suqais-in
 RETURN-ALL-go.and.come.back-PRV
 As for the oranges that they had planted, they were full of fruits when they had returned back home ... (TVN-012-001:27)

When the *maq (a) ... a* construction extraposes an argument that is not the clause-internal topic, or when it is reprised in the matrix clause as a pronominal form, it creates a situation where a single clause has a different clause-internal and clause-external topic. Alternatively, one could analyze the topicalization construction with *maq (a) ... a* as a subordinate clause construction, with *maq* functioning as a verbal predicate. This makes sense for two reasons.

First, the construction involving *maq (a) ... a* allows for a reprisal of the extraposed element in the matrix clause. The fact that omission of the extraposed element in the matrix clause is not obligatory suggests that this is not topic extraposition in a monoclausal construction, but that in fact, the topic is introduced in an initial definitional clause, which is linked to a second clause by means of a clause-final linker *a*.

Second, the morpheme *maq* in these constructions in all likelihood goes back to an indefinite pronoun meaning ‘what’ or ‘whatever’, which in its turn is related to the question word *maq* ‘what?’ . Question words (38) and indefinite pronouns (39) in Takivatan Bunun exhibit a number of properties associated with verbs and are able to function as the head of predicates: they occur in clause-initial position, and they can occasionally occur with certain verbal morphemes.

- (38) *maq aipa ?*
 what DEM.S.DIST.VIS
 What is that? (TVN-xxx-xx1:73)

- (39) *... aupa maq aipun-a*
 because DEFIN DEM.S.MED.VIS-LNK
 ... because that is who he is. (TVN-003-xxx:10)

The indefinite pronoun is also used in definitional constructions (‘this is what...’), as in (40) and the complement clause in (41).

- (40) *maq a kitŋa ma-daiŋʔað tupa tu⁷*
 DEFIN INTER begin STAT-old tell COMPL
 Here begins what the elders told. (TVN-012-001:11)

⁷ The particle *tu* is here used as a trailing complementizer: it marks an unexpressed complement clause.

- (41) *min-liskin-aŋ tu maq a*
lainiqaiban-i a ...
 INCH-believe-PROG COMPL DEFIN INTER life-PRT SUBORD
 In thinking about how my life happened, [one cannot forget it without
 mention ...] (TVN-008-002:219)

It is not difficult to see how such a construction could later be appropriated for the extraposition of contrastive topics.

4. Ellipsis

Winkler (2006) defines ellipsis, perhaps in an overly general fashion, as “the omission of linguistic material, structure, and sound.” Ellipsis tends to be governed by principles related to recoverability: a string can be ellipted if it can somehow be reconstituted from the discourse context. Certain research interprets this rather narrowly as the immediate linguistic context, in which case the study of ellipsis neatly corresponds to the study of zero anaphora. For instance, one of the first statements in Fox (1996:vii) is that “[...] high topicality referents are coded by pronouns or zero, whereas lower topicality referents are coded by full noun phrases.” Other researchers, like Shopen (1973), assume that the concept of ellipsis covers every single situation in which an element in a clause that can be inferred from the semantics of what is expressed.⁸ We will come back to this throughout this section. For now, we will the middle ground between the two previous stances and consider ellipsis to be the non-expression of elements in a clause that the speaker assumes to be inferable either from the immediate linguistic context or from the extra-linguistic context shared by all discourse participants.

It has been observed in many languages that the topic of a clause is more likely to remain unrealized than non-topical elements. The explanation for this is that topics are typically realizing information that easily recoverable from the discourse or external context. Topical arguments are regularly left unexpressed in Takivatan real-world text, both in narrative text and in spontaneous conversation, and in elicited examples.

For instance, in (42) the undergoer topic of the UF construction and its attributive quantifier ‘many sweet potatoes’ are omitted.⁹

- (42) *sauḍunin ḍaku*
suaḍ-un-in ḍaku
 sow-UF-PRV 1S.N
]Did you plant a lot of sweet potatoes?– [
 A: I planted [many sweet potatoes]. (TVN-xx2-003:39)

In (43), the actor of *tupa* ‘speak’ is left unexpressed because it is easily recoverable from the preceding linguistic context.

- (43) *tupa tu asa maupa-ta dau m-iqumis*
 say COMPL have.to thus-DEF.REF.DIST EMO DYN-life
]Our father [told that one had to live like that) .TVN-013-001:12(

⁸ He gives the example of a jam jar labelled *Strawberry Jam*, which could be considered an ellipted form of an expression like *This jar contains strawberry jam* (Shopen 1973:66).

⁹ Omitted arguments are indicated in the translation by means of [angular brackets].

In Takivatan, as in many Austronesian language, any argument in a clause can also remain remained unrealized when it can be inferred from the wider discourse context.

In fact, the omission of arguments in general, whether or not they are the topic of the clause, is exceedingly common in the Takivatan dialect of Bunun. For example, in the sentence below, none of the core arguments (indicated by square brackets) is explicitly expressed, since all can be inferred from the preceding discourse.

(44) a. *maupa-ta* *qa<i>-qansiap-an tudip-i*

thus-DEF.REF.DIST understand-LP that.time - PRT
As such, [I] formed an impression of [the situation] in those days,

b. *aupa matqas-i ma-qansiap*
thus clear-PRT DYN-understand
so that [I] clearly understand [it]. (TVN-008-002:32)

A second example, which occurs later on in the same story as (43), illustrates that as far as core arguments are concerned only new information is explicitly expressed. Previously introduced core arguments are normally omitted.

(45) a. *haiðahan saupa hatal daiŋ-ʔað*
have at in.direction.of bridge large-ADJR
In that direction there was a large bridge, ...

b. *haiða ʔita mal-ʔasaŋ Bantalaŋ-a*
have there.DIST STATE-home.village Amis-LNK
and there was the village of the Amis, ...

c. *makanipa-ta*
pass.by-DEF.REF.DIST
[we] passed it ...

d. *tan-ʔanak minkaun-an ludun a*
DIR-self climb-LP mountain LNK
and [we] climbed the mountain by ourselves ...

e. *muqaiv*
go.over.top
and when [we] had gone over the top

f. *na-mun-han paun tu Qusunsubali*
IRR-ALL-go.to be.said COMPL Q.
[we] had arrived at so-called Qusunsubali, ...

g. *tama-ki sia tu Maia dʒulu-ta*
father-DEF.SIT.PROX ANAPH ATTR M. elder-DEF.REF.DIST
[the place of] the father of deacon Maia. (TVN-008-002:75)

In sentence (44), the speaker assumes that his audience knows that this is a story about him and his friends going on a hunting trip, and therefore omits any reference to the first

person plural. In most clauses, this corresponds to the agentive topic, but not always: clause (44), for example, is an LP construction, and its topic is therefore the locative argument *ludun* ‘mountain’.

Takivatan goes a step further. It is not only possible to omit arguments, or other phrases, from a clause: almost any bound or free element, including bound pronouns and most verbal affixes, can be omitted from a clause if they can be inferred from the context. For instance, since it is clear in (45) that the speaker inquires about a movement away from the deictic center, it is possible in informal speech to omit the allative prefix, as in (46).

(46) *mun-ʔita-ʔas* ?
 ALL-there.DIST-2S.TOP
 Do you want to go there? (TVN-xx2-005:23)

(47) *ʔita-ʔas* ?
 there.DIST-2S.TOP
 Do you want to go there/to that place? (TVN-xx2-005:22)

Let’s illustrate the full potential of ellipsis and affix omission with an example. A question often asked to young bachelors entering a Bunun village is whether they are already married. A proper answer would be:

(48) *ni-aŋ-ʔak pa-siða nauʔað*
 NEG-PROG-1S.TOP RECIP-take woman
 I didn’t marry to a girl yet. (TVN-xxx-xx1:101)

This is already a shortened version of the following clause, which omitted the nominalizing prefix and CV-reduplication on *nauʔað*.

(49) *ni-aŋ-ʔak pa-siða bi-<na>nauʔað*
 NEG-PROG-1S.TOP RECIP-take NMZ-INTENS-beautiful
 I didn’t marry to a girl (lit: one that is very beautiful) yet. (constructed)

However, it is clear from the preceding question that the speaker is talking about himself marrying to a woman, so the following construction is possible (omission of the first singular pronoun and the direct object).

(50) *ni-aŋ pa-siða*
 NEG-PROG RECIP-take
 I didn’t marry yet. (constructed)

Since it is also evident that the answer to the question has to do with marriage, it is not necessary to express the reciprocal prefix.

(51) *ni-aŋ siða*
 NEG-PROG take
 I didn’t marry yet. (constructed)

It is obviously not possible to omit the negator, as this would change the meaning of the answer. The progressive suffix can also not normally be dropped: *ni siða* would mean ‘I won’t marry’, something that would be exceedingly strange in Bunun culture, unless one is a Catholic priest.

Similarly, a clause like (49) can in the correct context be shortened to (50), which consists of a single stative root without the stative prefix *ma-*.

(52) *ma-sihal qu danum*
 STAT-good drink water
 This water is very good to drink. (TVN-xxx-xx1:206)

(53) *sihal*
 good (constructed)

A consequence is that the minimal clause in Takivatan is a predicate consisting of a bare root (typically verbal, sometimes another word class). In fact, in casual conversations, it is not uncommon for entire question-answer sequences to mostly consist of bare root utterances.

Optionality vs. omission

Longer examples like (45) above illustrate that the omission of arguments is very common in naturalistic text and this raises an important question. The ‘classical’ case of ellipsis, as it has been described in the literature, is probably best interpreted as a process in which arguments that are normally obligatory are *omitted* under certain (syntactic or pragmatic) conditions when they are recoverable from the context. One could argue that the opposite is happening in Takivatan: it is not the case that arguments are deleted, but rather that they only expressed if there is a distinct need to do so. In all other situations, their realization is optional or outright impossible. In other words, this is not a case of omission, but rather of optionality. Optionality of argument realization appears to be rule rather than exception among the Austronesian languages of Taiwan, the Philippines, and Indonesia

The distinction between omission and optionality is more than a technicality. In languages in which the non-expression of arguments commonly occurs and is governed by pragmatic rather than syntactic criteria, the description of the morphosyntax and information structure of the clause in effect needs to deal with phenomena that are not present in the overt syntactic realization of the utterance. For instance, the information structure of an expression like (53), when uttered as an initial utterance in a conversation by a lady at a table watching a glass of water cannot possibly be interpreted on the basis of its realized arguments (or even morphemes) alone, nor will the immediate linguistic context be of any help. In such a situation, (53) can be shorthand for (52), but in other contexts it could also represent a fully realized utterance like (54), which has the form *pasihalun* ‘caused to be good / made well’ rather than *masihal* ‘be good’.

(54) a. *a maq a ma? bananan?að-a*
 INTER DEFIN INTER INTER man-LNK
 And as for the men ...

b. *qanup pa-sihal-un-a titi-a*
 hunt CAUS.DYN-good-UF-LNK meat-LNK
 ... they went hunting to get good meat (lit: to cause the meat to be good)
 (TVN-012-001:50)

In other words, forms containing this unusual form of pragmatically determined morphological omission can sometimes refer to different morphologically complex verb stems, and this surface ambiguity can typically only be resolved by taking into account a combination of linguistic and extra-linguistic factors.

The pervasiveness of argument omission in a language like Takivatan Bunun has another consequence: it causes the distinction between core arguments and peripheral phrases to break down. The typical assumption is that in a certain construction the arguments are those phrases that are obligatory and therefore belong to the valency of the verb, while adjuncts are optional and do not belong to the valency of the verb. When in a language the realization of all or most phrases is optional, this causes problems in the interpretation of valency and transitivity.

Omission of bound morphemes

A second question is why such extreme forms of pragmatically conditioned omission exist. Communicative economy appears to be an important motivator: when almost everything in a clause is omitted and only the predicate root remains, conversations need not take much time. This increases communicative efficiency within relatively small speech communities with an extensive and relatively stable shared extra-linguistic discursive context, but it is difficult to see how such a system would be more efficient in a large heterogeneous speech community, where it is much more difficult to keep track of all inferred participants and grammatical properties implied.

The potential omission of bound morphemes might have been facilitated by the fact that Takivatan Bunun has an extremely large affix inventory (over 200 affixes have been attested, most of them occur on verbal roots). There is no clear distinction between inflectional and derivational affixes, and a gradual transition from strongly bound affixes to loosely bound clitics and particles (see De Busser 2009:165–178 for a discussion). As a result, boundedness is a much more blurry phenomenon in Takivatan than it would be in a language with only a handful of clearly bound grammatical morphemes, and this might loosen inhibitions about their possible omission.

One important final remark: although there appears to be a tendency to omit actors and topics, recoverability rather than topicality appears to be the main factor in restrictions on argument and affix omission. From the examples above, it is obvious that any argument can be omitted.

6. Conclusion

In this paper, I gave an overview of grammatical mechanisms involved in the expression of the clause-internal and the clause-external topic. The clause-internal topic is realized through an interaction of a number of grammatical subsystems: verbal cross-referencing, argument order, and pronominal marking. It was especially clear from a comparison of the free and bound pronominal paradigm that although these different grammatical subsystems are involved in the realization of information structure, they do not necessarily make complementary distinctions in cutting up the functional-pragmatic space into meaningful grammatical categories. At least in the pronominal paradigms, it is clear that the main dimensions in this process of categorization are topicality and agentivity.

In the second part of this paper, I discussed the commonality of argument omission in Takivatan Bunun. I demonstrated that it is even possible to omit many bound morphemes when they are recoverable from the context. Since almost anything in a clause can be omitted and, especially in informal speech, the non-expression of recoverable information is norm rather than exception, the question arises whether this should in fact be analyzed as a form of ellipsis or omission, or whether we can just say that in languages like Takivatan the expression of any form of recoverable information is optional. Finally, we concluded that, although topics are often left unexpressed and contrary to expectation, there is no demonstrable relationship between topicality and argument ellipsis.

Abbreviations

1S: 1st person singular	EMO: emotive particle	P: plural
2S: 2nd person singular	HL.AG: heightened agency	PROG: progressive
3S: 3rd person singular	INCH: inchoative	PROX: proximal
ALL: allative	INSTR: instrumental	PRT: particle
ANAPH: anaphoric	INTENS: intensifying	PRV: perfective
ASSOC: associative	INTER: interjection	PST: past
ATTR: attributive marker	IRR: irrealis	RED: reduplication
CAUS: causative	ITIN: itinerary	REF: referential
COMPL: complementizer	LDIS: left-dislocator	RES.OBJ: resultative object
CONS: consequence	LP: locative pivot	S: singular
DEF: definiteness marker	LNK: linker	SIT: situational
DEFIN: definitional marker	LOC: locational	STAT: stative
DEM: demonstrative	MED: medial	TOP: topic
DIR: directional	N: neutral	UP: undergoer pivot
DIST: distal	NEG: negator	VIA: viative
DYN: dynamic	NTOP.AG: non-topical agent	VIS: visual
DYN: dynamic verbal prefix	NVIS: non-visual	

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